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**Making heavy vehicle fleet
management easy for you**

REAL Torque

April 2018

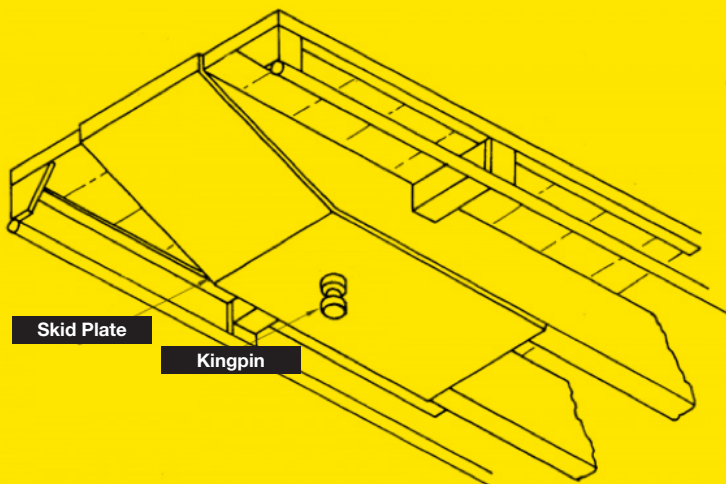
Contact maintenance for any questions on 0800 80 80 69

Kingpin/Skid Plate Inspection

There has recently been a couple of skid plate failures in the industry. So far these failures have been isolated to refrigerated trailers where the kingpin has separated from the towing vehicle.

Some refrigerated trailer manufacturers use a monocoque body where the structural strength comes from the body itself and not from the traditional design of chassis rails. Because of this design, inspection above the kingpin/skid plate area is not possible without removing the floor or cutting out the skid plate although newer designs have started to incorporate inspection holes.

Due to fatigue it is possible for the internal cross-members above the skid plate to crack. This will generally lead to external cracks around the kingpin and skid plate. Another issue is water being trapped in this cavity and over time creating rust which in turn reduces the structural integrity.



Structural cracks on a cross-member in the skid plate/kingpin assembly of a refrigerated trailer (found after the flooring was removed to reveal an internal chamber).



Failure of the internal cross members can lead to externally-visible cracks around the welds between the kingpin retention plate and the skid plate.



Major external crack -
The unit must be removed from service.



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Some manufacturers are now incorporating inspection holes into their skid plate designs. In this case a borescope can be used for an internal inspection.

It is not recommended to drill or cut inspection holes in existing skid plates as this will impact the structure.



The trailer must be separated from the towing vehicle for a thorough inspection. This is when the use of a "no go gauge" comes in handy to check the kingpin and skid plate are both serviceable.



Inspecting kingpin shoulder and neck in wear limits.



Inspecting kingpin squareness to skid plate.

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Trailers must be separated from towing vehicle at service.

Kingpins and skid plates are major components that need close inspection.

Any external cracks or excessive rust the unit must be removed from service for detailed inspection.



TR Tips