The Safe Mine Sling Holder



Downer EDI Mining

The Problem or Initiative

Heavy machines, such as bulldozers, are prone to becoming bogged in wet weather. When this occurs, the recovery team may have to use a towline, such as a chain, cable or sling, to tow the vehicle out.

Towing slings for heavy vehicles are expensive pieces of equipment and may cost in the range of \$8,000 to \$12,000. It is therefore important that they are not damaged during the towing operation. However, far more critically, recovering vehicles can be hazardous for the personnel involved in the operation, and it is of paramount importance to ensure that **they** are not damaged during the towing the towing operation.

The innovation described in this submission was the result of its creator, Murray Parker, a heavy equipment operator at Downer EDI Mining, being injured in a towing incident.

Murray was part of a recovery team from Downer EDI Mining using a bulldozer and sling to recover a bogged truck at the Commodore Mine in South East Queensland. Murray was holding the sling around the tyne of the bulldozer to make sure that it didn't slip out of place and, consequently, wouldn't be damaged. Unfortunately, as the bulldozer moved off to take up the slack in the sling, Murray's finger was caught between the sling and bulldozer's ripper box, causing serious injury to the finger.

This submission describes an innovation designed to prevent recurrence of injuries such as this, while at the same time avoiding damage to slings during towing exercises.

The Solution

The innovation is a metal sling holder (Figure 1) designed to be placed on the type of a bulldozer. Its simple design comprises:

- a sling-support section for supporting the sling; and
- an attachment section, which fits onto the tyne of the bulldozer and has opposed wings for abutment either side of the tyne.

The Safe Mine Sling Holder is very easy and safe to attach and use, as shown in Figures 2, 3 and 4.



Figure 2 - Positioning the Safe Mine Sling Holder

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Figure 4 - Resting the sling on the Safe Mine Sling Holder

Benefits/Effects

Once the sling holder has been positioned on the tyne and the sling has been supported on the sling holder, there is no need for anyone to hold the sling in place. Employees can stand a safe distance away, and so the likelihood of injury is greatly reduced.

The Safe Mine Sling Holder has been extensively tested at Commodore Mine and, since its introduction, there have been no finger pinch injuries as a result of this operation, and wear and tear on slings has been substantially reduced.

Transferability

As the Safe Mine Sling Holder has been designed to fit on standard, commonly used mining equipment, it has great application throughout the mining and construction industries, both nationally and worldwide. Safe Mine Sling Holders are both easy and cost-effective to manufacture, and so cost should not be a barrier to its adoption. The estimated cost for a Safe Mine Sling Holder is around \$100.

Innovation

This was an original idea of Downer EDI Mining employee, Murray Parker, born from an injury that he considered to have been preventable. He currently has a patent application pending for the Safe Mine Sling Holder.