

## Installation Instructions

### IMPORTANT:

- ◆ Reinforce trailer frame in section areas between front and rear axles. (Remember that each suspension hanger carries the combined share load of both axles at each side).
- ◆ Aeon rubber spring is factory pre-loaded. This pre-load will be lost if control arm pivot bolt loses its torque. In case of service, bolt must be re-torqued only when Aeon spring is fully loaded as per OEM instructions.
- ◆ Axle seats must be welded to axle after U-bolts are torqued. Do not weld U-bolts

### Procedure:

1. Mark frame rails where center of tandem (centerline of tandem axles) should cross frame (fig. 2).
2. Locate hangers on frame rails, opposite to each other. Mate inboard corner faces of each hanger with outboard corner faces of its corresponding frame rail (fig. 1). Move hangers along frame until center of hanger lines up with mark on frame rail at each side. Clamp hangers to frame.
3. Position axle on axle seats and install U-bolts around axle. Insert washers and nuts on the opposite side of control arm plate. Tighten nuts until snug. The arch (or camber) on axle must be facing up when trailer is right side up. Slide axle on axle seats and center it to trailer frame. Ensure that the contact area of U-bolts on axle is free of grease, oil, etc.
4. Install crossmember: Make a crossmember using a 2"x4"x3/16" structural steel tube section. The length of crossmember must be the measured width of trailer frame less 9 inches. Once installed, the wider side of the tube must be horizontal (or the narrower side be vertical). Locate crossmember between hangers with each end just below equalizer center bolt. Ensure hangers are perpendicular and crossmember is horizontal to bottom surface of trailer. Tack weld and then weld both ends of crossmember to hanger all around (fig. 1).

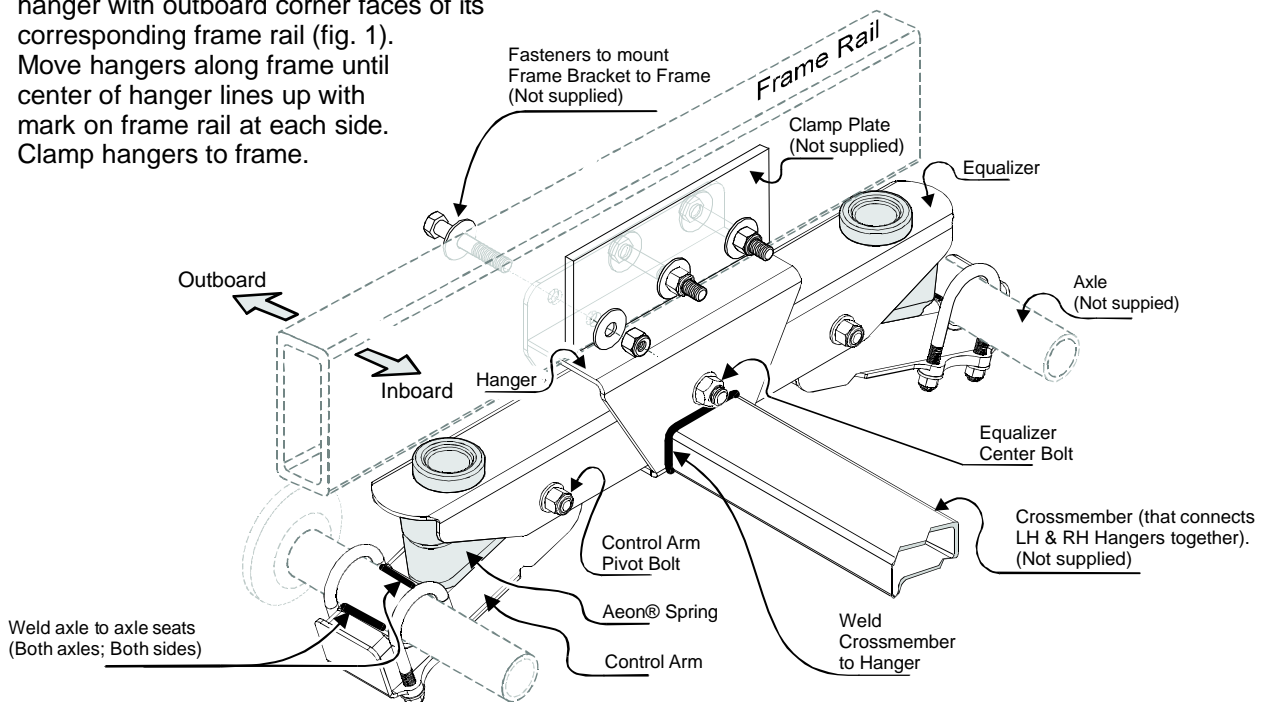


Fig. 1 Installation of suspension to trailer frame (one side shown only, perspective view from inboard)

## Installation Instructions

### Procedure: (Cont.)

5. To align axle, measure and compare distances "A" and "B" (fig 2) and make sure that the error (the difference between "A" and "B") is no more than 1/8". If the error is greater than 1/8" reposition hangers and recheck.
6. Once axles are aligned, torque U-bolts to 70-75 ft-lbs in a crisscross pattern. Drill three holes in the frame at each side using holes of hanger as a template. Use 5/8" UNF (grade 5 min.) bolts, lock-nuts, and 5/8" washers to mount frame brackets to frame (fasteners are not included). Torque mounting nuts to 165-175 ft.lbs. If trailer main frame is made from rectangular hollow sections, reinforce it by adding clamp plates to the inboard side of frame so that it does not collapse under compression of bolts.
7. Weld axle seats to axles (along axle only), as shown in fig. 1. Use 3/16" fillet weld.  
**DO NOT weld U-bolts.**
8. Remove clamps.

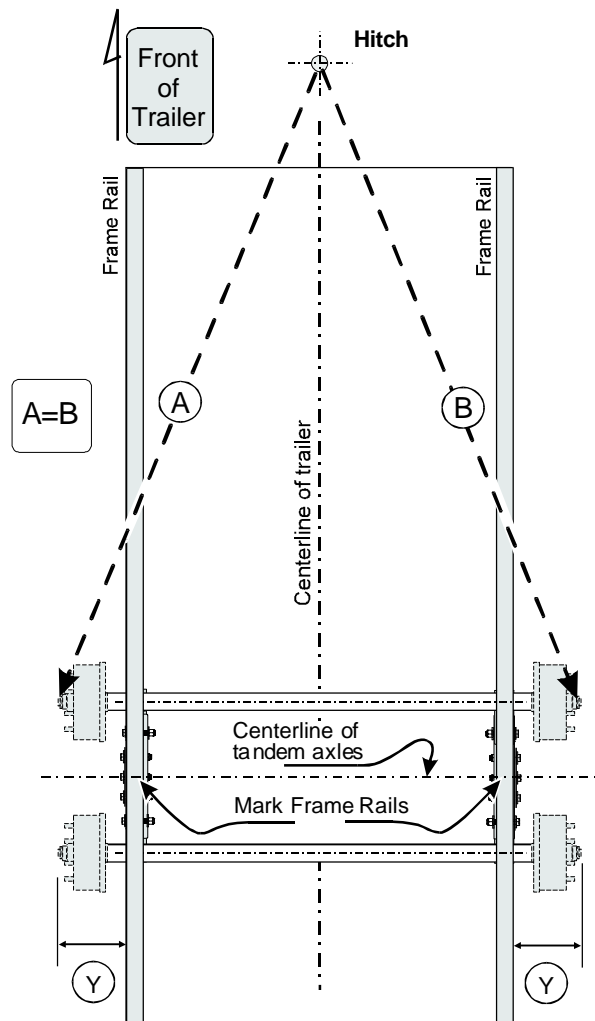


Fig. 2 Axle Alignment (View from the top)