Vehicle Lift Safety
The Fleet Manager’s Responsibility

Presented by:
Steve Perlstein
An Overview of Your Responsibilities

- Annual lift inspection by an experienced lift inspector
- Annual lift training to all technicians
- Keep all written documentation for your records
What do Fork Lift Training and Vehicle lift Training have in Common?

Both Require Annual Training and Training Records Maintained for OSHA Inspections
Where Can You Obtain Training or Training Materials?

• Automotive Lift Institute – Certification Program - The One and Only National Safety Standard for Vehicle Lifts

  • www.autolift.org

• Many Vehicle Lift Installers/Repair Centers Provide Lift Training and Annual Lift inspections

Shown: MP-Series
Lifts Must Have an Annual Inspection by a Qualified Lift Inspector
Lifts Must Have an Annual Inspection by a Qualified Lift Inspector
Replacement Lift
Parts Must be
Original Equipment
Manufacturers
Parts to Maintain
ALI/ETL Certification

Shown: MP-Series
Certified Accessories

Lift Accessories Must be Certified to Maintain ALI/ETL Lift Certification

Front to Rear Bumper Adaptor MP-2500

Jack Stands JS-4577-24

Chassis Lifting Beam MP-2300
ALI and ALI Members Have Lifting Point Guides Available

Best Practice is to buy a new book annually
ALI and ALI Members Have Lifting Point Guides Available
AUTOMOTIVE LIFT
SAFETY TIPS

Post these safety tips where they will be a constant reminder to your lift operator. For information specific to the lift, always refer to the lift manufacturer’s manual.

1. Inspect your lift daily. Never operate if it malfunctions or if it has broken or damaged parts. Repairs should be made with original equipment parts.

2. Operating controls are designed to close when released. Don’t block open or override them.

3. Never overload your lift. Manufacturer’s rated capacity is shown on nameplate affixed to the lift.

4. Positioning of vehicle and operation of the lift should be done only by trained and authorized personnel.

5. Never raise vehicle with anyone inside it. Customers or by-standers should not be in the lift area during operation.

6. Always keep lift area free of obstructions, grease, oil, trash and other debris.

7. Before driving vehicle over lift, position arms and supports to provide unobstructed clearance. Do not hit or run over lift arms, adapters, or axle supports. This could damage lift or vehicle.

8. Load vehicle on lift carefully. Position lift supports to contact at the vehicle manufacturer’s recommended lifting points. Raise lift until supports contact vehicle. Check supports for secure contact with vehicle. Raise lift to desired working height. CAUTION: If you are working under vehicle, lift should be raised high enough for locking device to be engaged.

9. Note that with some vehicles, the removal (or installation) of components may cause a critical shift in the car center of gravity, and result in raised vehicle instability. Refer to the vehicle manufacturer’s service manual for recommended procedures when vehicle components are removed.

10. Before lowering lift, be sure tool trays, stands, etc. are removed from under vehicle. Release locking devices before attempting to lower lift.

11. Before removing vehicle from lift, position lift arms and supports to provide an unobstructed exit (See Item #7).

These “Safety Tips”, along with general lift safety materials, are presented as an industry service by the Automotive Lift Institute. Visit our web site at www.autolift.org for more information on this material, or write to P.O. Box 85, Cortland, NY 13045.

Look For This Label on all Automotive Service Lifts.
SAFETY WARNING LABELS

- Mobile lifts
- General Warnings
- Scissor lift
- Scissor lift
- In-ground lift
- Two post lift
Section 4. Operation

4.1: Operator Qualifications: An automotive lift operator shall have the following qualifications

(1) Ability in written or oral communications as demonstrated by one of, or a combination of, the following; high school diploma or certificate of equivalency, aptitude test or job experience;

(2) Ability to understand the mathematical, mechanical and electrical principals of automotive lifts as demonstrated by one of, or a combination of, the following; aptitude test, training program, technical-vocational school, school of higher learning or job experience;

(3) Demonstrated physical ability to carry out lift operator responsibilities in a safe manner
4.2 Operator Training

4.2.1: Employer shall ensure that operators of automotive lifts are instructed in the safe use and operation of the lift.

4.2.2: ANSI/ALI ALCTV requires the lift manufacturer to supply operating instructions, general safety information, safety tips and warning labels with each lift manufactured. The employer shall display these materials in a conspicuous location in the lift area.

4.3 Operator Training Documentation: The owner or employer shall appropriately document operator training by completing the operator training log found in the appendix to this standard.
5. Periodic Qualified Inspection

5.1 Qualified Inspection Procedure: The employer shall establish a periodic inspection procedure in accordance with the recommendations of the lift manufacturer in order to ensure reliability and allow the continued safe operation of the lift.

5.4 Qualified Inspection Documentation: A record of each periodic inspection shall be prepared and maintained noting the observations and findings of all points of inspection recommended by the manufacturer as well as subsequent repairs or replacements accomplished.

5.5 Inspections by the employer shall follow the recommendations of the lift manufacturer as to frequency. Without regard to the frequency of inspection specified by the lift manufacturer, whether it be weekly, monthly, semi-annually, annually or on some other basis, the owner or employer shall ensure that the points presented in 5.6 are inspected by a qualified lift inspector as a minimum annual requirement.
Were an incident to occur, OSHA investigators would ask 3 broad questions;

– What did you know?
– When did you know it?
– What did you do about it?
<table>
<thead>
<tr>
<th>ALOIM</th>
<th>Inspection Points - All Lifts (Appendix C, ALOIM:2008) Appendix C applies to all lifts including wheels free devices</th>
<th>Pass</th>
<th>Fail</th>
<th>N/A</th>
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<tbody>
<tr>
<td>5.6.2.1</td>
<td>Record location of manufacturer instructions or generic instructions.</td>
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<td>• Including Manufacturer Installation Instructions</td>
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<td>• Including Manufacturer Operation Manuals</td>
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<td>• Including Manufacturer Inspection Documents</td>
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<td>• Including Manufacturer Maintenance Records</td>
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<td></td>
<td>• Or equivalent (ANSI/ALI-ALOIM)</td>
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<td>5.6.2.2</td>
<td>Record location of generic safety instructions.</td>
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<td>• Including appropriate lift safety instructions</td>
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<td>• Including ALI/SM, “Lifting It Right”</td>
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<td>• Including ALI/ST, “Safety Tips”</td>
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<td>• Or equivalent (Identify)</td>
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<td>5.6.2.3</td>
<td>Record location of lifting point information.</td>
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<td>• Or equivalent (Identify)</td>
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<td>5.6.2.4</td>
<td>Check accessibility &amp; readability of safety warning labels.</td>
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LIFT SAFETY

OSHA MAINTENANCE LOG

Post in a conspicuous location

Courtesy of:
MOHAWK LIFTS

SAFETY INSTRUCTIONS

1. Do not operate this equipment unless you have been properly trained and have been authorized by your supervisor.
2. Notify your supervisor immediately of any unsafe conditions or defective equipment.
3. Be sure mechanical safety bars are properly engaging.
4. Be sure vehicle is properly positioned before lifting.
5. Be sure area above and below hoist is clear before raising or lowering hoist.

Safety Inspection Performed by:

Inspected by: Date: Lift Number(s):

Personnel Trained for Proper Use:

Name: Date: Trained by:
Q: Can You Exceed a Two Post Lift Capacity With a Vehicle Lighter than the Rated Capacity?

A: YES (BUT DON’T)!

• 10,000 lb. Capacity/ 4 Swing Arms = 2500 lbs.

Example: 9,000 lb. vehicle with 6,000 rear axle and 3,000 lb. front axle

If your rear axle weighs 6,000, then each swing arm needs a minimum arm capacity of 3,000 lbs.
3,000 x 4 swing arms = **12,000 lb. lift needed**

DON’T OVERLOAD THE SWING ARMS!
Q: Has the tech lowered the lift onto the mechanical locks as instructed? “Yes/No”

Q: If yes, how do you verify that the lift has been lowered on to the locks?

A: Weight gauge reads “0”
Q: Did your new tech properly position the lifting arms?

- Q: Is he/she an experienced technician?

   Speedlane--Eliminates placement of swing arms
What to Look for When Buying A Safe Lift

- Column Construction
- Arm Connection to the Carriage
- Cables, Chains or Direct Lifting
- Mechanical Locks
- Maximum Lifting Capacity
- ALI Certification
Q: How does the arm connect to the carriage?

Mohawk Carriages
Grip The Arm,
Distributing The
Load Throughout
Vs. Some Lifts
With 100 Percent
Shearing Force On
The Arm Pin
Q: Is the lift using cables, chains, or direct lifting?
Q: At what height do mechanical locks begin to engage?
The Load Should be on the Shop Floor  
(not the lift’s wheels or axle)
Never Bypass a Manufacturer’s Specific Safety Warnings & Instructions

#1
OPERATING CONDITIONS: Lift is not intended for outdoor use and has an operating ambient temperature range of 41°F-104°F (5°C-40°C).

#2
DO NOT use lift in a manner other than intended. Included (but not limited to) examples of unapproved uses of the lift are: lifting vehicle by only one side, lifting different axles with a column pair, and lifting non-approved items. See Operation Manual for more detailed instructions.

#3
DO NOT use on asphalt. Lift must be on concrete with a minimum strength of 3000PSI and a minimum thickness of 4.5". Maximum allowed floor slope is 1/8" per foot side to side of vehicle and 1/4" per foot front to rear of vehicle. DO NOT use on a suspended floor structure without specific approval from structural engineer.

#4
Ensure tires are properly inflated before lifting. DO NOT exceed tire load rating when raising vehicle.

Motor duty cycle is one full lifting operation within a 10 minute period. Example: 80 second rise time, 8 minutes 40 second rest.

Error Codes and Explanations:
- E1 Improper Configuration
- E2 Improper Pairing
- E3 Communication Error
- E4 Out Of Level
- E5 Emergency Stop
- All Other Codes See Operation Manual
Never Overload the Rear Tire’s Maximum Load Rating
Never Overload the Rear Tire’s Maximum Load Rating

Extended Forks for Dual Rear Tires

Typical Mobile Column

Long forks DO NOT over-pressurize rear tire’s maximum load rating

*Dangerously over-pressurizes rear tire’s max load rating
Never Bypass a Manufacturer’s Specific Safety Warnings & Instructions
The Backsaver stops techs from bending down to lift heavy tires
Mohawk Safety Accessory:  
Foam Door Guard

• Protects vehicle from dents & scratches if the door is accidentally opened into the columns

• 2” thick soft foam won’t damage door
Mohawk Safety Accessory: Head Bumper

- Protects the tech. from injuring their head on lift swing arm
- Increases shop & worker safety
Summary

• Every lift requires annual inspection by an experienced lift inspector

• Every technician requires annual lift training

• Keep all written documentation for your records
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