

# Model 20 Jeep Axle Kits

Installation Guide Page 1

# EVOLUTION SERIES



## Congratulations On Selecting The Finest Model 20 Axle Kit Available!

Please take the time to read these instructions. A shop manual is also recommended. Please follow ALL safety precautions when working on your vehicle. The use of jack stands, eye protection and proper tools is strongly recommended.

### Important!

Confirm you have the correct kit before disassembly. Measure from inside backing plate to centerline of differential (reference Figure 1). Compare your measurements to chart "A" below to confirm you have the correct kit (LENGTHS ARE APPROXIMATE - HOUSINGS MAY VARY SLIGHTLY. You will find the Model 20 Kit Part Number on the end of your box). THIS KIT WILL NOT WORK WITH THE POWERTRAX NO-SLIP UNIT IN A TRAC-LOCK-CALL SUPERIOR AXLE & GEAR FOR DETAILS.

## Disassemble

1. Remove differential cover.  
Drain oil. Please recycle used oil.
2. Check for a "PowerLock" differential. If there are 4 spider gears and 2 side gears, and the differential case is bolted together, it is a PowerLock. If it is a PowerLock, call Superior for instructions. A differential with a Powerlock unit requires different length axles, which may or may not be available. If there is not a PowerLock installed in your differential, continue with the installation.
3. Disconnect parking brake cables from brake assembly and backing plate. Now loosen the nut on the axle until almost off. (Don't remove the nut completely yet, it will act as a stop when the hub pops off.)
4. Using the proper hub puller, carefully remove the hub and then the axle nut. Disconnect the brake line at the backing plate. Don't forget to cap or plug the brake line to avoid leaking brake fluid.
5. Remove the 4 bolts from the backing plate. Remove your Jeep's original protective guard. Remove the outer seal/retainer. Remove the backing plate. (Mark Left and Right on each side's backing plate for easier re-assembly.) Remove original shims. Save these shims. (If your housing end is out of spec, you may need these later). Removing brake shoes makes assembly easier. (You may want to leave one side assembled for use as a reference when re-assembling.) Repeat on other side.
6. Tap on axle with a mallet to remove the opposite axle. Repeat. Remove original axles. Remove original inner seals. Discard. Clean the housing ends, original protective guards and backing plates. You are now ready to assemble.

Figure #1

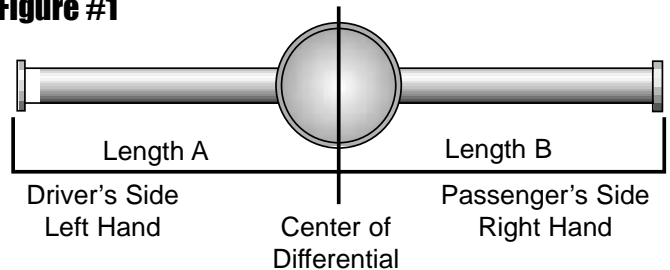


Chart "A"

### Measure Your Axle Tube Housing To Confirm The Kit Part # Before Installing

Length A	Length B	Kit Part #
21 3/4"	34 3/4"	EV20E
23 15/16"	27 1/6"	EV20L
29"	17 1/2"	EV20Q

You will find the Model 20 Kit Part Number on the end of the Superior Axle & Gear Kit Box.



# Model 20 Jeep Axle Kits

Installation Guide Page 2

# EVOLUTION SERIES



## Congratulations On Selecting The Finest Model 20 Axle Kit Available!

Figure #2

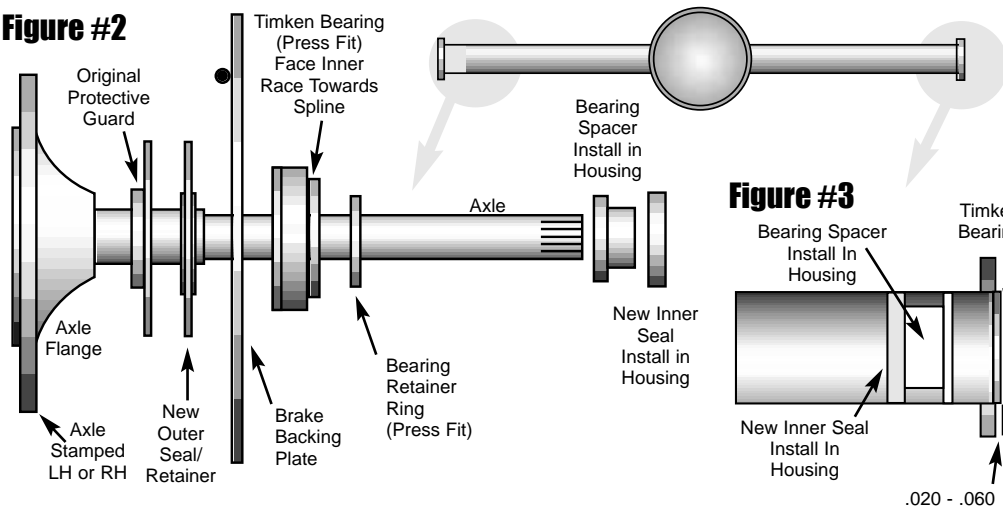
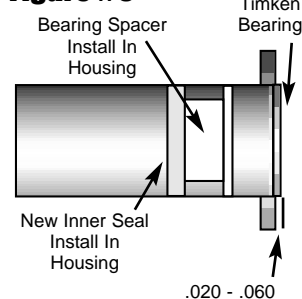


Figure #3



### All EV20 Kits Include:

- 1 Long axle
- 1 Short axle
- 2 Bearing spacers
- 2 Bearing retainers
- 10 Threaded wheel studs
- 2 Inner axle tube seals
- 2 Outer axle seals/retainers
- 2 Axle bearings
- 1 Tube of Loctite

## Assemble

- 1.** Install threaded wheel studs in axle flanges with supplied thread locker. Torque to 65-75 ft./lb.  
Install inner seal in to axle housing end. Use a seal installation tool to ensure no damage to seal. Seat against shoulder in housing. Apply a small amount of oil or grease on seal surface.
- 2.** Install Bearing spacer in to axle housing end. (Reference Fig. 3) Be sure spacer fully seats in housing. **WITHOUT** the axle shaft installed, test fit bearing in to housing end. Be sure bearing is installed as in Figure 2 with the inner race facing towards the center of differential. Make sure bearing is against bearing spacer. Bearing should protrude .020 to .060 beyond housing end. (Reference Fig. 3) If more than .060 extends beyond housing, remove bearing spacer, then evenly grind bearing spacer OR use original shims to "lengthen" housing end until these measurements are achieved.
- 3.** Remove bearing for step 4. Slide the original protective guard on to axle. Axles are identified LH (Drivers) and RH (Passenger) on the edge of the axle flange. Put a small amount of oil on outer seal / retainer and slide on to axle.
- 4.** Slide the corresponding backing plate on to the axle. Be sure brake shoe side faces the axle flange. Pack the bearing with high-quality EP wheel bearing grease then press the bearing on to the axle. Be sure bearing is installed as in Figure 2 with inner race facing the axle splines. Use a press suitable for axle bearings. Most auto parts stores or repair shops can press these safely. Do NOT use a hammer.

- 5.** Press bearing retainer ring on to axle. Press tightly against bearing. Use a press suitable for axle bearings. Most auto parts stores or repair shops can press these safely. Do NOT use a hammer.
- 6.** Apply a small amount of RTV silicone on housing end and outer seal / retainer. Slide axle assembly in to housing. Align splines and gently tap into place. Align backing plate, seal / retainer and housing end holes. Install bolts and tighten.
- 7.** Check for smooth rotation of axle with no bind. Re-assemble brakes. Install parking brake cable. Install brake line. REPEAT for other side.
- 8.** IF the axles bind upon installing the second axle - Call Superior Axle & Gear at (323) 268-4151. This indicates either a housing dimension problem or differential center block interference.
- 9.** Check brake fluid and bleed brakes. Replace differential cover. Add high quality gear oil.
- 10.** You're done! Enjoy the confidence you will have knowing these axles will get you home, on or off the road.

**CHECK LUG NUT TORQUE AFTER 50 MILES**

**After final Assembly, Bleed Brakes to Remove Air and Check Brake Fluid Level.**

**Superior**  
AXLE & GEAR

3954 Whiteside St., Los Angeles, CA 90063, (323) 268-4151 Phone, (323) 268-9085 Fax