

Drive Axles, Bearings and Joints: Service and Repair

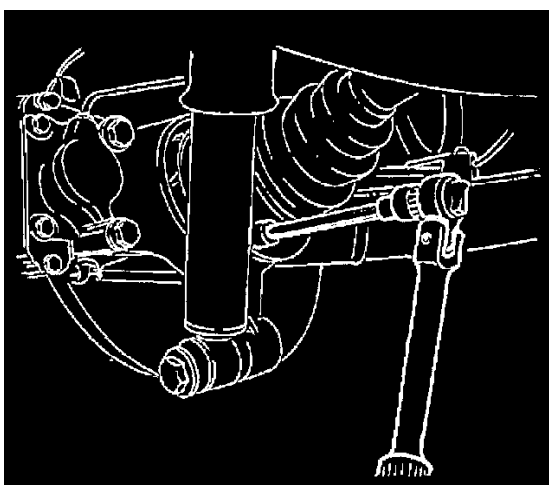
Rear Suspension

REMOVAL PROCEDURE

^ Tools Required:

- J 36660 Torque/Angle Meter
- J 42066 Holding Tool
- J 42094-1 Holding Fixture
- J 42094-2 Spacer
- J 42094-3 Threaded Driver
- J 42094-4 Threaded Arbor
- J 42094-5 Ball Head
- J 42094-6 Bearing Remover
- J 42094-7 Threaded Spacer Pin
- J 42094-8 Bearing Installer
- J 42094-9 Hub Installer
- J 42094-10 Thrust Bearing
- J 42072 Triple Hex Head (10 mm) Deep Well Socket
- Or Equivalents

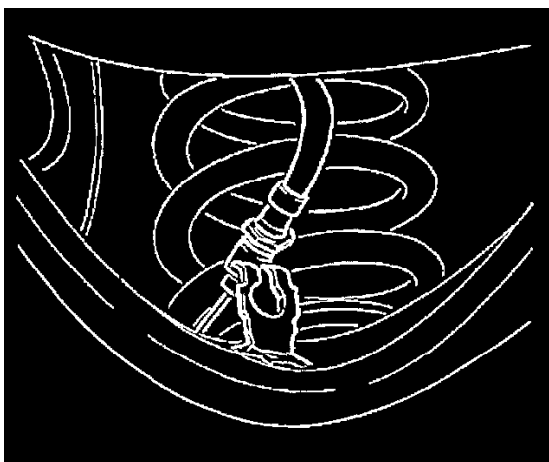
1. Raise and support the vehicle.
2. Remove the tire and wheel assembly.



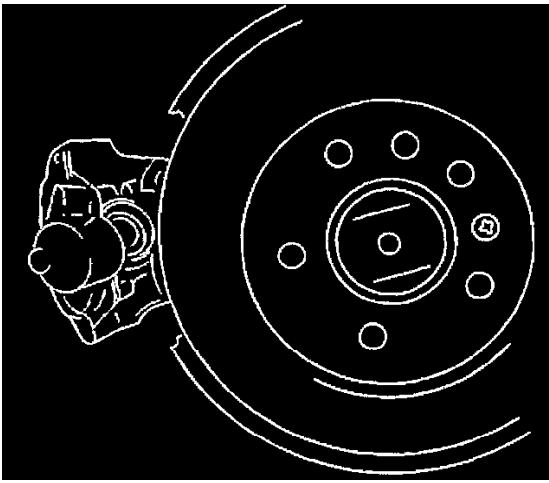
3. Use the J 42066 and use a 1/2 inch breaker bar to counter hold the rear wheel hub.

Important: DO NOT allow the drive shaft to hang freely. Suspend the drive shaft upward.

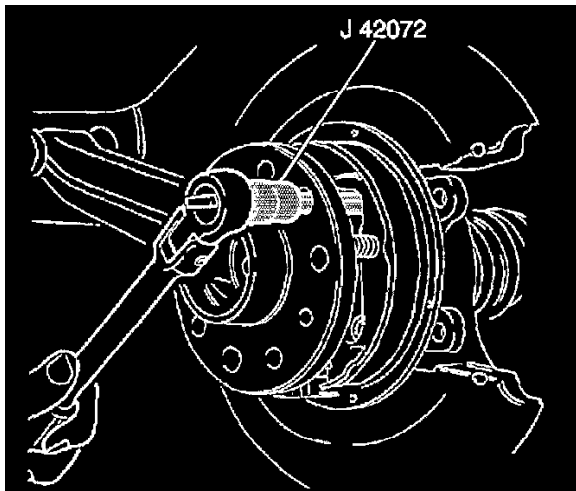
4. Remove the drive shaft bolts.
5. Remove the drive shaft from the rear wheel hub flange.



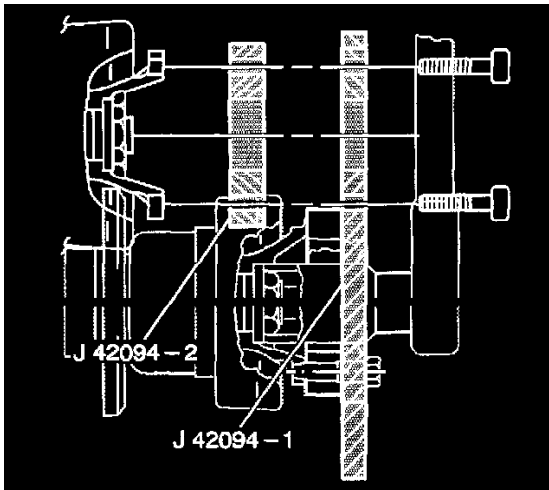
6. Remove the brake pipe clip from the lower control arm.
7. Remove the brake pipe from the lower control arm.
8. Remove the rear brake caliper.
9. Suspend the rear brake caliper. The brake system remains closed.



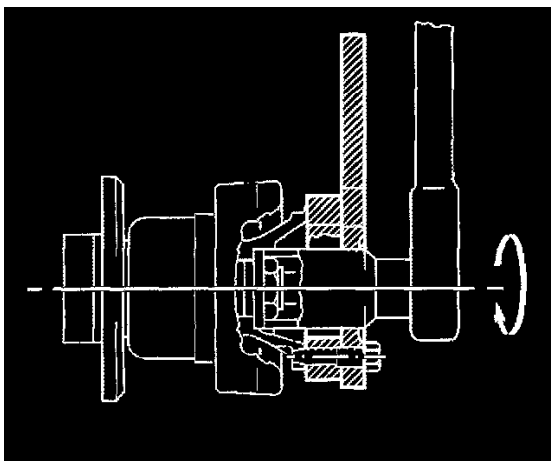
10. Remove the brake disc rotor set screw.
11. Remove the brake disc rotor. It may be necessary to back off the parking brake adjustment to remove the brake disc rotor.



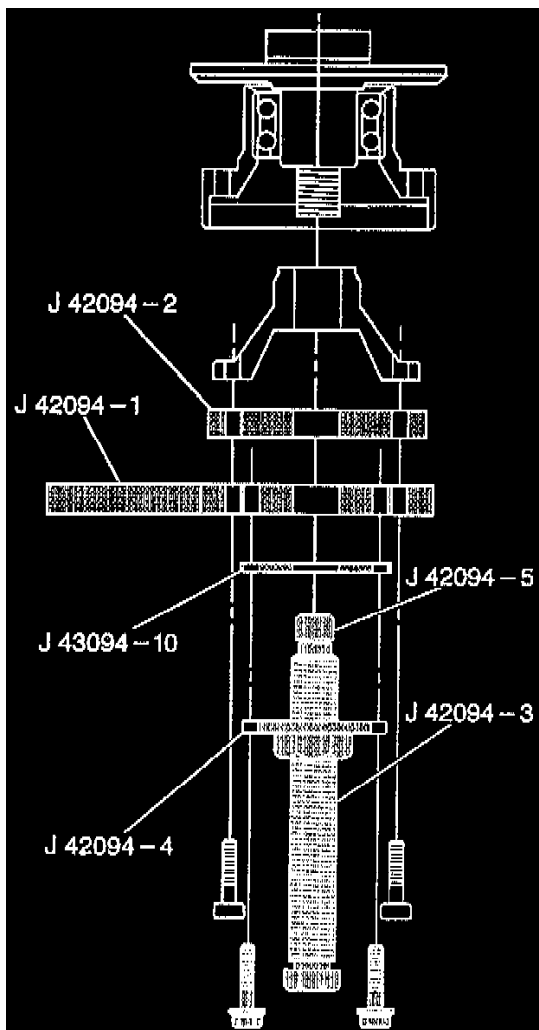
12. Use the J 42072 to back out three of the four brake backing plate bolts to approximately nine complete revolutions or about **12 mm (0.47 in)**. This will allow for the rear wheel hub puller pin installation.



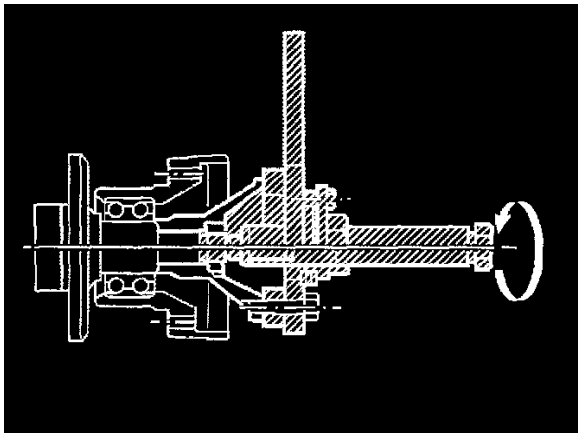
13. Attach the J 42094-2 and attach the J 42094-1 to the rear wheel hub flange to hold the rear wheel hub while removing the rear wheel hub nut. Use the drive shaft bolts if necessary.



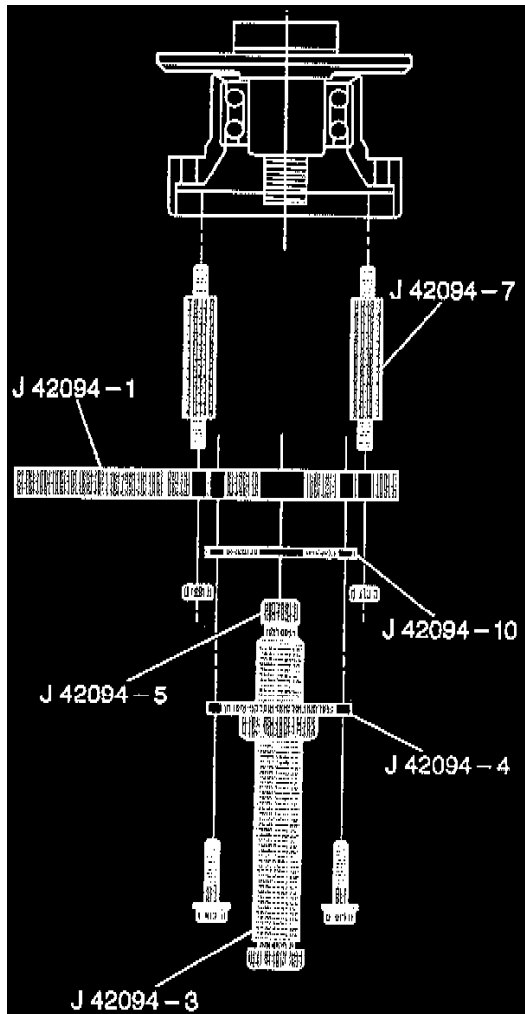
14. Remove the rear wheel hub nut.
15. Use the J 42094-10 as a spacer to attach the J 42094-4 to the J 42094-1 with the supplied three bolts.



16. Attach the J 42094-3 into the J 42094-4.
17. Place the J 42094-5 onto the J 42094-3.

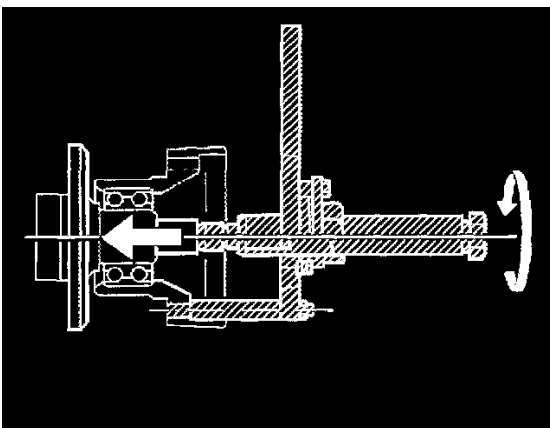


18. Turn the J 42094-3 to pull off the rear wheel hub flange.

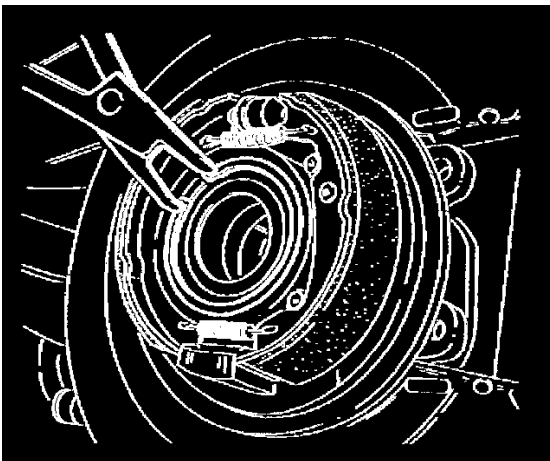


19. Screw the three J 42094-7 into the back plate.
20. Attach the J 42094-1, with the stem pointed upward, to the three J 42094-7.

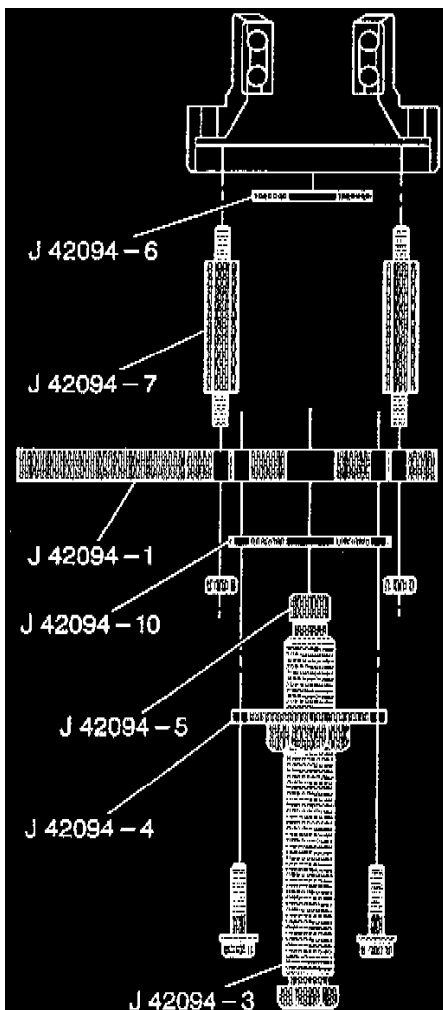
Important: Damage to the wheel bearing seal may occur when pressing out the rear wheel hub. Inspect the bearing seal prior to reinstallation of the rear wheel hub if re-using the old bearing seal.



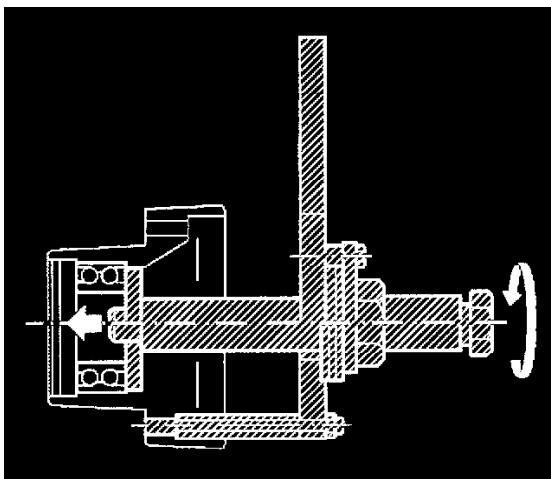
21. Use the J 42094-3 to press out the rear wheel hub.



22. Remove the wheel bearing retaining ring.

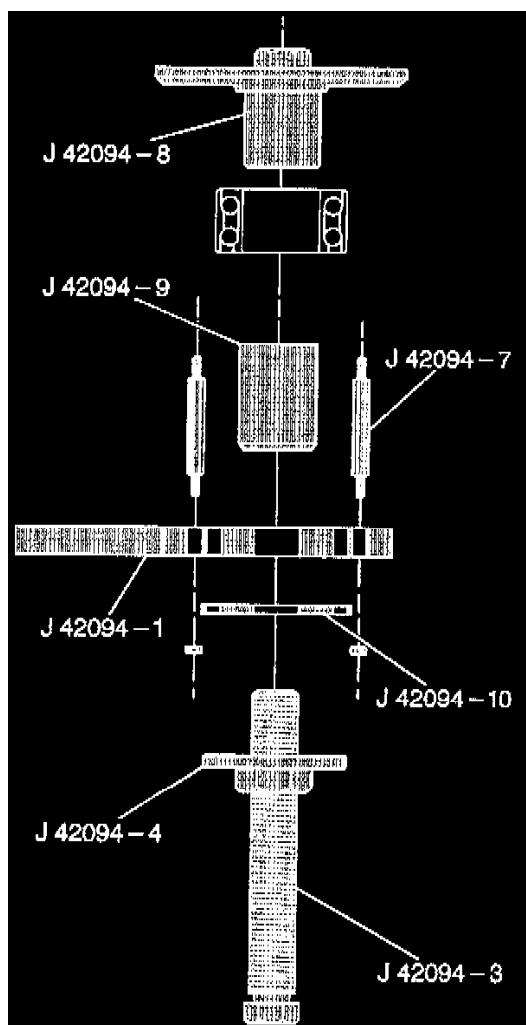


23. Attach the J 42094-6 to the end of the Threaded Driver.

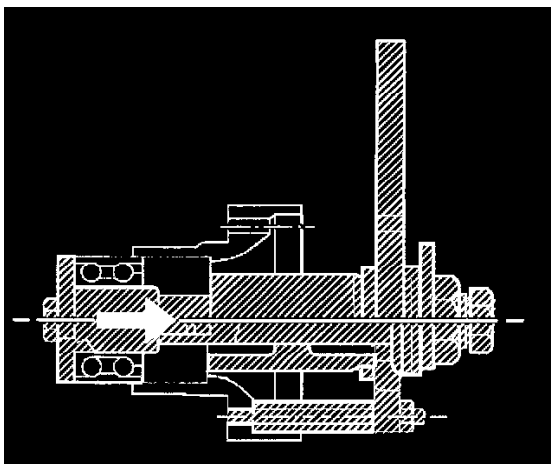


24. Turn the J 42094-3 clockwise to press out the wheel bearing.

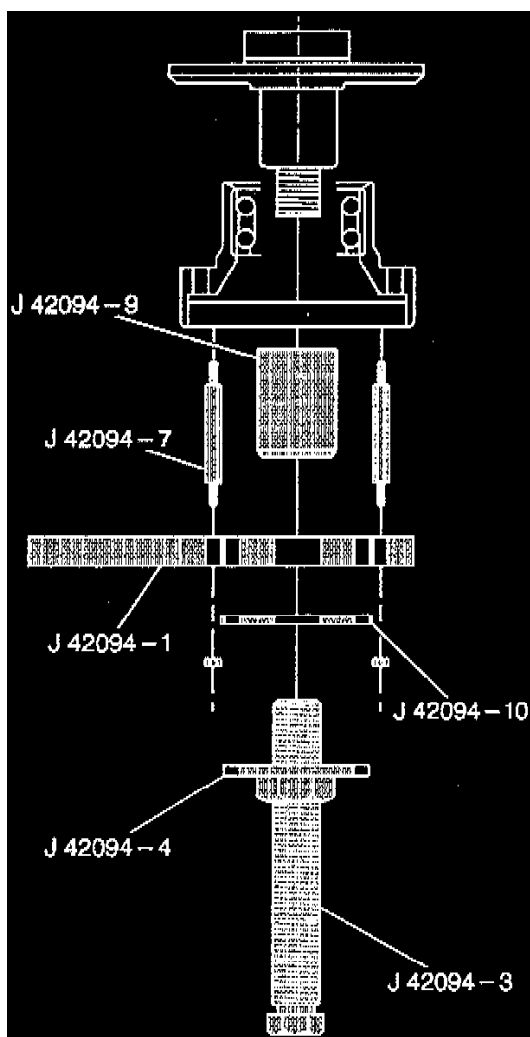
INSTALLATION PROCEDURE



1. Insert the J 42094-8 through the wheel bearing.
2. Thread the J 42094-8 into the J 42094-3.



3. Turn the J 42094-3 to pull the wheel bearing in until fully seated.
4. Install the wheel bearing retaining ring.

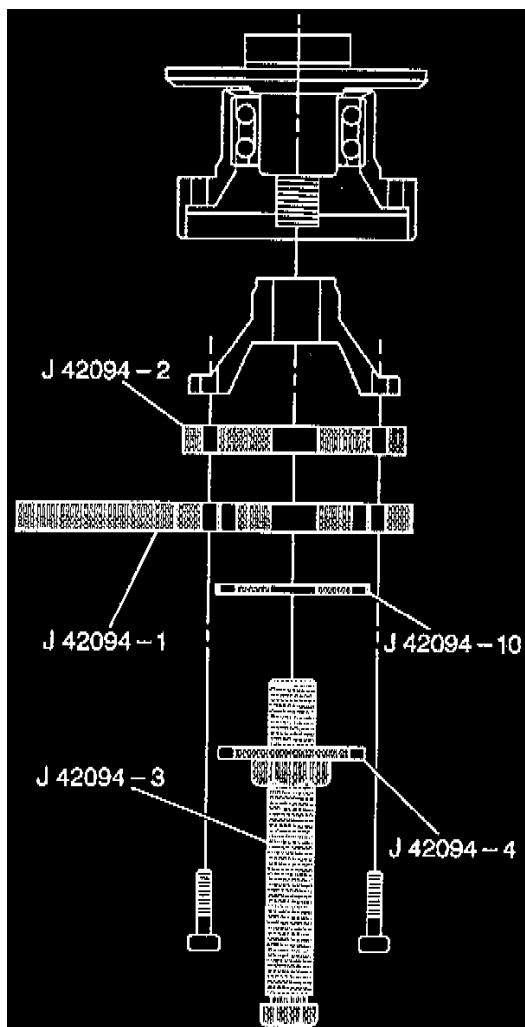


5. Insert the rear wheel J 42094-9 on the shaft of the J 42094-3. Ensure that the rear wheel J 42094-9 is on the inner ring of the wheel bearing.
6. Attach the J 42094-1 to J 42094-7.
7. Remove the supplied anchoring bolts from the J 42094-4.
8. Thread the rear wheel hub into the J 42094-3.

Important:

- ^ Center the J 42094-3 inside of the wheel bearing to prevent binding of the rear wheel hub while drawing it into the bearing.
- ^ Adjust the J 42094-7 if necessary.

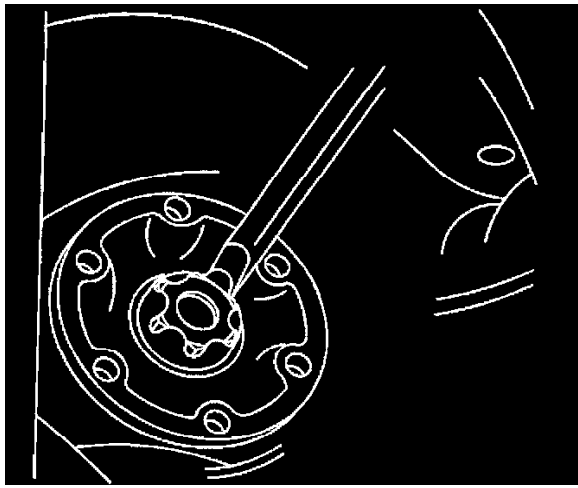
9. Draw the rear wheel hub into the wheel bearing by holding the J 42094-3 and turning the J 42094-4 clockwise.
10. Remove the tool assembly from the vehicle.



11. Use drive shaft bolts to connect the following special tools to the rear wheel flange:
 - ^ Connect J 42094-4.
 - ^ Connect J 42094-3.
 - ^ Connect J 42094-1.
 - ^ Connect J 42094-2.
 - ^ Connect J 42094-10.
12. Install the rear wheel hub flange to the rear wheel hub. Ensure the splines are aligned properly.
13. Press the rear wheel hub flange fully onto the rear wheel hub by turning the J 42094-4 clockwise and counter-holding with the J 42094-3.
14. Remove the following special tools:
 - ^ Remove the J 42094-4.
 - ^ Remove the J 42094-3.
 - ^ Remove the J 42094-10.
15. Leave the following special tools attached to the rear wheel flange:
 - ^ Leave the J 42094-1 attached.
 - ^ Leave the J 42094-2.

NOTICE: Use the correct fastener in the correct location. Replacement fasteners must be the correct part number for that application. Fasteners requiring replacement or fasteners requiring the use of thread locking compound or sealant are identified in the service procedure. Do not use paints, lubricants, or corrosion inhibitors on fasteners or fastener joint surfaces unless specified. These coatings affect fastener torque and joint clamping force and may damage the fastener. Use the correct tightening sequence and specifications when installing fasteners in order to avoid damage to parts and systems.

16. Install the rear wheel hub nut.
 - ^ Tighten the rear wheel hub nut to **300 Nm (221 ft. lbs.)**.
17. Remove the following special tools after tightening the rear wheel hub nut:
 - ^ Remove the J 42094-1.
 - ^ Remove the J 42094-2.



18. Install the retaining washer.
19. Install the peen retaining washer to the rear wheel hub.
 - ^ Use the J 36660 to tighten the brake backing plate bolts to **50 Nm (37 ft. lbs.) + 40°**.
20. Install the rear brake caliper.
21. Install the brake pipe to the lower control arm.
22. Secure the brake pipe to the lower control arm with a clip.
23. Install the drive shaft to the rear wheel hub flange.
24. Use the J 42066 to counter hold the rear wheel hub.
25. Install the drive shaft bolts.
 - ^ Use J 36660 to tighten the drive shaft bolts to **50 Nm (37 ft. lbs.) + 70°**.
26. Install the tire and wheel assembly.
27. Lower the vehicle.