



# Re-Tensioning Lift Chains

Models Affected: All multi-level, Operator Aboard Battery Extractors

**Tech Tip**  
**TT-968**

## Subject:

Lift chains on multi-level Battery Extractors (BE) will require occasional re-tensioning. This Tech Tip will describe the easiest way to complete this task.

## Description:

The lift chains on multi-level BE units must be properly tensioned in order to insure proper lifting of the inner carriage. If the chains are not equally tensioned, the cylinders may not lift simultaneously which can lead to repeated issues with the equalization chains. The equalization chains can skip links causing the carriage to lift out of level which can result in damage to the extractor frame and components.

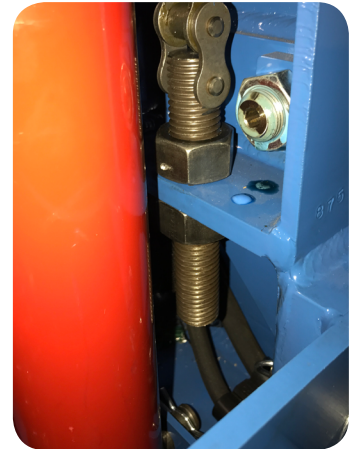
## Recommendation:

The proper tension for the lift chains is to have each cylinder pre-loaded. The chains should be tightened to the point that the inner frame is almost supported by the chains but is resting on the outer frame when fully lowered.

## Repair:

Follow these steps to easily and consistently set the lift chains to the proper tension.

1. Using a punch, loosen the top nut on the lift chain adjustment stud located in the inner frame.
2. Tighten the lower nut by hand to remove as much slack as possible from the chain (hand tighten only)
3. Have an operator raise the machine slightly.
4. Place a 1/2" nut or similar spacer material between the inner and outer frame in the corner of the cylinder being adjusted.
5. Have the operator lower the frame fully with the one corner being adjusted supported by the nut or spacer.
6. Tighten the lower nut an additional one (1) full turn (should be able to do so by hand)
7. Have the operator raise the frame so the spacer can be removed and lower the frame so all four corners are fully lowered.
8. Check that the chain is properly tensioned and that all four corners are in contact with the outer frame. For BE-DS units this should prove to be perfectly tensioned, BE-TS units may require an additional one half turn on the lower nut.
9. Once the chain is properly tensioned, use the punch to retighten the top nut to lock the setting in place. Ensure the chain does not twist during tightening.
10. Repeat the process for each lift chain needing adjustment.



Lift chain adjustment stud, top locking nut and lower adjustment nut.



1/2" nut in place between inner and outer frame

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