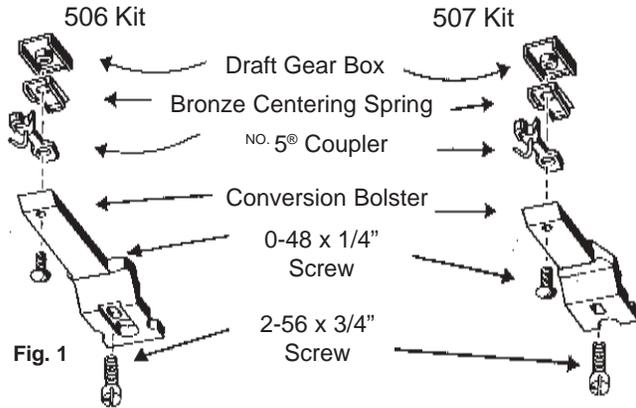




506 & 507 Conversion Bolster Instructions

506 bolster fits Central Valley 4 wheel passenger trucks.
507 bolster fits Central Valley 6 wheel passenger trucks.



CONTENTS: 2 ea Draft Gear Boxes, 2 ea NO. 5® Couplers, 2 ea Bronze Centering Springs, 1 ea Knuckle Spring, 2 ea Conversion Bolsters, 2 ea 2-56 Screws, 2 ea 0-48 x 1/4" Screws

Be sure that you read instructions thoroughly before you start and are using the correct conversion bolster on each type of truck, Fig. 1.

We recommend that you test to see if your C.V. trucks are equipped with nonmagnetic wheels and axles with a magnet before you install the Kadee® conversion bolster on your C.V. trucks. The later model of the C.V. trucks are equipped with nonmagnetic wheels and axles. If your wheels or axles are magnetic they should be changed in order to achieve proper results from the Kadee® Couplers. We recommend using Kadee® #521 36" Passenger Wheels. They are nonmagnetic, free rolling, highly detailed metal wheels mounted on a fully insulated tapered plastic axle. Each wheel has the RP-25 contour.

Installing Kadee® #521 36" Passenger Wheels on the older Central Valley 4 and 6 wheel trucks with magnetic wheels.

To remove the original wheels from the 4 and 6 wheel C.V. trucks, it will be necessary to remove the eyelet (rivet) that holds either side

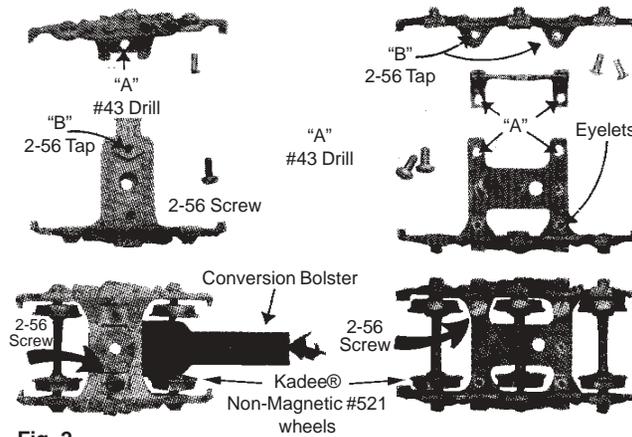


Fig. 2

frame to the C.V. truck bolster. Turn the truck upside down and drill off the small rolled over eyelet flange using a #43 drill bit (Kadee® #246 Tap and Drill set). To keep the eyelet from rotating while drilling, insert a #56 or #57 drill bit part way into the eyelet from the opposite side and hold it. After carefully drilling off the flange, the eyelet can be pushed out the other side. Now you should be able to remove the sideframe and wheels.

Refer Fig 2: Drill the holes shown as "A" all the way through using a #43 drill bit (Kadee® #246 Tap and Drill set). Do this by hand using the Kadee® #240 Pin Vice so as not to break the casting. **Note:** these holes differ on the 4 and 6 wheel C.V. trucks, so make sure before you drill. Next, tap the holes shown as "B" with a 2-56 tap. Clean away all burrs and metal particles then thread the 2-56 screws into the taped holes once before assembling. Add a little light lubricant to the screw to make it thread in easier and lessen the chance of breaking the metal parts.

Reassemble the truck side frames, putting in Kadee® #521 wheels. Add a puff of Kadee® #231 Greas-em to each axle journal first. Instead of the eyelets, one side of each truck will be held together with 2-56 screws. Cut off excess screw that sticks out above - (6 wheel truck) or below - (4 wheel truck) even with the bolster. It is safer and easier to measure and cut off screws before assembly.

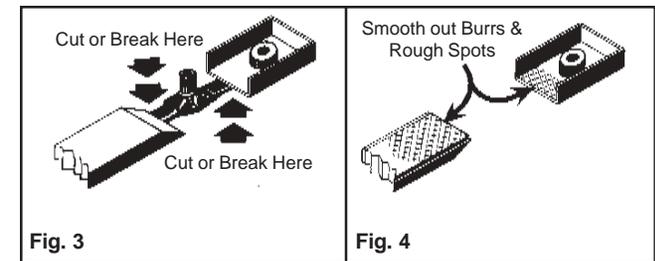


Fig. 3

Fig. 4

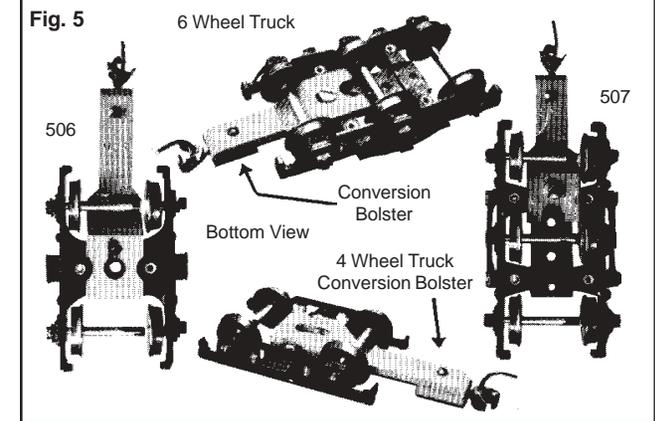


Fig. 5

1. Break or cut draft gear box from bolster at joints, Fig. 3. Remove all burrs and rough spots from these two parts. Give special attention to inside of draft gear box and bolster lip, Fig. 4.

2. Study Fig. 5 to see how bolster mounts on truck. If you have the later model C.V. 6 wheel trucks, (as shown) there will already be a hole drilled in truck bolster. Thread this hole with 2-56 tap (Kadee® #246 Tap and Drill set) then mount the conversion bolster to truck using a 2-56 screw. (If a 2-56 screw will not go through the slotted mounting hole in the conversion bolster, enlarge it enough so that the screw will pass through easily.) On some older model C.V. 6 wheel and 4 wheel trucks it will be necessary to drill a mounting hole in the C.V. truck bolster. **DO THIS AS FOLLOWS:** Slip conversion bolster under truck axle and onto the underside of the C.V. truck bolster - the truck should be upside down. Make sure the conversion bolster is centered and the hole in the bolster lines up with the hole in the truck, then make a mark on truck through the slot in the conversion bolster. This will be the position for drilling the mounting hole. The hole in the conversion bolster is slotted, so try to make the mark about midway.

OLDER STYLE

NEW STYLE

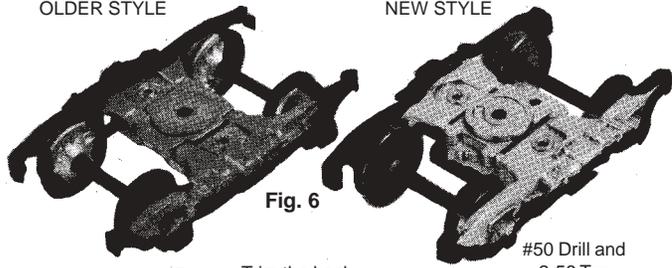


Fig. 6

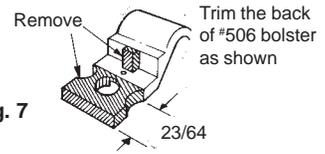


Fig. 7



Fig. 8

Remove the conversion bolster and drill a hole through the truck bolster using a #50 drill bit. Tap the hole with a #2-56 tap, and mount the bolster with the 2-56 screw. Cut off the excess screw flush with the C.V. truck bolster plate, but don't over tighten the screw. It's a good idea to carefully thread the screw into the hole once before actually mounting the conversion bolster.

The latest C.V. 4 wheel trucks have been redesigned with a thicker truck bolster which makes it necessary to modify the #506 conversion bolster. (Fig. 7) To determine which style of trucks you have, see Fig. 6. On the C.V. truck there are two bolster tabs, one on each side of the center mounting hole. On one of these tabs tap the existing hole with a 2-56 tap, Fig. 8. Mount the modified #506 conversion bolster to the C.V. truck bolster tab with a 2-56 screw. Cut off the excess screw flush with the C.V. truck bolster tab. Be careful to tighten the 2-56 screw just enough to hold the conversion bolster steady, over tightening may cause the threads to strip out.

3. After mounting the Kadee® conversion bolster on the C.V. truck, make sure it is centered sideways, then tighten the mounting screw. Next assemble the couplers and draft gear box, as shown in Fig. 9. **DON'T** attach the draft gear box to the conversion bolster arm with screw yet! It should snap-fit well enough to install the C.V. truck with conversion bolster to the car for determining the correct coupler & draft gear box positioning. Slide the draft gear box assembly forward or backward along the

bolster until the coupler head has enough sideways clearance that it doesn't hit the car when rounding corners. The approximate position is to line up the top of the trip pin with the outermost edge of the car, Fig. 10. When the correct position is found clamp the draft gear box to conversion bolster arm to keep it in position, then drill through the hole in the draft gear box just enough to mark the conversion bolster arm with a #56 drill bit (Kadee® #1059 Tap and Drill set). Remove the coupler and draft gear box then finish drilling through the conversion bolster arm with a #51 drill bit. Doing it this way will allow the 0-48 x 1/4" self tapping screw to pass through the hole in the conversion bolster arm and thread into the draft gear box. Try the screw once before assembling the coupler. Cut off any excess conversion bolster arm that extends out beyond the draft gear box, Fig. 11. Assemble the #5 coupler, centering spring and the draft gear box as shown in Fig. 9. Add a puff of Kadee® #231 Greas-em to the inside of the draft gear box for smoother operation.

An alternate method of attaching the draft gear box to the conversion bolster arm is to cement it. Carefully apply styrene cement to the joints where the draft gear meets the conversion bolster arm (use a small brush or toothpick). The capillary action will allow the cement to flow along and into the joints. Take care not to get any cement inside the draft gear box, this will ruin the coupler centering action. Lightly clamp

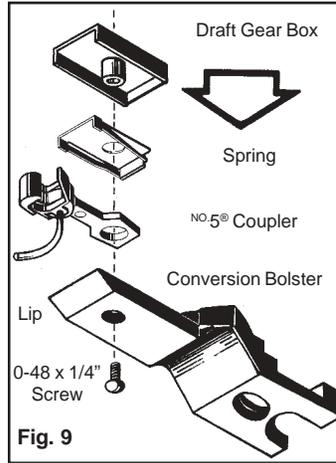


Fig. 9

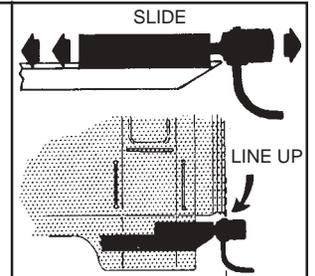


Fig. 10

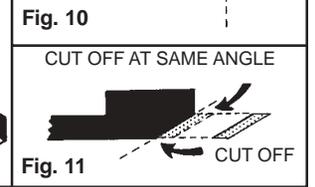


Fig. 11

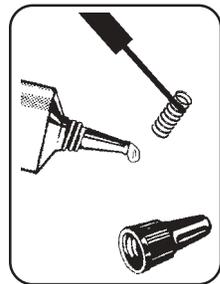
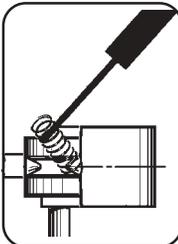
parts together until dry.

Use the Kadee® #205 Height Gauge to check for the correct coupler height and trip pin clearance. Place it and the car or locomotive on a straight and level piece of track with the couplers together. Be sure they are the same height. For optimum operation the trip pin should just clear the bottom plate of the height gauge and not be less than 1/64" above the Magne-Matic® uncoupler (between .015" and .020") and not less than 1/32" above the rail. You can use .015" and .020" thick pieces of plastic placed on the #312 and #321 Magnetic Uncouplers to check trip pin height. Use our #237 Trip Pin Pliers to carefully adjust the trip pin. Following these procedures will result in excellent delayed uncoupling action.



To replace a Knuckle Spring use a Kadee® #235

Spring Pic and insert the tip between the last two coils of one end of the Knuckle Spring then carefully dip the last two coils of



the other end into a drop of DUCO or Testors type of cement before installing on the coupler. Slip the end with the cement over the small spring post of the knuckle, compressing the spring until it can be slipped over the spring post of the shank releasing the compression until the pick can be withdrawn. Too much

cement can wick into the other coils or knuckle hinge rendering the coupler inoperative. Due to the extreme wicking (capillary) action of the CA glues they are not recommended for this procedure.



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