



Fatal Incident Involving a Half-Ton Electric Hoist



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This hazard alert is based on an actual incident, and reflects our best understanding of the incident at the time it was written. However, many incidents have multiple causes; this alert may not cover all of them. The purpose of the alert is to illustrate workplace hazards; it is not intended to be a comprehensive report on the incident.

A USW member had finished changing stock on a tire assembly machine with a relocated/rewired half-ton electric hoist that an outside contractor had released for operation. He attempted to move the hoist with one hand grasping the hoist's chain, then with his other hand, grabbing the machine's steel railing to help manually move the hoist to a different location. While doing so, he received an electrical shock that had him 'locked-on' where involuntary muscle contractions prevented him from releasing the energized equipment. Co-workers activated the machine's emergency stop, deenergized the electrical supply power, and began life-saving measures, but sadly, those measures were unsuccessful.

Recommendations:

- Use in-house trained and qualified employees to install, service, maintain, and inspect all hoist systems for new, reinstalled, altered, repaired, and modified hoist systems.
- Increase in-house maintenance staffing so trained and qualified employees are available to install, service, maintain and inspect all hoist systems.
- Develop and implement a hoist maintenance and inspection system. Utilize checklists developed with employees and their representatives that follow such things as established consensus and industry standards, manufacturer's maintenance manuals and recommendations.
- Develop and implement a policy and procedure:
 1. Before energizing or reenergizing hoist systems, verify safe electrical power operation when a hoist system is new, reinstalled, altered, repaired, or modified prior to releasing the hoist system into service.
 2. Requiring all personnel who install, service, maintain, inspect, and operate a hoist system to be trained and familiar with the manufacture's manuals of a hoist system to be used.
 3. Requiring dated inspection records for each hoist system use, or to be in use, to be maintained and available, including but not limited to for personnel involved with the installation, servicing, maintenance, inspection, or operation of a hoist system.
 4. Auditing of policies and procedures to ensure safe hoist system operations.
- Ensure lifting practices have straight vertical lifts to avoid side pulling on a hoist system.
- A Management of Change process must be utilized to manage changes in the workplace with employees and their representatives participation before making changes to such things as production equipment that would affect hoist safety, including the potential of side pulling on a hoist system.
- A Management of Organizational Change processes must be utilized to ensure downsizing, and contracting out of maintenance work does not result in negative consequences for safety. This applies to a whole organization, and it involves employees and their representatives. If the proposed changes are not safe, the change must not be made. Making change in a workplace is for safer future-fitting, not retrofitting changes that are not safe.

