#### <u>STEP 1.</u>

Get coach safely off the ground with jack stands in place. Remove tires & rims. Remove drums. Remove backing plates. Leave parking brake cables attached but remove hydraulic lines.

With the self-centering 82° countersink tool provided in the kit, countersink the four holes in each spindle until a 3/8 FHCS no longer is above the face surface of the spindle face. Slow & <u>HEAVY PRESSURE!</u>





Included in the kit is a piece of PVC pipe to help with applying force to quickly perform the countersinking function.

Slip the PVC pipe over the spindle and insert the nail thru the pipe and thru the cotter pin hole. Take the length of wood provided and slip it over the pipe. Place your drill motor in the position shown. Mark an identification spot to drill a 1/4" hole. Insert a 1/4" bolt thru PVC to act as a stop for the wood lever. You now have a fulcrum point to apply force on the drill motor.

The 82° countersink operates best and lives the longest at a slow speed. 300 rpm or less. Insert the countersink fully into your chuck Make sure that you **exert plenty of force** thru the wood lever. With high pressure the countersink will peel off material easily.

#### STEP 2.

Install the trunnion carrier with four  $3/8 - 16 \ge 1/2$  FHCS in the holes that were coutersunk in previous step. Add a drop of permanent thread locker to threads and tighten with a 7/32 Allen-hex wrench. *Torque to 35 ft/lbs*. The trunnion is loosely attached as shipped. *Don't tighten the trunniobn 1/2* hex bolt until step 7.



1/2-13 nut is loose until step 7

#### STEP 3.

Force the inside bearing plate onto the trunnion and reinsert (4) 5/16 fasteners finger tight, into the top separator as step 4 is completed.



### STEP 4

Apply a small amount of grease on the surface of the mylar spacer on the contact surface that mates to the spindle. Place the bearing plate on the spindle.



#### Install bottom separator with (2) 5/16-20 X 4" HH bolts, lock washers and nuts. Leave these loose -- Do not tighten Step 5

Remove the (4) 3/8-16 jam nuts installed on backing plate side of torsion box. Pre-install the hydraulic brake line on the rear side of the backing plate. The elbow of the hydraulic line should be offset just enough to clear the bleeder valve. Orient the backing plate with wheel cylinder in the 12 o'clock position. Load the backing plate onto the (4) studs. Apply a drop of permanent thread locker to all four studs. Install (4) 3/8 jam nuts that were removed earlier and tighten.

### **Torque to 25 Ft/lbs**

12 O'clock



# The mounted rotating backing plate should now look like this. (Note: Not all brake components are shown)

Wheel cylinder at 12 O'clock position



## STEP 6

Locate (3) hex nuts place into brake drum groove adjacent to the OD. A piece masking tape will hold them in place. Make the rounded bottom of nut reach the bottom of the groove. Place one nut at 12 O'clock, one nut at 4 o'clock and one nut at 8 o'clock. *Do not use more than (3nuts).* 



Put rounded side of nut down in the slot, flat side up.



# Step 7 Very important step

Install brake drum on spindle with the wheel bearings installed and tighten castellated nut to 35 ft lbs. The backing

plate is now held perpendicular and true to the spindle and bearings.

Tighten all bolts in the top separator and bottom separator to 35 ft lbs. This locks the torsion box in desired running position.

The 1/2-13 HH bolt shown in **Step 2** can now be tightened to 40 ft lbs. *This completes the torsion box alignment to spindle and trunnion.* 

REMOVE THE DRUM, THEN REMOVE THE 1/4 NUTS FROM THE GROOVE. DUH!

## STEP 8

INSTALL BEARING SPACER AGAINST THE BEARING STOP SURFACE. MAKE SURE THAT THE SPACER IS ORIENTED WITH THE RED FACE (CHAMPERED SIDE) TOWARDS THE STOP FACE.



SPACER DESIGN VARIES