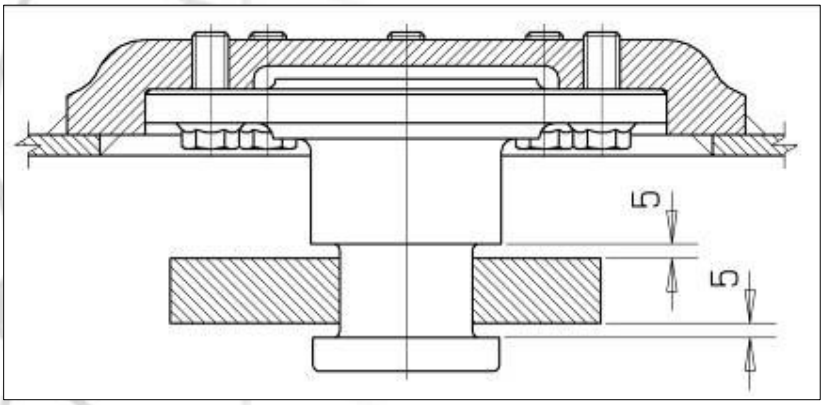
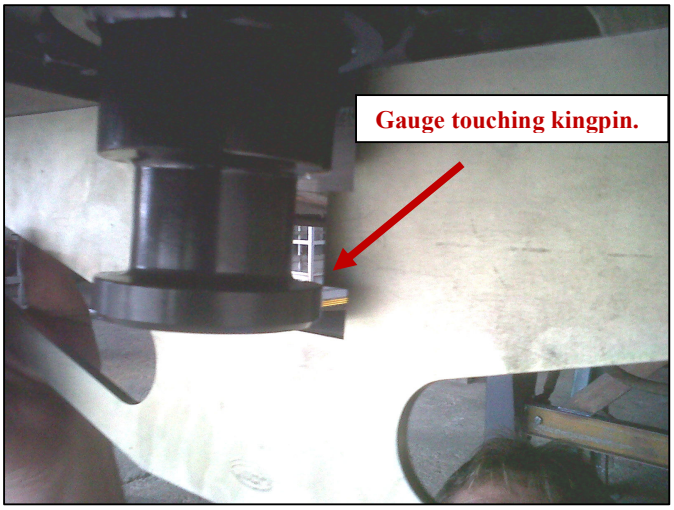
RUBBING (SKID) PLATE GAUGES

Recently there have been several instances where the use of the rubbing plate gauge has been misinterpreted and we trust that this communication will serve to eradicate all future misunderstandings. In explaining the use of this gauge the following should be understood: -

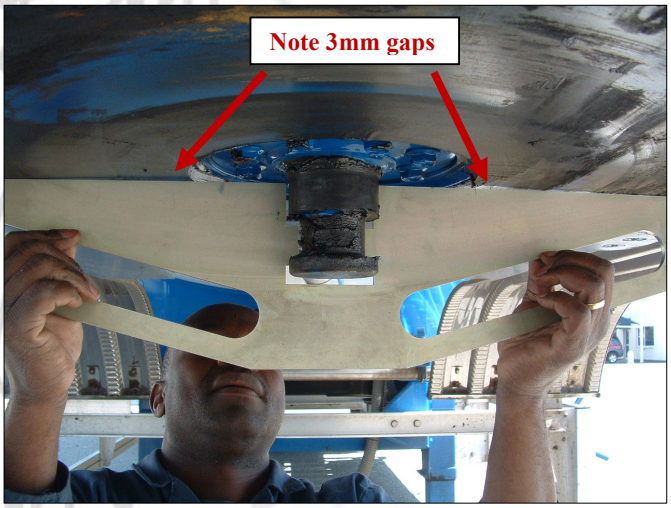


When a kingpin installed at the correct kingpin height (with reference to the thickness of the rubbing plate) couples with a Jost fifth wheel the lockjaw will be located exactly in the centre of the throat area of the kingpin with a 5mm clearance between the lockjaw and the top and bottom shoulders of the kingpin as illustrated.

Often a kingpin is used that does not match the thickness of the rubbing plate and this will of course result in the 5mm gap being reduced accordingly, e.g. when a KZ1008 kingpin (for a rubbing plate thickness of 8mm) is installed in a rubbing plate with a thickness of 10mm the 5mm gap between the lockjaw and bottom shoulder of the kingpin is reduced to 3mm and the 5mm gap between the lockjaw and top shoulder increases to 7mm.



Needless to say there will still be a sufficient clearance between the lockjaw and the bottom shoulder of the kingpin to facilitate a safe and secure coupling between fifth wheel and kingpin. It is only in instances where the gap is depleted that a safe and secure coupling between kingpin and fifth wheel will be compromised.



Should a rubbing plate gauge be used in the example stated above to check the kingpin height however, the chances are that the gauge will not be able to pass freely over the kingpin and the same applies when the kingpin is installed at the correct height and there is a concave (upwards) deflection of 2mm (or more) present in the skid plate.
It should therefore be noted that the rubbing plate gauge should be used to obtain an indication only when checking kingpin heights and in instances where the gauge do not pass freely over the kingpin an actual measurement should be taken of the kingpin height relative to the rubbing plate to determine if a safe and secure coupling between kingpin and fifth wheel will be compromised.

RUBBING PLATE THICKNESS

Jost recommends that rubbing plates should be 12mm in order to achieve stability, but this is a guideline **ONLY** as the same stability can be achieved by the supporting steelwork above rubbing plates manufactured from thinner material (10 or 8mm) and it must be emphasised that the design of the rubbing plate will always remain the responsibility of the trailer manufacturer.

It should also be noted that a D-value rating of 162kN (which is 10kN greater than the required rating for a 2” fifth wheel) can still be achieved even when the skid plate is manufactured from 8mm thick material and a Jost KZ1008 kingpin is used (EC approval number e1 00-0145), provided that material with the correct yield stress is used and that the kingpin and rubbing plate is adequately supported.

For further recommendations and guidelines for the mounting of kingpins please feel free to download the mounting instructions (in PDF format) from our website www.jost.co.za or you can request a copy thereof by phoning 011 395 8500 (Gauteng) or 021 951 2161 (Western Cape).