

Product Bulletin #: 1103B
Model: 86AR Sliders
Topic: Super Singles
Effective Date: November 29, 2003

Wide-base super single tires are getting lots of attention from fleets. They claim better fuel economy, weight savings, and lower wheel costs. But they also raise some concerns.

If you use wheels which maintain the same track width as conventional duals, you may lose some roll stability because the outside edge of the super single tier is closer to the trailer center than the outside of a conventional dual. If you choose wheels with an offset that places the outside edges in the same position as duals, you run the risk of premature wheel bearing failure because more of the load is being carried on the outside wheel bearing.

Some van trailer manufacturers have tried using a wider axle (83.5" versus the traditional 77.5"). This requires a wider slider sub-frame (54" versus the usual 48") that brings a whole new set of problems. The first is the need for a completely different manufacturing set-up for welding the slider rails to the trailer and forces the suspension supplier to tool up for the wider sub-frame. These are costly changes and will be reflected in the price of the trailer. Also, some trailer manufacturers are concerned that they will lose floor strength in the center of the trailer due to the wider rails and sub-frame.

Reyco Granning is offering a simple solution - use the 83.5" trailer axles with one of our 48" wide slider sub-frames. You may be asking, "If it's that simple, why doesn't everyone just offer longer axles with their regular sub-frame?" Ray Mueller, VP of Engineering for Reyco suspensions, replies, "The answer has to do with where the load is actually carried on the axle. One model of our air ride slider uses trailing spring beams in conjunction with the air springs. The effective load carrying centers of this particular suspension (the model 86AR) is closer to the outside edges of the sub-frame than a rigid trailing beam suspension. The 83.5" track axle does have to be de-rated in its load carrying capacity, but it's still above the legal limit for a tandem suspension. A pair of 5.8" (nominal) wall axles which would normally be rated at 44,000 lbs. GAWR would be de-rated to 42,480 lbs., and a tandem of 1/2" wall axles would be de-rated to 38,160 lbs., still above the 34,000 lbs. legal limit."

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One additional factor to consider: A 48" slider sub-frame could be converted back to traditional 77.5" axles and run duals again. A 54" sub-frame means you're committed to super singles for the life of the trailer. The information covered here might be your deciding factor in switching to super singles. Now you know you can have fuel savings, weight savings, and the reduced wheel costs without giving up roll stability and trailer floor strength.

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