

Body Positions for Assembling Light Poles

Problem:

Frequently fabrication/assembly work on a construction site occurs wherever the materials are unloaded. Sometimes this is not in the best location for such tasks.

For example, electrical workers often assemble and wire light poles on the ground. Assembling the lights (i.e. "heads") to the poles requires workers to work on their hands and knees or bent over at the waist.

Awkward back bending and working on your hands and knees can lead to lower back or knee pain and fatigue.

One Solution:

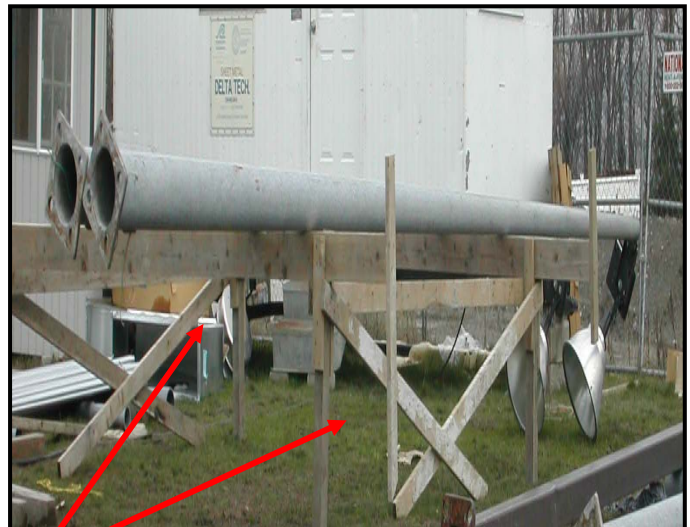
Building saw horse work stations out of scrap wood on-site allowed the poles to be raised to a comfortable working height off of the ground.

Raising the poles to around waist level eliminated many of the previously used awkward body positions.

Placing the work between the knees and shoulders minimized the need for workers to be on their hands and knees and/or bending their backs. The ideal location is usually at or above waist level.



Poles are located on the ground



Poles are located on the saw horses at waist level.

Tip: Taking a few extra minutes to set up your work area can save time and your back in the long run.

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<p>How much difference does the saw horses make?</p> <p>Raising the poles to waist level places less stress and strain on the lower back and knees compared to the old way. Employees were able to work with less fatigue and discomfort.</p> <p>In addition, a 38 percent reduction in the time to assemble the light poles was realized.</p>	<p>How much will it cost?</p> <p>The cost to build saw horses on a job site is minimal if scrap wood is used.</p> <p>Many styles of saw horses are available commercially ranging in price from \$22 to \$70 depending on features. Features include: wood or steel construction, folding and easy carrying capabilities, roller tops, and height adjustment.</p>
<p>How does the use of saw horses affect productivity?</p> <p>Workers can complete the task in less time due to the improved body positions. On our light assembly task, the job was finished in 38% less time than when the task had previously been completed on the ground.</p>	<p>Where is it available?</p> <p>McMaster-Carr Located throughout the USA http://www.mcmaster.com/</p> <p>Trojan Manufacturing Inc http://www.trojantools.com/ 800-745-2120</p>
<p>What types of jobs are best suited to saw horses?</p> <p>Most job tasks that are performed on the ground or below mid thigh level could be performed on a saw horse. Simple tables and work benches can usually be made using scrap materials found on the job site.</p>	<p>Contact Information:</p> <p>This Tip Sheet was sponsored by CPWR Corporative Agreement U60/CCU317202. It was produced by Build It Smart and the StewartPrezant Ergonomics Group.</p> <p>Special thanks to Valley Electric.</p> <p>Contact: Build It Smart 360.596.9200 builditsmart@qwest.net</p>