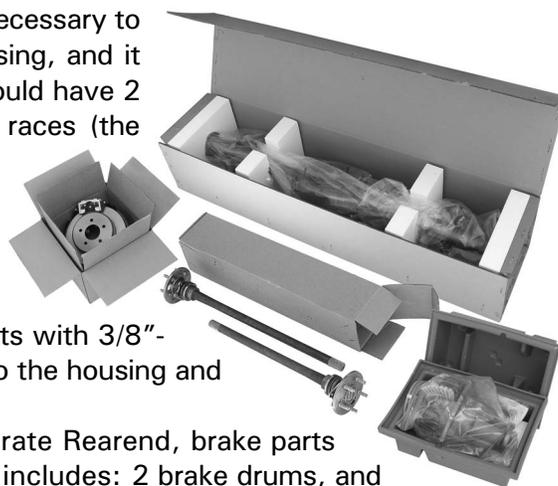


CURRIE-BUILT[®] CRATE REARENDS

ASSEMBLY INSTRUCTIONS FOR CURRIE BUILT 9" CRATE REARENDS

FIRST: Inspect all parts to make sure you have everything necessary to put a complete rearend together. You should have the housing, and it should have 10 center section studs pressed into it. You should have 2 axle shafts, 2 axle bearings, 2 axle seals, 2 axle bearing races (the bearings, races, and seals come stuck together as one unit), 10 wheel studs pressed in the axle faces, and 2 gold axle bearing retainer plates. You should have a complete 9" Ford 3rd. member, a 3rd. member gasket, 10 aluminum 3/8" 3rd. member washers, and 10 3/8"-24 nyloc nuts for 3rd. member. Also included in this package will also be 8 "T" bolts with 3/8"-24 stover nuts that are used to bolt the brake assemblies to the housing and the axles into the rearend.



If you've purchased brakes from Currie along with your Crate Rearend, brake parts will include the following items. 11" drum brake package includes: 2 brake drums, and 2 fully assembled backing plate units - a right hand and a left hand. 11" Explorer disc brake package includes: 2 disc brake rotors, 2 disc brake calipers with pads, 2 disc brake spacer rings, 4 black caliper mounting bolts, and 2 fully assembled disc brake backing plate assemblies with drum style parking brake - a right and a left. To tell right hand from left hand on the drum brake backing plates, inspect the hole where the parking brake cable enters the backing plate. When the brakes are installed these holes should be on the bottom side of the plates, and the holes should face the front of the vehicle. To tell right hand from left hand on the disc brake backing plates, inspect the cast in loops on the backing plates where the parking brake cable attaches. When the brakes are installed these cast loops should be on the top side of the plates, and the loops will be to the front side of the rearend.

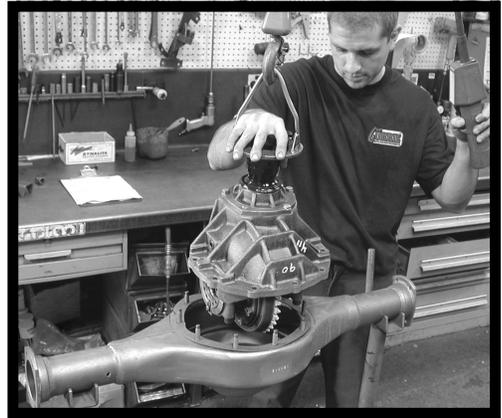
Being that this rearend is ABCS (Aftermarket Brake Configuration Standard) compliant, you may also choose one of any number of kits supplied by Baer Racing, Wilwood, or Stainless Steel Brake Corp. These companies can all supply bolt on kits based on the ABCS, just let them know that you are installing them on a Currie Crate Rearend with late model large bearing housing ends, a 2.500" brake space dimension, a 2.800" center axle register hub dimension, and an axle face dimension of 6.250" on car rearends and 6.500" on Jeep & Bronco rearends.

Unit Assembly

Step 1) Housing: Before assembly you will need to thoroughly inspect and clean the housing as it is coated with a thin layer of WD40 to protect it in shipping. Now you may either paint or powder coat the housing as it is bare when you receive it. When painting or powder coating, be sure to mask off all of the housing's machined areas to protect them from damage AND to protect them from getting painted or powder coated.

Step 2) 3rd. Member: Now take your 3rd. member, and - on traction lock 3rd. members only - you will need to look into the splines on the driver side of the posi traction unit. You will notice that there are 2 sets of splines back to back with a seam between them - one is the splined side gear, and one

is the posi traction clutch hub. What you will be inspecting is that these splines are aligned so that the axle will slide through both of them without any interference. If they are misaligned, we will outline how to address that later. On all other differential types - this is not an issue. Once this is done, you will take your 3rd. member gasket, put a thin layer of black RTV on one side of it and slide it onto the 3rd. member studs - RTV side down. Once you have this done, apply another thin layer of black RTV to the top side of the gasket. Now you will install the 3rd. member assembly. You will put an aluminum washer and a 3/8"-24 nyloc nut on each 3rd. member stud. Tighten these bolts in a criss-cross fashion - start with top center, bottom center, right side, left side, and so on so that the 3rd. member pulls down and seats evenly. Snug all of the nuts down and reinspect the seating of the 3rd. member before final tightening. Torque all nuts to 40 ft. lbs.



Step 3) Axles: Refer to the illustration on the last page of this instruction sheet during this step. Install the drum brake backing plates or caliper mounting brackets onto the housing ends - taking note of right hand and left hand side on these components. Use the supplied 3/8"-24 "T" bolts and slide them in from the back side of the housing end and through the holes in the backing plates or brackets - but do not put the nuts on them just yet.

Press the bearings onto the axle shafts. If you are using drum brakes, you only need to install the gold retainer plates. If you are using Explorer disc brakes you will also need to install the disc brake spacer ring between the gold retainer plate and the axle bearing seal - again, see diagram on the last page of this instruction sheet for correct order of installation of these parts. NOTE: Other manufacturer's brake kits need to be addressed on a kit by kit basis for this step!

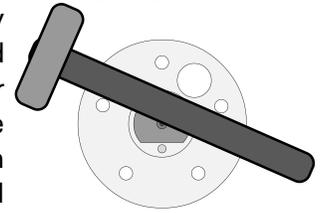
Before installing the axles, you will want to apply some grease around the outside of the axle seal, and a small amount in the splines does not hurt.

Now take the long axle - which will be the right hand or passenger's side axle, and slide it into the passenger's side axle tube. You will feel it catch the splines in the center and continue to slide in. Index the bearing race in the housing and guide it into the housing end bore. When the axle seal reaches this housing end, make sure the axle is lined up squarely with the bearing bore in the housing end, support the axle shaft vertically, and tap the axle shaft in the center of the axle face with a mallet to install it. The grease on the seal will help it to slide in freely. You may have to give the axle several firm hits with the mallet to seat it all the way into the housing. Once the bearing race has bottomed out in the housing end you will feel a definite stop and the axle shaft will not go in any further. At this point all of the rubber on the outside of the seal should no longer be visible.

Take the gold retainer plate that is on the axle and slide it over the 4 "T" bolts that are protruding through the brake backing plate or caliper bracket. Install the 3/8"-24 stover nuts on the threads and tighten in a corner to corner fashion. These nuts will start getting very tight before the bearing retainer plate fully seats against the bearing retaining plate. This is when the corner to corner torquing becomes critical. This last little bit when the nuts get tight is when the plate is compressing the sheet metal of the seal inward and spreading it outward into the bore so that it's outer rubber ring will tightly seal to the bore. With careful corner to corner torquing and taking your time - this is no big deal at all. Final torque on the nuts is 40 ft. lbs. You may notice a slight bend in the retainer plates after this procedure is done - this is normal.

***Helpful Hint:** If for any reason you do not think the bearing race has seated all the way in the housing end, or if the axle will not turn after tightening the T-bolts, you can check this by putting some white grease on the end of the axle shaft and sliding it back in until it stops again. Pull the shaft back out, and if the axle is hitting in the center preventing proper installation, you will be able to see this on the white grease. At this point you may decide to trim a bit of length off of the end of the axle shaft to allow it some clearance on the differential center pin. You will repeat the axle installation

process for the driver's side axle, but this is where the double splines will be readdressed. If your double splines from Step 1 were aligned properly, you will have no problem just going ahead and proceeding with the install of this axle shaft. If the splines were slightly misaligned, you will want to insert the axle into the first set of splines, and then, with someone to help you, you will want to take 2 hammer handles or the like, one on each side, and put them across the face of the axle (see diagram at right) between the wheel studs, and then you will want to turn the axles in opposite directions from each other and jolt them a bit which will allow the clutch pack to slip, and the splined side gear to align with the clutch hub. This will then allow you to slide the axle the rest of the way in through the second set of splines and finish the installation of the axle shaft.



Step 4) Brakes: Install the brake drums by sliding them on over the wheel studs and making sure they seat solidly against the face of the axle and that the index hub in the center of the axle indexes properly into the hole in the center of the brake drum. For discs, install the rotors by sliding them on over the wheel studs and making sure they seat solidly against the face of the axle and that the index hub in the center of the axle indexes properly into the hole in the center of the rotor. Examine the calipers and notice that one end of the pads has a "hook" on the end of it and the opposite end has more of a "C". The end with the "C" should be installed onto the backing plate first, and then the end with the "hook" will swing into position and stop when the "hook" contacts the backing plate. You will now take the long black caliper mounting bolts and put them through the back side of the caliper and bolt the caliper onto the backing plate.

For installation of all other brake kits - follow the brake kit manufacturer's installation instructions.

***Helpful Hint:** If you have chosen to install a Wilwood brake kit with the drum style e-brake - follow the instructions supplied with the Wilwood kit. However, for optimum performance and to prevent axle seal leakage problems from insufficient seal compression, replace the Wilwood bearing retainer plate that is included with the kit with the Currie heavy duty plate, part #CE-9005TW. This plate is designed specifically for use with the Wilwood kit to replace the thin sheetmetal plate included in Wilwood's kit that allows for insufficient sealing, and annoying fluid leaks.



CE-9005TW

At this point, basic assembly is finished.

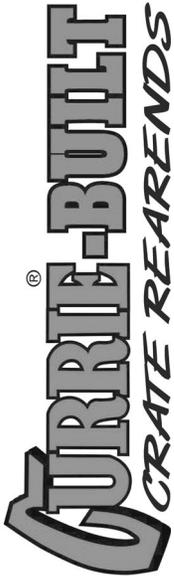
Step 5) Final Details: Installing the unit in the vehicle varies per car so we will not cover that here. Once the unit is installed however, you will want to remove the pipe plug in the driver's side of the gear case to fill the unit with oil. The unit has a 3 quart oil capacity - do not put any more than 3 quarts in the unit or it will leak out. You will want to use only a good name brand 85-140 weight gear oil such as 9-Plus oil, Torco, Kendall, or Valvoline. Never use any type of synthetic oil, synthetic blend oil, store brand oil, or Sta-Lube brand oil. For posi-traction/traction-lock equipped units, you will need to install one bottle of traction lock additive fluid. This can be obtained through 9-Plus, or through the Ford dealership parts department. In the case of an Auburn posi-traction GM traction lock additive must be used from the GM parts department.

The housing is vented via the nipple on the top of the axle tube outboard of the center section. You must remove the rubber cap from this nipple and install a hose on this nipple for venting. The opposite end of the hose needs to be routed upward out of harm's way. The end of the hose needs to be stuck into a dead area of the frame or body where it can vent freely, but the air and/or water blowing under the car at road speed cannot blow across the end of the hose.

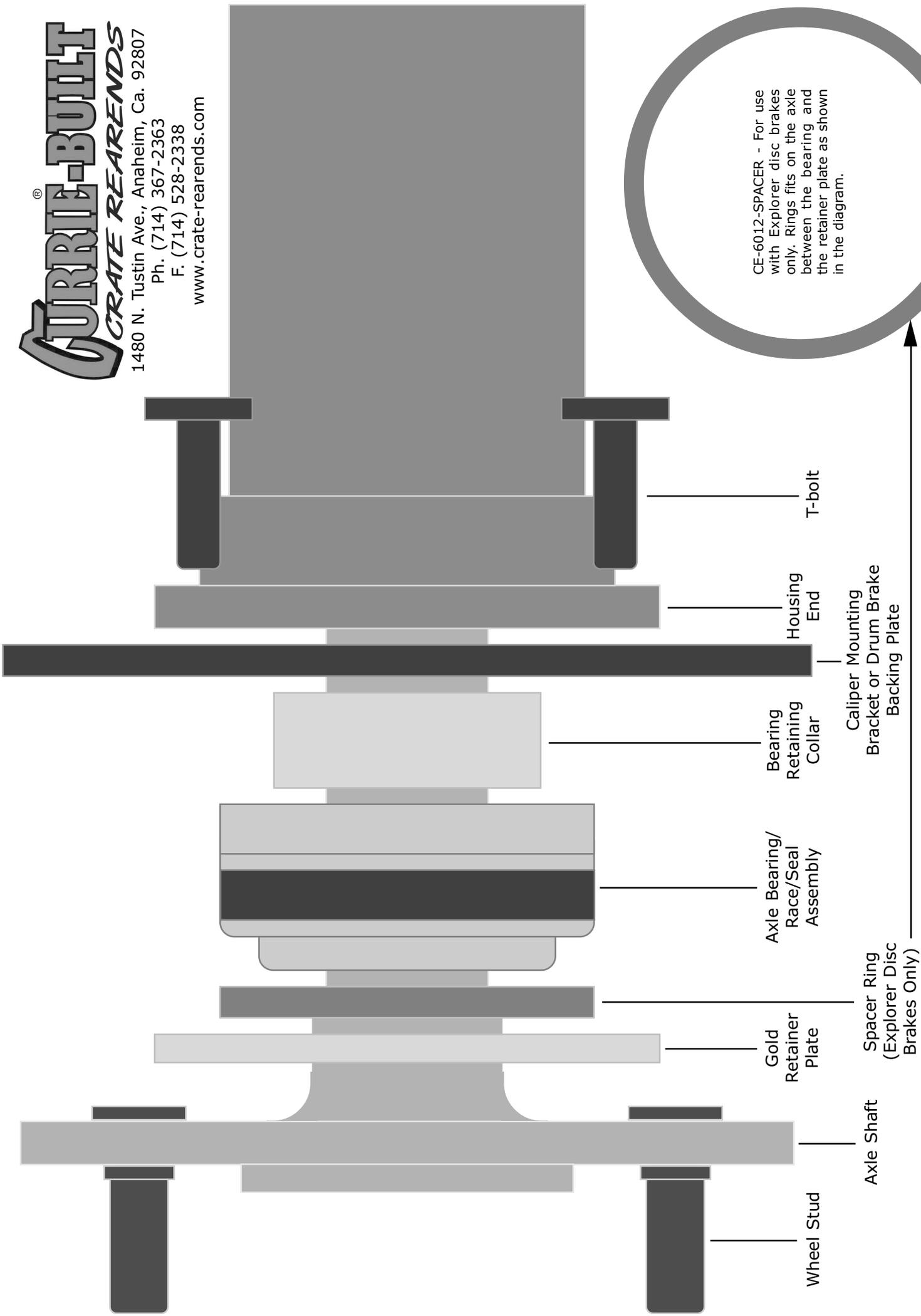
If you have any questions during the assembly of this Currie Built 9" Crate Rearend, please feel free to contact our technical staff at any time during our business hours. M-F 7:00 AM to 4:45 PM P.S.T.



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CE-6012-SPACER - For use with Explorer disc brakes only. Rings fits on the axle between the bearing and the retainer plate as shown in the diagram.

Brake Installation Diagram - Drum & Explorer Disc