

Axle Triangulation Procedure

All caravans and trailers must have the axle or axles correctly aligned for best performance. Incorrectly aligned axles may result in increased tyre wear or poor towing. The following procedure outlines how to check the axle alignment and how to correct axles which are out of alignment.

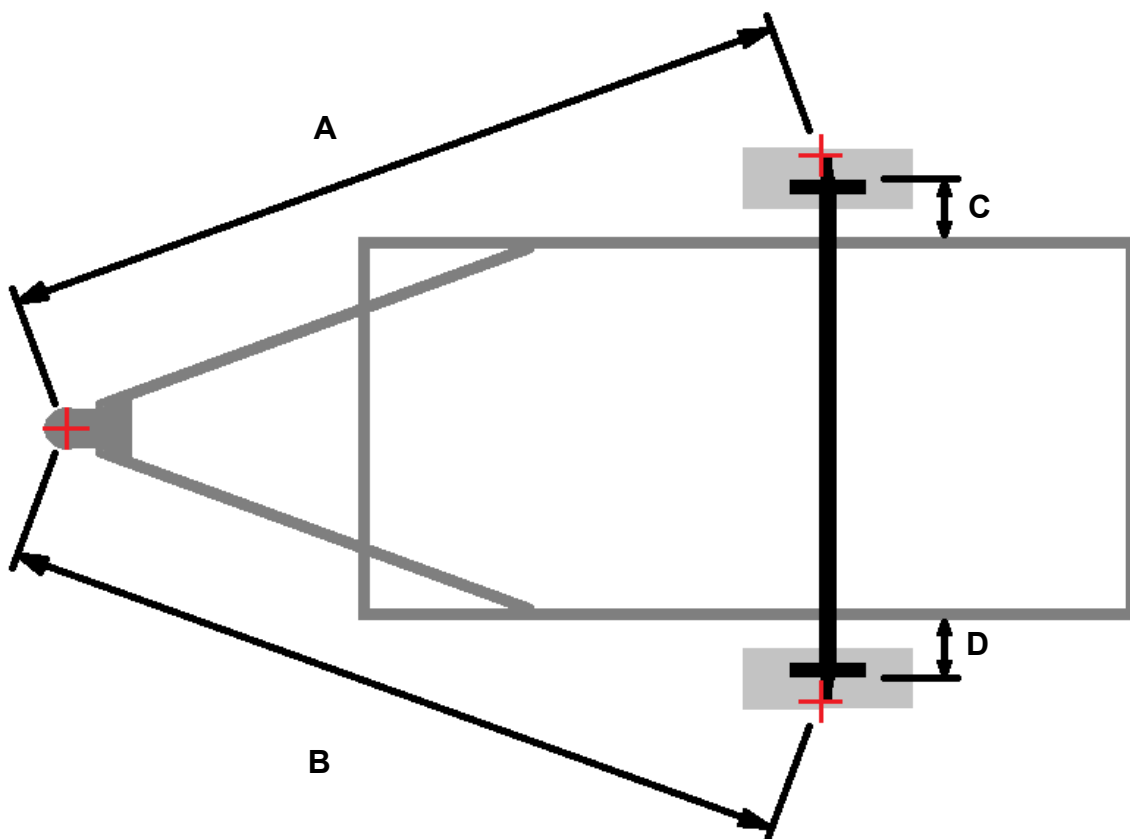
1. Raise the caravan or trailer safely and remove the wheels.
2. Remove the hub caps from the hub.
3. Hang a plumb bob from the center of the coupling through the adjustment screw or use a purpose made device which locates on the towball socket and allows the center of the coupling to be measured accurately.
4. Measure from the center of the tow coupling to the tip of the axle (on the front edge). Dimension A shown below.

Important Note:

Make sure the tape measure is straight and has no sag.

Do not use string or anything elastic for this measurement as it will be inaccurate.

5. Repeat the measurement from coupling to tip of the axle on the other side of the vehicle. Dimension B shown below.



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6. The difference between the two measurements must be less than 4mm.
7. If the difference between the two measurements is greater than 4mm then the axle must be realigned.
8. Measure the distance between the outside of the chassis rail to the hub face on each side of the trailer (dimension C & D).
9. The difference between dimensions C & D should be less than 5mm. If not the axle should be re centralised and then realigned.
10. To re centralise the axle on the trailer, loosen the U bolts holding the axle on each spring.
11. Slide the axle sideways until the distance between the outside of the chassis rails and the hub face is equal on each side within 5mm.
12. Check the centralisation (Step 8 & 9) again before proceeding.
13. To realign the axle, loosen the U bolts clamping the axle to the spring on one side then move the axle forward or rearward on one side as required.
14. Tighten the U bolts to the correct torque.
15. Remeasure the axle triangulation (steps 3 to 6) and realign if necessary.
16. Once the axle has been correctly triangulated, refit the hub caps and wheels then lower the vehicle. Remember to tighten the wheel nuts to the correct torque.

Note: This procedure must be repeated for the second axle on tandem trailers.

For more information contact:

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