


Soft Tissue Injury Prevention Tool

Tip Sheets

Trade: Concrete Work

Job Task: Pre-Cast Tilt-Up

<p>General Tasks</p> <ul style="list-style-type: none"> ➤ Weld pre-cast panel brackets onto wall panel. ➤ Install bolts placing foil around bolts to prevent slag from adhering to threads. ➤ Layout - shooting with a transit and measuring to verify elevation to level panels. ➤ Rig up the panel to crane ➤ Fly panel into position using crane. ➤ Set the panel on embeds using come alongs and Burk bar to nudge and position panel. ➤ Install bolts into sleeves until welded. ➤ Level panel and weld brackets to embed. 	<p>Common Tools</p> <ul style="list-style-type: none"> ➤ Tape Measure ➤ Chalk Line ➤ Total Station ➤ Peanut Level ➤ Prism
<p>Potential Risk Factors <i>Risk Factors can lead to increased risk for Work Related Musculoskeletal Disorders (WMSD's)</i></p> <p>Continuous Forward/Backward Neck Bending</p> <ul style="list-style-type: none"> • Higher Risk primarily when welder welds brackets onto wall panels for entire day at ground level. <p>Continuous Moderate Forward Back Bending</p> <ul style="list-style-type: none"> • Moderate Risk with frequent forward back bending when welding brackets at ground level for extended periods of time. Carpenters are frequently bending to ground level to insert bolts into brackets and wrap with foil. <p>Heavy Lifting</p> <ul style="list-style-type: none"> • Moderate Risk when manually lifting and handling up to 50, 40-45 lb brackets a day to weld onto wall panel. 	<p>Possible Solutions</p> <p>Awkward Posture & Lifting Solutions:</p> <ul style="list-style-type: none"> • Elevate panel construction between knee and waste level. Also install bolts and perform welding of brackets at this work height. • Lay brackets out on wall panel prior to installation to minimize excessive lifting and handling of brackets. • Utilize material handling carts to move brackets around job site instead of carrying. • Consider rotating welding work between two welders when welding multiple panels for up to 8 hours. • Stretch frequently, particularly performing back extension stretches. <p>Potential Benefits</p> <ul style="list-style-type: none"> ✓ Increases productivity. ✓ Increases blood flow and reduce muscle tension. ✓ Reduces strain on hand and arm muscles. ✓ Reduces exertion of lower back. ✓ Reduces awkward work postures and minimize lifting requirements. ✓ Reduces static awkward postures.
	

Feasibility

- Engineer Control
- Administrative Control
- Work Practice Control

Estimated Cost of Intervention

- None

For More Information Contact

AGC of Washington, Safety Department
Ph 206.284.0061
www.agcwa.com

Steve Davis, M.Ed, CPE
Performance Ergonomics, LLC
Ph 206.334.6366
performanceergonomics@comcast.net