

Safety Alert

Tensioner Bolt Failure

On July 17, 2025, a miner at a surface limestone operation sustained serious injuries while performing repairs on a belt drive motor. During the repair process, the motor's tensioning system was being adjusted when a ¾-inch diameter all-thread tensioner bolt failed, causing the bolt to break loose and strike the miner in the face. Spring-integrated designs with constant pressure and continuous vibrations pose potential safety concerns.



Tension Bolt



Broken Tension Bolt

Best Practices

- **Ensure all miners** receive thorough training to identify workplace hazards and perform tasks safely.
- **Maintain all equipment** and safety devices in proper working condition to ensure safe operation by reviewing manufacturer manuals prior to service; replace worn or damaged components; and use tightening sequences and tighten as recommended.
- **Check component quality** by examining bolts, washers, springs, and nuts for visible defects like rust, cracks, corrosion, thread damage or deformation.
- **Conduct a risk assessment** before starting work to identify and control all forms of stored energy, including mechanical, electrical, hydraulic, gravitational hazards, and unintended motion of equipment.
- **Alignment matters:** Ensure all components are properly aligned before bolt installation. Misalignment can lead to uneven stress distribution within the system, possibly leading to their premature failure.

Report accidents and hazardous conditions: 1-800-746-1553

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