



Welcome students to the class. We are glad that you have a student manual and a

- Emphasize the main reasons for this training:
  1. Training reduces the risk of accidents and injuries to you and those you work with.
  2. Training reduces operating costs.
  3. OSHA requires it.



**Scottsdale, Ariz.** A garbage truck sideswiped a boom lift aerial work platform while a worker was repairing a traffic signal. The collision threw the man from the personnel basket and killed him. When the operator fell from the basket, he hit his head on the bottom of the platform several times. According to reports, orange cones were in place around the intersection where the accident occurred.

This was indeed a tragedy. It appears that all safety precautions had been taken and personal protective equipment was being used. What caused the fatality was the long lanyard being used and tying off either to the railing or a connection point near the top railing. Using a shorter lanyard or tying off to an approved connection point lower down in the platform might have prevented this death.

During operation of a boom-supported aerial platform, the impact of another vehicle against it can cause the boom to flex and eject the operator. Take every precaution to prevent this from occurring.

**WARNING:** The railing is NOT approved as a connection point for your lanyard. Always use an approved connection point.

**Review some of the other accidents in the Student Manual or from the Accident file provided on the CD. Pick those that might be closest to the types of machines and work your company is involved with.**

## TYPES OF AERIAL PLATFORMS



There are numerous types of aerial platforms. These shown are just a few examples of the most common types. The following is a general overview of the various types of aerial platforms. This information may replace instructions in the manual for the platform.

SAMPLE

# RECORD RETENTION

Written, dated and signed reports shall be made of PERIODIC inspections and tests and retained for a period of five years.

Records of FREQUENT inspections need not be made. However, where a safety hazard is found, it shall be reported in writing to a person responsible for the corrective action and that report and a record of the correction shall be maintained for five years.

VEHICLE MOUNTED  
AERIAL PLATFORM  
INSPECTION  
&  
MAINTENANCE RECORD

Company: \_\_\_\_\_  
 Manufacturer: \_\_\_\_\_  
 Model #: \_\_\_\_\_  
 Serial #: \_\_\_\_\_  
 Equipment ID: \_\_\_\_\_  
 Equipment Location: \_\_\_\_\_

## ANSI/SIA A92.5 – 1992

### 5.9 Record retention for dealers

Dealers shall retain the following records for at least three years:

- a) Name and address of the purchaser of each aerial platform by serial number and date of delivery.
- b) Records of the person(s) trained upon each delivery of an aerial platform.
- c) Records of the pre-delivery preparation performed prior to each delivery.

### 6.13 Record retention for owners

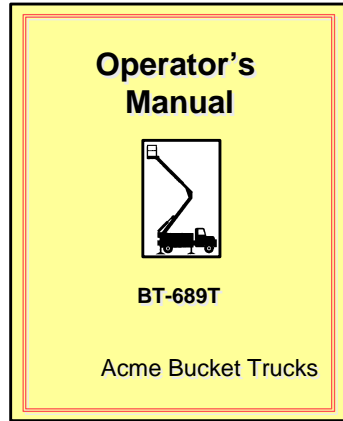
The owner shall retain the following records for at least three years:

- a) Name and address of the purchase of each aerial platform by serial number and date of delivery.
- b) Records of the person(s) trained upon each delivery of an aerial platform.
- c) Written records of the frequent and annual inspections shall be kept by the owner when he performs the inspection. The record shall include deficiencies found, corrective action and identification of the person(s) performing the inspection and repairs.
- d) Records of the pre-delivery preparation performed prior to each delivery.

### 7.6.2 Trainee records

A record of the trainee's aerial platform instructions shall be maintained by the user for at least three years.

# OPERATOR'S MANUAL



The manual is considered an integral part of the aerial platform and is vital to communicate necessary safety information to users and operators.

**Maintenance and Operator's Manual Requirement:** An operating and maintenance manual(s) must be provided with each work platform and must

- (a) specify the maximum weight capacity, dimensions, and ratings of the work platform.
- (b) the maximum hydraulic and pneumatic system pressure and the maximum voltage of the electrical systems which are part of the work platform.
- (c) Instructions regarding operation and maintenance.
- (d) Replacement part(s) information.

Manual should be on the machine at all times.

**ANSI/SIA A92.5 – 1992 7.2 Manuals.** Users shall keep and maintain a copy(ies) of the operating and maintenance manual(s) required in 4.16.1 of this standard. The operating manual(s) shall be provided with each rental, lease or sale delivery and shall be stored in the weather resistant storage compartment require by 4.16.2 of this standard. **The manual is considered an integral part of the aerial platform and is vital to communicate necessary safety information to users and operators.** In addition, parts and maintenance manuals shall be provided with each sale delivery.

## DECALS AND WARNING LABELS



The following information must be placed on all aerial platforms in as permanent, legible, and visible locations:

Warning and caution instructions for safe operation

Manufacturer, serial number, and manufacturer's name and address

Rated

Maximum platform weight

Nominal voltage rating of batteries or rated voltage of AC line

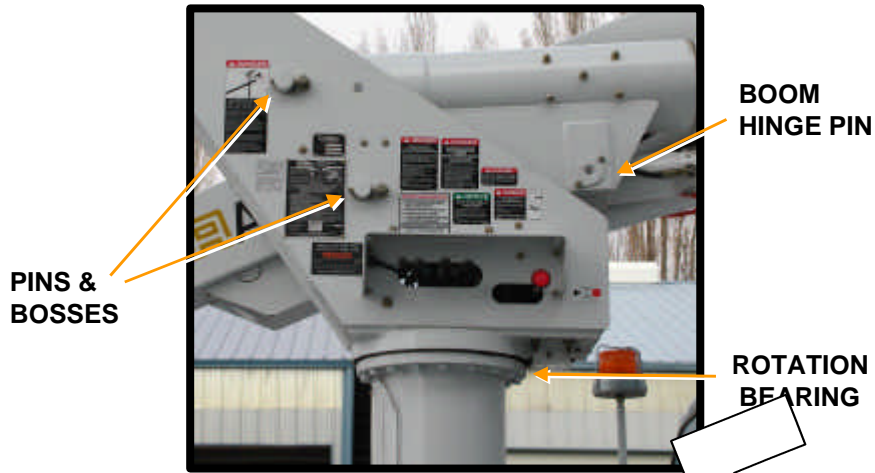
Statement concerning the need of the operator's familiarity with the work platform before it is used

A statement of whether or not the aerial platform is electrically insulated

**The user shall verify that all nameplates and markings are in place and are maintained in a legible condition.**

**(COPY OF ANSI/SIA A92.6 – 1990 REGARDING DECALS AND WARNING LABELS REQUIRED TO BE ON THE MACHINE IS ON THE NEXT PAGE)**

## TURRET SECTION



1. The four areas identified in the above check sheet are the following functional test.

1. Retract the boom fully and with the stabilizers fully extended.

2. Retract the boom fully and with the stabilizers fully extended.

3. Retract the boom fully and with the stabilizers fully extended.

2. Any excessive movement must be noted and evaluated per manufacturer's specifications.

3. Check the turret area for cracked welds and any deformed components.

## BUCKET STRUCTURE

**Check hinge for smooth operation.**

**Check hoses for chafing and other damage.**



The load rating should be clearly marked on the platform. There should be a clear label that is clearly marked so the user knows what to do. Any hoses or cables should be covered with chafing gear or softeners. Check hoses and bushings for looseness and/or wear.

## REPAIRS AND MAINTENANCE

**Aerial platforms that are not in safe operating condition must be removed from service until repaired.**

**Repairs must be made by a qualified person in compliance with the manufacturer's operation and maintenance manuals.**

**Modifications or alterations of aerial platforms must be made only with written permission of the manufacturer or an other equivalent entity.**

### ANSI/SIA A92.6-1990

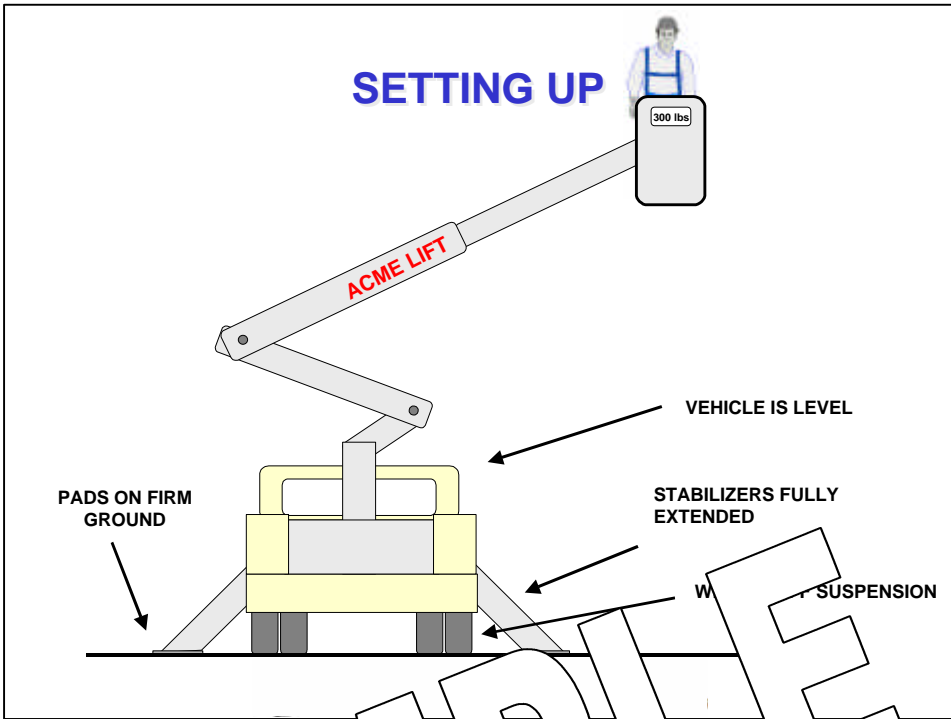
**6.7 Maintenance Safety Precautions.** Before adjustments and repairs are started on an aerial platform, the following precautions shall be taken as applicable:

- (1) Power plant, hydraulic system, and controls rendered inoperative
- (2) Platform lowered to full down position and all operating systems secured from inadvertent motion by brakes, blocks, or other means.
- (3) Extension assembly and platform lowered to the full down position, if possible, or otherwise secured by blocking or cribbing to prevent dropping
- (4) Hydraulic oil pressure relieved from all hydraulic circuits before loosening or removing hydraulic components.
- (5) Safety props or latches installed where applicable as prescribed by the manufacturer.

**6.8 Replacement Parts.** When parts or components are replaced, they shall be identical or equivalent to original aerial platform parts or components.

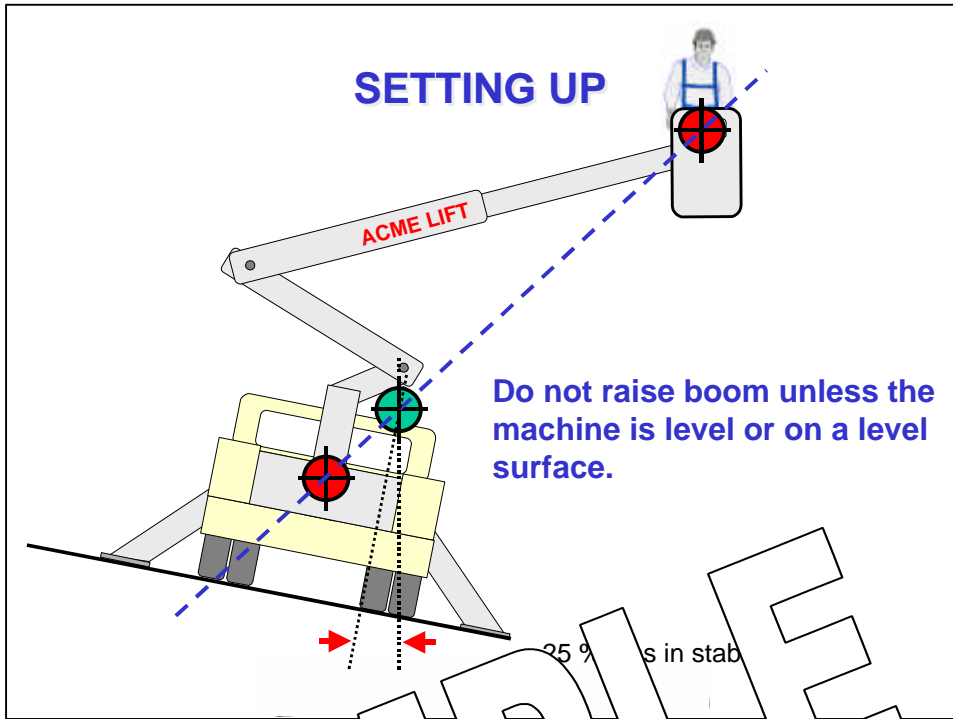
**6.9 Maintenance Training.** The owners shall train their maintenance personnel in inspection and maintenance of the aerial platform in accordance with 6.3, 6.4, 6.5, 6.6, 6.7, 6.8 and 6.10 of this standard, and with the manufacturer's recommendations.

**6.14 Modifications.** Modification or alteration of an aerial platform shall be made only with prior written permission of the manufacturer.



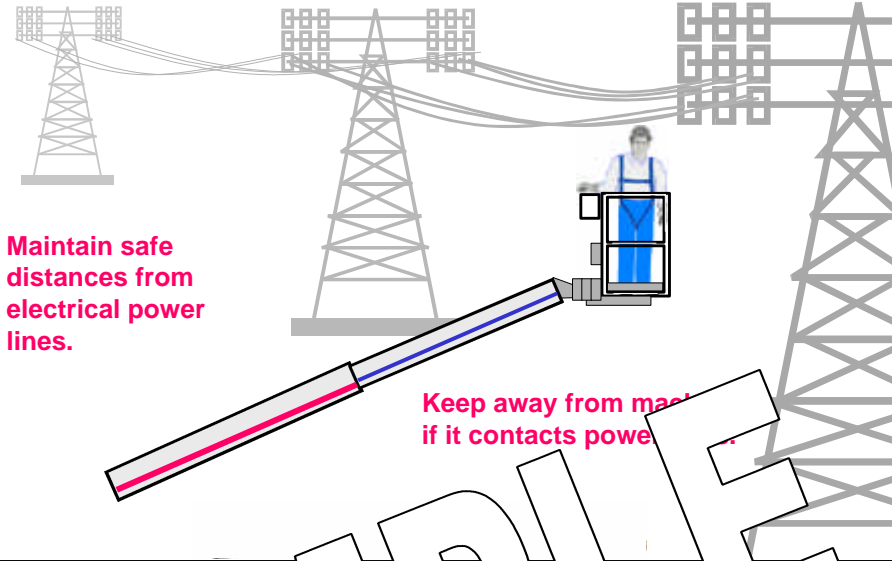
1. Point out each of the adjustments that need to be taken into consideration when setting up the scissor lift.
2. The stabilizers are fully extended. The wheels may not be off the ground but the weight of the scissor lift platform will be on the stabilizers.

SAMPLE



1. Many utilities will try to set the boom of the truck to block traffic. This is dangerous, but if the boom is not level or you are on an uneven surface, the center of gravity of the truck and the boom is shifted. The distance between the center of gravity of the truck and the boom has been reduced, thus reducing the safe working distance. Even if it appears that it would still be within safe working parameters, if you add a few dynamic conditions (wind, erratic booming or soft soil), it greatly increases the possibility of a tip over.

## ELECTROCUTION HAZARDS



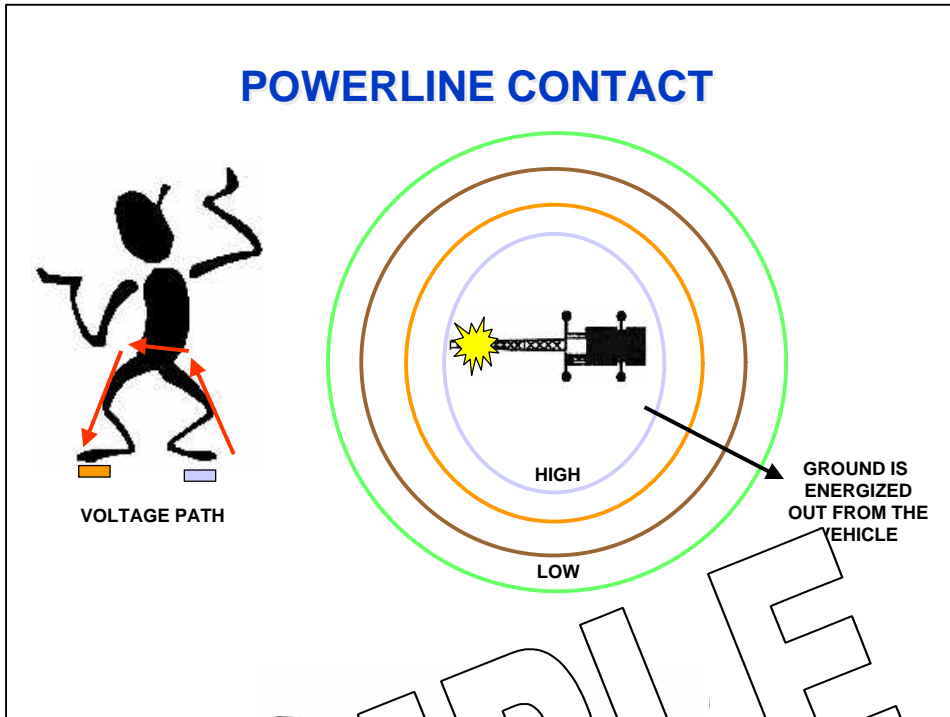
The number one cause of fatalities involving booms is contact with electrical wires.

Stay away from power lines.

If you must work near live power lines, make sure they are de-energized.

Insulated booms are not a fail-safe measure from electrocution.

Booms that are insulated must be dielectric tested often. Note: Dirty booms or contaminated hydraulic fluid can be a conductor of electricity.



If you make contact with a power line and are away from the vehicle, there is good news and bad news. The good news is, if you are still in the vehicle, the bad news is, if you touch any exposed wire which could be fatal to you and anyone in the vehicle.

If you are in the vehicle, use the controls, then use the controls to back off the line. If you let go of the controls, **do not touch them**. They could be energized. Call for help and warn everyone to stay away from the ground surrounding the lift.

**Do not** allow anyone to try to work the ground controls to free you. Not only could the ground around the machine be energized, but anyone touching the machine could be electrocuted.

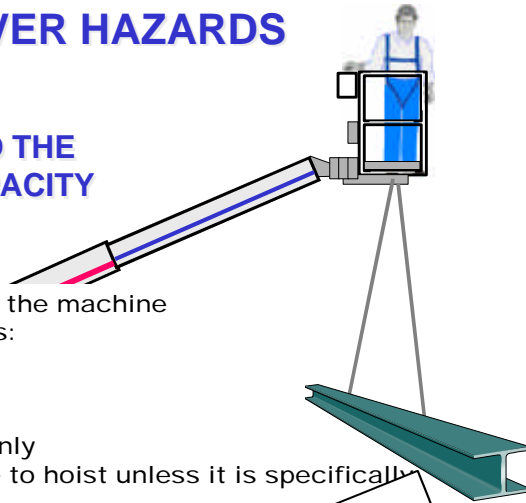
Stay on the machine if possible, until help arrives and the lines are turned off.

Do not assume that your boom is insulated.

If you see someone in an aerial lift that has contacted an electrical line and is unconscious, do not try to be a hero by attempting to save them before the electric lines are shut off! Many that have tried become a victim also.

## TIP-OVER HAZARDS

### DON'T EXCEED THE MACHINE'S CAPACITY



- Know the rated load of the machine
- Maximum load includes:
  - Personnel
  - Materials
  - Tools
- Distribute the load evenly
- Never use the machine to hoist unless it is specifically designed to do so.
- If the machine is designed to hoist, refer to the manufacturer's manual for the capacity of the machine. Do not exceed.

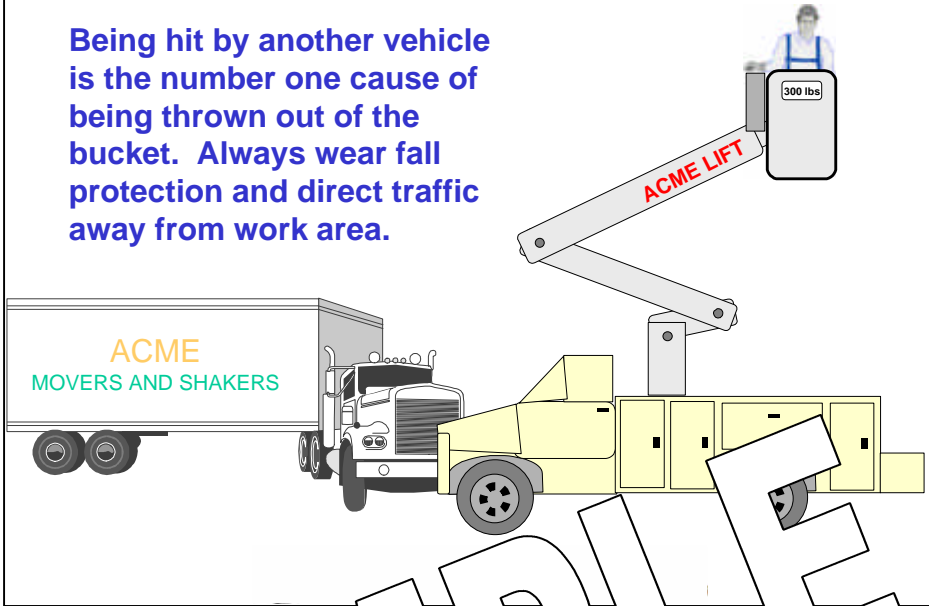
The machines shall not be used to lift loads that exceed the rated capacity and never exceeded. This includes any materials, tools that might be in the platform or the operator. Do not use the machine to hoist a load unless it is designed for that purpose.

**8.10.7 Limitations.** Rated capacities shall not be exceeded when loads are transferred to the platform at any height.

**8.10.6 Entanglement.** Care shall be taken to prevent rope, electric cords, and hoses, etc., from becoming entangled in the aerial platform.

# FALL HAZARDS

Being hit by another vehicle is the number one cause of being thrown out of the bucket. Always wear fall protection and direct traffic away from work area.

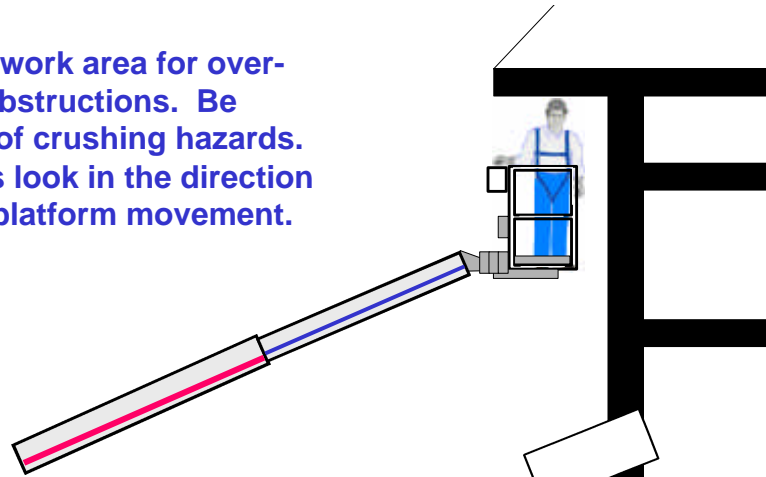


One of the reasons for wearing fall protection is to prevent one from being thrown out of the bucket. Always wear fall protection and direct traffic away from work area. Use fall protection when working at heights. Make sure you understand the meaning of traffic signals. Know what hand signals mean. Know how to use lights, turn signals, and horns.

SAMPLE

## COLLISION HAZARDS

Check work area for overhead obstructions. Be aware of crushing hazards. Always look in the direction of the platform movement.



WARNING: Always check for overhead obstructions before raising, lowering or moving the platform. If applicable, also check turntable rotation clearance. Failure to do so could cause severe injury or death to you or others.

On a boom type machine, do not use the drive to maneuver in close to an obstacle. For a scissor machine and then use the swing and boom functions to get in close.

Never drive the base or platform into an stationary object.

**7.11.14 Elevated Driving Requirements.** Before and during driving while the platform is elevated, the operator shall:

- (1) Maintain a clear view of the path of travel
- (2) Maintain a safe distance from obstacles, debris, drop-offs, holes, depressions, ramps, and other hazards to ensure safe elevated travel
- (3) **Maintain a safe distance from overhead obstacles.**