



# SAFETY DEPARTMENT

## INCIDENT ALERT & LESSON LEARNED

### March 2023 - Struck By Incident

#### What Happened?

Field Mechanic was changing a holding valve on an MTS 42 scraper pan. The valve is designed to serve as a fail-safe system in the event of a damage to hydraulic lines or sudden loss of fluid pressure. The valve is attached to the cylinder port, between the hydraulic line ports. He relieved pressure to the hydraulic cylinder by disconnecting the hose and allowing the fluid to drain, however, residual pressure remained in the cylinder. The Mechanic went to remove the valve with a ratchet, using a breaker bar, and the sudden release of the residual pressure caused the holding valve to pop out, which caused the ratchet handle to strike his chin. This resulted with a laceration to the chin.

#### What Have We Learned? What Behaviors or Conditions Contributed? & Reminders:

- Failure to make secure / eliminate residual pressure
- No procedure on hand to guide safe removal of a holding valve
- Overconfidence in the method being used
- Unaware of safer method
- No written or specified training on this particular procedure by the manufacture

#### Corrective Actions:

- **Substitution:** Use other means to remove holding valves. If feasible, remove hydraulic cylinder and consult with a trained hydraulic cylinder technician for removal of holding valve
- **Engineering:** Relieve mechanical pressure by blocking and cribbing moving components. Isolate hydraulic pressure to the cylinder and remove as much fluid as possible into a catch pan. Utilize a work platform to increase standoff distance, improve body position and to create a safer working surface
- **Administrative:** Only the person removing the valve will be in the working area. Personnel will not position between pinch points, will not stand directly in front of the valve, and will use as much standoff distance as possible
- **Personal Protective Equipment:** All PPE items will be worn for any maintenance procedure. Safety glasses and face shield should be worn to protect from potential hydraulic spray

