Tools For Timely Belt Repair

Quicker and longer lasting belt repair tips.

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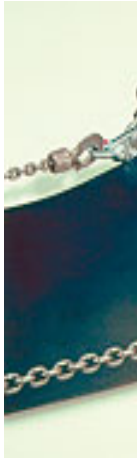
Time doesn’t stand still, and neither should your conveyor belts. But when unexpected maintenance or repairs bring belts to a standstill, only the clock moves forward. And the time lost can result in significantly reduced production and profit.



Recent product and tool innovations offer new solutions that can save time without sacrificing the strength, consistency and quality of the repair, but you need to have the right tools on hand and apply basic repair principles in order to make belt maintenance faster and easier. That said, here are some tools and techniques that can assist all maintenance personnel.

First Things First

Safety isn't generally regarded as a product innovation. However, maintenance personnel should approach every repair with knowledge of – and training in – recommended safety procedures. These procedures include lockout / tagout, proper belt squaring, skiving and cutting measures, as well as fastener installation. Proper safety training, as well as regular reminders on safe operating procedures, should be an essential part of every repair operation.

Effective belt repairs start with straight, square cuts. Doing the job with a knife is both inexact and potentially unsafe. What's more, the wider the belt, the greater the margin for imprecision and error. Portable, lightweight belt cutters make it easier to achieve straighter, squarer cuts, and to do so with more uniformity and safely. Their use helps maximize mechanical fastener splice life and minimize downtime because a properly squared belt distributes tension evenly across the splice. With belt ends properly squared, the problems associated with premature belt and splice wear, load spillage and fastener pullouts are less likely to occur.

Most belt cutters are designed for thicknesses ranging up to 1" (12 - 25 mm), and for belt widths of up to 84" (900 - 2,130 mm). By itself, the belt cutting procedure is not faster than alternate methods, as preliminary steps to properly measure and square belt ends still need to be undertaken – regardless of the cutting method. Instead, savings associated with a belt cutter stem from avoiding the time-consuming complications associated with imprecise cuts and the need to repeat the process.

Tooling Up

Compact and fully portable belt skivers are another essential tool for the belt repairer's arsenal. Belt skivers remove the conveyor belt's top cover in order to

prepare a belt for countersunk fasteners. The skiver is specially designed to help ensure a quick, safe and accurate top cover removal at various depths, while eliminating the danger and imprecise cuts that can result from hand-knife skiving. It is also a cleaner and faster alternative to a router, since the skiver removes the top cover as one continuous strip. Additionally, skiving helps ensure proper fastener installation, which in turn helps prolong the life of the splice and prevent downtime.

A skived belt also works more effectively with belt cleaners. When fasteners are countersunk, fastener top plates are positioned flush to the conveyor belt's top cover. Impact between cleaner blades and fasteners is virtually eliminated, enabling cleaners to operate more effectively, while adding to the operating life of both the cleaner blades and the fasteners. Routine maintenance is also reduced because there is less material dropping from the belt, necessitating clean up. The operation is quieter, too, because fastener contact is minimized.

Other tools have been specifically developed to increase the speed and precision of fastener installation. Many of these tools are fully portable and easy to operate, resulting in faster repairs and less wear and tear on the operator. These can include portable power-driven belt repair tools like pneumatic rivet drivers that help eliminate the potential dangers of manual hammering, or simplifying repairs in tight locations. Collated rivet sets, designed for use with specific air-operated rivet drivers, can further speed splice installations.

Kevin Finnegan *is the Market Manager – Heavy Duty for Flexible Steel Lacing Company. The company's Flexco Safe? Online Training Center program is designed to provide detailed information on a broad variety of topics through a special website,* www.flexcosafe.com *[1]. Here users can access information to both improve workplace safety and maximize performance.*

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