

A big impact on cost reduction

When the material being loaded onto the conveyor belt is heavy, sharp-edged and/or abrasive, it can cause expensive damage to the rollers and belt itself. This can often result in unscheduled stoppages, but there is a relatively inexpensive solution.

THE LOADING SECTION ON A

conveyor belt is where major, costly damage can occur to rollers, the conveyor belt and shock transfer to the entire conveyor structure.

Impact bars and beds are often installed to absorb impact from material being loaded onto the belt, thereby eliminating roller damage, and dramatically reducing belt and structural damage.

Two major components are used in the fabrication and assembly of an impact bed. The longitudinal Impact bars which provide a low friction sliding surface between the impact bed and the rubber belt travelling over it. The other is the robust steel bed frame supporting them, which features a modular pin-lock system for easy assembly and disassembly.

Impact bars

DYNA Engineering's Impact Bars provide significant wear resistance and sliding properties due to the ultra high molecular weight polyethylene (UHMWPE) wear strip on the top of each bar, which is ultra elastic rubber-backed to absorb impact.

It is then joined by hot vulcanising during the manufacturing process to the aluminium T-Tracker channel to ensure strong, reliable adhesion. Its



Heavy duty impact beds are constructed from heavy gauge material to withstand the impact from oversized, large and heavy material.

design allows many clamping points along the bar which can easily be cut to any required length.

Impact beds

DYNA Engineering's DYNA-TRAC impact beds are custom-designed to suit site requirements and incorporate a modular pin-lock system, engineered for the easy replacement of worn impact bars. The company found that the system worked so well that it is now deployed across the entire impact bed.

The pins can also be removed without any tools and the bars can be replaced without removing the bed from the conveyor.

The sides of the impact beds can also be lowered to a horizontal position to add additional clearance and support in the removal of the impact bars. The ability to lower the sides of the impact bed also assists with installation and removal.

When maintenance is required, the wings on both sides can be lowered by removing the pins from the supporting links. From there, the side impact bars can be easily slid sideways out of the supporting arms. The impact bars and even the entire bed can be removed without the need to raise the belt.

Popular styles

Hybrid Impact Bed DYNA-TRAC impact beds can incorporate impact rollers in the design. This allows the use of impact rollers and adds additional support from the side bars. The design offers a greater level of control along the edge of the belt. Hybrid impact beds assist in maintaining the seal between the skirting rubber and the conveyor belt and helps reduce belt sag and movement associated with load shifts.

Heavy duty impact beds are constructed from heavy gauge material to withstand the impact from oversized, large and heavy material. The design incorporates a fully welded, heavy gauge steel plate frame, large diameter pins and highly absorbent impact bars.

Thomas Greaves, General Manager for DYNA Engineering, said focusing on using better, safer, more environmentally friendly materials in their design and manufacture of future conveyor products is of paramount importance.

"We're great believers in engineering improvements emanating directly from those using it first-hand," Greaves said.

"Our products aren't designed overnight, they have been developed,



Thomas Greaves, General Manager for DYNA Engineering

improved and put together over a number of years. We're hugely focused on safety and cost reductions when it comes to new product development and innovations.

"Take this new UHMWPE we're using in our impact bars for example. It is an extremely tough material with the highest impact strength of any thermoplastic presently made. So, it will last a very long time and need replacing way less often."

UHMWPE is odorless, tasteless, and nontoxic. It benefits from the same characteristics and environmental benefits of high-density polyethylene (HDPE) with the added traits of being resistant to concentrated acids and alkalis, as well as numerous organic solvents.

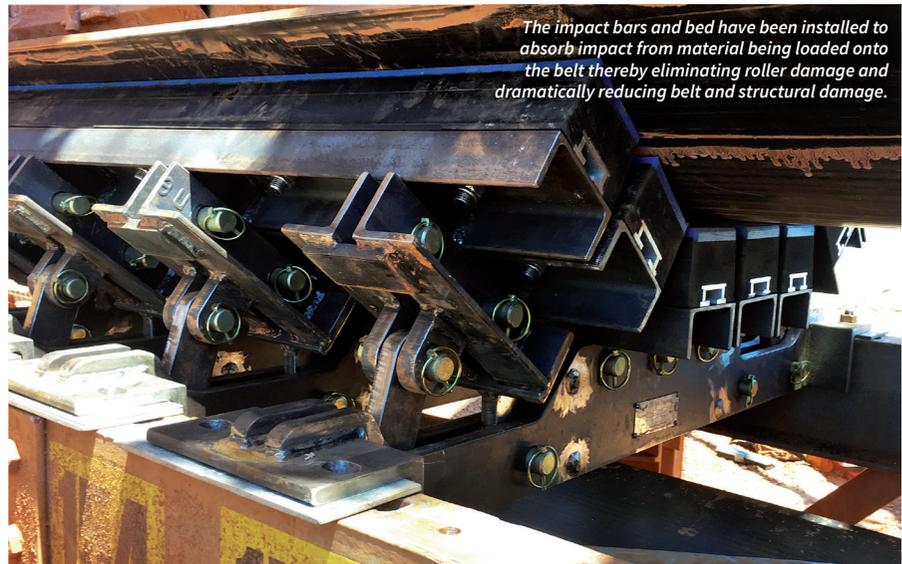
It is highly resistant to many corrosive chemicals, has extremely low moisture absorption and a very low coefficient of friction, is self-lubricating and is highly resistant to abrasion.

Greaves said in some forms, UHMWPE is 15 times more resistant to abrasion than carbon steel.

"And it's a whole lot less damaging environmentally," he said.

DYNA Engineering has been specialising in the design and

manufacture of quality conveyor components since 1986. The company's key business focus now is on innovations for bulk material companies to be able to operate their conveyor systems while improving the environmental impact of their operations. **B**



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