



# CAREFUL

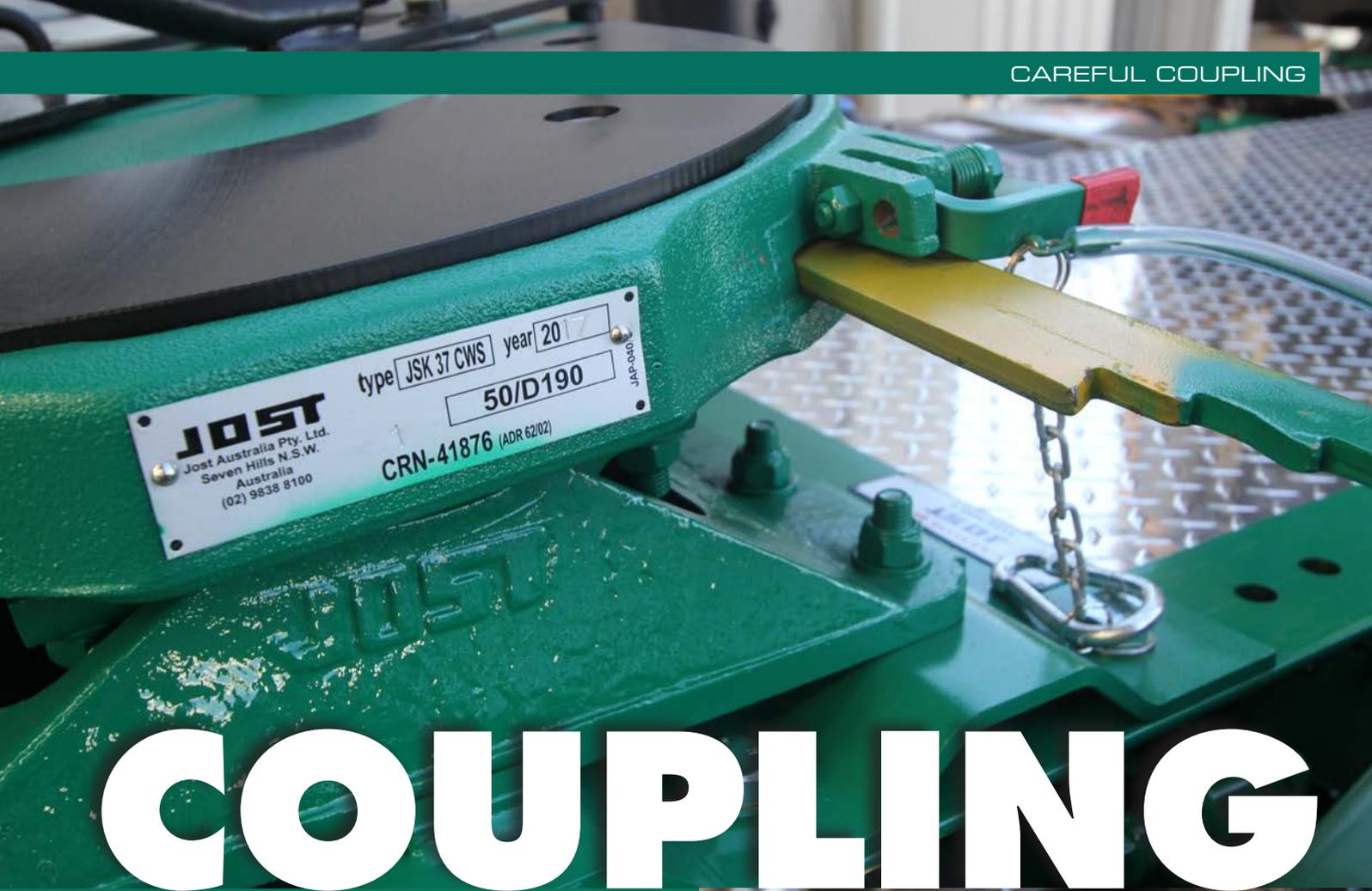
The humble fifth-wheel coupling, or turntable as most of us would call it, has changed very little over the last 20 years. While the materials used in manufacture, profile options and top surface designs may have altered, the general architecture remains the same.

The basic idea of a king pin being held in place by spring-loaded jaws has served well over the years, and has proven to stand up to some massive tasks. When you consider that these couplings are used to pull weights in excess of 150 tonnes in some applications, and the forces that must be put through both the king pin and turntable, it really is remarkable to think that three inches of steel and a spring-loaded locking mechanism are all that keep the prime mover and trailer, or trailers, travelling at the same speed. With this in mind, it is vital that the coupling is properly engaged, and we have all seen what happens if it's not.

While it isn't rocket science, correct coupling is imperative to the safety of the vehicle and those around it. For some drivers it becomes a mundane task, performed several times a day, which can lead to complacency and increase the chances of things going wrong.

To assist in ensuring correct coupling, JOST Australia has a Sensor Coupling system, which gives the driver a visual and audible warning should there be any problems with the hook-up. Until recently, this has involved having a display unit mounted in the cab, with the wiring being run from the turntable to the display. More recently, however, Jost Australia has been working with both Mercedes-Benz and Volvo to have the Sensor Coupling system run through the vehicle's CANbus wiring, allowing for the information from the Sensor Coupling system to be viewed through the driver information display in the dash.





# COUPLING

The Sensor Coupling system works off three sensors fitted to the turntable – one in the top surface to detect the skid plate on the trailer, one in the centre to detect the king pin, and one on the handle locking mechanism to ensure the handle is locked in position. The skid plate sensor is used to make sure the skid plate is resting on the turntable, to avoid the king pin going over the turntable. The centre sensor recognises the king pin is in position, and references the handle lock sensor to ensure everything is in place. Should the handle lock sensor not activate, the system will alert the driver that something is wrong. The system is designed to act as a guide only, and drivers still need to do a visual check on the jaws to ensure they are closed correctly.

There have been a few other improvements made to the system during the integration process, including a change to the way the skid plate sensor interacts with the system. In previous versions, the skid plate sensor would send an alert when the skid plate separated from the turntable, as is common when running empty or turning into angled driveways. This led to many a false alarm, frustrating drivers and resulting in many units having tape put over the red warning light. With the updated system, the skid plate sensor is not active once the coupling is complete and the vehicle is in motion.

Ron Finemore Transport has recently ordered 50 trucks with this new system installed, made up of a mix of Volvo FM and Mercedes-Benz Actros prime movers. Safety is a main priority for Ron Finemore Transport, and as Laurie Brothers, Finemore Transport's chief fleet and maintenance officer, said, "Safety is a never ending journey. We've actually got to up the ante, and eliminate the risks".





Other safety features fitted to the turntables in the Finemore's fleet include a yellow section painted on the handle to provide a visual warning that the handle is not in correctly, and a dog clip that goes through the handle lock to eliminate the risk of the handle moving when out on the road. Extra lights are also fitted inside the rear of the chassis rails to shine forward and allow for good vision of the turntable jaws, even at night.

Having this sort of safety equipment is pointless though, without providing the operators with adequate training on how the system works, and how it should be used. With this thought uppermost in my mind, I travelled to Wodonga to be involved in a training exercise, where Jost Australia representatives talked Ron Finemore Transport's own driver trainers through the system and its features. From that information exchange, the driver trainers will then take the initiative to inform and educate other drivers within the fleet on the correct use and operation of the system, so everyone involved in using it is confident with the technology before it gets fully rolled out.

With some of Ron Finemore Transport's drivers dropping and hooking up trailers up to ten times a day, the benefit of this system should be well appreciated in the fleet. While it is only a guide, and visual inspection is still required, it does remove a little more of the risk associated with dropping trailers. It is encouraging to see an operator working with suppliers to come up with a solution, rather than waiting for it to be handed to them, and then taking on the responsibility of training people to use that technology safely. The result is a safer workplace for us all. 

