SECTION 3
PREOPERATIONAL INSPECTION

Section 3 Objectives

At the end of this section, you will be able to:

1. Explain the importance of a preoperational inspection.
2. Describe the procedures for completing both the visual and operational inspection.

Importance Statement

It is important that you:

1. Verify that the equipment you will operate is in safe working order.
2. Reduce the risk of injury to you due to defective equipment.

Reasons For Inspection

Federal OSHA regulations require that all lift trucks be examined before being placed in service and that this examination be performed at least daily. If you use your truck on a multishift operation, it must be examined before each shift. Any defects found must be immediately reported and corrected.

Besides being required by Federal OSHA regulations, other reasons for performing a preoperational inspection are:

- To reduce the risk of injury by operating a defective vehicle
- To improve the condition of the lift truck
- To increase productivity
- To reduce maintenance cost and downtime.

About 6 percent of all lift truck accidents are a result of improperly maintained lift trucks.

Use a checklist when performing the preoperational inspection. An example of a checklist is located in the back of this section. Your truck may be equipped with additional items than those on the checklist. Make sure you inspect these items both visually and operationally as well.

The Visual Inspection

- Overall condition

  Begin with a visual inspection of the truck. Look around and under the vehicle for loose or missing bolts, debris or dirt buildup and signs of leaking oil, fuel or engine coolant.

- Frame

  Examine the frame for overall condition and check carefully for cracks, damage, and severe rust or corrosion.

- Tires and wheels

  Check the tires and load wheels for wear, cuts, gouges, foreign objects and separation of the rubber from the wheel. On air-filled pneumatic trucks, check tire pressure. Check that lug bolts are present and tight. Check drive axle where banding or shrink wrap may have accumulated. These may be difficult to see.

- Forks

  Check the forks. They must be level: one tip should not be higher than the other. Check for obvious wear or cracks in the forks and hanger brackets. The forks must be evenly spaced, and the locking devices must be in place and operational. Look for unauthorized drilled or flame cut holes in the forks or weldments on the forks.

- Mast, carriage, and load backrest extension

  Check the mast, carriage and load backrest extension for damage, bending, twisting, cracks or loose or missing bolts. Inspect the mast and carriage for loose rollers. Check for debris in mast channels.

- Lift chains

  Check the lift chains for wear, broken links, missing pins and proper tension. Verify that the chain is well lubricated. When checking tension, use a board or stick. Never place your fingers in this dangerous pinch point area.

- Hydraulic hoses

  Inspect the hoses around the mast for loose fittings or leaks. Use a piece of cardboard. Escaping fluids under pressure can penetrate body tissue, causing serious injury or possibly death. If fluid is injected into your skin, seek medical attention immediately.

- Overhead guard

  Inspect the overhead guard for damage and loose or missing bolts.

- Battery

  Check all cables, connectors, restraints and the electrolyte level.

- Hood latch
- Capacity plate and all warning decals
- Operator's compartment

Internal Combustion Trucks – Engine Compartment

- Engine oil
- Fuel level
- Brake fluid
- Engine coolant – do not remove radiator cap
- Air filter
- Belts and hoses
- Fan side of radiator for blockage
- Hood latch

LP Trucks

- Properly mounted tank
- Pressure relief valve pointing up
- Hose and connections
- Tank restraint brackets
- Leaks – use soapy solution, no matches or lighter
- Tank for dents, nicks, cracks
- Tank fits within profile of truck
- Check date stamp on tank. It cannot be 12 years or older

Always use personal protective equipment such as a face shield, long sleeves, and gauntlet gloves when checking LP tanks and fittings. LP is very cold when released and can cause frostbite.

Electric Trucks

- Cables and connectors for frayed, exposed wires
- Battery restraints in place - battery cannot move more than one-half inch inside the compartment
- Electrolyte levels - never use matches or a lighter to check levels
- Hood latches properly

Always use personal protective equipment such as a face shield and goggles, rubber apron, and rubber gloves when checking electrolyte. This is an acid and will cause severe burns to the skin if in contact.

Check that the capacity plate and all warning plates and decals are in place and legible. Check that the truck has the correct Operator and Maintenance Manual on board. If you need replacements, contact the dealer for the brand of lift truck you use.

The Operational Inspection

- Safety belts, lanyards and other restraints
- Horn
- Warning devices
- Unusual engine noise
- Fuel level
- Displays and gauges
- Hydraulics:
  - Mast
  - Tilt
  - Other hydraulic functions
- Service and parking brake
- Steering
- Plugging (electric lift trucks)
- Check the Presence Detection System (PDS)

Completion Of Inspection

- Report any defects immediately.
- Never operate a truck in need of repair.
- Repairs shall be made by authorized and trained personnel.

News Flash!

A man was killed when a lift truck he was repairing slipped from a hydraulic jack and fell onto his head. The worker was airlifted to a nearby hospital but was pronounced dead on arrival.

What happened?

End of Section 3

Preoperational Inspection: Course Review

1. The importance of a preoperational inspection is to:
   A. Reduce the risk of injury to the operator.
   B. Ensure the safe operation of the vehicle.
   C. Comply with Federal OSHA regulations.
   D. All of the above.

2. If a truck is used on a multishift basis, it need be examined only prior to the first shift.
   True_____ False_____

3. It is okay to make minor repairs to your truck if you have NOT been trained to do so.
   True_____ False_____

4. If your horn does not work:
   A. Do not operate the lift truck until it is repaired.
   B. It is okay to operate the lift truck.
   C. Operate the truck only in well-lit areas.

5. It is okay to reach through the mast rails with your hands as long as the forks are fully lowered.
   True_____ False_____

LIFT TRUCK OPERATOR'S DAILY PRE-START INSPECTION REPORT
INTERNAL COMBUSTION LIFT TRUCKS

OPERATOR'S NAME _____

SERIAL NUMBER _____ MODEL _____

SPECIAL ATTACHMENTS _____ UNIT NO. _____

HOUR METER READING (START OF SHIFT) _____

SHIFT 1____ 2____ 3____ OPERATOR SIGNATURE _____

IMPORTANT!
This check must be made daily at the start of each shift.

Daily Pre-Start Inspection Check List for: Day _____ Date _____ 20__	Check (✓) Visual	Check (✓) Oper.	Needs Attention
1. **Tires -** Visually check for foreign particles, gouges and cuts; check wheel nuts.			
2. **Load Backrest Extension -** Visually check for loose or missing bolts and damage.			
3. **Overhead Guard & Operator Assist Grip -** Visually inspect for damage and cracks; check for loose or missing bolts/screws.			
4. **Operator's Compartment -** Visually inspect for cleanliness. Check seat belt and seat belt warning light, if applicable, seat adjustment and horn operation. Is Operation & Maintenance Manual in proper location?			
5. **Working Lights/Head Lamps/Stop Lamps -** Check operation and security of mounting.			
6. **Warning & Instruction Decals/Plates -** Visually inspect decals and plates to ensure all are accurately located, clean and legible.			
7. **Safety Equipment - (rotating lights, back-up alarms, fire extinguisher, etc.) -** Check operation of lights and alarms; check fire extinguisher gauge.			
8. **Fuel -** Visually check fuel level and check for leaks. (Report any leaks immediately.)			
9. **Radiator/Cooling System -** Visually inspect cooling fan for damage; check condition of alternator and cooling fan belt; check coolant level. (Warning! Operator should never remove a radiator cap to check coolant level. Use overflow tank for visual check.)			
10. **Battery -** Visually check battery cable/terminals. If corroded or damaged, service should be notified.			
11. **Engine Oil -** Visually check oil level on dipstick and check for leaks. (When oil must be added, show number of quarts in "Needs Attention" column.) If more than one quart is needed in a shift or if engine oil pressure warning light is on, service should be notified.			
12. **Hydraulic Oil -** Visually check oil level on dipstick and check operation of lift tilt and side shifter.			
13. **Transmission Fluid -** Visually check fluid level on dipstick with engine off.			
14. **Service Brakes -** Visually check fluid level and pedal travel; check operation of brakes.			
15. **Mast, Carriage, Forks or Attachment -** Visually check for loose or missing bolts and wear/damage; check chains for even tension; check operation and adjustment. Check operation of mast interlock system, if applicable.			
16. **Steering -** Check operation (right and left turn); check for looseness or play.			
17. **Parking Brake -** Check operation of parking brake adjustment/lever effort and parking brake warning buzzer and light, if applicable. With capacity load on forks, move lift truck to ramp area and activate parking brake to verify that truck will stay in place.			
18. **Driving Interlock System -** Check operation, if applicable.			
19. **Truck Damage/Operation -** Report any damage or faulty operation. Have repairs been made? Explain in remarks section.			

CAT Lift Trucks

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LIFT TRUCK OPERATOR'S DAILY PRE-START INSPECTION REPORT
ELECTRIC LIFT TRUCKS

OPERATOR'S NAME _____

SERIAL NUMBER _____ MODEL _____

SPECIAL ATTACHMENTS _____ UNIT NO. _____

HOUR METER READING (START OF SHIFT) [ ]

SHIFT 1____ 2____ 3____ OPERATOR SIGNATURE _____

IMPORTANT!
This check must be made daily at the start of each shift.

Daily Pre-Start Inspection Check List for Day _____ Date _____ 20__	Check (If Applicable) Visually Operate		Needs Attention
1. **Tires -** Visually check for foreign particles, gouges and cuts; check wheel nuts; check for adequate tread.			
2. **Load Backrest Extension -** Visually check for loose or missing bolts and damage.			
3. **Overhead Guard & Operator Assist Grip -** Visually inspect for damage and cracks; check for loose or missing bolts/screws.			
4. **Operator's Compartment -** Visually inspect for cleanliness. Check seat belt and seat belt warning light, if applicable, seat adjustment and horn operation. Is Operation & Maintenance Manual in proper location?			
5. **Working Lights/Head Lamps/Stop Lamps -** Check operation and security of mounting.			
6. **Warning & Instruction Decals/Plates -** Visually inspect to ensure all are accurately located, clean and legible.			
7. **Safety Equipment (rotating lights, back-up alarms, fire extinguisher, etc.) -** Check operation of lights and alarms; check fire extinguisher gauge.			
8. **Battery Compartment -** Inspect for corrosion; check battery for correct size and weight; check restraint; check cables; check emergency battery disconnect, if applicable.			
9. **Battery -** Wearing the proper safety equipment, check electrolyte level, connection and specific gravity of battery cells; check for leaks.			
10. **Hydraulic Connections -** Check for leaks and check oil level.			
11. **Gauges/Indicators -** Check vehicle monitoring system indicator and battery charge from discharge indicator.			
12. **Mast, Carriage, Forks or Attachment -** Visually check for loose or missing bolts and wear/damage; check chains for even tension; check operation and adjustment. Check operation of mast interlock system, if applicable.			
13. **Steering -** Check operation (right and left turn); check for looseness or play.			
14. **Service Brakes -** Visually check fluid level and pedal travel; check operation of brakes.			
15. **Parking Brake -** Check operation of parking brake adjustment/lever effort and parking brake warning buzzer and light, if applicable. With capacity load on forks, move lift truck to ramp area and activate parking brake to verify that truck will stay in place.			
16. **Truck Damage/Operation -** Report any damage or faulty operation. Explain in remarks section.			

CAT Lift Trucks

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