



### CLIENTS CHALLENGE

SMS Rentals runs a fleet of mining equipment operating in a harsh environment. They have a need to regularly change out cutting edges on their dozers (every 2 - 6 weeks) due to the abrasiveness and harshness of the application.

The removal of the cutting edges on SMS Rentals Caterpillar D10 Dozer requires the removal of 39 nuts located underneath the blade.

Conventional nut removal methods initially involve the use of a RAD or Impact gun, however the seized nuts then require Oxy-Acetylene cutting. This results in removal tasks totalling 4-8 hours including set up and pack up.



LOCATION	Kalgoorlie, WA
YEAR	2016
INDUSTRY	Mining, Gold
COMPANY	SMS Rentals
EQUIPMENT	D10 Dozer



### SOLUTION

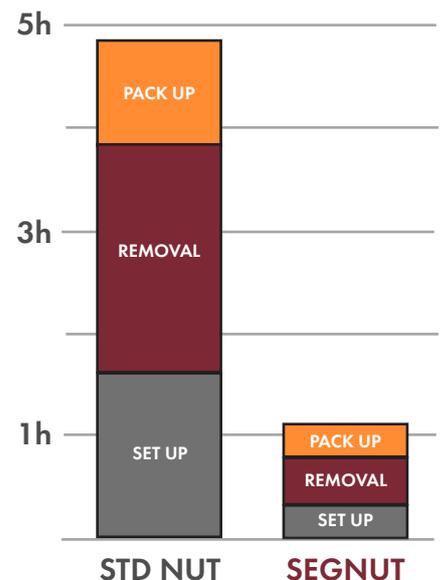
A Segnut trial was conducted during August 2016. This involved installing 11 x 1-1/4" S9 Segnuts onto the cutting-edge of a D10 Dozer. The dozer underwent approx 300 hours of operation before the nuts were removed.

An external assessment of the productivity and efficiency gains was conducted by SECORA. **They reported a very significant 60-80% total time savings.**

Set up no longer involves the time to ready Oxy-Acetylene tools and put on associated PPE, plus there's no need to obtain and approve hot works permits. Nut removals are achieved in 1/12th of a turn, and pack up no longer requires a fire watch cooling period.

Industry feedback has also given insight into process safety benefits. A number of hand lacerations have occurred from spinning plow bolts that have popped out of their square key recess during loosening of conventional nuts. Releasing the Segnut's sleeve in the TIGHTENING direction ensures that the bolt stays retained.

It's been noted that the retained and intact bolts prevent the cutting edge from falling off during nut removal. Reduced worker fatigue from holding heavy RAD/ impact guns overhead and no chance of tripping on Oxy hoses adds up to a safer work environment.



**“The Segnut system not only reduces task duration and downtime, but eliminated health and safety issues associated with current removal methods.”**

**SECORA**

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