



# Layne Safety Alert

**Subject:** Employee Struck by Cam-style Lever Binder

**Date:** January 4, 2010

**Incident:** Two employees had unloaded the first tier of 14-inch x 20-foot casing from the load bed of a 40-foot flatbed trailer. As one of our employees approached the remaining load, consisting of two tiers of 14-inch x 20-foot casing, he observed the load had been "belly wrapped" (chained in a bundle to control side to side movement in transportation). He further observed that the chain binder used to tension the "belly wrap" was placed on top of the load of casing. He climbed on top of the load and determined that the handle of the cam-style lever binder was too tight to release by hand. He then decided to lever the handle up using a binder bar under the handle. Before he did this, he noted that the binder handle had rolled toward the frontend structure of the trailer. Anticipating the energetic release of the handle he repositioned himself on the trailer end side of the chain and binder. He reached across with the binder bar to pry the handle up; this moved him toward the chain and placed his right leg within the potential radius of the binder's handle. He released the binder. Upon release the binder handle swung around to the opposite side (toward the trailer end) striking him in the right shin. The skin over his shin split open on impact leaving an open wound that required three stitches to close.



## Contributing Factors:

- The load had been belly wrapped at the vendors' yard to facilitate quickly loading of the casing.
- A handle extender was used to tension the chain and secure the load binder at the vendor location.
- The chain and load binder connection were left on top of the load instead of being repositioned to the side where it would have been accessible from the ground during re-tensioning in transport, or off loading.
- It has been the common accepted practice to use handle extensions or "cheater pipes" on lever binders despite the manufacturers' warnings not to use handle extenders on cam-style lever binders.



## Recommendations:

- When using cam-style lever binders for load securement purposes it will be our practice to follow manufacturers' recommendations. The manufacturers' recommendation states "**DO NOT USE HANDLE EXTENDERS**" when securing the binder. This will include the use of Binder Bars, Snipes, or Cheater Pipes.
- Tension adjustment of loads secured with cam-style binders will be accomplished by ½ link adjustment working each load securement system until acceptable load control is established.
- Stand clear of the potential radius when releasing the binder handle.
- Whenever practical load binders shall be placed so they can be accessed from the ground.
- When available ratchet style load binders shall be used in place of cam-style lever binders.