

# Exploration HSE

## Bits

### Sledge Hammer LTI

On 13<sup>th</sup> August 2004, whilst removing a bulldozer blade cutting edge using a sledge hammer, a small splinter of metal came off the hammer head striking the employee in the stomach. It punctured his small intestine before becoming lodged in the stomach cavity. An operation was required to remove the fragment.



The investigation identified that :

- 1) The manufacturers procedures for removal of the cutting edges were impractical in a field environment.
- 2) There were improvements that could be applied to the common industry practice for edge removal that had developed over time.
- 3) The hammer is of the drop forged type. While these are robust, they are more susceptible to splintering than some other types of hammer, when used on very hard surfaces.
- 4) Inspection of the head showed that other splinters had come from it in the past.

Other alternatives are available. The example below is made of a high impact plastic. The head is semi-filled with sand, minimising the kick back.



If you use hammers, check the condition of the head carefully before use. If there are a number of chips or the head is mushrooming, the hammer should not be used.

Lateral Learning