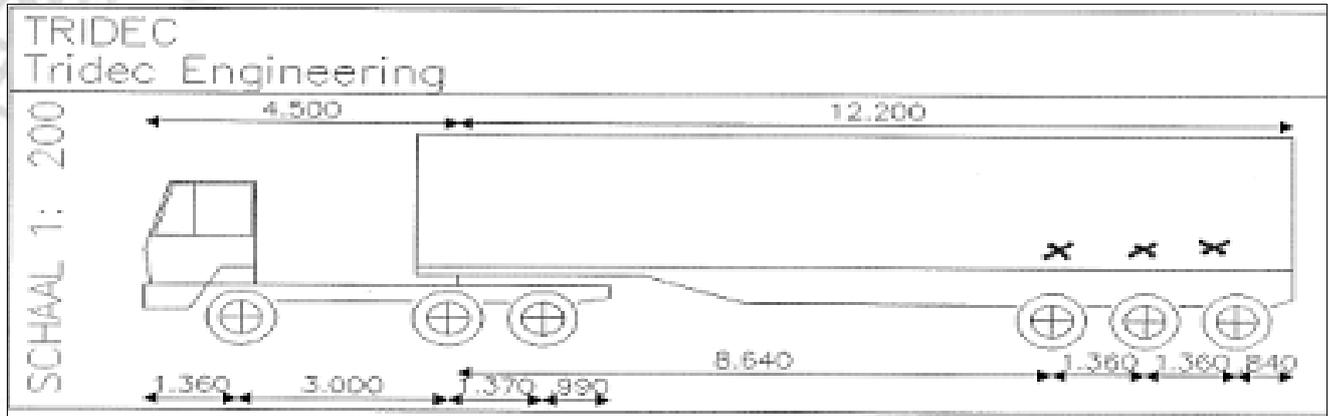


The Tridec Steering principle applied to SA legislation.

This is an example of an un-steered trailer turning radius calculation

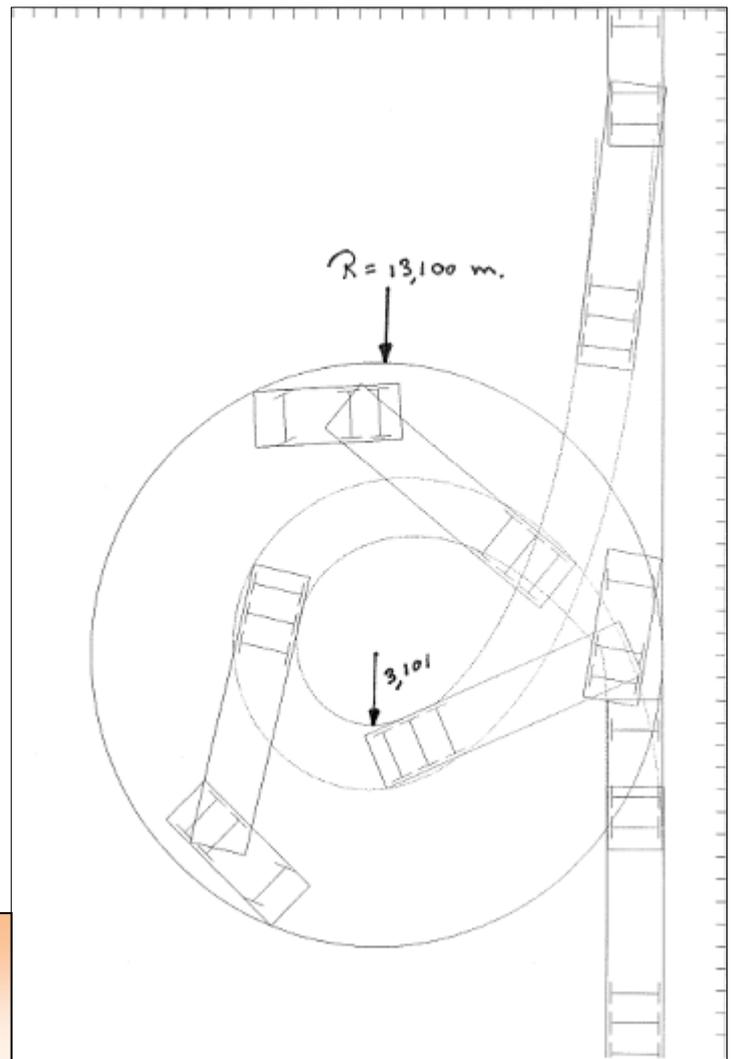


The maximum wheelbase on any tridem trailer in SA must not exceed 10 metres. The maximum turning circle as per legislation is 13,1 metres.

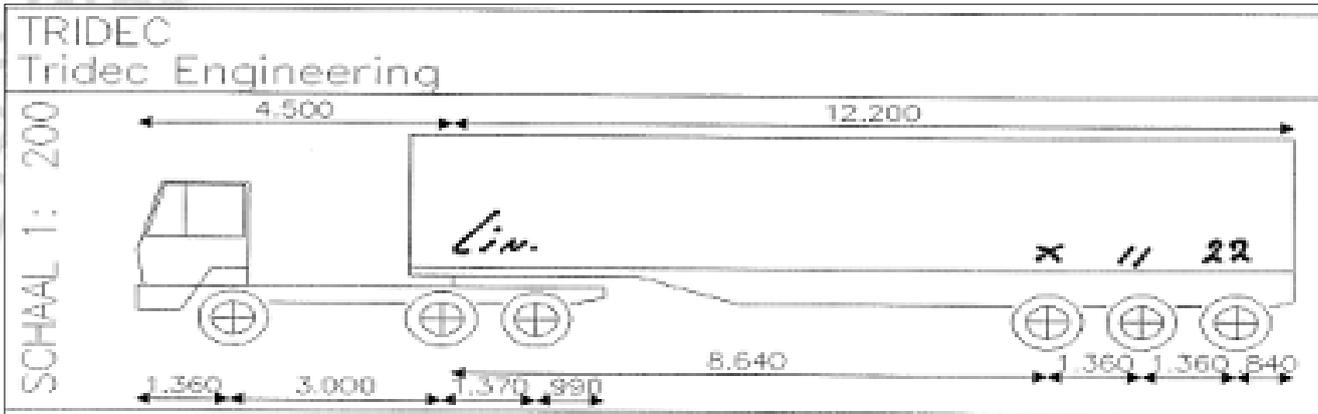
The turning point is 10 metres measured from the kingpin to the centre axle.

When you turn with a standard tridem trailer with a 10 metre wheelbase in a 13,1 metre turning circle as per SA legislation, the turning radius measured from the centre of the turning circle to the inner center axle is 3.101 metres.

An un-steered trailer will have an inner circle turning radius measuring 3.101 metres on a trailer with a 10 metre wheelbase turning within 13,1 metre outside radius.



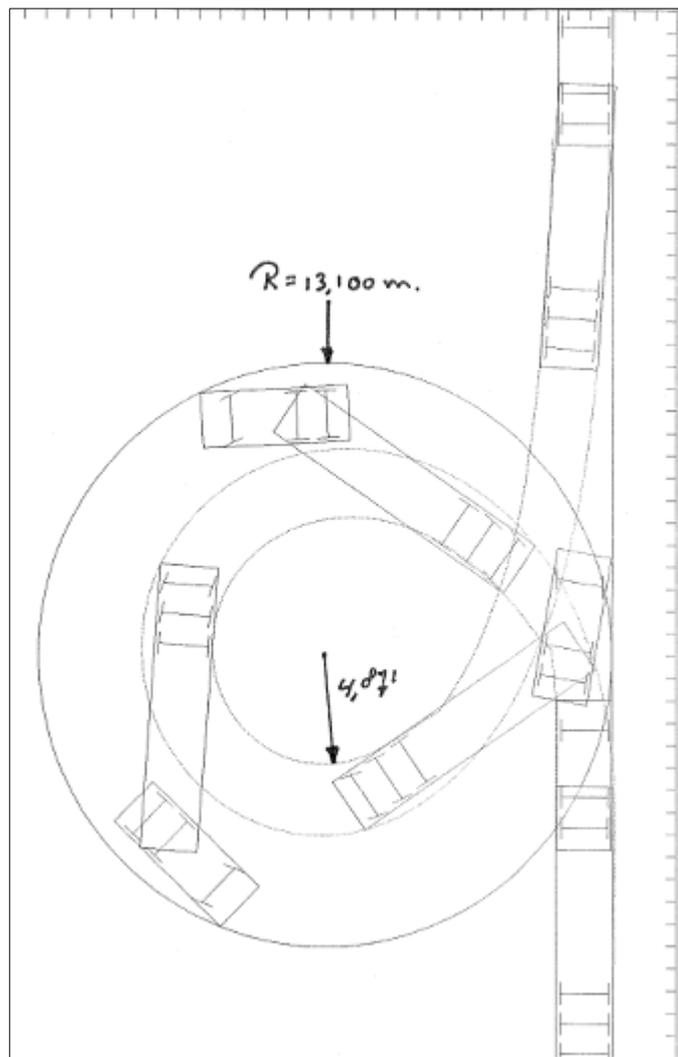
What can be achieved by steering your trailer within SA legislation with the Tridec steering system?



By steering the last two axles on the tridem and keeping the first axle unsteered you will be moving the turning point forward in line with the first axle. The turning point will now be 8,64 metres. The wheelbase will remain 10 metres and payload will be unaffected.

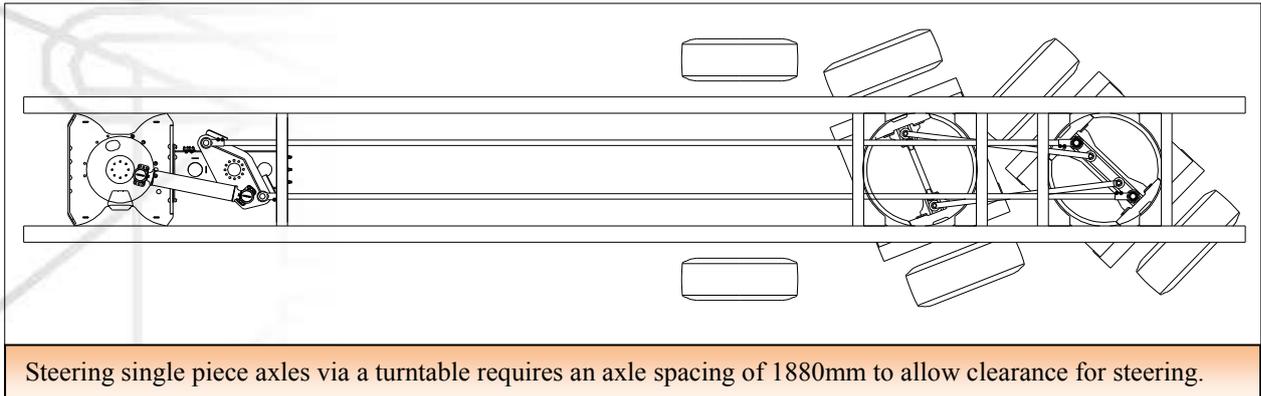
When you turn with a steered trailer steering the last two axles with a 10 metre wheelbase in a 13,1 metre turning circle the turning radius measured from the centre of the turning circle to the inner centre axle will be 4.871 metres.

This will result in a reduction in space occupied by the trailer while turning of 1,77 metres. This will greatly improve the maneuverability of the vehicle and make the trailer much friendlier to use in restricted space areas.



A dual steered tridem trailer will have an inner circle turning radius measuring 4.871 metres on a trailer with a 10 metre wheelbase turning within 13,1 metre outside radius. The trailer will need 1.77 metres less road space on the inside to take the same turn as the un-steered trailer.

Steering one piece axles using turntables can be done but there must be room to move the axle spacing to 1880mm to allow for the axles to turn without touching each other. The centre axle remains at 10 metres, the front and rear axle moves to 1880mm forward and backward from the centre axle. This will have the added benefit of moving the load bearing area over the wheels over a larger area minimizing overloading per axle. You also have an added advantage of a shorter turning point, the trailer will now behave like a trailer with an 8,12 metre wheelbase.

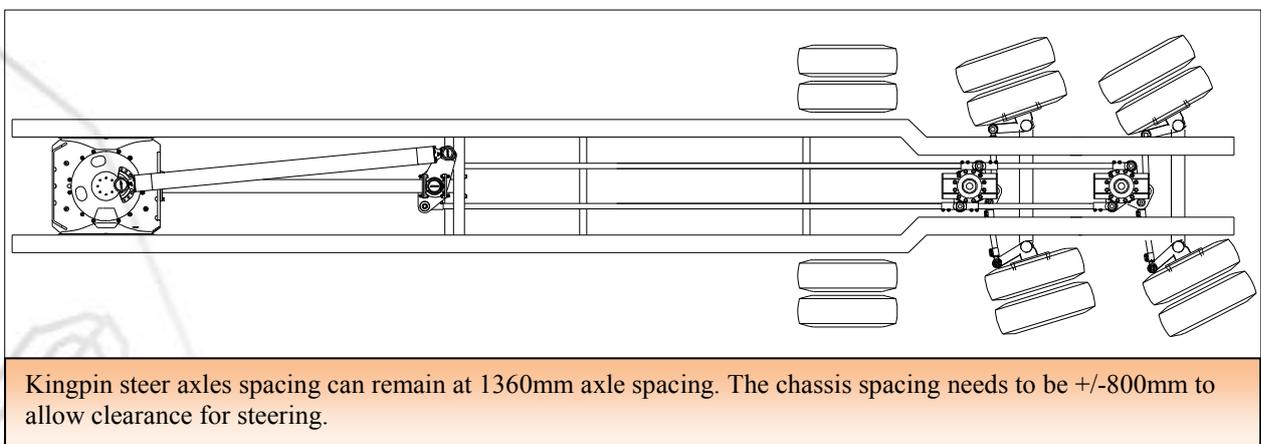


Steering single piece axles via a turntable requires an axle spacing of 1880mm to allow clearance for steering.

Associated benefits of fitting steering axles to your new trailers.

- There will be no friction between the skid plate and fifth wheel, only light lubrication is required on the fifth wheel top plate and locking mechanism.
- You will eliminate side forces on the chassis and scrubbing on the tyres improving tyre life.
- The trailer will now turn and have the same handling characteristics as a standard single axle trailer with a wheelbase of 8,64 metres.

In order to steer any axle on the trailer we will have to adjust the chassis of the trailer to accommodate the area required for the wheels to turn, the trailer builder needs to move the chassis to +/-800mm apart. Therefore some engineering from the trailer builder will be required in order to step the chassis as shown here.



Kingpin steer axles spacing can remain at 1360mm axle spacing. The chassis spacing needs to be +/-800mm to allow clearance for steering.

For more information on Tridec steering axles and pricing please contact Christo de Clerk at Jost on 082 774 9818 or via e-mail on christo@jost.co.za

<http://www.tridec.nl/tridecsite/engels/home/index.html>