

Suspension

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Ref. No.	Tool Number	Description	Qty	Page Reference
①	07GAF-SD40700	Hub Dis/Assembly Base	2	18-13
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⑦	07GAG-SD40700	Ball Joint Boot Clip Guide	1	18-16
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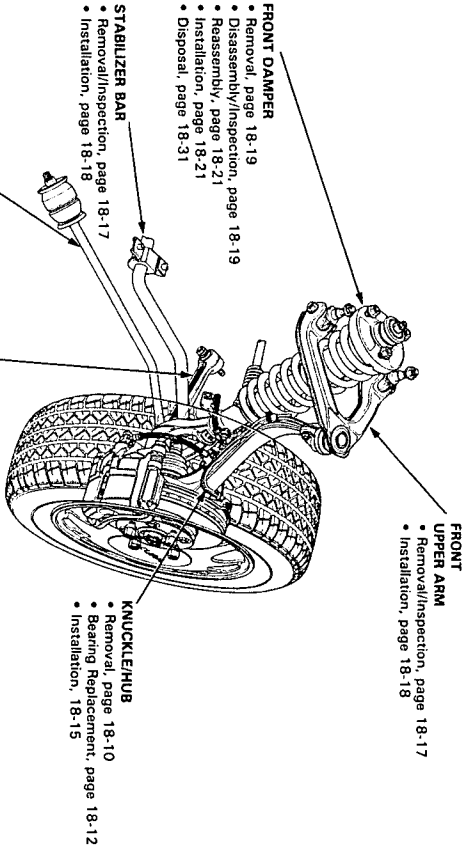
Component Location

Index

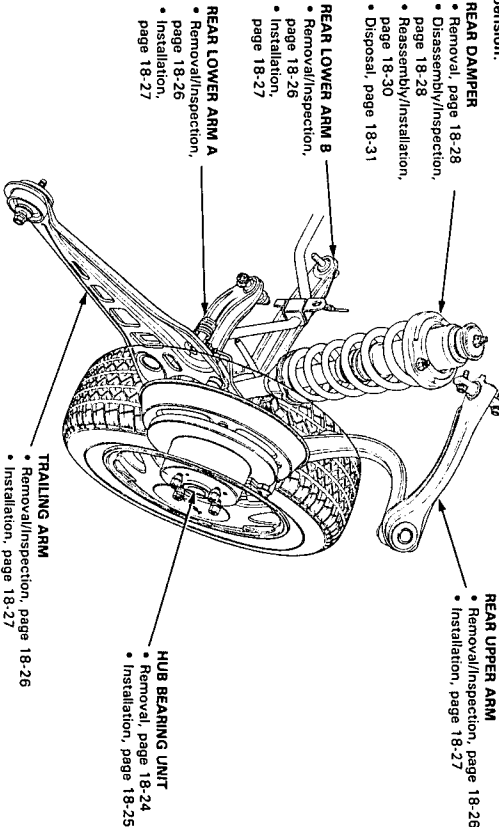
WARNING The front and rear dampers contain nitrogen gas and oil under pressure. The pressure must be relieved before disposal to prevent explosion and possible injury when scrapping.

Wheel Alignment, page 18-4

Front Suspension:



Rear Suspension:

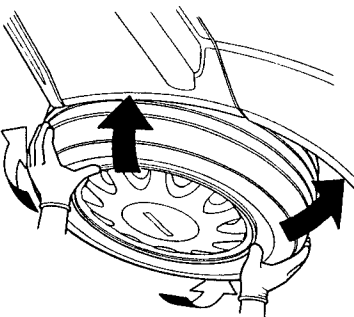


Wheel Alignment

Caster

NOTE: For proper inspection/adjustment of the wheel alignment, check and adjust the following before checking the alignment.

- Check that the suspension is not modified.
- Check the tire size and tire pressure.
- Check the runout of the wheels and tires.
- Check the suspension ball joints. (Hold a wheel with your hands and move it up and down and right and left to check for wobbling.)



Inspection

NOTE: Use commercially available computerized four wheel alignment equipment to measure wheel alignment (i.e. caster, camber, toe and/or turning angle). Follow the equipment manufacturer's instructions.

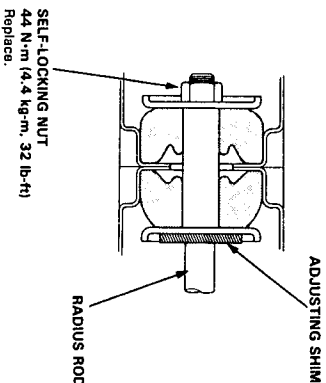
1. Check the tire pressure.
 2. Check the steering wheel angle: If significantly off center, it may be necessary to remove the steering wheel and reposition it on the splines. Turn the steering wheel to the straight ahead position.
 3. Check the caster angle.
- Caster angle: $1^{\circ}36' \pm 1^{\circ}$**
4. If adjustment is required, record the caster reading, then go to step 5. If adjustment is not required, remove the alignment equipment.

NOTE: Caster angle can be adjusted by increasing/decreasing the number of the adjusting shims. Remove and install the radius rod each time the caster angle is adjusted.

5. Raise the front end of the car.
6. Remove the self-locking nut on the end of the radius rod.
7. Remove the self-locking bolts at the radius rod on the lower arm, and remove the radius rod (see page 18-17).
8. Adjust the caster angle by increasing/decreasing the adjusting shims.

NOTE:

- Do not use more than two adjusting shims.
- One adjusting shim changes the caster angle by $25'$ and the caster angle can be adjusted by $50'$ maximum.
- One adjusting shim is 3.2 mm (0.13 in) in thickness.



9. After the adjustment, install the radius rod onto the lower arm, and tighten the self-locking bolts.
10. Tighten the new self-locking nut to specified torque.

Camber

Inspection

NOTE: Use commercially available computerized four wheel alignment equipment to measure wheel alignment (i.e. caster, camber, toe, and/or turning angle). Follow the equipment manufacturer's instructions.

1. Check the tire pressure.
2. Check the steering wheel angle. If significantly off center, it may be necessary to remove the steering wheel and reposition it on the splines. Turn the steering wheel to the straight ahead position.
3. Check the camber angle.

Camber angle, Front: $0^{\circ}00' \pm 1^{\circ}$
Rear: $-0^{\circ}30' \pm 1^{\circ}$

4. If out of specification, check for bent or damaged suspension components.

Front Toe Inspection/Adjustment

NOTE: Use commercially available computerized four wheel alignment equipment to measure wheel alignment (i.e. caster, camber, toe, and/or turning angle). Follow the equipment manufacturer's instructions.

1. Check the tire pressure.
2. Center the steering wheel spokes.
3. Check the toe with the wheels pointed straight ahead.

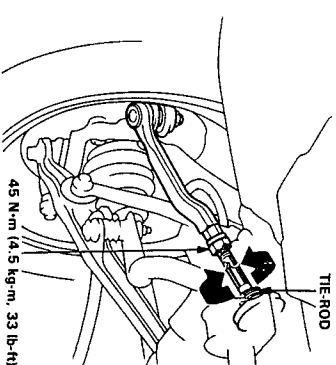
Front toe: 0 ± 2.0 mm (0 ± 0.08 in)

- If adjustment is required, go on to step 4.
- If no adjustment is required, remove the alignment equipment.

4. Loosen the tie-rod locknuts, and turn both tie-rods in the same direction until the front wheels are in the straight ahead position.
5. Turn both tie-rods equally until the toe reading on the turning radius gauge is correct.

6. After adjusting, tighten the tie-rod locknuts.

NOTE: Reposition the tie-rod boot if it is twisted or displaced.



Wheel Alignment

Rear Toe Inspection/Adjustment

NOTE: Use commercially available computerized four wheel alignment equipment to measure wheel alignment (i.e. caster, camber, toe, and/or turning angle). Follow the equipment manufacturer's instructions.

1. Release parking brake.

NOTE:

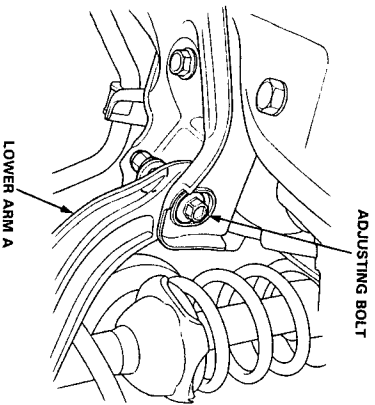
- Measure difference in toe measurements with the wheels pointed straight ahead.
- If the parking brake is engaged, you may get an incorrect reading.

Rear toe-in: 3.0 ± 2.0 mm (0.12 ± 0.08 in)

- If adjustment is required, go to step 2.

- If no adjustment is required, remove alignment equipment.

2. Hold the adjusting bolt on the rear lower arm A and loosen the self-locking nut.
3. Adjust the rear toe by turning the adjusting bolt until toe is correct.
4. Install the self-locking nut and tighten while holding the adjusting bolt.



Turning Angle Inspection/Adjustment

NOTE: Use commercially available computerized four wheel alignment equipment to measure wheel alignment (i.e. caster, camber, toe, and/or turning angle). Follow the equipment manufacturer's instructions.

1. Jack up the front of the car. Set the turning radius gauges beneath the front wheels, then lower the car.

2. Jack up the rear of the car. Place boards that are the same thickness as the turning radius gauges under the rear wheels, then lower the car.

NOTE: For accurate readings, the car must be level.

3. Turn the wheel right and left while applying the brake, and measure the turning angle of both wheels.

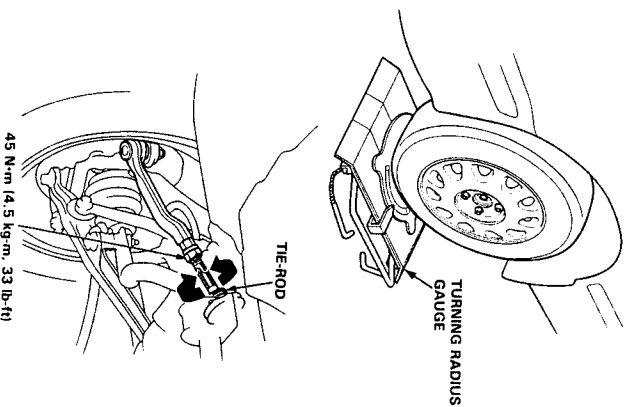
Turning angle:

Inward wheel: $39^\circ 24' \pm 2^\circ$

Outward wheel: $33^\circ 36'$ (reference)

4. If the measurements are not within the specifications, adjust as required by turning the tie-rods.

NOTE: After adjusting, recheck the front wheel toe and readjust if necessary. Reposition the tie rod boot if twisted or displaced.



45 N·m (4.5 kg-m, 33 lb-ft)

Wheel Measurements

Bearing End Play

1. Raise the car, and support it with safety stands in the proper locations (see section 1).

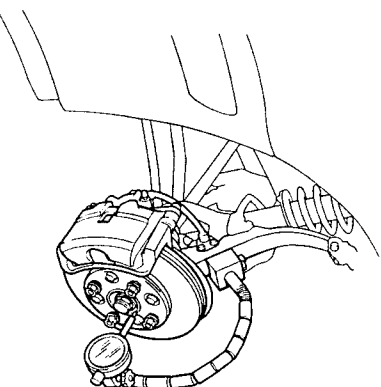
2. Remove the wheels, then reinstall the wheel nuts.

3. Attach the dial gauge as shown.

4. Measure the bearing end play by moving the disc in and out.

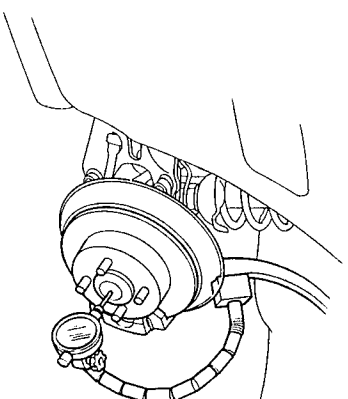
Front Wheel End Play:

Standard: $0 - 0.05$ mm ($0 - 0.002$ in)



Rear Wheel End Play:

Standard: $0 - 0.05$ mm ($0 - 0.002$ in)



5. If the bearing end play measurement is more than the standard, replace the wheel bearing.

Runout

1. Raise the car, and support it with safety stands in the proper locations (see section 1).

2. Check for bent or deformed wheels.

3. Attach the dial gauge as shown.

4. Measure the wheel runout by turning the wheel.

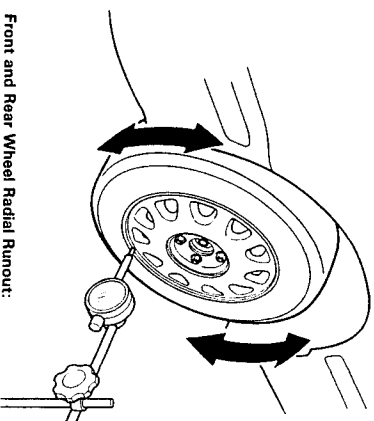
Front and Rear Wheel Axial Runout:

Standard:

Steel Wheel: $0 - 1.0$ mm ($0 - 0.04$ in)

Aluminum Wheel: $0 - 0.7$ mm ($0 - 0.03$ in)

Service Limit: 2.0 mm (0.08 in)



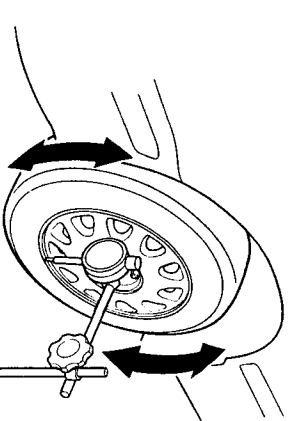
Front and Rear Wheel Radial Runout:

Standard:

Steel Wheel: $0 - 1.0$ mm ($0 - 0.04$ in)

Aluminum Wheel: $0 - 0.7$ mm ($0 - 0.03$ in)

Service Limit: 1.5 mm (0.06 in)



5. If the wheel runout is more than the service limit, replace the wheel.



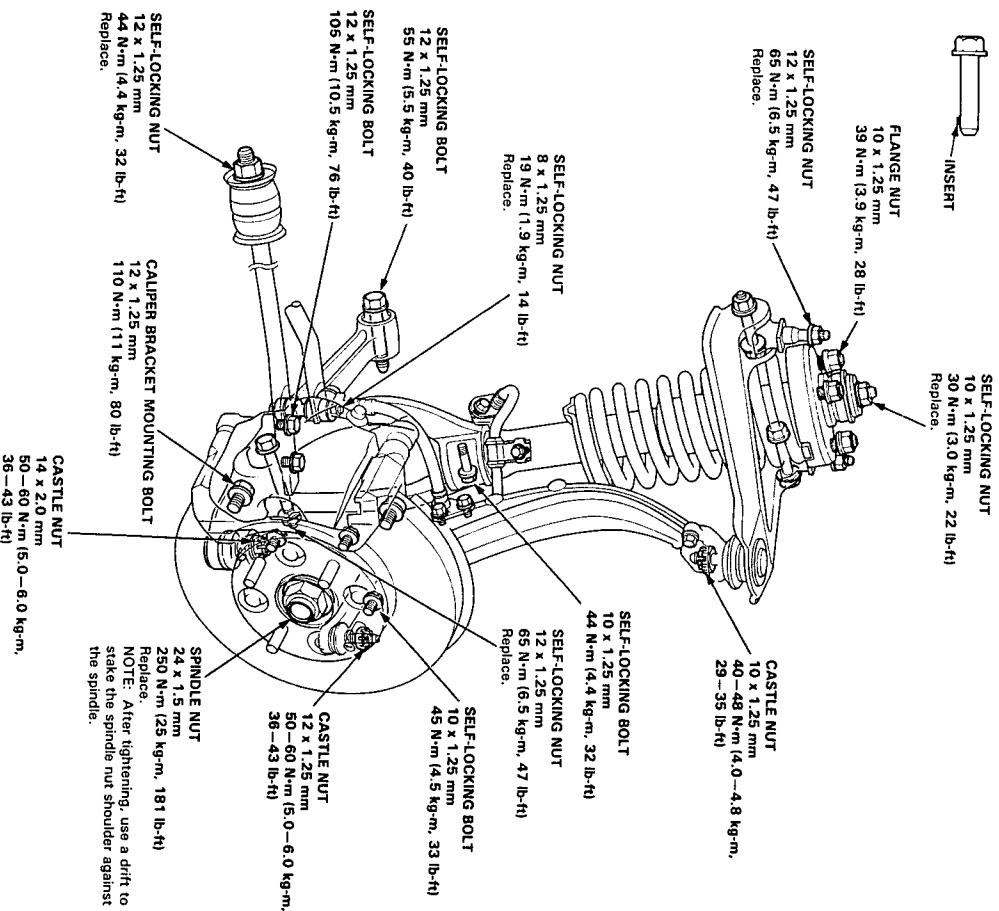
Front Suspension

Torque Specifications

CAUTION:

- Replace the self-locking nuts after removal.
- Replace the self-locking bolts if you can easily thread a non-self-locking nut past their nylon locking inserts. (It should require 1 N·m (0.1 kg-m, 0.7 lb-ft) of torque to turn the nut on the bolt).
- The vehicle should be on the ground before any bolts or nuts connected to rubber mounts or bushing are tightened.
- Torque the castle nut to the lower torque specification, then tighten it only far enough to align the slot with the pin hole. Do not align the nut by loosening.

NOTE: Wipe off the grease before tightening the nut at the ball joint.

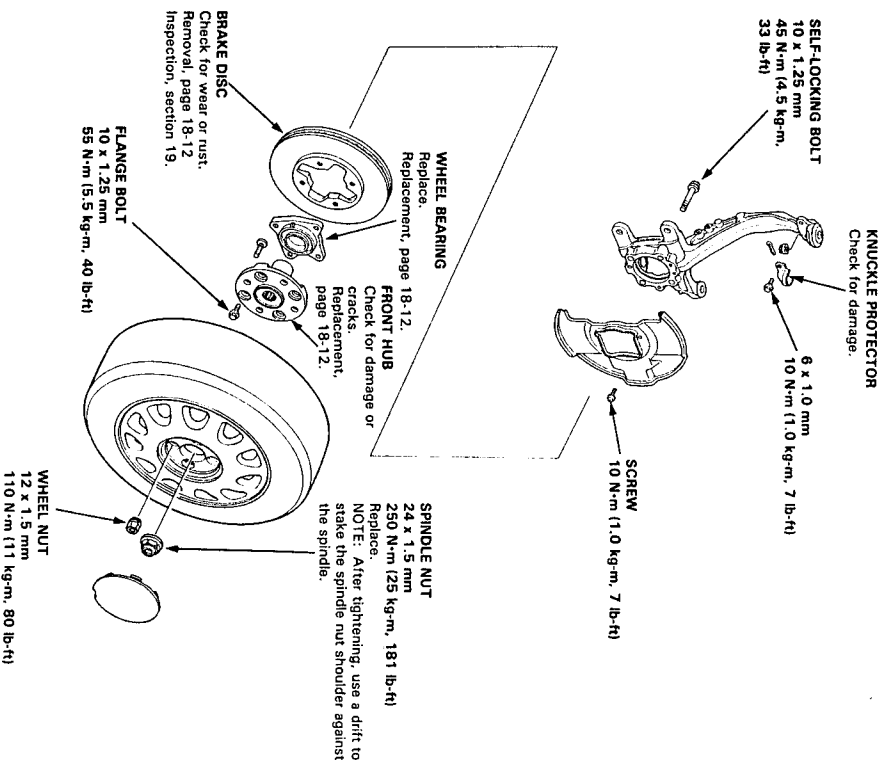


Knuckle/Hub

Illustrated Index

NOTE:

- Use only genuine Honda wheel weights for aluminum wheels. Non-genuine wheel weights may corrode and damage the aluminum wheels.
- For aluminum wheels, remove the center cap by prying it out with a flat screwdriver. Use a rag at the point you are going to pry because aluminum alloy wheels can be easily damaged. Avoid damage to the cap by not allowing it to fall during removal.
- Before installing the brake disc, clean the mating surfaces of the front hub and inside of the brake disc.
- Before installing the wheel, clean the mating surfaces of the brake disc and inside of the wheel.

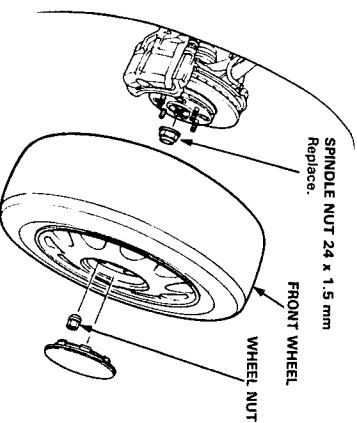


Front Suspension

Knuckle/Hub

Removal

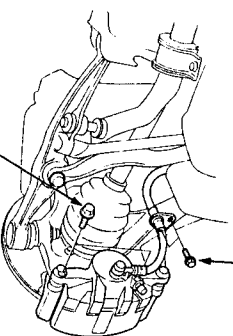
1. Raise the locking tab on the spindle nut, then remove the nut.
2. Loosen the wheel nuts slightly.
3. Raise the front of the car, and support it with safety stands in the proper locations (see section 1).
4. Remove the wheel nuts and front wheel.



5. Remove the mounting bolt for the brake hose bracket.
6. Remove the caliper bracket mounting bolts and hang the caliper assembly to one side.

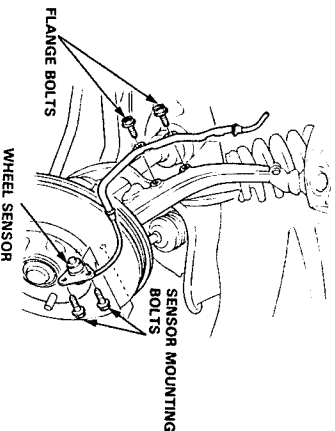
CAUTION: To prevent accidental damage to the caliper assembly or brake hose, use a short piece of wire to hang the caliper assembly from the undercarriage.

BRAKE HOSE MOUNTING BOLT



7. Remove the wheel sensor wire bracket, then remove the wheel sensor from the knuckle.

NOTE: Do not disconnect the wheel sensor wire.



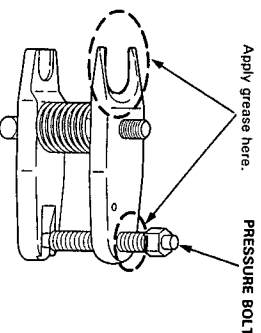
8. Clean any dirt or grease off the ball joint.

9. Remove the cotter pin from the steering arm and remove the nut.

10. Apply grease to the special tool on the areas shown. This will ease installation of the tool and prevent damage to the pressure bolt threads.

CAUTION: Be careful not to damage the ball joint boot.

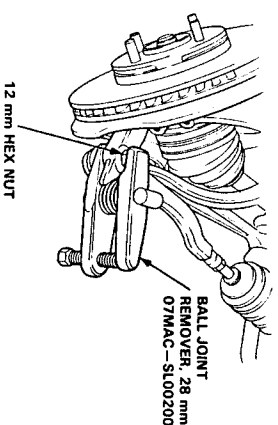
NOTE: Use ball joint removers, to separate the ball joints from the suspension or steering arm.



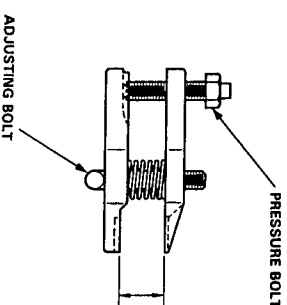
11. Install a 12 mm hex nut on the ball joint. Be sure that the hex nut is flush with the ball joint pin end to prevent damage to the threaded end of the ball joint.

12. Use the ball joint remover as shown. Insert the jaws carefully, making sure you do not damage the ball joint boot. Adjust the jaw spacing by turning the pressure bolt.

NOTE: If necessary, apply penetrating type lubricant to loosen the ball joint.



13. Once the tool is in place, turn the adjusting bolt as necessary to make the jaws parallel. Then hand-tighten the pressure bolt and recheck the jaws to make sure they are still parallel.



14. With a wrench, tighten the pressure bolt until the ball joint shaft pops loose from the steering arm.

WARNING Wear eye protection. The ball joint can break loose suddenly and scatter dirt or other debris in your eyes.

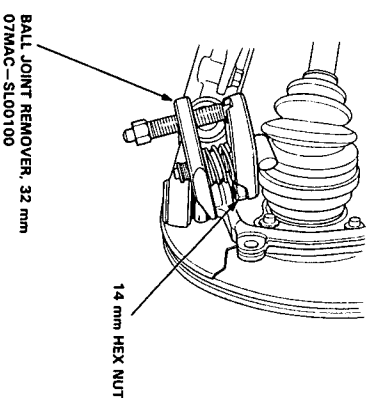
15. Remove the tool, then remove the nut from the end of the ball joint and pull the ball joint out of the steering/suspension arm. Inspect the ball joint boot and replace it if damaged.

16. Remove the cotter pin and lower arm ball joint nut.

17. Install a 14 mm hex nut on the ball joint. Be sure that the hex nut is flush with the ball joint pin end, or the threaded section of the ball joint pin might be damaged by the ball joint remover.

18. Use the ball joint remover as shown on page 18-10 to separate the ball joint and lower arm.

NOTE: If necessary, apply penetrating type lubricant to loosen the ball joint.



Front Suspension

Knuckle/Hub (cont'd)

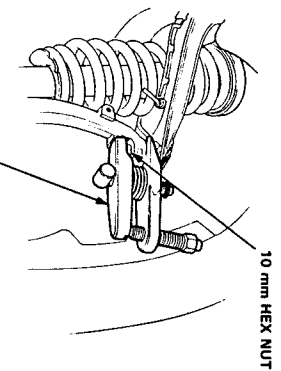
19. Remove the knuckle protector.

20. Remove the cotter pin and the upper ball joint nut.

21. Install a 10 mm hex nut on the ball joint. Be sure that the hex nut is flush with the ball joint pin end, or the threaded section of the ball joint pin might be damaged by the ball joint remover.

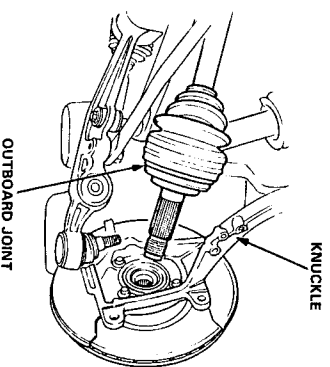
22. Use the ball joint remover as shown on page 18-10 to separate the ball joint and knuckle.

NOTE: If necessary, apply penetrating type lubricant to loosen the ball joint.



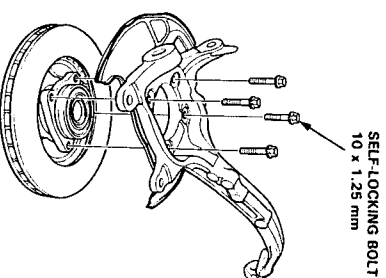
BALL JOINT REMOVER, 28 mm
07MAC-SL00200

23. Pull the knuckle outward and remove the driveshaft outboard joint from the knuckle using a plastic hammer, then remove the knuckle.

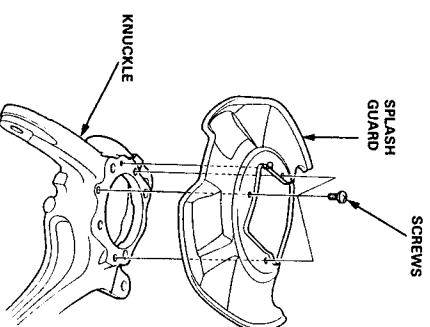


Hub Unit Removal and Wheel Bearing Replacement

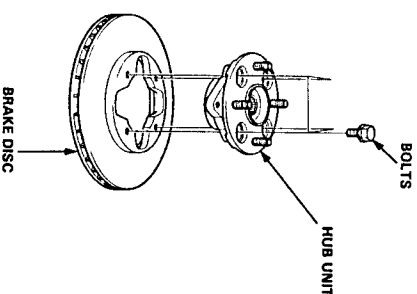
24. Remove the knuckle from the hub unit.



25. Remove the splash guard screws from the knuckle.

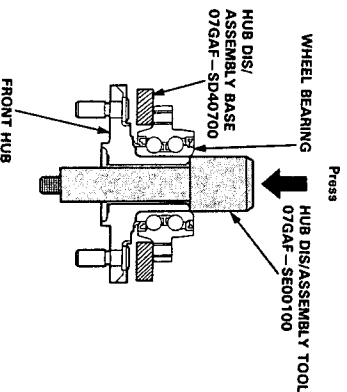


26. Remove the four bolts, then separate the hub unit from the brake disc.

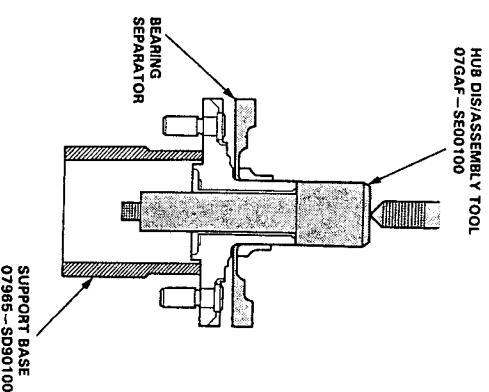


27. Separate the wheel bearing from the front hub using the special tools and a press.

CAUTION: Hold onto the hub to keep it from falling when pressed clear.



28. Press the wheel bearing inner race from the hub using the special tools and a commercially available bearing separator.



29. Replace the bearing with a new one after removal.

(cont'd)

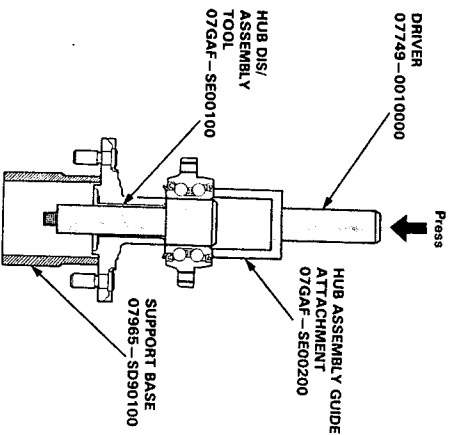


Front Suspension

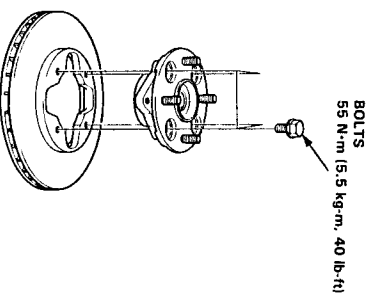
Knuckle/Hub (cont'd)

NOTE: Wash the knuckle and hub thoroughly in high flash point solvent before reassembly.

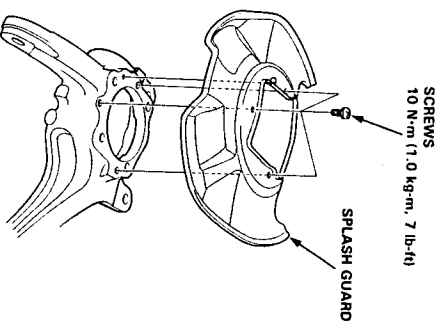
30. Press a new wheel bearing into the hub using the special tools and a press.



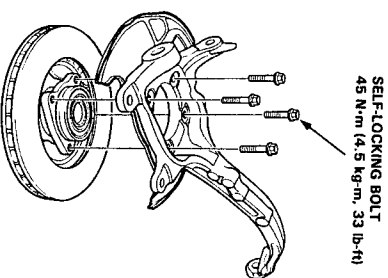
31. Install the hub unit on the brake disc and tighten the bolts.



32. Install the splash guard and tighten the screws.



33. Install the knuckle on the hub unit and tighten the bolts.

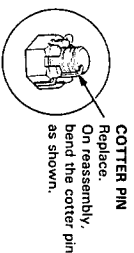


Installation

34. Install the knuckle on the driveshaft.

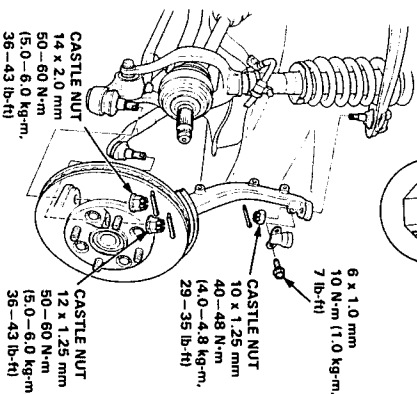
35. Install the knuckle on the tie-rod, upper arm and lower arm, then tighten the castle nuts.

36. Install the knuckle protector with the 6 mm bolt.



6 x 1.0 mm
10 N·m (1.0 kg-m,
7 lb-ft)

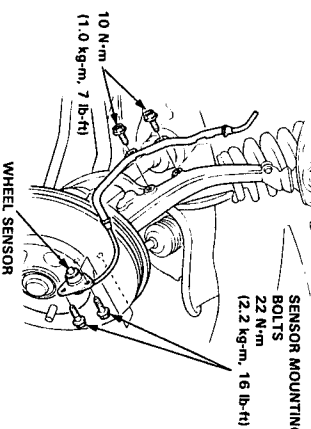
CASTLE NUT
10 x 1.25 mm
40-48 N·m
(4.0-4.8 kg-m,
29-35 lb-ft)



37. Install the wheel sensor with the sensor mounting bolts.

38. Install the sensor wire with the two bolts.

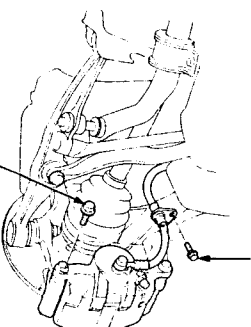
NOTE: Be careful when installing the sensors to avoid twisting wires.



39. Install the caliper assembly with the caliper bracket mounting bolt.

40. Install the brake hose with the brake hose mounting bolt.

BRAKE HOSE MOUNTING BOLT
10 N·m (1.0 kg-m, 7 lb-ft)

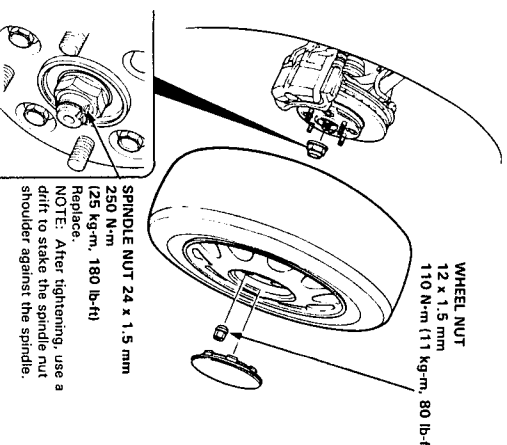


CALIPER BRACKET MOUNTING BOLT
12 x 1.25 mm
110 N·m (11 kg-m, 80 lb-ft)

41. Tighten the new spindle nut.

NOTE: Before installing the wheel, clean the mating surface of the brake disc and inside of the wheel.

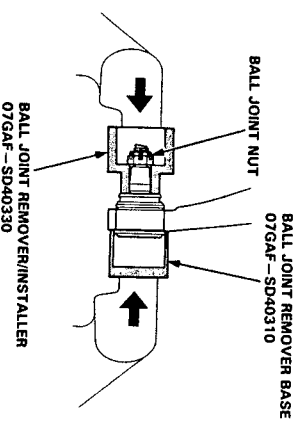
42. Install the front wheel with the wheel nuts.



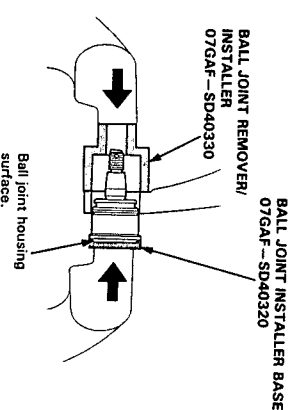
Front Suspension

Lower Ball Joint Replacement

1. Remove the lower arm from the knuckle.
2. Remove the boot by prying the circlip off.
3. Remove the 40 mm circlip.
4. Install the special tool on the ball joint and tighten the ball joint nut.
5. Position the special tool over the ball joint as shown, then set the assembly in a vise. Press the ball joint out of the knuckle.



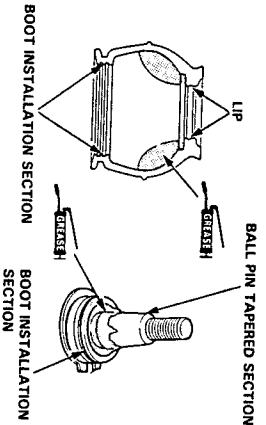
6. Place the ball joint in position by hand.
7. Install the special tools over the ball joint as shown, then press the ball joint in.



8. Install the 40 mm circlip.

Ball Joint Boot Replacement

1. Remove the set ring and the boot.
- CAUTION:** Do not contaminate the boot installation section with grease.



2. Pack the interior of the boot and lip with grease.
3. Wipe the grease off the sliding surface of the ball pin and pack with fresh grease.

CAUTION:

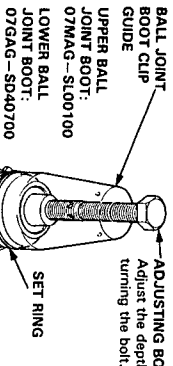
- Keep grease off the boot installation section and the tapered section of the ball pin.
- Do not allow dust, dirt, or other foreign materials to enter the boot.

4. Install the boot in the groove of the boot installation section securely, then bleed air.

5. Install the upper and lower ball joint boot clips using the special tools as follows:

Lower ball joint: Adjust the special tool with the adjusting bolt until the end of the tool aligns with the groove on the boot. Slide the set ring over the tool and into position.

Upper ball joint: Hold the tool over the ball joint, then slide the set ring over the tool and into position.



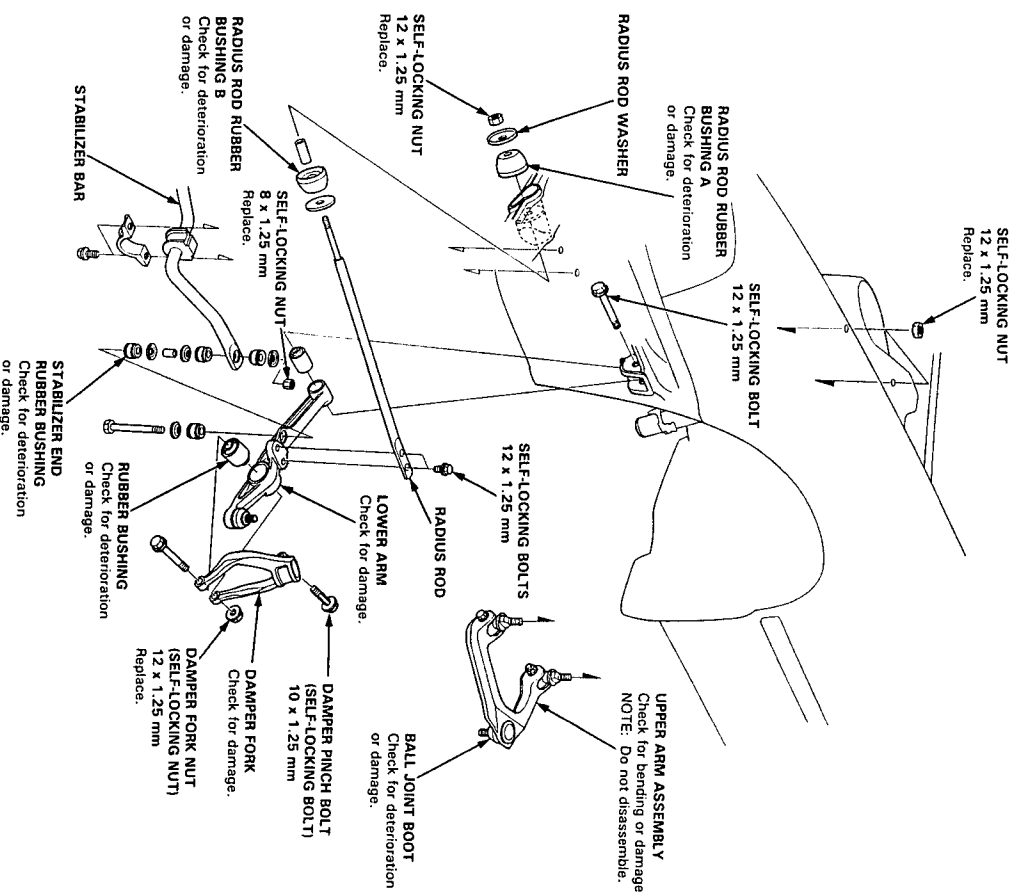
CAUTION: After installing the boot, check the ball pin tapered section for grease contamination and wipe it if necessary.

Suspension Arms

Removal/Inspection

CAUTION:

- Replace the self-locking nuts after removal.
- Replace the self-locking bolts if you can easily thread a non-self-locking nut past their nylon locking inserts. (It should require 1 N·m (0.1 kg·m, 0.7 lb·ft) of torque to turn the nut on the bolt).
- Be careful not to damage the ball joint boots.



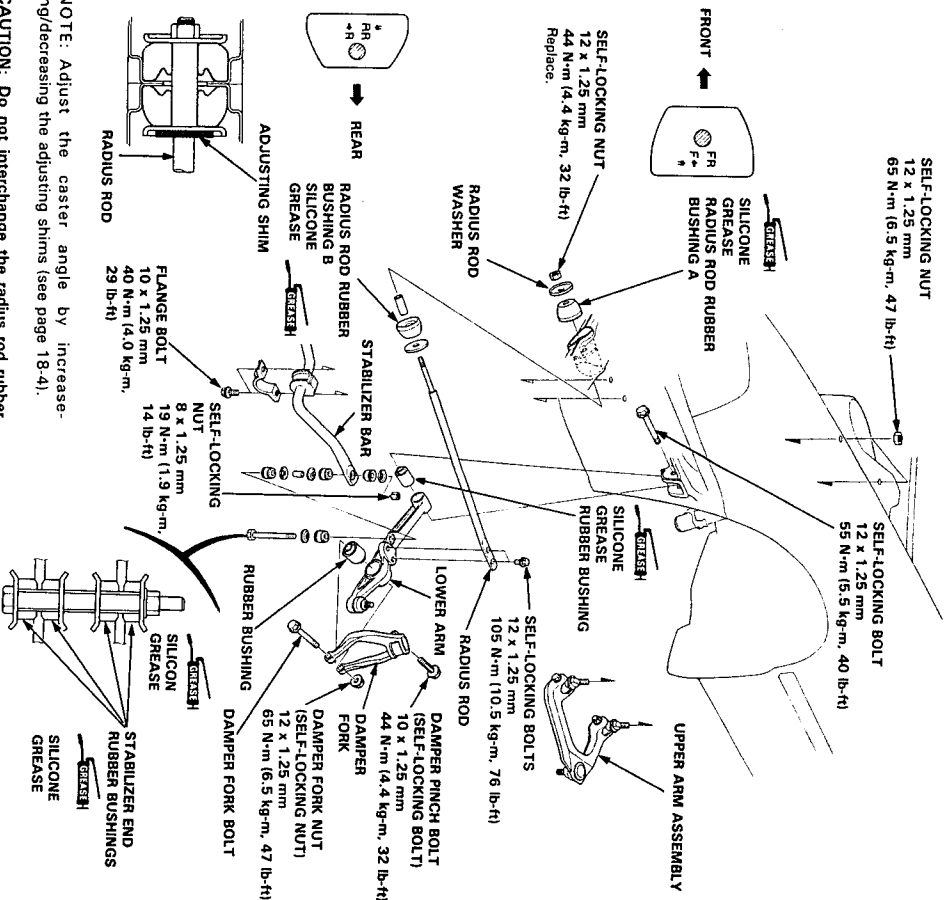
Front Suspension

Suspension Arms (cont'd)

Installation

NOTE:

- Wipe off the grease before tightening the nut at the ball joint.
- The right and left stabilizer springs are symmetrical. Install with the paint mark facing down.
- The right and left damper forks are not symmetrical. The left damper fork is marked with "LSr". Do not interchange them.
- The right and left upper arms are not symmetrical. The left upper arm is marked with "LSL" while the right upper arm is marked with "LSr". Do not interchange them.



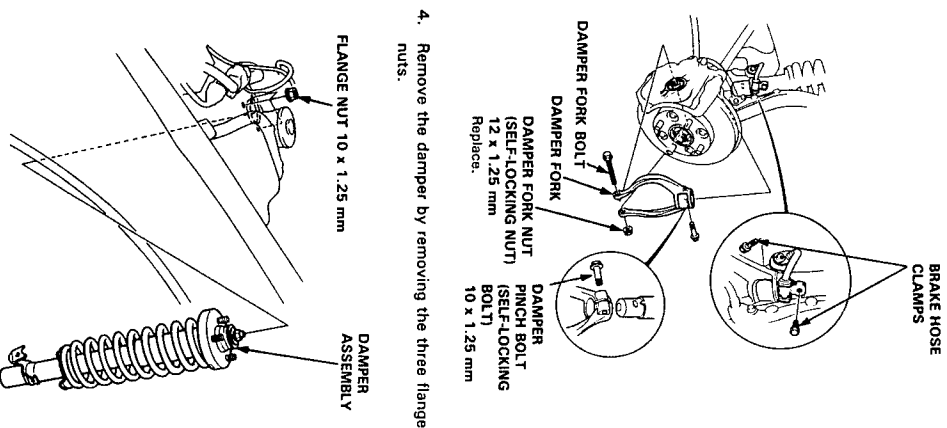
NOTE: Adjust the caster angle by increasing/decreasing the adjusting shims (see page 18-4).

CAUTION: Do not interchange the radius rod rubber bushings. The thick bushing should be installed in front position.

Front Damper

Removal

- Remove the brake hose clamps from the damper.
- Remove the damper pinch bolt.
- Remove the damper fork nut, bolt and remove the damper fork.



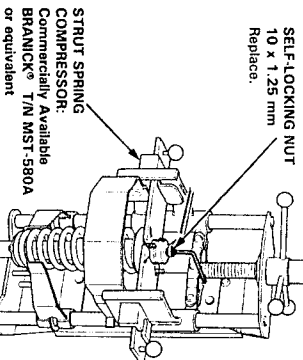
- Remove the damper by removing the three flange nuts.

Disassembly/Inspection

Disassembly

- Compress the damper spring with the spring compressor according to the manufacturer's instructions, then remove the self-locking nut.

CAUTION: Do not compress the spring more than necessary to remove the nut.

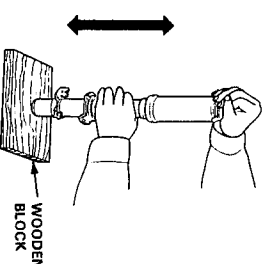


- Remove the spring compressor then disassemble the damper as shown on the next page.

Inspection

- Reassemble all parts, except the spring.
- Push on the damper assembly as shown.
- Check for smooth operation through a full stroke, both compression and extension.

NOTE: The damper should move smoothly. If it does not (no compression or no extension), the gas is leaking, and the damper should be replaced.



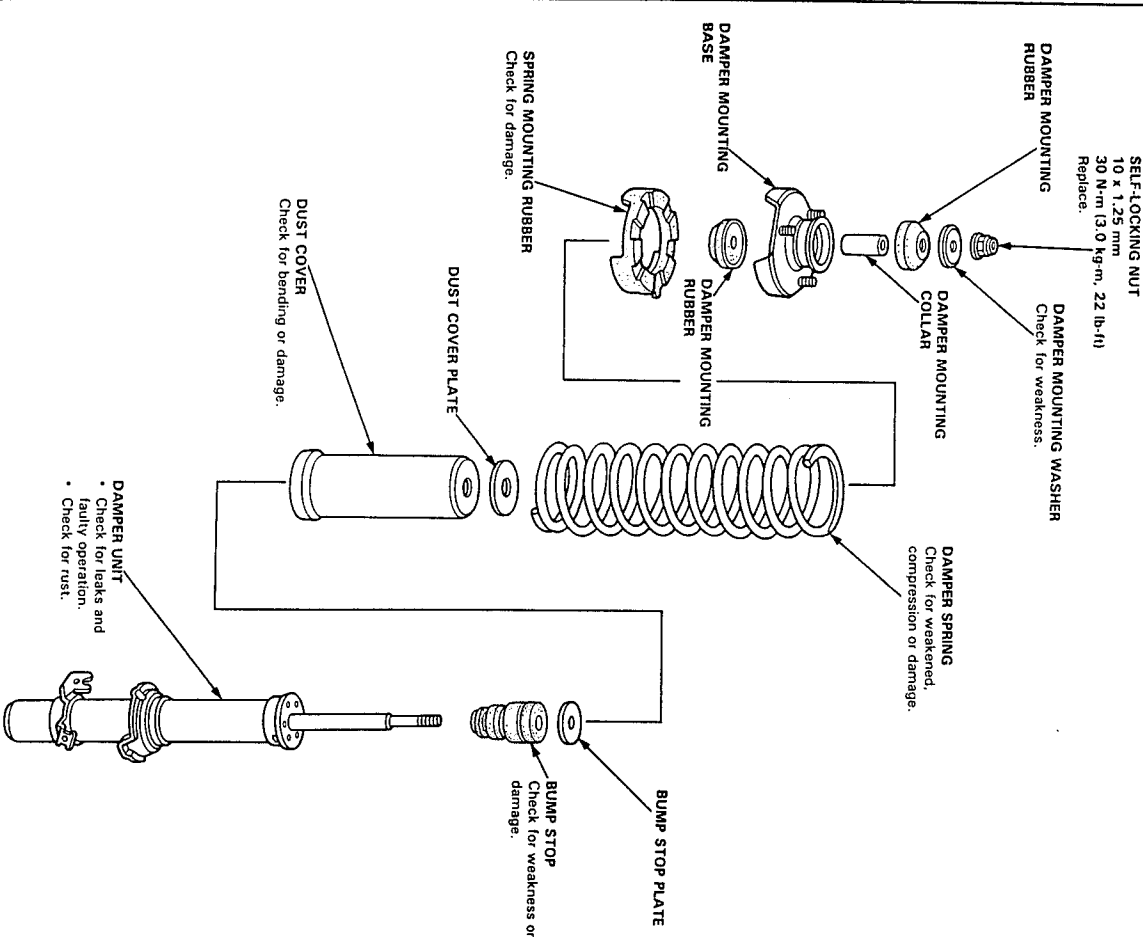
- Check for oil leaks, abnormal noises or binding during these tests.

NOTE: See page 18-31 for damper disposal.



Front Damper

Inspection

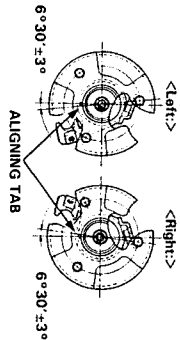


Front Damper

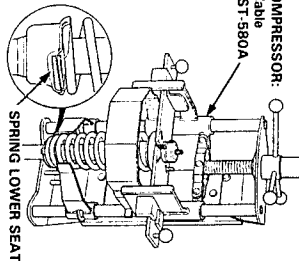
Reassembly

1. Install the damper unit on a spring compressor.
2. Assemble the damper in reverse order of disassembly except the damper mounting washer and self-locking nut.
3. Position the damper mounting base on the damper unit as shown.

NOTE: Align the bottom of damper spring and spring lower seat as shown.

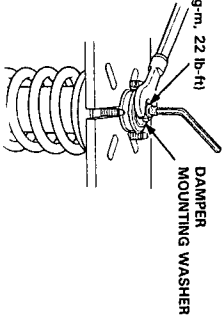


STRUT SPRING COMPRESSOR:
Commercially Available
BRANICK® T/N MST-580A
or equivalent



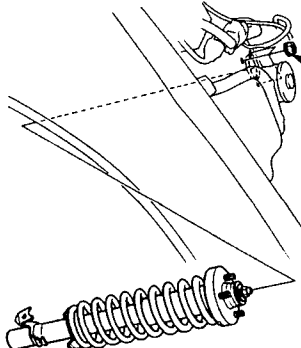
4. Compress the damper spring.
5. Install the damper mount washer and a new self-locking nut.
6. Hold the damper shaft and tighten the self-locking nut.

SELF-LOCKING NUT
10 x 1,25 mm
30 N·m (3.0 kg·m, 22 lb·ft)



Installation

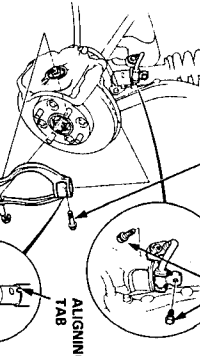
1. Loosely install the damper on the frame with the aligning tab facing inside.
39 N·m (3.9 kg·m, 28 lb·ft)
2. Install the damper fork on the driveshaft and lower arm. Install the damper in the damper fork so the aligning tab is aligned with the slot in the damper fork.
3. Hand-tighten the bolts and nuts.
4. Raise the knuckle with a floor jack until the car just lifts off the safety stand.



NOTE: The bolts and nuts should be tightened with the vehicle's weight on the damper.

DAMPER PINCH BOLT
44 N·m (4.4 kg·m, 32 lb·ft)

22 N·m
(2.2 kg·m, 16 lb·ft)



DAMPER FORK NUT (SELF-LOCKING NUT)
65 N·m (6.5 kg·m, 47 lb·ft)

5. Tighten the damper pinch bolt.
6. Secure the damper fork bolt with a new self-locking nut.
7. Secure the damper assembly to the frame with the flange nuts.
8. Install the brake hose clamps with the two bolts.

ALIGNING TAB

SLOT



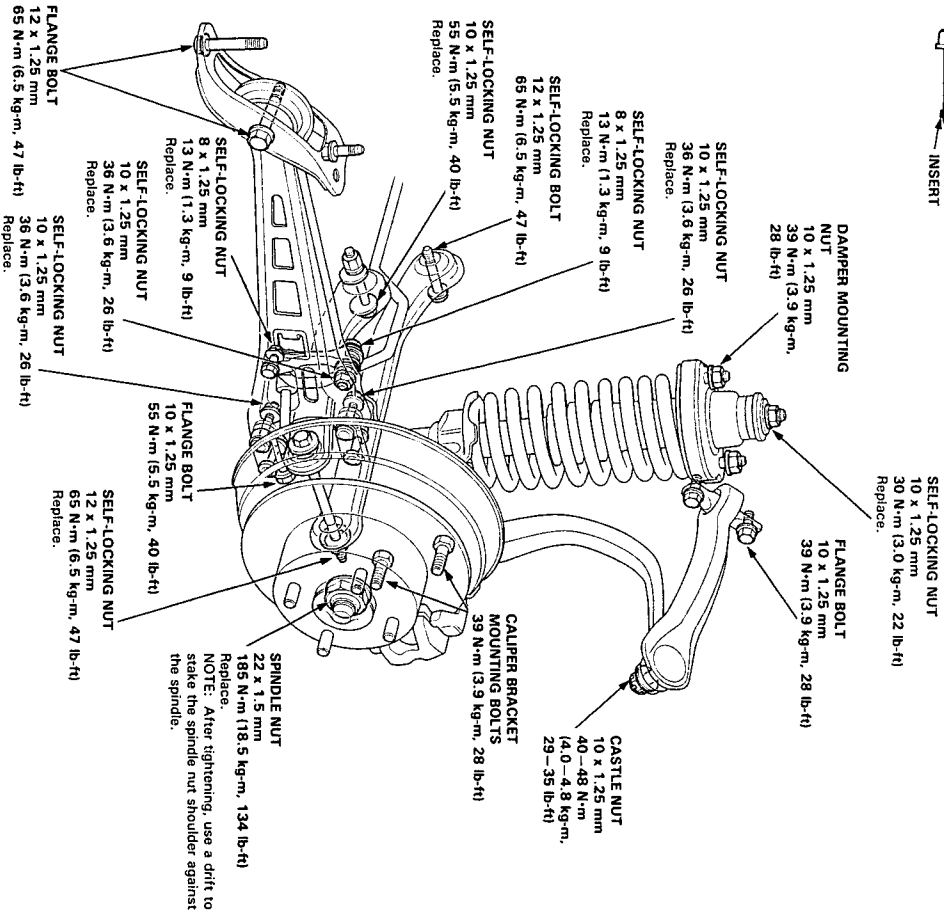
Rear Suspension

Torque Specifications

CAUTION:

- Replace the self-locking nuts after removal.
- Replace the self-locking bolts if you can easily thread a non-self-locking nut past their nylon locking inserts. (It should require 1 N·m (0.1 kg-m, 0.7 lb-ft) of torque to turn the nut on the bolt).
- The vehicle should be on the ground before any bolts or nuts connected to rubber mounts or bushings are tightened.
- Torque the castle nut to the lower torque specification, then tighten it only far enough to align the slot with the pin hole. Do not align the nut by loosening.

NOTE: Wipe off the grease before tightening the nut at the ball joint.

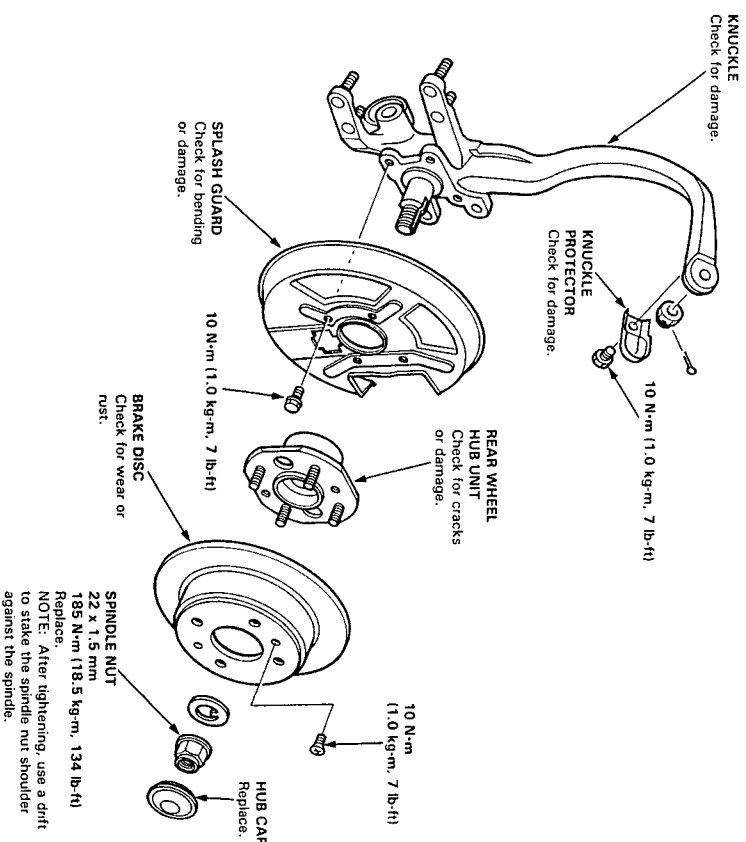


Hub Bearing Unit

Illustrated Index

NOTE:

- Use only genuine Honda wheel weights for aluminum wheels. Non-genuine wheel weights may corrode and damage the aluminum wheels.
- For aluminum wheels, remove the center cap by prying it out with a flat screwdriver. Use a rag at the point you are going to pry because aluminum alloy wheels can be easily damaged. Avoid damage to the cap by not allowing it to fall during removal.
- Before installing the brake disc, clean the mating surfaces of the rear hub and inside of the brake disc.
- Before installing the wheel, clean the mating surfaces of the brake disc and inside of the wheel.

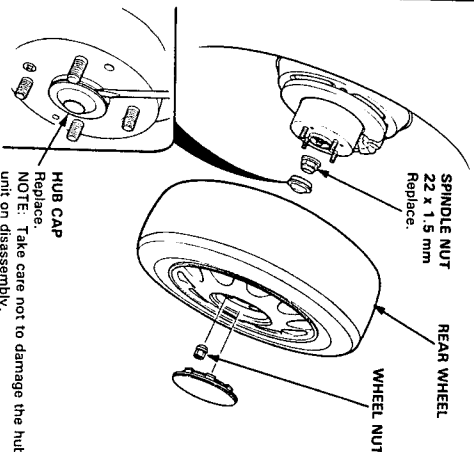


Rear Suspension

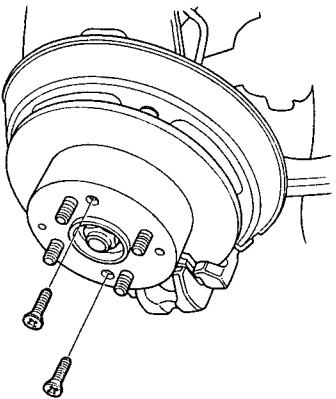
Hub Bearing Unit

Removal

1. Raise the rear of the car, and support it with safety stands in the proper locations (see section 1).
2. Remove the wheel nuts and rear wheel.
3. Pull the parking brake lever up.
4. Remove the hub cap, raise the locking tab on the spindle nut, then remove the nut.



5. Remove the 6 mm brake disc retaining screws.

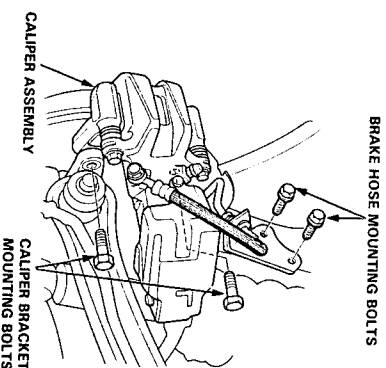


6. Release the parking brake lever.

7. Remove the brake hose mounting bolt.

8. Remove the caliper bracket mounting bolts and hang the caliper assembly to one side.

CAUTION: To prevent accidental damage to the caliper assembly or brake hose, use a short piece of wire to hang the caliper assembly from the undercarriage.

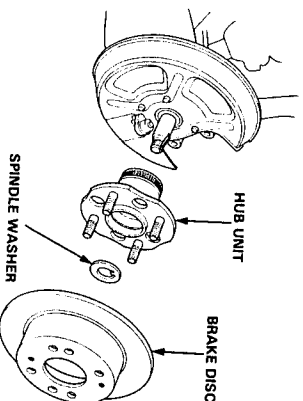


9. Screw two 8 x 12 mm bolts into the disc to push it away from the hub.

NOTE: Turn each bolt two turns at a time to prevent cocking the disc excessively.

10. Remove the brake disc.

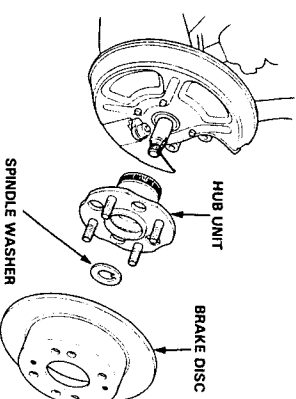
11. Remove the hub unit from the knuckle.



Installation

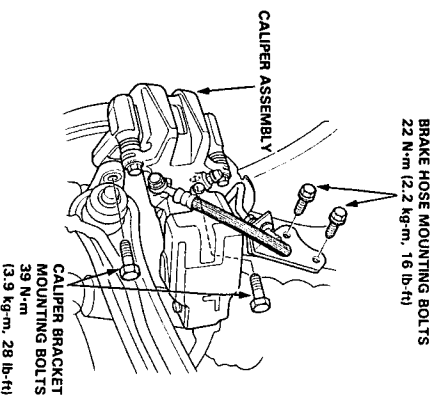
NOTE: Wash the bearing and spindle thoroughly in high flash point solvent before reassembly.

12. Install the hub unit, spindle washer and brake disc.

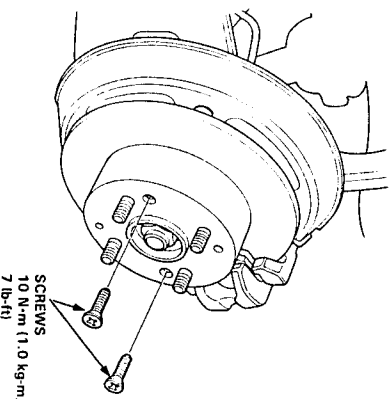


13. Install the caliper assembly with the caliper bracket mounting bolts.

14. Install the brake hose with the brake hose mounting bolts.



15. Tighten the 6 mm brake disc retaining screws.

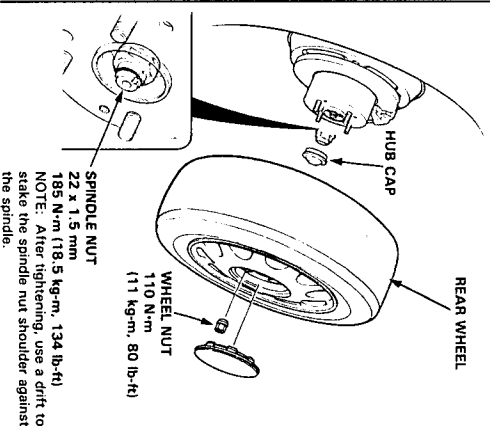


16. Tighten the new spindle nut.

17. Install the new hub cap.

NOTE: Before installing the wheel, clean the mating surface of the brake disc and inside of the wheel.

18. Install the rear wheel with the wheel nut.



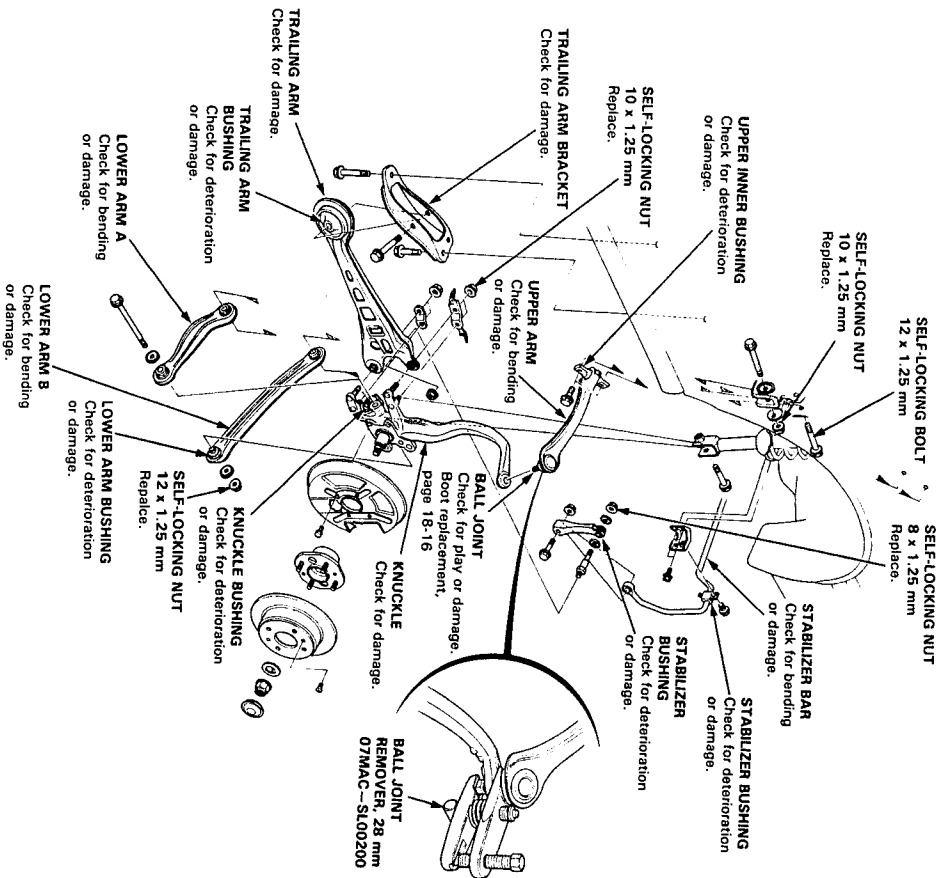
Rear Suspension

Suspension Arms

Removal/Inspection

CAUTION:

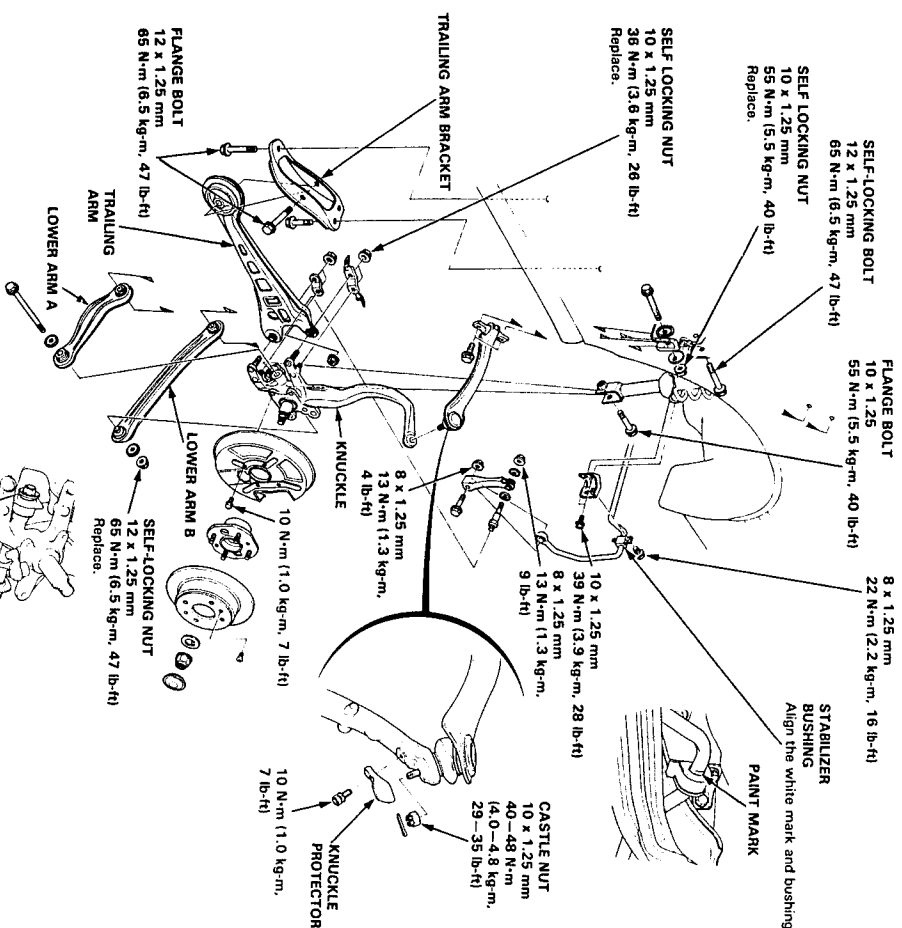
- Replace the self-locking nuts after removal.
- Replace the self-locking bolts if you can easily thread a non-self-locking nut past their nylon locking inserts. (It should require 1 N·m (0.1 kg-m, 0.7 lb-ft) of torque to turn the nut on the bolt).
- Be careful not to damage the ball joint boots.



Installation

NOTE:

- Wipe off the grease before tightening the nut at the ball joint.
- Make sure the toe adjuster cams on lower arm B are installed in the same direction.
- The right and left lower arm B are symmetrical. Install so the paint make of "SM4↑L UP↑" and "SM4↑R UP↑" point to the front.
- "SM4↑L UP↑" is stamped on the left lower arm A and "SM4↑R UP↑" on the right lower arm A.
- The left upper arm is stamped with "AL" while the right upper arm is stamped with "AR".

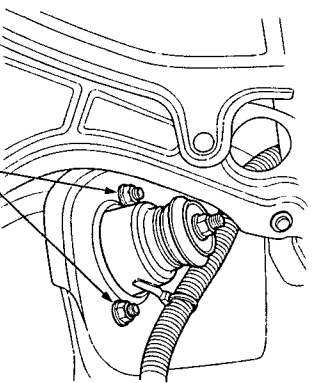


NOTE: Install the washers as shown.

Rear Damper

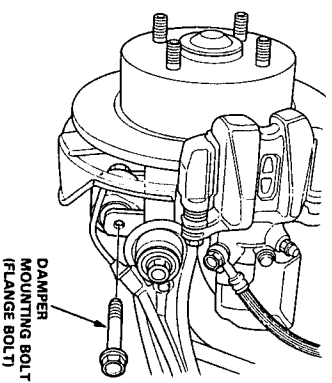
Removal

1. Raise the rear of the car, and support it with safety stands in the proper locations (see section 1).
2. Remove the rear wheel.
3. Remove the rear seat.
4. Remove the damper mounting nuts.



DAMPER MOUNTING NUTS
10 x 1.25 mm

5. Remove the damper mounting bolt.
6. Lower the rear suspension and remove the damper assembly.



DAMPER MOUNTING BOLT
(FLANGE BOLT)

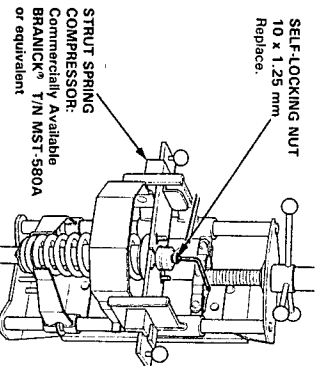
Disassembly/Inspection

Disassembly

1. Compress the damper spring with the spring compressor according to the manufacturer's instructions, then remove the self-locking nut.

CAUTION: Do not compress the spring more than necessary to remove the nut.

SELF-LOCKING NUT
10 x 1.25 mm
Replace.



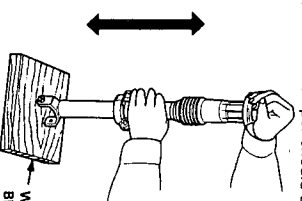
STRUT SPRING COMPRESSOR:
Commercially Available
BRANICK® 1/IN MST-580A
or equivalent

2. Remove the spring compressor and disassembly the damper as shown on the next page.

Inspection

1. Reassemble all parts, except the spring.
2. Push on the damper assembly as shown.
3. Check for smooth operation through a full stroke, both compression and extension.

NOTE: The damper should move smoothly. If it does not (no compression or no extension), the gas is leaking, and the damper should be replaced.



WOODEN BLOCK

4. Check for oil leaks, abnormal noises or binding during these tests.

NOTE: See page 19-31 for damper disposal.

Inspection

SELF-LOCKING NUT
10 x 1.25 mm
30 N·m (3.0 kg-m, 22 lb-ft)
Replace.

DAMPER MOUNTING WASHER

DAMPER MOUNTING RUBBER

DAMPER MOUNTING COLLAR

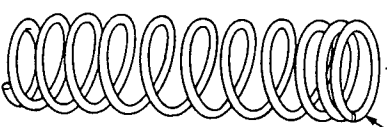
DAMPER MOUNTING SEAL
Check for deterioration or damage.

DAMPER MOUNTING RUBBER

DAMPER MOUNTING BASE

DAMPER MOUNTING RUBBER

SPRING MOUNTING RUBBER
Check for damage or crack.

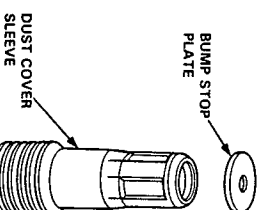


DAMPER SPRING
Check for weakened compression or damage.

BUMP STOP PLATE

BUMP STOP
Check for weakness or damage.

SPRING SEAT RUBBER
Check for damage or cracks.



BUMP STOP PLATE

DUST COVER SLEEVE

DAMPER UNIT
• Check for leaks and faulty operation.
• Check for rust.



Rear Damper

Reassembly

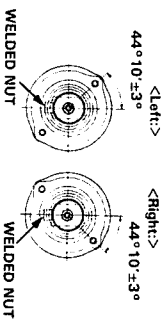
1. Install the damper unit on a spring compressor.

NOTE: Follow the manufacturer's instructions.

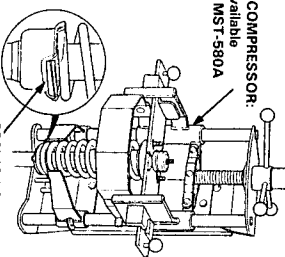
2. Assemble the damper in reverse order of disassembly except the damper mounting washer and self-locking nut.

NOTE: Align the bottom of damper spring and spring lower seat as shown.

3. Position the damper mounting base on the damper unit as shown.



STRUT SPRING COMPRESSOR:
Commercially Available
BRANICK® T/M MST-580A
or equivalent

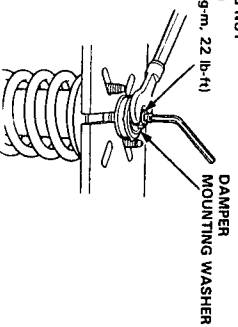


SPRING LOWER SEAT

4. Compress the damper spring.
5. Install the damper mounting washer and a new self-locking nut.

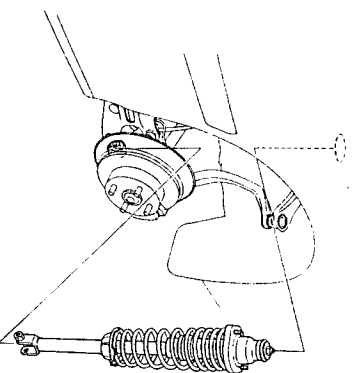
6. Hold the damper shaft and tighten the self-locking nut.

SELF-LOCKING NUT
10 x 1.25 mm
30 N·m (3.0 kg·m, 22 lb·ft)



Installation

1. Lower the rear suspension and set the damper assembly in its original position.

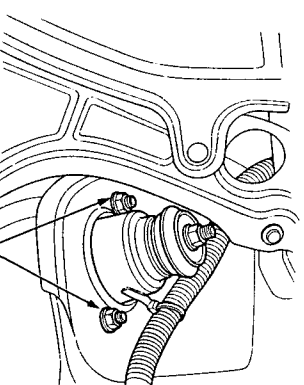


2. Loosely install the damper mounting bolts.

3. Raise the rear suspension with a floor jack until the weight of the car is on the damper.

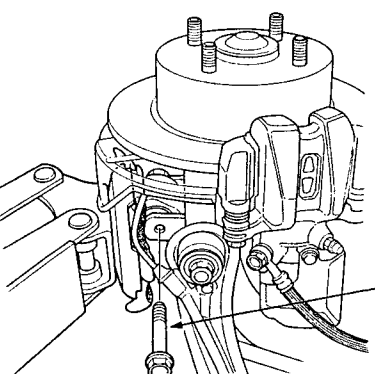
NOTE: The damper mounting bolts should be tightened with the damper under vehicle load.

4. Loosely install the damper mounting nuts.



DAMPER MOUNTING NUTS
Tighten to this torque in
step 6, next page.
39 N·m (3.9 kg·m, 28 lb·ft)

5. Tighten the damper mounting bolt.
6. Tighten the damper mounting nuts.
7. Install the rear seat.



DAMPER MOUNTING BOLT
55 N·m
(5.5 kg·m, 40 lb·ft)

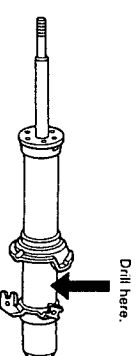
Damper Disposal

WARNING

- The dampers contain nitrogen gas and oil under pressure. The pressure must be relieved before disposal to prevent explosion and possible injury when scrapping.
- Always wear eye protection to avoid getting metal shavings in your eyes when the gas damper pressure is relieved.

Place the damper on a level surface with its rod extended and drill a hole of 2.0–3.0 mm (0.08–0.12 in) diameter in the body to release the gas.

<Front Damper:>



<Rear Damper:>

