

SAFETY ALERT:

Safe Operation of Scissor Lifts

Scissor lifts are large pieces of versatile equipment that are commonly used inside warehouses and factories, during sporting events and on construction jobsites. These lifts have proven to be invaluable for operators and have replaced some of the common everyday use of scaffolding and traditional ladders. However, scissor lifts can be dangerous when not properly maintained and serviced, used inappropriately or used by an untrained operator.

Today, scissor lifts come in a variety of styles and sizes to meet the operator's needs. These lifts can be pneumatic, hydraulic or mechanical and whether being used indoors or outdoors, they can be powered by fuel such as gasoline, diesel or electricity. The platform on a scissor lift only moves vertically and functions through connected supports, which mimic a zigzagging letter "X" design (see photo below). A scissor lift platform can extend as high as 50 feet in the air.

As with any type of equipment, the operator's safety is of the utmost importance at all times during operation. Safety precautions should not be taken lightly. The following are some of the most important safety tips for operators to follow while using a scissor lift.

Training

One of the most important aspects of the safe operation of these lifts includes ensuring the operator has received the proper training to safely operate the scissor lift. To be effective, training must be specific to the type of scissor lift or equipment employees will operate. Training should include the **load capacity**; **requirements of the manufacturer**; and **procedures for dealing with dangers** and hazards involving **falling from the lift**, **falling objects** and **electricity**. Under certain circumstances, it may be necessary to retrain scissor lift operators. Retraining should occur as often as necessary.

Often, these lifts as well as other equipment may be rented from a jobsite supply center. Before renting any equipment from a supply center, ensure a detailed maintenance check

is performed first. Be sure to ask the supply center for the operator's manual to ensure it is operated appropriately. Operator controls should be easily accessible and properly marked. Obtain the maintenance history of the lift prior to using it. It is a common practice for the rental company to provide the employer with a complete walk around as well as a brief training on the lift.

Preventative Maintenance

All equipment, including scissor lifts, should receive regular preventative maintenance to ensure it is in good condition. Repairs should be made as needed. All equipment should be serviced in accordance with the manufacturer's recommendations. Using substitute parts or poor repair methods could result in the equipment failing, and thus lead to an incident. Prior to making any modifications to the lift, the employer must obtain written permission from the manufacturer.

Regular Lift Inspections

Once the lift is on the jobsite and prior to using the equipment, a visual inspection must occur. To be effective, inspections must be conducted **before each work shift** and **after any occurrence that could affect the structural integrity of the equipment**. Foregoing this inspection has the potential to be life-threatening. It is essential to conduct a visual inspection by walking around the lift to ensure the lift is in good working order. Operators must review **safety devices**,

emergency controls, **fall protection equipment**, the **lift's tires** and **other critical components**.

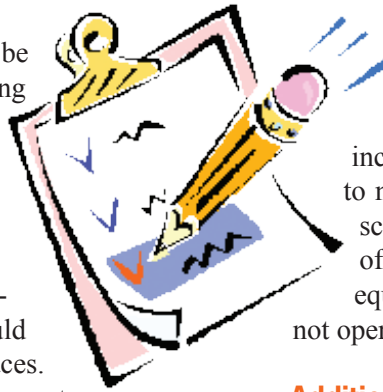
If the lift device is equipped with outriggers, they should be inspected for **wear and damage** and used in accordance with the manufacturer's recommendations. Creating a daily safety checklist may prove to be beneficial to ensure all lift features are adequately reviewed during each inspection. Unsafe equipment should be taken out of service immediately until repair. And operators should immediately report any damage to the equipment to their supervisor.



Work Area Inspections

Areas in which the lifts will be operated must also be inspected. During these inspections, operators must pay special attention to any **ground depressions** or **obstructions** such as **drop-offs**, **debris** and **potholes**. Operators must be instructed to not operate these lifts near potholes, drop-offs or loading docks. Scissor lifts should not be raised on uneven or soft surfaces. Equally as important, this type of equipment should not be used on sloped ground. The path in which the scissor lift will be operated must also be reviewed to ensure there are no extension cords, tools or materials lying around.

Secondly, operators should conduct a scan of the sky to ensure there are not any overhead obstructions with which lifts may come in contact. Obstructions may include **power lines**, **trees**, **pipes**, **building structures**, **canopies** as well as **many other obstacles**. Operators should maintain a minimum clearance of at least ten feet from the nearest overhead power lines.



Adverse Weather Conditions

Outside weather conditions must be regularly monitored while scissor lifts are being used. Weather conditions that should be monitored include **rain**, **snow**, **sleet**, **hail** and **wind**. It is important to note, not all lifts are rated for outdoor use. Outdoor scissor lifts generally have a maximum wind speed of 28 miles per hour. Employers should review the equipment's operator manual and ensure employees do not operate scissor lifts in adverse weather conditions.

Additional Resources

For more information about the safe use of scissor lifts, please contact INSafe by email at insafe@dol.in.gov or by phone at (317) 232-2688.

Free onsite OSHA consultation is also provided by INSafe to assist employers in developing and implementing occupational safety and health programs. In addition, the INSafe Consultant will work with employers in the identification and correction of workplace safety and health hazards. An onsite consultation visit may be initiated by completing the online request form at www.in.gov/dol/insafeconsultation.



It Happened Here: St. Joseph County

Background: Nationwide in 2009, 22 workers suffered a fatal occupational injury while operating a man lift. Scissor lifts are classified as a type of man lift.

Event: During the afternoon of October 27, 2010, in St. Joseph County, a 20 year-old student employee was videotaping a university football practice from a scissor lift that was positioned 39 feet in the air. The National Weather Service had issued an active wind advisory for Northern Indiana that day. The notice advised that sustained winds of 25-35 miles per hour, with gusts as high as 45 miles per hour, were likely that afternoon. A strong gust of wind blew the lift over. The student employee was killed.

Lessons Learned: To reduce the likelihood of and prevent similar incidents from occurring in the future, employers and employees should:

- Train employees to recognize the safety and health hazards associated with each job, task and site.
- Provide employees with the appropriate training to ensure the safe operation of all equipment used.
- Ensure outside weather conditions are routinely monitored when using scissor lifts outdoors. Routinely evaluate

whether or not it is safe to continue work from the scissor lift in adverse weather conditions.

- Regularly inspect all equipment prior to use (i.e., daily, monthly and annually).
- Service and maintain all equipment in accordance with the manufacturer's recommendation.
- Ensure lifts and other equipment are not positioned near overhead power lines, on soft or uneven ground or on weak utility covers (i.e., underground sprinkler valve boxes).

- Foster a culture of workplace safety and health, and hold yourself accountable for your employees' understanding and following of all written safety and health policies, rules, procedures and regulations.

