

## Trailer Couplings – Safety

### Introduction

The components used to couple vehicles and trailers are exposed to very high stress, even during normal use. Regular service and maintenance are a prerequisite if the coupling is to function well for the duration of its service life. Daily inspection or safety checks must always be completed to ensure that the wear limits have not been exceeded or that the functioning of the product has not been impaired. One of the safety checks that needs to be carried out daily is the functioning of the signal pin.

### Safety Check – The signal pin

Trailer coupling have two safety mechanisms built into the coupling that prevents the coupling bolt from opening and closing involuntarily. The coupling works as follows; when opening the coupling, the coupling bolt pushes the locking and signal pin out as seen in Photo 1 (b). The signal pin must be at least 8 mm away from the plastic cover when the coupling bolt is in the raised position.



(a)



(b)

Photo 1

The coupling bolt is then locked in the open position and can only be closed again when the tow-eye pushes onto the coupling bolt while the trailer is being coupled. When the tow-eye pushes coupling bolt upwards it releases the safety catch within the coupling and the coupling bolt closes. Once the coupling bolt is closed, the locking and safety pin retracts (see Photo 1 (a)) and locks the coupling bolt in place. The signal pin must lie level with the surface when the mechanism is closed and may not be deformed or otherwise put out of order. When the coupling is in the locked position, it must be possible to push the coupling bolt up between 0 – 5 mm.

If the signal pin does not assume the correct position, i.e. when the coupling bolt is down but the signal pin shows “STOP” (Figure 1 (a)) or the coupling bolt is up and the signal pin shows “GO” (Figure 1 (b)) then the following steps must be taken:

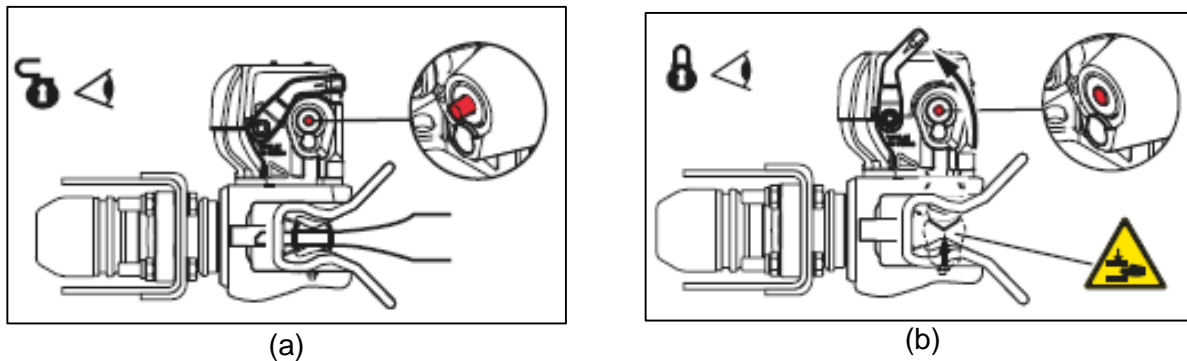


Figure 1

1. Clean the lower jaw bushing
2. Lubricate the entire mechanism
3. Retest the function
4. If the signal pin is deformed or jammed, replace it with new kit containing signal and locking pin, spring and plastic cover.

## Conclusion

The locking pin, when engaged, ensures that the coupling bolt cannot open. It is therefore of the utmost importance that locking pin is always working correctly. If any damage is found to the signal pin, then locking pin needs to be replaced. VBG and RINGFEDER couplings are well-known for their high quality, high reliability, and long service life with low maintenance costs. They offer you peace of mind, year in and year out when the correct services and safety checks are carried out.