

INSTALL INSTRUCTIONS



SUZUKI SAMURAI/JIMNY REAR WHEEL BEARING KIT

303901-3-KIT (1986-1995 SUZUKI SAMURAI)
(1990-1995 SUZUKI JIMNY JA11)
(1998-2015 SUZUKI JIMNY JB23, NON-ABS ONLY)

KIT CONTENTS



303900-3-INS

RECOMMENDED TOOLS

Screwdriver	Wheel Bearing Grease
Ball Peen Hammer	Removable Threadlocking Compound (Loctite)
Rubber Mallet	Degreasing Compound (e.g. Brake Cleaner)
Safety Glasses	Torque Wrench
Metric Ratchet & Socket Set	Respirator
Metric Wrench Set	Brake Bleeder Kit
Arbor Press	Metric Flare Nut Wrench Set
Bearing Separator	Oil Seal Puller
Cut-off Wheel or Die Grinder	Oil Seal Driver Set
Snap Ring Pliers	

CAUTION

1. Read all instructions completely and carefully before you begin. If anything is not clear, please call our tech support line at 1.877.4X4.TOYS or 559.252.4950 before proceeding.
2. Check to make sure the kit is complete and that no parts are missing (refer to the Kit Contents Section on the first page of these instructions). If anything is missing, please contact Trail-Gear at 1.877.4X4.TOYS or 559.252.4950.
3. Park vehicle on a clean, dry, flat, level surface and block the tires so the vehicle cannot roll in either direction.
4. This product is for off-road use only. It is recommended that the installation steps below be performed by a competent mechanic. Buyers and users of this product hereby expressly assume all risks associated with the installation and use of this product.
5. This installation is typical for most Suzuki vehicles. Some vehicles may vary. If necessary, refer to the proper Factory Service Manual for the year and model of your vehicle.



INSTALL INSTRUCTIONS (CONT'D.)

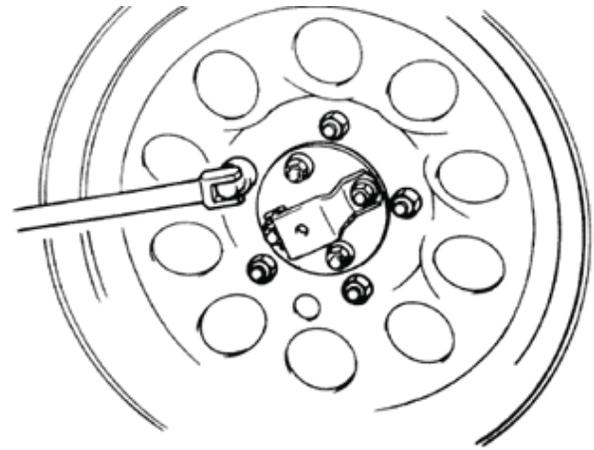


STEP 1

Loosen and remove the bolt holding the rear wheel center cap. Remove the center cap. Save the bolt and center cap for reinstallation.

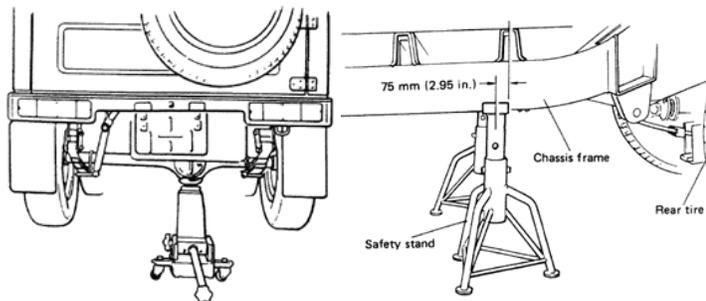
STEP 2

Loosen the lug nuts on both rear wheels.



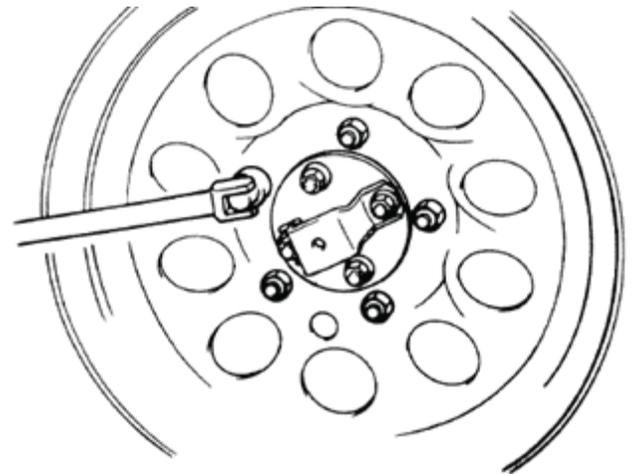
STEP 3

Place a floor jack under the rear differential and raise the rear end. Place Jack Stands under the frame on both sides of the vehicle. Remove the floor jack.



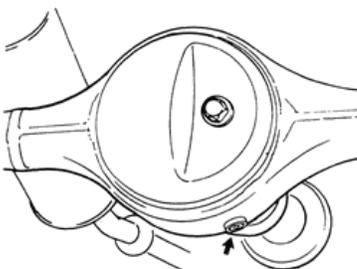
STEP 4

Remove the (5) lug nuts on the wheel. Remove the wheel. Save the wheel and lug nuts for reinstallation.



STEP 5

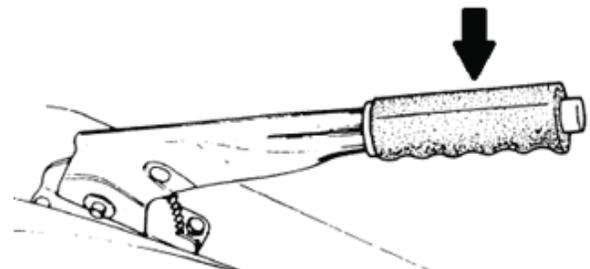
Place a drain pan under the rear differential. Loosen and remove the drain plug from the axle housing and drain the oil. Discard the used oil in accordance with all local laws. Many auto parts stores will accept used oil for little or no cost. Save the drain plug for reinstallation.



	NOTICE Dispose of used gear oil in accordance with all local laws.
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STEP 6

Make sure the parking brake is in the down position (parking brake off).



INSTALL INSTRUCTIONS (CONT'D.)



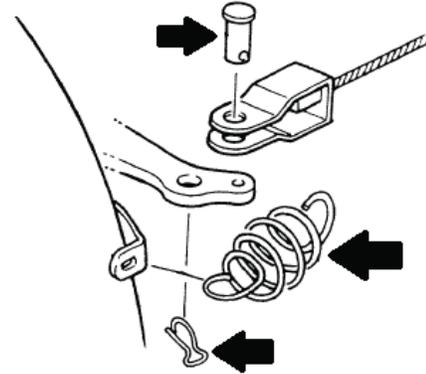
STEP 7

Some older brake pads contain asbestos. We recommend wearing a respirator while working on brake components to prevent inhalation of asbestos particles.



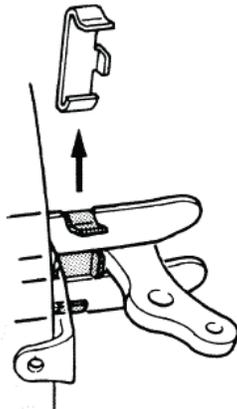
STEP 8

Remove the parking brake shoe lever return spring. Remove the cotter pin and the clevis pin from the parking brake cable joint. Save all parts for reinstallation.



STEP 9

Remove the parking brake shoe lever stopper plate. Save the stopper plate for reinstallation.

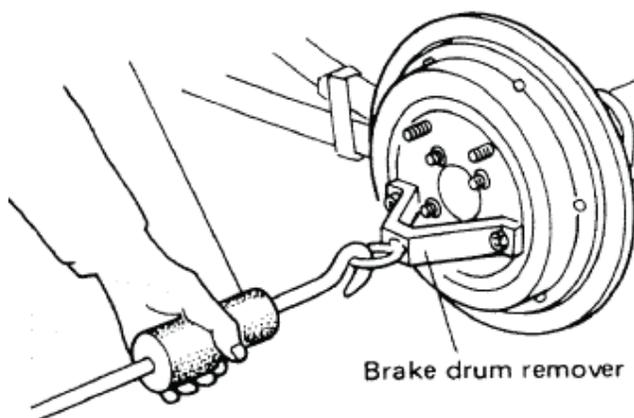


STEP 10

Loosen and remove the (4) axle nuts from the brake drum. Remove the center cap mounting bracket. Save the nuts and bracket for reinstallation.

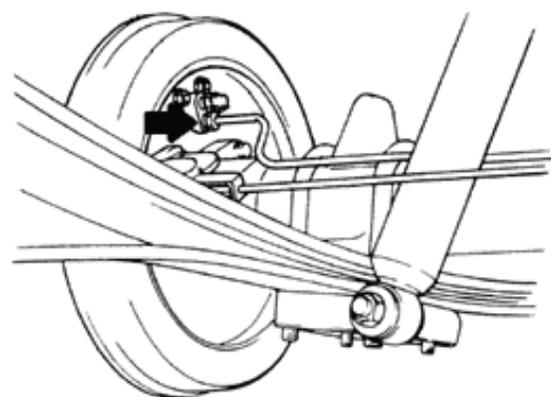
STEP 11

Attach a brake drum remover to the brake drum using (2) of the lug nuts removed in Step 4. Attach a sliding hammer to the brake drum remove and remove the brake drum. Save the brake drum for reinstallation.



STEP 12

Using a flare nut wrench, disconnect the brake line from the brake cylinder. Plug the brake tube to prevent brake fluid from leaking out. We recommend using a rubber plug.

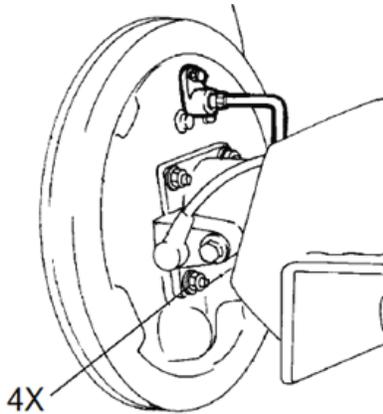


INSTALL INSTRUCTIONS (CONT'D.)



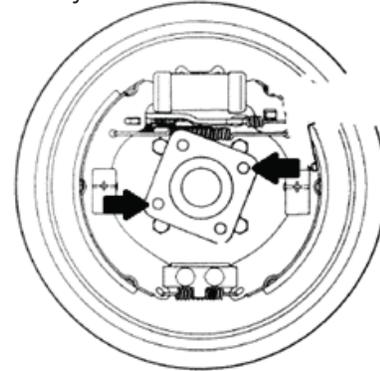
STEP 13

Remove the (4) backing plate bolts. Save the bolts & nuts for reinstallation.



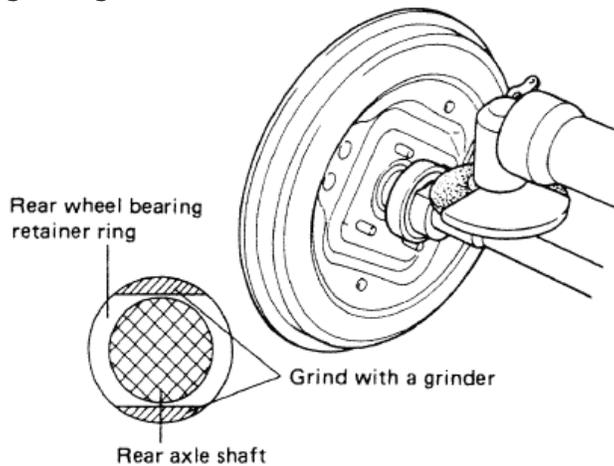
STEP 14

Attach a rear axle puller to the rear axle shaft. Attach a sliding hammer to the rear axle puller and remove the rear axle assembly.



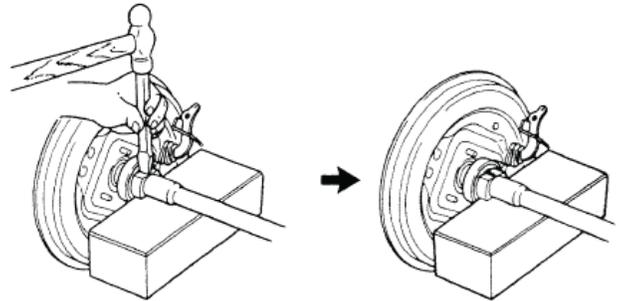
STEP 15

Using a grinder, grind (2) large flats onto the rear axle bearing retainer. **Caution: Use care to avoid grinding on the axle shaft.**



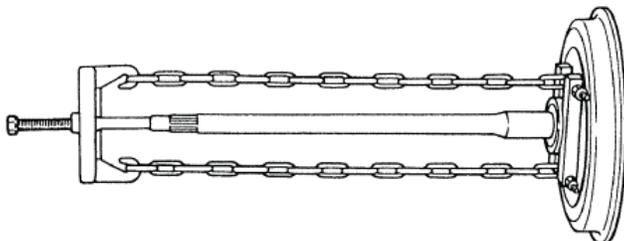
STEP 16

Place the axle shaft assembly over a wooden block. Using a ball peen hammer and chisel, carefully break the bearing retainer and remove the bearing retainer from the axle shaft. Discard the bearing retainer. **Caution: Use care to avoid damaging the axle shaft.**

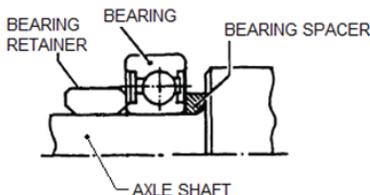


STEP 17

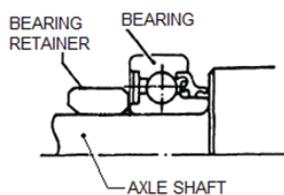
Using a bearing puller, remove the bearing from the axle shaft. After the bearing has been removed, remove the bearing spacer (if present). Discard the bearing and bearing spacer.



OLD BEARING STYLE

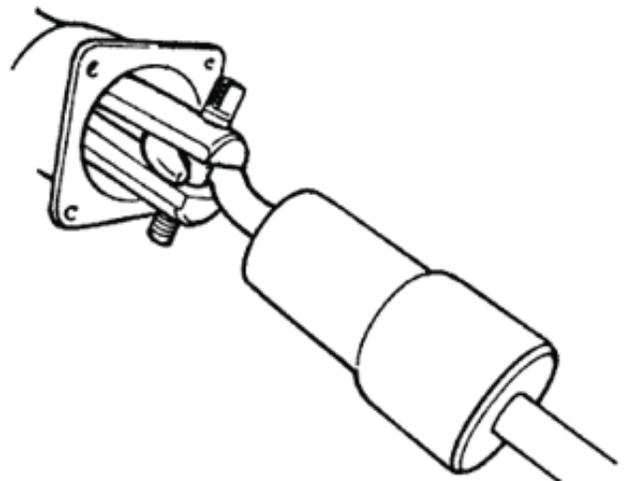


NEW BEARING STYLE



STEP 18

Using a seal puller, remove the rear axle seal from the axle housing. Discard the rear axle seal.

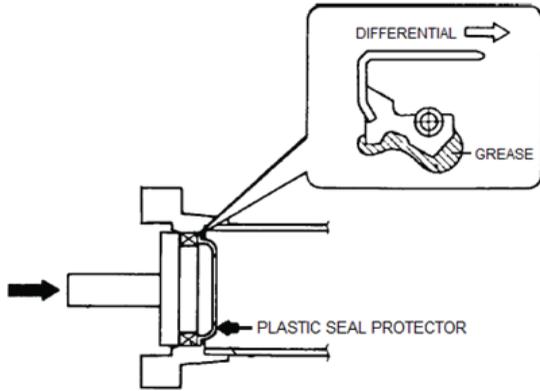


INSTALL INSTRUCTIONS (CONT'D.)



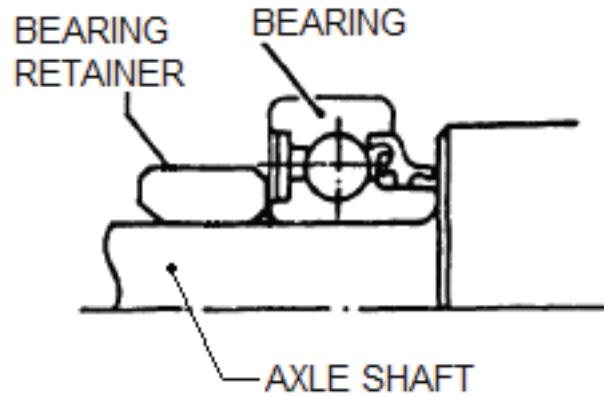
STEP 19

Make sure the oil seal protector is still correctly installed in the axle housing. Using a seal driver, install the new rear axle seal in the orientation shown below. After the seal is fully seated, apply wheel bearing grease around the inner lip of the seal as shown below.



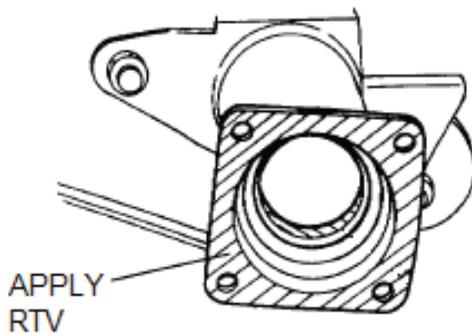
STEP 20

Install the bearing and bearing retainer on to the axle shaft using an arbor press. Make sure the bearing components are installed in the orientation shown below.



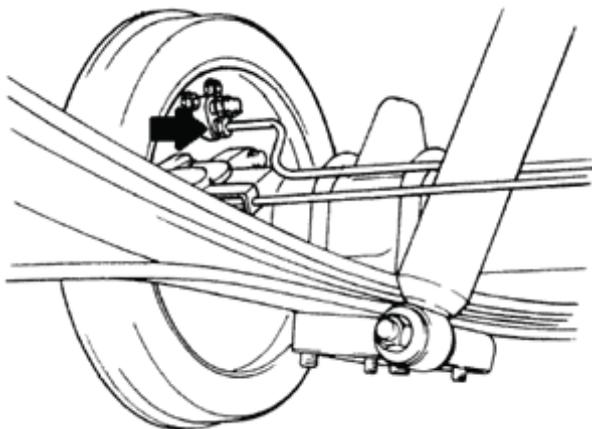
STEP 21

Apply RTV silicone sealing compound around the face of the axle housing flange. Insert the axle shaft assembly into the rear axle shaft assembly. Align the backing plate bolts with the holes in the axle housing flange. Tap on the drum to fully seat the bearings.



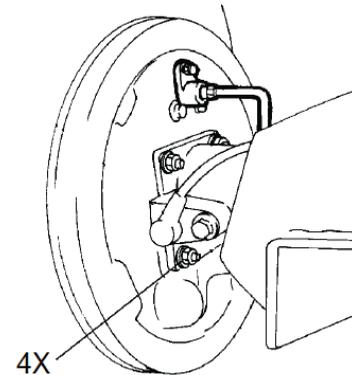
STEP 23

Using a flare nut wrench, reconnect the brake line to the brake cylinder. Torque the brake line nut to 10.5-13 ft-lbs (14-18 N-m).



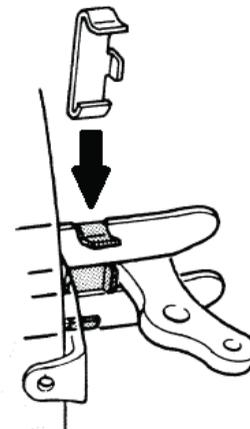
STEP 22

Apply blue (removable) Loctite to the threads of the backing plate nuts. Using a torque wrench, install the nuts onto the backing plate bolts and tighten each one to 13.5-20 ft-lbs (18-28 N-m).



STEP 24

Reinstall the parking brake shoe lever stopper plate.

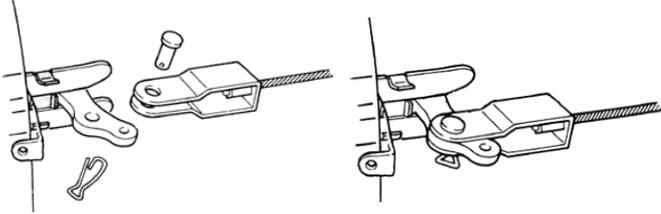


INSTALL INSTRUCTIONS (CONT'D.)



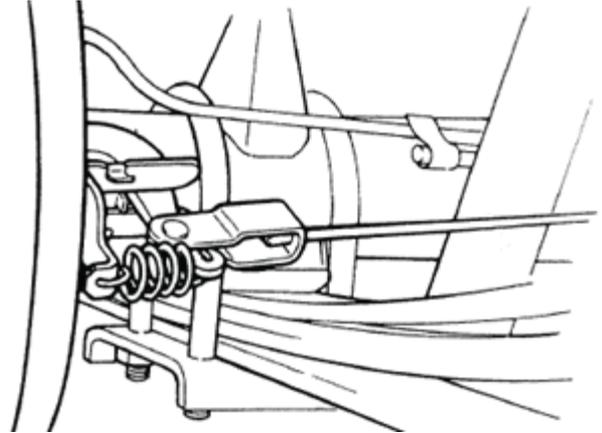
STEP 25

Reconnect the parking brake cable to the parking brake lever using the clevis pin and cotter pin removed in Step 8.



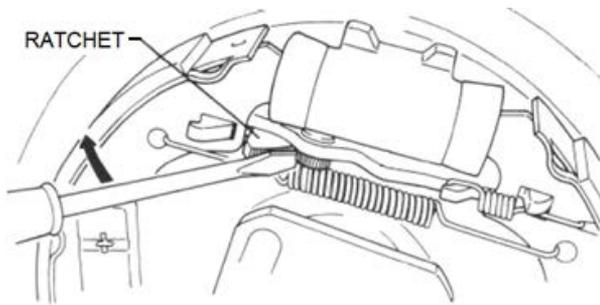
STEP 26

Using the spring removed in Step 8, reconnect the parking brake spring shoe lever return spring.



STEP 27

Using a flat-head screw driver, push down on the brake shoe ratchet as shown below to maximize brake shoe clearance.



STEP 28

Reinstall the brake drum back onto the axle.

STEP 29

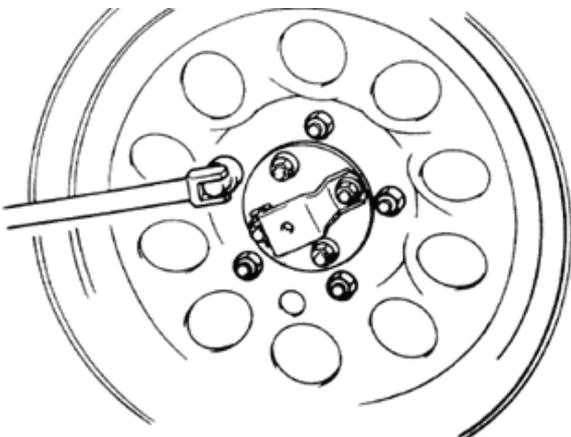
Reinstall the center cap mounting bracket back on to the axle. Reinstall the axle nuts and tighten to 36.5-57.5 ft-lbs (50-80 N-m) of torque.

STEP 30

Reinstall the wheel center cap.

STEP 31

Reinstall the wheel and the lug nuts.



STEP 32

If you purchased a second Rear Axle Bearing Kit, repeat Steps 1-31 for the other side of the rear axle. Otherwise, proceed to the next step.

INSTALL INSTRUCTIONS (CONT'D.)

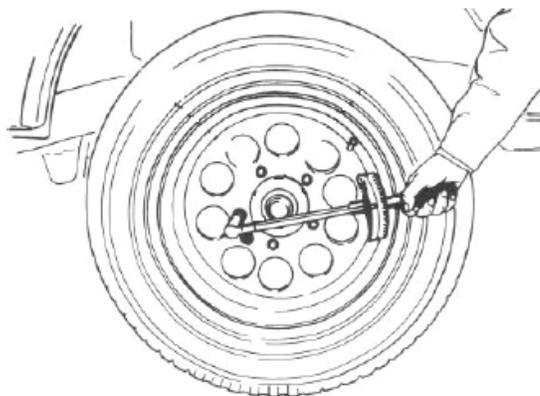


STEP 33

Jack up the rear end. Remove the jack stands and lower the vehicle.

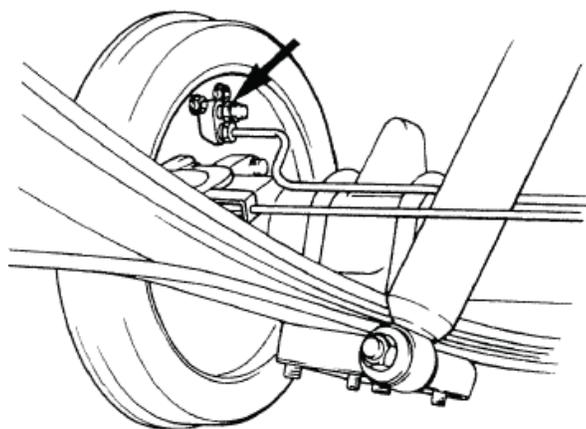
STEP 34

Torque the lug nuts on the rear wheel(s) to 36.5-57.5 ft-lbs (50-80 N-m) or to the torque specified in your Owner's manual.



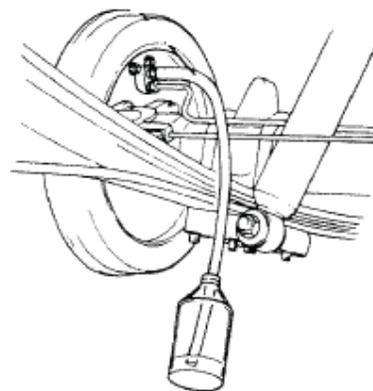
STEP 35

Remove the bleeder cap from the bleeder plug on the wheel cylinder on the left side of the rear axle.



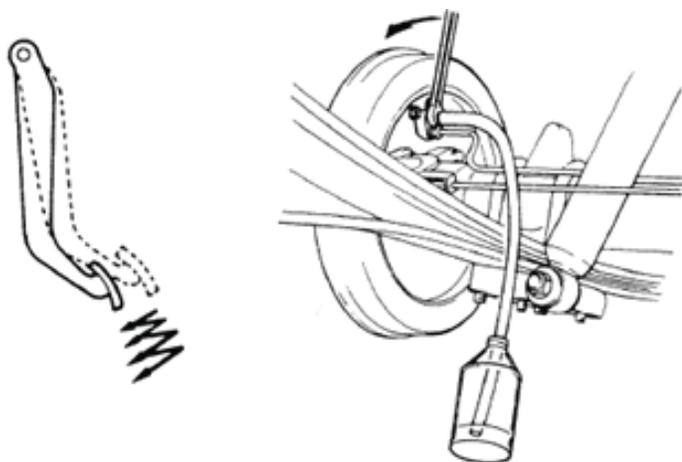
STEP 36

Attach one end of a plastic tube to the bleeder plug. Insert the other end of the plastic tube into a collection container.



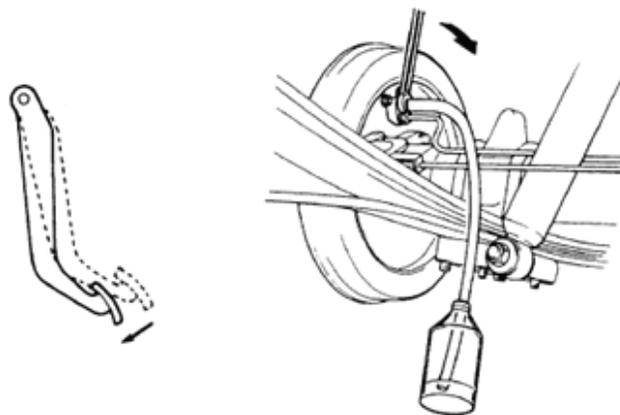
STEP 37

Pump the brake pedal several times. While holding the brake pedal depressed, use a flare nut wrench to loosen the bleeder plug approximately 1/3 to 1/2 of a turn.



STEP 38

When fluid pressure in the cylinder is almost depleted, retighten the bleeder plug.

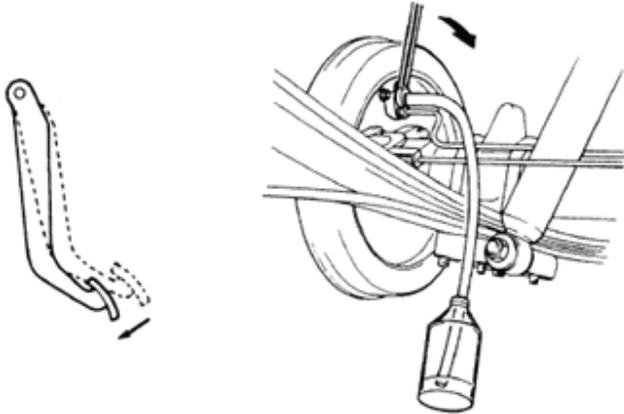


INSTALL INSTRUCTIONS (CONT'D.)



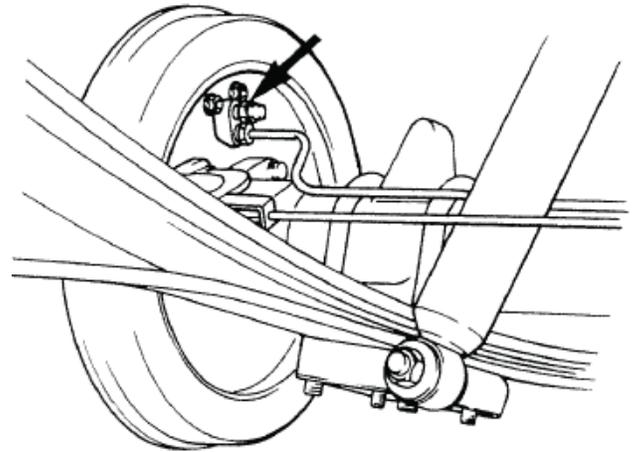
STEP 39

Repeat Steps 37 thru 38 until there are no more air bubbles in the brake line. Depress the brake and hold the brake pedal while tightening the bleeder plug.



STEP 40

Reinstall the bleeder cap removed in Step 35.



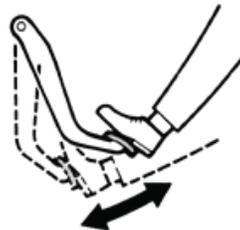
STEP 41

Check the brake fluid reservoir and fill with brake fluid as needed. Refer to your Owner's Manual for the correct brake fluid to use for your vehicle.



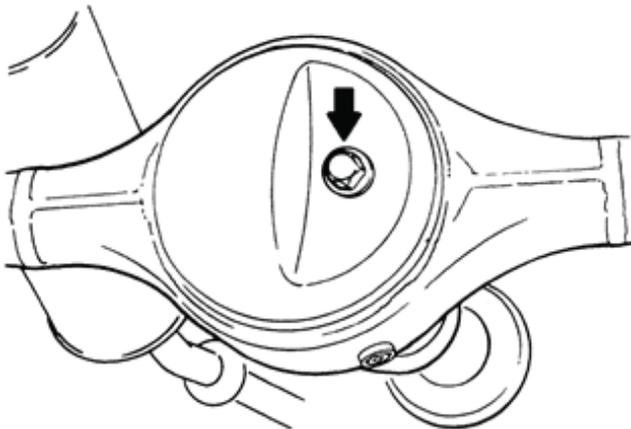
STEP 42

Pump the brake pedal. If the brake pedal has a spongy feel, repeat Steps 35 thru 41 until the brakes have been properly bled.



STEP 43

Reinstall the differential drain plug. Remove the fill plug and fill the transfer case with the API GL-5 SAE 75W-90 gear oil or the gear oil recommended in your Owner's Manual. Reinstall the fill plug. Using a torque wrench, torque the filler plug to 25.5-36 ft-lbs (35-50 N-m) and the drain plug to 13.5-18 ft-lbs (18-25 N-m).



STEP 44

Verify all bolts have been reinstalled and torqued. Take the vehicle for a short test drive and verify proper brake function. After the differential cools, recheck the gear oil level and add additional gear oil as needed.

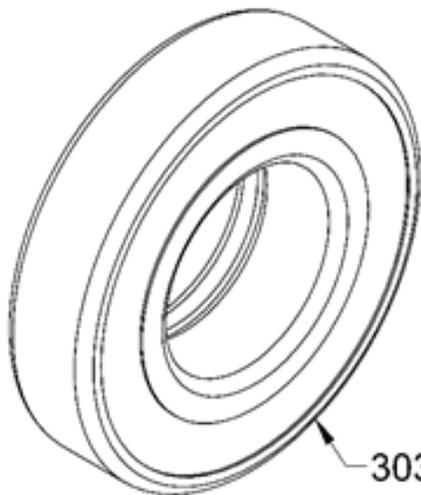
INSTALL INSTRUCTIONS (CONT'D.)



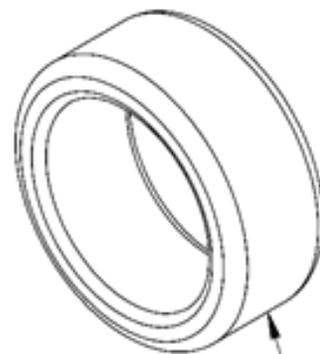
REPLACEMENT PARTS



303787-3



303789-3



303790-3