



Powered Roller Chains

Models Affected: Battery Extractors with Powered Rollers

Tech Tip
TT-974

Subject:

The powered rollers on Battery Extractors not only assist in moving batteries onto and off of the extractor, but also act as a brake, holding the batteries in place during machine operation. Ensuring this system of rollers is functioning properly is vital to efficient and safe operation of the extractor.

Description:

Each compartment of rollers is controlled by one motor directly coupled to the first roller. The additional rollers are linked together by a series of chains. Failure of one of the powered roller chains could result in all but one of the rollers spinning freely. Without the powered rollers, loading and unloading a battery will be quite difficult, and the loss of the braking force of the rollers could lead to a battery exiting the compartment unexpectedly.

Recommendation:

There are two typical issues that can result in a broken chain and powered roller failure. The most common cause for broken roller chains is a bent roller. If the extractor roller bed is set too low when extracting a battery from a truck or stand, the battery will fall into the compartment. The leading edge of the battery typically impacts the first or second powered roller with great force and can bend the roller. Once a roller is bent, the shaft of the roller no longer turns true, thus varying the distance between the roller sprockets, stretching the chain to the point of breakage. The second likely cause of broken chains is the roller becoming bound up and unable to turn. The hydraulic motor will continue to rotate, so if the roller cannot turn, the chain is likely to break. The rollers can become bound due to the plastic covering being extruded, or pressed out, due to the weight of the batteries. Previous Tech Tip TT-905 discusses this in detail as well as the preventative maintenance to avoid it.

Repair:

Broken powered roller chains can be avoided. Powered roller chains can last the life of the Battery Extractor with smooth machine operation, level roller beds during battery transfer, and by performing preventative maintenance to prevent binding. If a chain does break, a bent or bound roller is the likely cause that will need to be addressed.



For more information call: **1.877.BHS.4YOU**
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