

The nuts and bolts of it

THE BACKBONE OF ANY HEAVY-VEHICLE SERVICING PROGRAM IS PREVENTATIVE MAINTENANCE. ACCORDING TO TCK AUSTRALIA'S GRAEME ROWLANDS, CARING FOR THE UBIQUITOUS AUTOMATIC TOW COUPLING IS NO DIFFERENT.



Paying attention to the wear limits of components like tow couplings is known to reduce the risk of on road failures, improving safety and minimising downtime. Graeme Rowlands from TCK Australia explains that certain parts of a tow coupling have a predetermined "working clearance" to enable the device to operate effectively, while other parts of the coupling function best with zero clearance in a normal operating state. "Constant pounding from massive longitudinal and vertical loads – caused by terrain and general driving conditions – quickly accelerates working clearances into excessive, self destructing contact points," says Graeme – adding that once the parts

deviate from the predetermined working clearances, they must be replaced as soon as possible to avoid component failure.

"To get the full life from their tow coupling, tipper operators often hang a rubber flap over the exposed area of the assembly when loading loose materials to stop fragments being caught in the component. We also find that for tipping applications, it is better to run the component dry, rather than greased, because the grease captures fragments and becomes a grimy mess that makes the coupling parts wear out faster," says Graeme. Individual parts of the tow coupling wear differently, so repairs typically follow a three-step cycle. The sacrificial wear plate wears

the fastest and requires replacing first. On the second step of the maintenance cycle, the wear plate, coupling pin and the springs need replacing. The third part of the cycle requires replacing the wear plate, coupling pin and springs and the upper and lower bushes. The sacrificial wear plate is designed to wear out first to prevent damage to the coupling pin, lower support bush and the coupling mouth casting. Graeme explains that once the sacrificial wear plate has worn 4mm down from its original thickness, it must be replaced, as ignoring the wear here will quickly see the coupling assembly rendered unserviceable.

To ensure operators only ever get the parts they require, TCK Australia supplies all the individual parts separately as well as in complete kits. It also has a stainless steel 'go/no go' wear gauge available through all its distributors that make checking coupling pin wear simple.

By keeping a close eye on the wear of tow couplings and getting accurate measurements from a TCK wear gauge, operators can ensure they are getting the most out of their components without ever compromising on safety. 

Replacement Guide

Replace coupling pin when clearance reaches 46mm.

Replace coupling pin and lower bush when clearance reaches 2.5mm.

Replace drawbar shaft and nylon bushes when clearance reaches 1mm.

Replace wear plate when clearance has increased by 4mm.

Longitudinal clearance of drawbar shaft in mounting boss must be 0mm.

Contact

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