



BPW Suspension Wheel Alignment

There has recently been a spate of instances where BPW suspensions have been damaged by incorrect wheel alignment procedure. The following points must be considered when doing wheel alignment on BPW suspensions.

- On both the Airlight and the new Airlight II air suspension the alignment is done by **loosening the pivot bolt** on the hanger bracket and shifting the sliding plates until the alignment is correct. **The pivot bolt must then be re-torqued to 900Nm.** This bolt must then be checked and if necessary **re-torqued after the first run under loaded conditions.** Failure to do this can result in damage to the bushes around the pivot bolts in the hanger brackets.
- On BPW spring or mechanical suspensions the **u-bolts must be loosened before the wheel alignment is done.** This will prevent the springs from being driven into the side of the hanger bracket when the alignment is performed. If the springs are pushing up against the side of the wear plate in the hanger bracket then **the wear plate will be worn through prematurely** and the hanger bracket may be damaged. This sideways force on the spring can also lead to damage to the bushes in the torque arms - resulting in a need to replace them prematurely. **Once again the u-bolts need to be re-torqued to 450Nm once the alignment is complete – and then checked and if necessary re-torqued after the first run under loaded conditions.**

Many of these problems have been caused by independent or outside contractors doing the alignment on these vehicles. Before allowing an outside contractor to perform the wheel alignment on a vehicle fitted with BPW suspensions the following should be ascertained:-

- **Does the contractor have the correct equipment (900Nm torque wrench or torque multiplier) and has this been recently calibrated?**
- **Is the contractor in possession of the relevant specifications with regard to the torque settings required on these BPW suspensions? These specifications are reflected in the relevant maintenance manuals available free of charge from the address below.**

If the wheel alignments are not correctly performed then **long-term damage can be caused to the suspensions**, which may be very expensive to rectify. **Worse still, if the relevant bolts are not correctly torqued and re-checked after the first run under loaded conditions then the bolts can work their way loose and the wheel alignment will once again be out.** This will result in **accelerated tyre wear** and damage to the bushes in the suspension.

If you are in any way unsure of the quality of the wheel alignment being performed on your trailers please contact **Stephen du Toit on (082) 901 2639 or (011) 681-3300** for assistance.

