

TUFF RIDE SUSPENSION

Toe and Camber Adjustment

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Toe-in and Camber adjustment procedure for trailers or caravans fitted with Tuffride Independent trailing arm suspension.

You will need the following tools:

1. Straight edge 900mm long (to hold on the outside tyre face at height of chassis main rail).
2. Steel rule of 500mm long.
3. Torque wrench (190Nm) & 24mm impact socket (normal socket can be used but is not preferred).
4. 24mm open ended spanner.

Toe Measuring Procedure:

1. Before commencing any adjustment, check wheel bearings for free play (loose wheel bearings will greatly affect the accuracy of the adjustment). If wheel bearings are found to be loose, adjust or replace if necessary before proceeding.
2. Check that tyre pressures are equal and that opposing tyres (left to right) have similar wear.
3. Find a flat level surface and roll your trailer/caravan back and forth in a straight line to minimize any stresses in the suspension components.
4. To measure the Toe-in, hold the straight edge (900mm) horizontally across the outside face of the tyre at the height of the main chassis rail (be mindful that the straight edge is even across the tyre, avoiding any bulges or side wall lugs), and measure from the outside chassis face to the tyre face.
5. For a single axle and the front axle of a tandem axle setup, the front measurement should be 1mm less than the back. For example if the back of the tyre measured 250mm (from outside chassis rail to tyre face) then the front of the tyre need to be 249.00mm.
6. For the rear axle of a tandem axle group the tyre should be parallel to the chassis. For example, if the back measurement was 250mm, then the front measurement should also be 250mm.

Camber Measuring Procedure:

1. Repeat steps 1-3 in Toe Procedure.
2. Hold the straight edge vertically along the outside face of the tyre, in the centre (be mindful that the straight edge is even across the tyre, avoiding any bulges or side wall lugs), and measure from the outside chassis face to the tyre face.
3. The tyre should be parallel to the chassis, both top and bottom. For example, if the top measurement was 250mm, then the bottom measurement should also be 250mm. This is correct for all variants, single axle and for both front and rear of a tandem axle setup.

Toe Adjustment Procedure:

1. To adjust the toe, first loosen both hinge nuts, but do not remove them.
2. Use a 24mm open ended spanner to rotate the toe cam adjuster until your toe measurements are within the above specs. If you also need to adjust Camber, please skip the next step and move to step 2 of the Camber Adjustment Procedure.
3. Re-tighten both hinge nuts to 190Nm of torque.

Camber Adjustment Procedure:

1. To adjust the Camber, first loosen both hinge nuts, but do not remove them.
2. Use a 24mm open ended spanner to rotate the camber cam adjuster until your camber measurements are within the above specs.
3. Re-tighten both hinge nuts to 190Nm of torque.

**Please note, all maintenance including Toe and Camber adjustment is the customer's responsibility and should be checked every 10,000km or 12 months (whichever comes first).*

This is only a recommendation and may not be suitable for all suspension setups. TuffRide takes no responsibility for incorrect toe and camber adjustments.

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