MAKING THE RIGHT CHOICES:
Fall Restraint and Arrest Systems

Working at heights is common in the mechanical trades and when a fall happens, it occurs in seconds, with little time to react. Using the right fall prevention or protection system can save your life and help protect you from injuries.

1. Fall Prevention vs. Fall Protection

- Fall prevention systems prevent a fall
  - Examples: guardrail systems, floor and roof hole covers, and fall restraint systems
- Fall protection systems prevent injuries if a fall occurs
  - Examples: safety nets or fall arrest systems
- Use most appropriate method for work six feet or more above a lower level or objects below you
- Inspect all system components for wear or damage
- If you're in a fall, replace it all
  - Remove the entire system from service if a fall occurs
  - Follow your company's procedures for taking defective equipment out of service

2. Fall Restraint Systems

- Components:
  - Full body harness
    - Ensure proper fit/adjusments at the shoulders, legs and chest
  - Connector
    - Use a connector that, when fully extended, is short enough to prevent a fall from occurring
  - Sturdy anchor
    - Use sturdy structural anchor points
    - Use the manufacturer's anchor on scissors lifts designed for fall restraint systems

3. Fall Arrest Systems

- Components:
  - Full body harness
    - First adjust the shoulder straps so the harness fits correctly on your body
    - Leg straps must be buckled and tight enough that your flat hand fits snugly between the strap and your leg
    - Position the seat sling correctly at the base of your butt
    - Chest strap must be buckled and pulled snug
  - Connector
    - Shock-absorbing lanyards need enough clearance to arrest a fall before you hit the ground or an object below
    - Use a self-retracting lifeline if there isn't enough fall clearance for a shock-absorbing lanyard
  - Sturdy anchor

4. Anchor Point

- Able to withstand 5,000 pounds of downward force for each person connected to it or have a safety factor of 2 to 1
  - Structural anchor points are best: I-beams, support columns, solid cured concrete ceilings

5. Anchor

- Should be at shoulder height or higher
- To connect to a beam, use a sling style anchor or a horizontal or vertical beam anchor
  - **Do not** use your lanyard as an anchor unless it is specifically designed for such use by the manufacturer

6. Fall Rescue Plan

- While waiting for rescue, reduce the pooling of blood in your legs:
  - If you have a suspension trauma strap, simply stand to release tension
  - If no strap is available:
    - Lift your knees to a sitting position
    - Every few minutes, pump your legs vigorously like riding a bicycle
    - Raise your legs back to the sitting position

MCAA Publication #SE89P