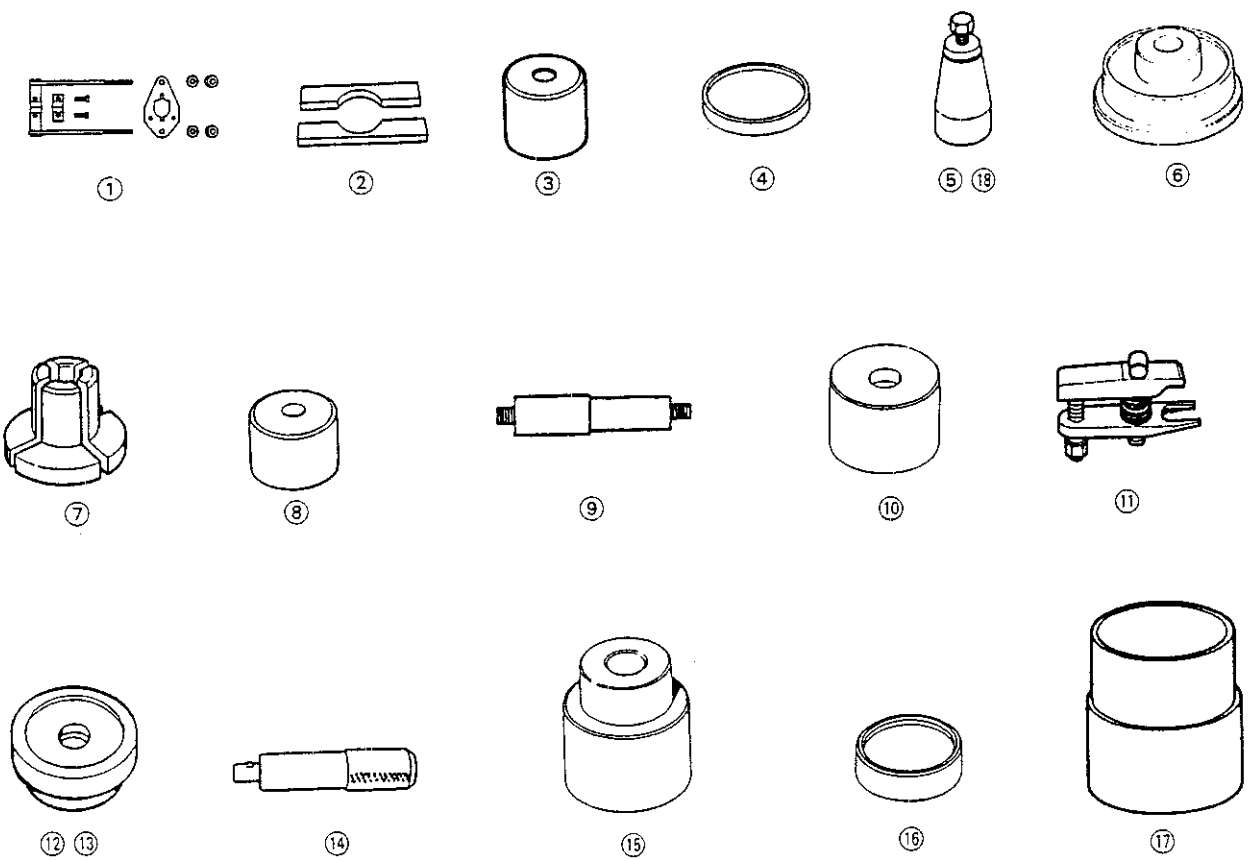
Suspension

Special Tools

Ref. No.	Tool Number	Description	Q'ty	Page Reference
①	07GAE–SE00101	Spring Compressor	1	18-23, 25, 36, 38
②	07GAF–SD40700	Hub Dis/Assembly Base	2	18-14
③	07GAF–SE00200	Hub Dis/Assembly Guide Attachment	1	18-16
④	07GAF–SE00401	Hub Dis/Assembly Base	1	18-14
⑤	07GAG–SD40700	Ball Joint Boot Clip Guide	1	18-19
⑥	07HAD–SF10100	Driver Attachment	1	18-15
⑦	07HGK–0010101	Wheel Alignment Gauge Attachment	1	18-4, 5
⑧	07JAF–SH20110	Hub Dis/Assembly Pilot, 38 mm	1	18-14, 15, 16
⑨	07JAF–SH20120	Hub Dis/Assembly Shaft, 22.4 x 25.4 mm	1	18-14, 15, 16
⑩	07JAF–SH20200	Ball Joint Remover Base	1	18-18
⑪	07MAC–SL00200	Ball Joint Remover, 28 mm	1	18-12, 13
⑫	07746–0010500	Attachment, 62 x 68 mm	1	18-14
⑬	07746–0010600	Attachment, 72 x 75 mm	1	18-15
⑭	07749–0010000	Driver	1	18-14, 15 16
⑮	07965–SB00100	Ball Joint Remover/Installer	1	18-18
⑯	07965–SB00200	Ball Joint Installer Base	1	18-18
⑰	07965–SD90100	Support Base	1	18-15, 16
⑱	07974–SA50700	Ball Joint Boot Clip Guide	1	18-18, 19

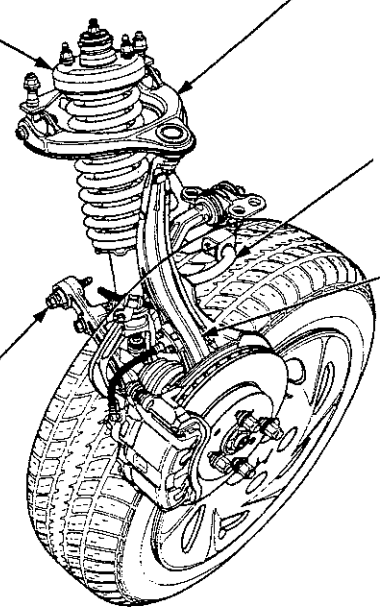


Component Location

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.**

Front Suspension:



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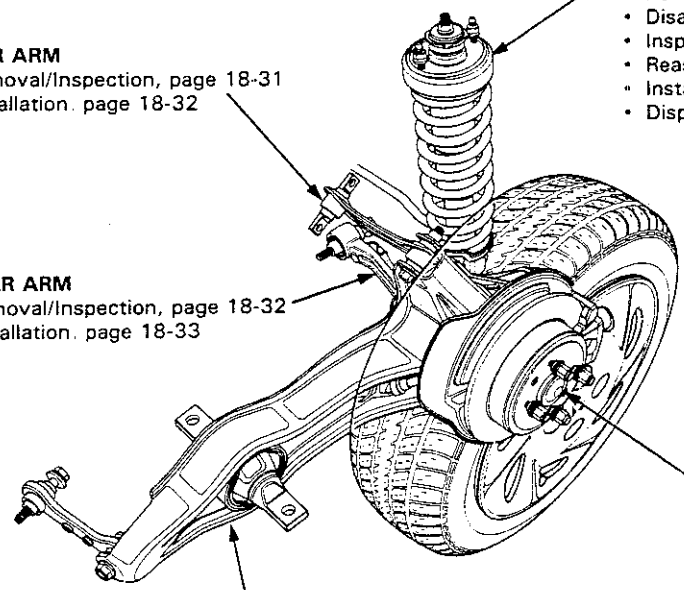
LOWER ARM
- Removal/Inspection, page 18-20
- Installation, page 18-21

Rear Suspension:



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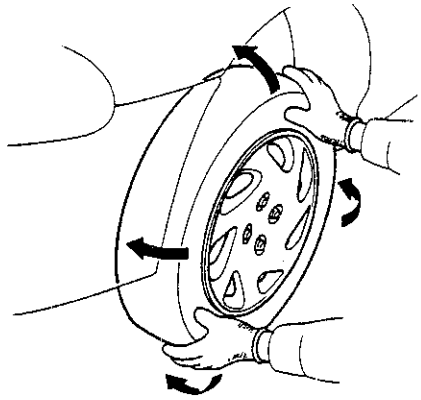
Wheel Alignment

Service Information

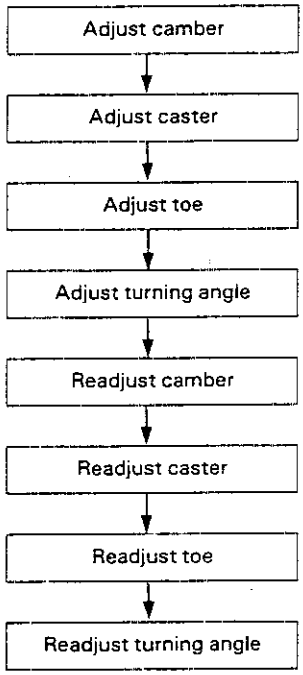
NOTE: For proper inspection/adjustment of the wheel alignment, check and adjust the following before checking the alignment

- 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)



Wheel alignment adjustment procedure

Each of the wheel alignment elements relates to the other Therefore, the total adjustment of the front/rear wheel alignment is required whenever either one of elements (i.e camber, caster, toe, and/or turning angle) is adjusted.



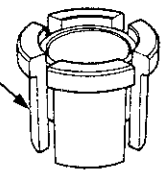
Special Tools Information

Wheel alignment gauge attachment:

NOTE:

- As the wheel alignment gauge attachment can be installed by magnetic force of camber/caster gauge, make sure the wheel hubs are clean and rust-free before installing the wheel alignment gauge attachment
- When installing the special tool, align the special tool groove and mating surface groove of the camber/caster gauge, to make the most of the magnetic force of the camber/caster gauge
- For accurate readings, measure the wheel alignment at the car must be level

WHEEL ALIGNMENT GAUGE ATTACHMENT 07HGK—0010101

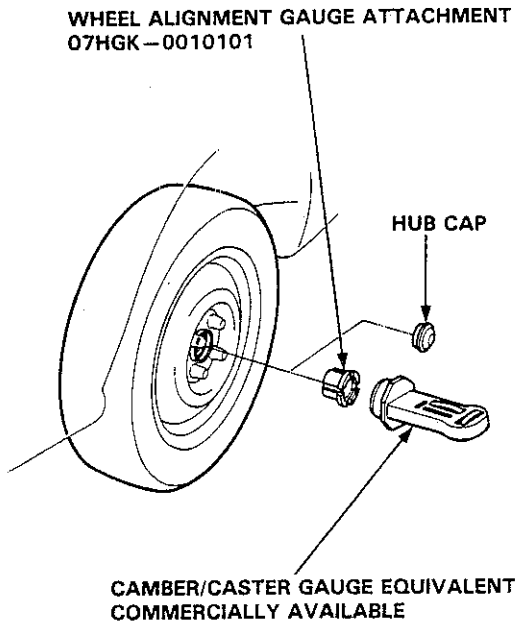


Camber

Inspection

1. Remove the wheel cap.
2. Remove the hub cap from the rear wheel hub (see page 18-29)
3. Install the wheel alignment gauge attachment and camber/caster gauge on the wheel hub
4. Turn the front wheels to the straight ahead position.
5. Read the camber on the gauge with the bubble at the center of the gauge

   Camber angle:
   Front: −0°15′ ± 1°
   −0°20′ ± 1° (B16A2 only)
   Rear: −0°30′ ± 1°
6. If out of specification, check for bent or damaged suspension components



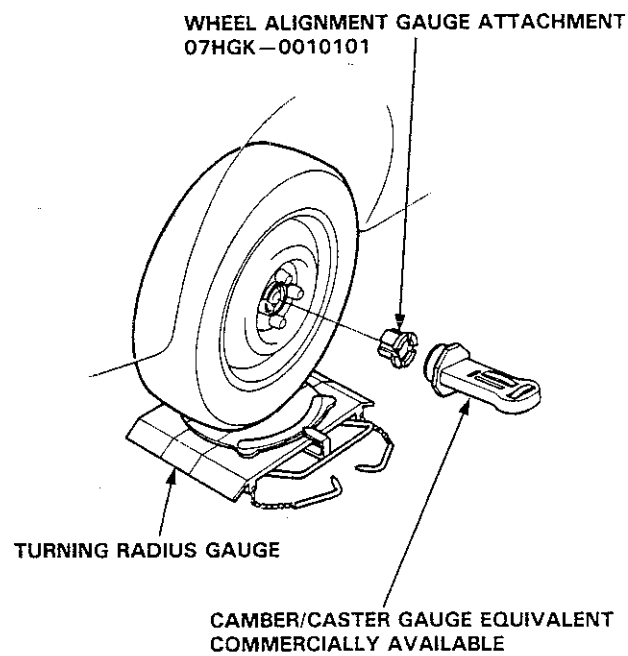
Caster

Inspection

1. Remove the wheel cap
2. Raise the car and set the turning radius gauges beneath the front wheels, and place boads under the rear wheels the same thickness as one of the turning radius gauges, then lower the car.

   NOTE: Be sure that the car is parallel to the ground with the wheels on the turning radius gauges and boards.
3. Install the wheel alignment gauge attachment and camber/caster gauge on the wheel hub, and apply the front brake.
4. Turn the front wheel 20° outward, then turn the adjust screw so that the bubble in the camber/caster gauge is at 0°.
5. Turn the wheel 20° inward and read the caster on the gauge with the bubble at the center of the gauge.

   Caster Angle: 1°10′ ± 1°
6. If out of specification, check for bent or damaged suspension components.



Wheel Alignment

Front Toe Inspection/Adjustment

Inspection

1 Center steering wheel spokes.

NOTE: Measure difference in toe measurements with the wheels pointed straight ahead.

2. Check the front toe

Front toe: 0 ± 2.0 mm (0 ± 0.08 in)

— If adjustment is required, go on to step 3

— If no adjustment is required, remove alignment equipment

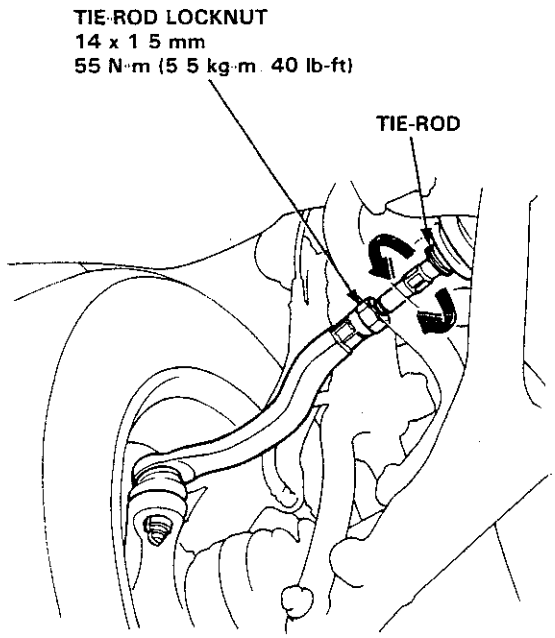
Adjustment

3. Loosen the tie-rod locknuts and turn both tie-rods in the same direction until the front wheels are in straight ahead position

4 Turn both tie-rods equally until the toe reading on the turning radius gauge is correct.

5. After adjusting, tighten the tie-rod locknuts

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



Rear Toe Inspection/Adjustment

Inspection

1 Release parking brake.

NOTE: If the parking brake is engaged, you may get an incorrect reading.

2. Check the rear toe.

Rear toe-in: 2.0 $^{+2.0}_{-1.0}$ mm (0.08 $^{+0.08}_{-0.04}$ in)

— If adjustment is required, go to step 3.

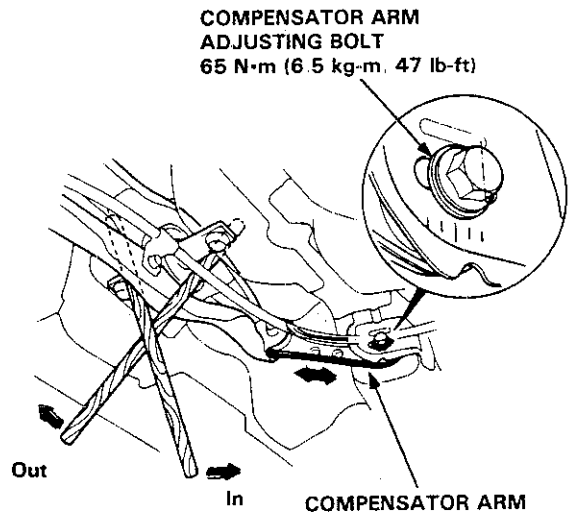
— If no adjustment is required, remove alignment equipment.

Adjustment

3 Before adjustment, note the locations of right and left compensator arm adjusting bolts.

4. Loosen the adjusting bolt and slide the compensator arm in or out as shown, to adjust the toe.

5. Tighten the adjusting bolt.



- Example
  After the rear toe inspection, the wheel is 2 mm (0.1 in) out of the specification.
  — Move the arm so the adjusting bolt moves 2 mm (0.1 in) inward from the position recorded before the adjustment
  — The distance the adjusting bolt is moved should be equal to the amount out-of-specification.

Turning Angle Inspection/Adjustment

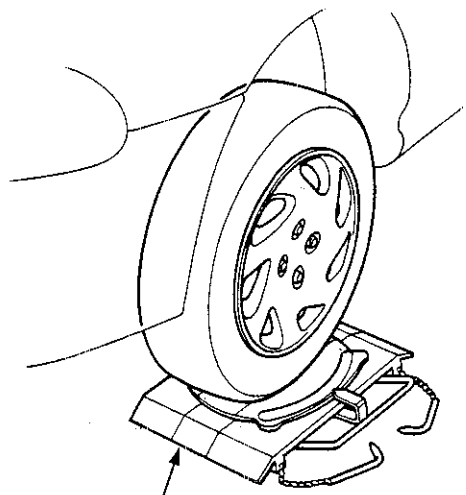
1. Jack up the front of the car. Set the turning radius gauges beneath the front wheels, then lower the car.

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.

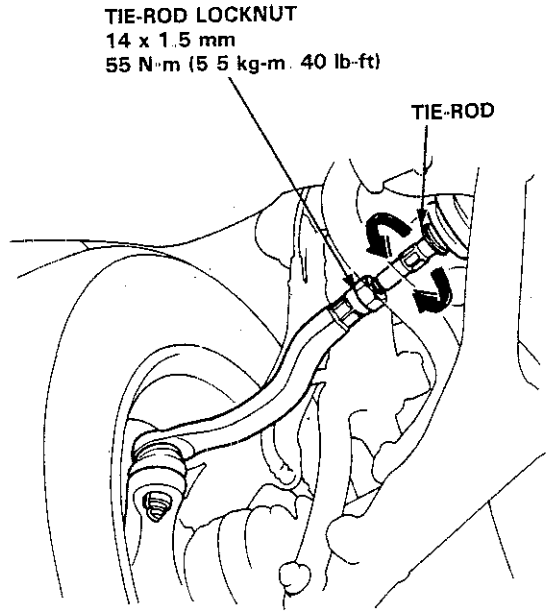
3. Turn the wheel right and left while applying the brake, and measure the turning angle of both wheels.

   Turning angle:
   Inward wheel: 40°00′ ± 2°
   36°00′ ± 2° (B16A2 only)
   Outward wheel: 33°00′
   30°30′ (B16A2 only)



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.

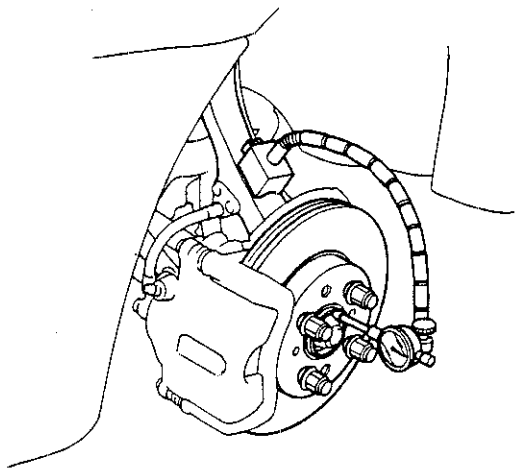


Wheel Measurements

Bearing End Play

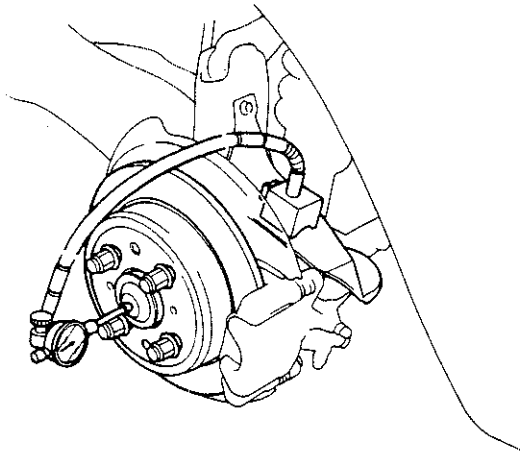
Front Wheel End Play

Standard: 0—0.05 mm (0—0.002 in)



Rear Wheel End Play

Standard: 0—0.05 mm (0—0.002 in)

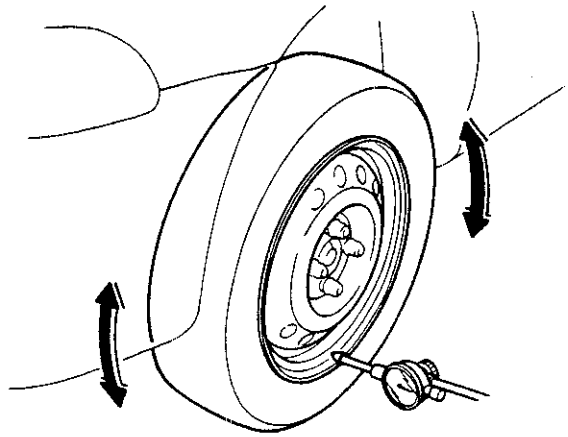


Runout

Front and Rear Wheel Axial Runout

Standard:

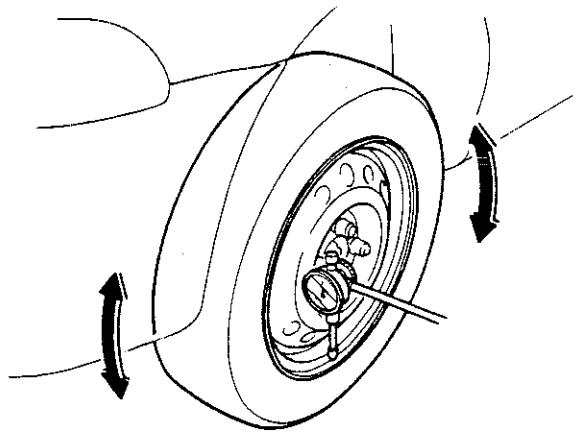
Steel Wheel:	0—1.0 mm (0—0.04 in)
Aluminum Wheel:	0—0.7 mm (0—0.03 in)
Service Limit:	2.0 mm (0.08 in)



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)

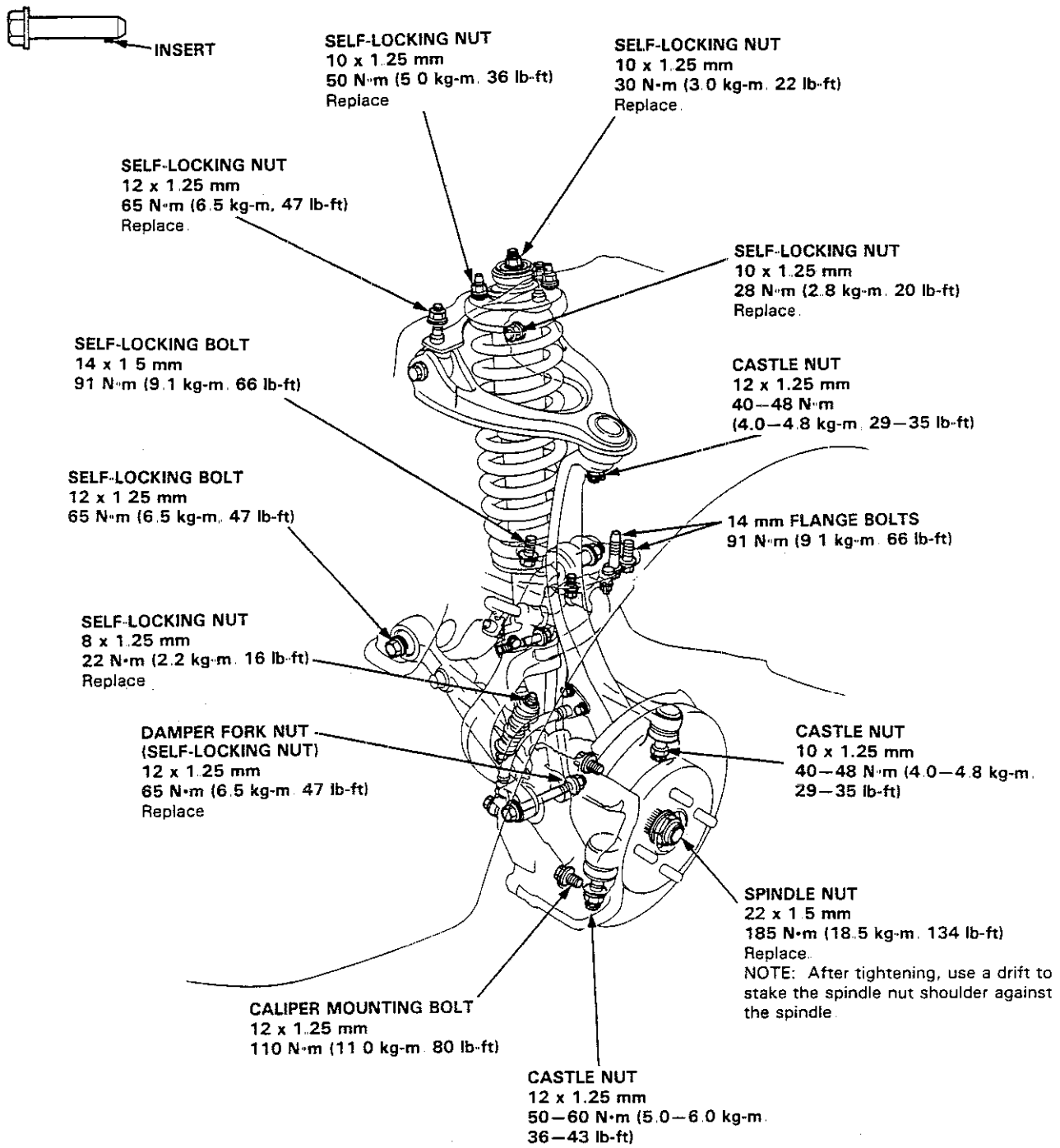


Torque Specifications

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.

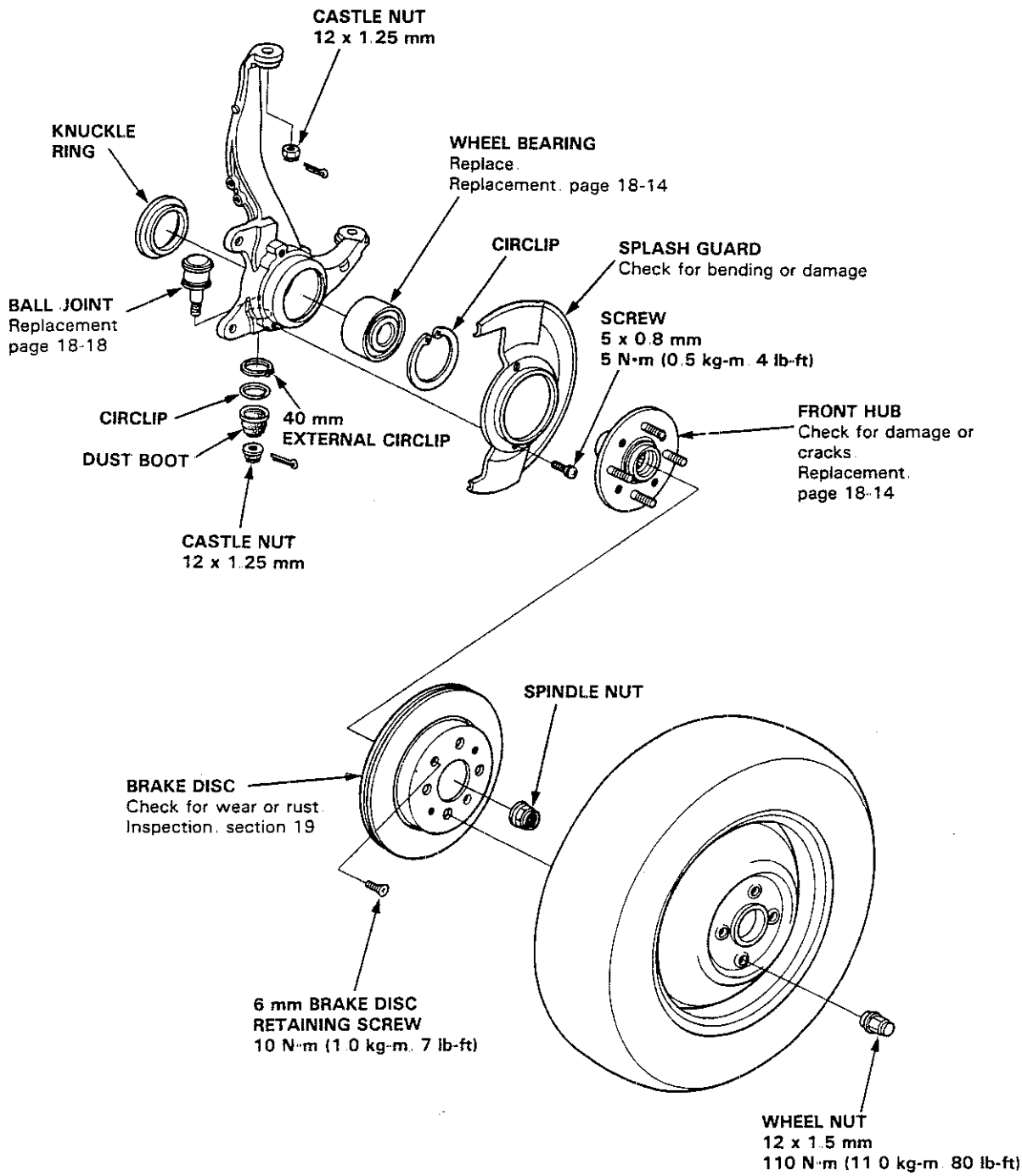


Knuckle/Hub

Illustrated Index

NOTE:

- Use only genuine Honda wheel weights for aluminum wheels. Non-genuine wheel weights may corrode and damage the aluminum wheels.
- 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 surface of the front hub and inside of the brake disc.
- Before installing the wheel, clean the mating surface of the brake disc and inside of the wheel.



Removal

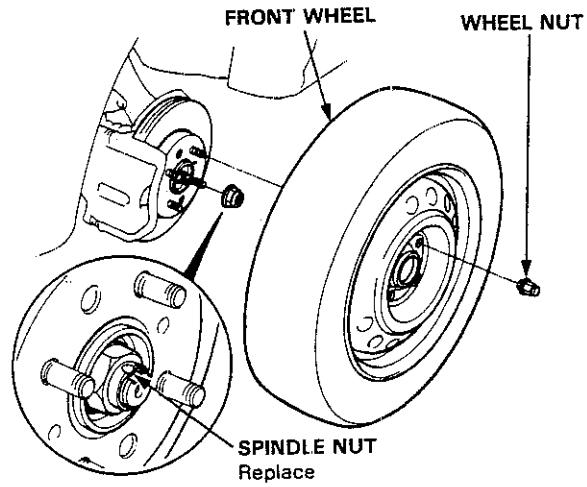
1. Loosen the wheel nuts slightly.

2. Raise the front of car and support on safety stands in proper locations.

   NOTE: Do not open or close the power roof when the car is raised by using the safety stands.

3 Remove the front wheel nuts and wheel

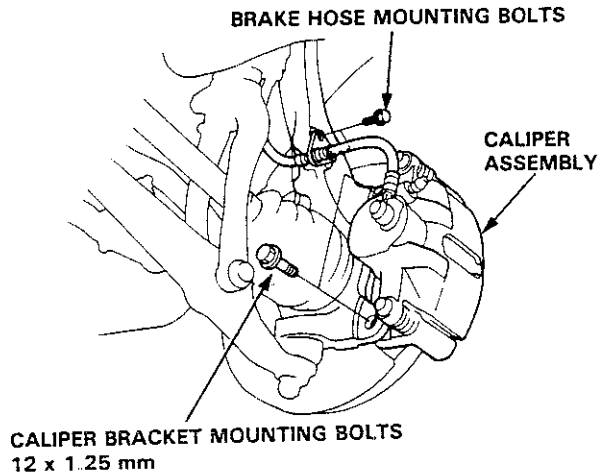
4 Raise the locking tab on the spindle nut, then remove the nut



5. Remove the brake hose mounting bolts.

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.

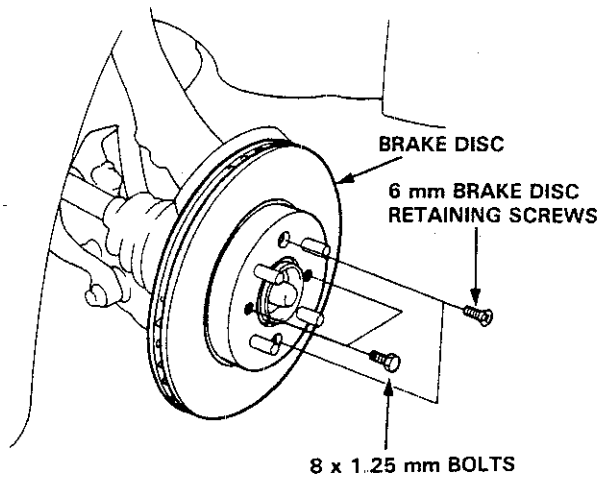


7. Remove the 6 mm brake disc retaining screws

8. Screw two 8 x 1.25 mm bolts into the disc to push it away from the hub.

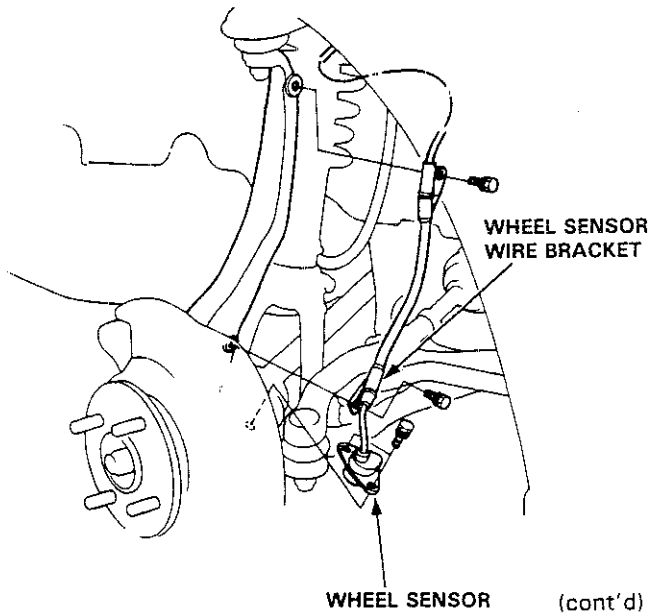
   NOTE: Turn each bolt two turns at a time to prevent cocking the disc excessively

9 Remove the brake disc from the knuckle.



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

    NOTE: Do not disconnect the wheel sensor.



(cont'd)

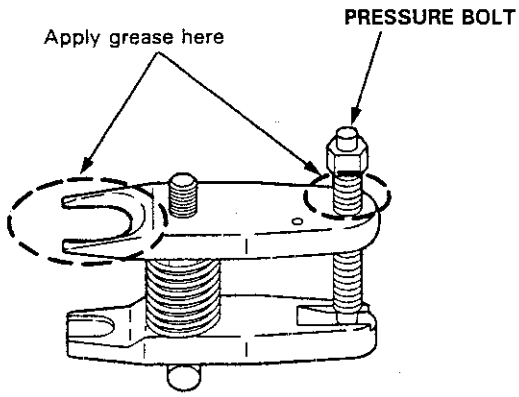
Knuckle/Hub (cont'd)

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

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

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

12. 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

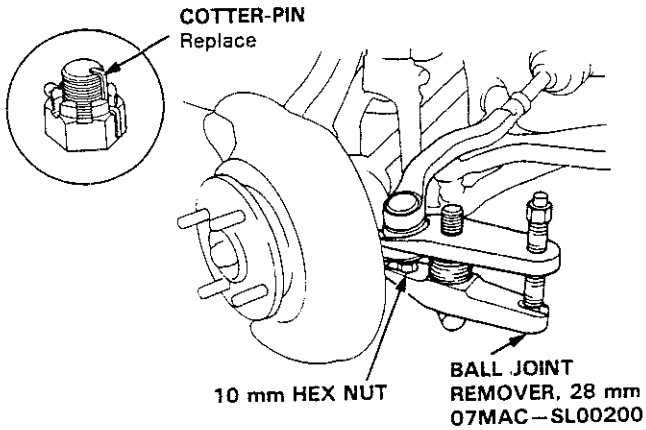


13. Remove the cotter-pin from the steering arm and remove the nut.

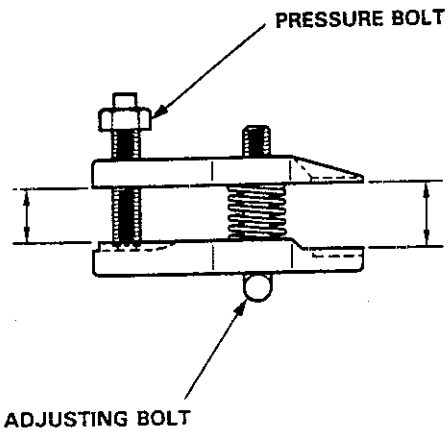
14. Install a 10 mm hex nut on the ball joint. Be sure that the hex nut is flush with the ball joint pin end to prevent damage to the threaded end of the ball joint

15. 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.



16. 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



17. 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.

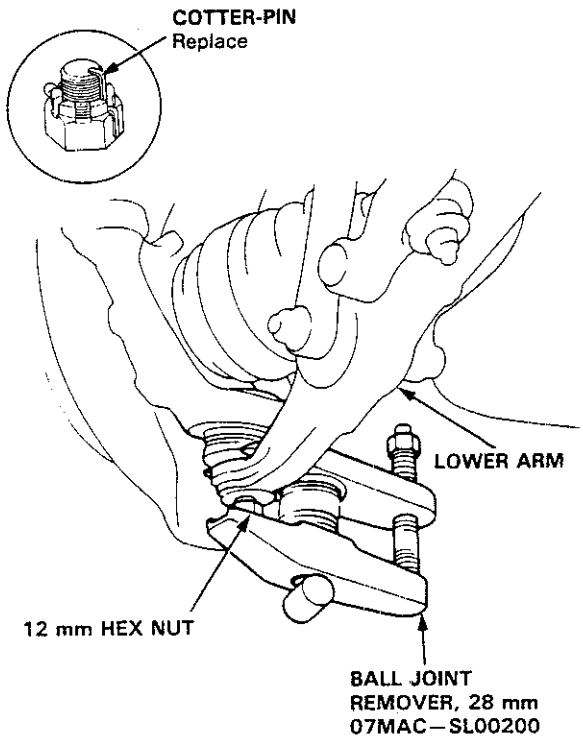
18. Remove the tool, then remove the nut from the end of the ball joint and pull the ball joint out of the steering/suspension arm. Inspect the ball joint boot and replace it if damaged

19. Remove the cotter-pin and lower arm ball joint nut.

20 Install a 12 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.

21 Use the ball joint remover as shown on page 18-12, to separate the ball joint and lower arm.

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

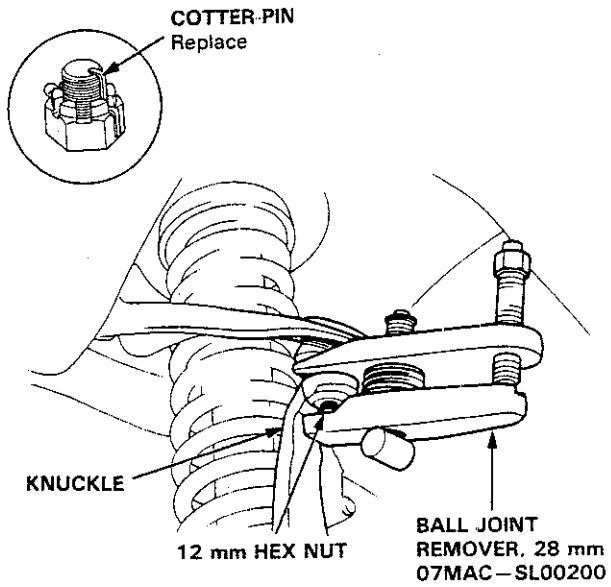


22 Remove the cotter-pin and the upper ball joint nut.

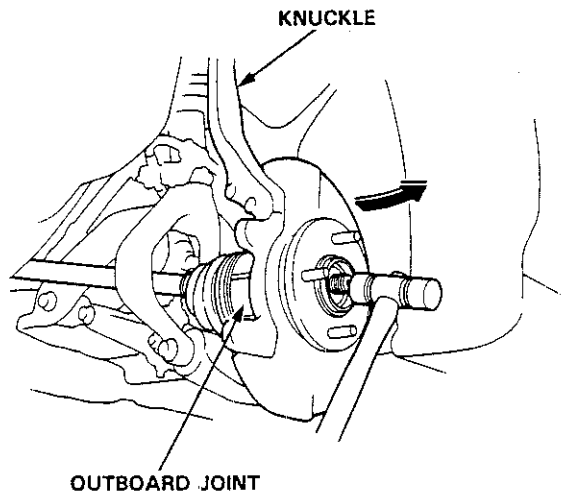
23. Install a 12 mm hex nut on the ball joint. Be sure that the hex nut is flush with the ball joint pin end, or the threaded section of the ball joint pin might be damaged by the ball joint remover.

24 Use the ball joint remover as shown on page 18-12, to separate the ball joint and knuckle.

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



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



(cont'd)

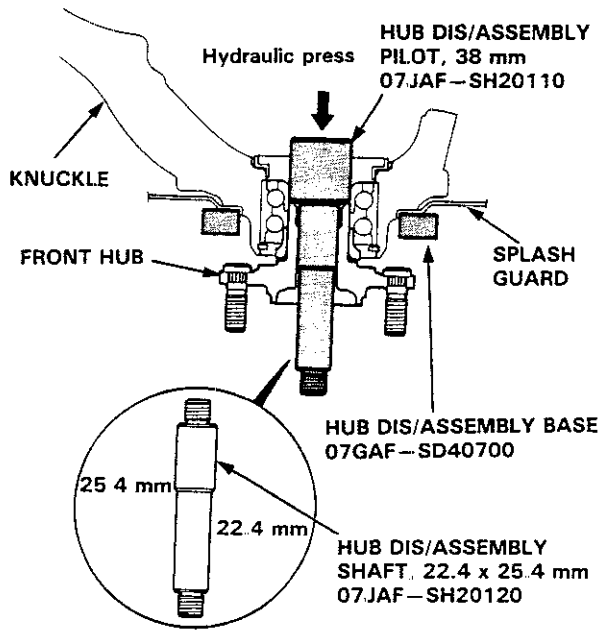
Knuckle/Hub (cont'd)

Hub Unit and Wheel Bearing Replacement

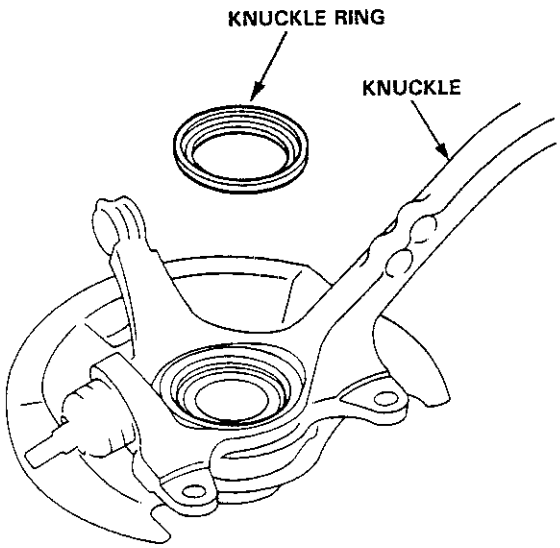
NOTE: Replace the bearing with a new one after removal.

26. Separate the hub from the knuckle using the special tools and a hydraulic press.

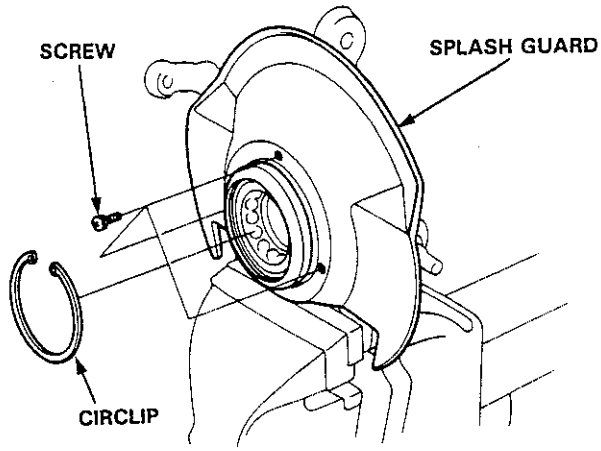
CAUTION:
- **Take care not to distort the splash guard.**
- **Hold onto the hub to keep it from falling when pressed clear.**



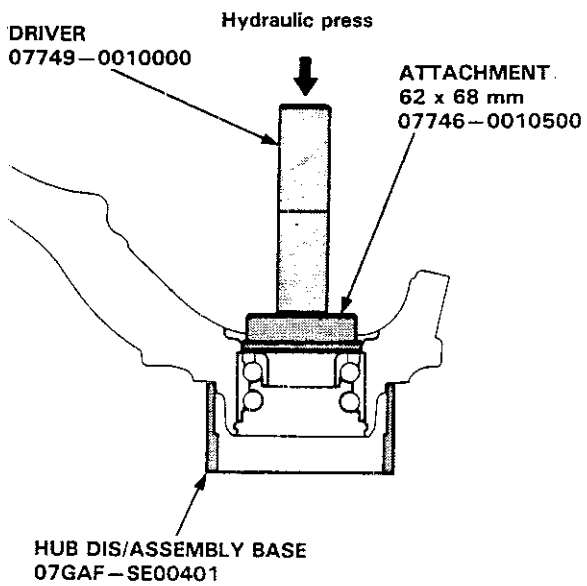
27. Remove the knuckle ring from the knuckle



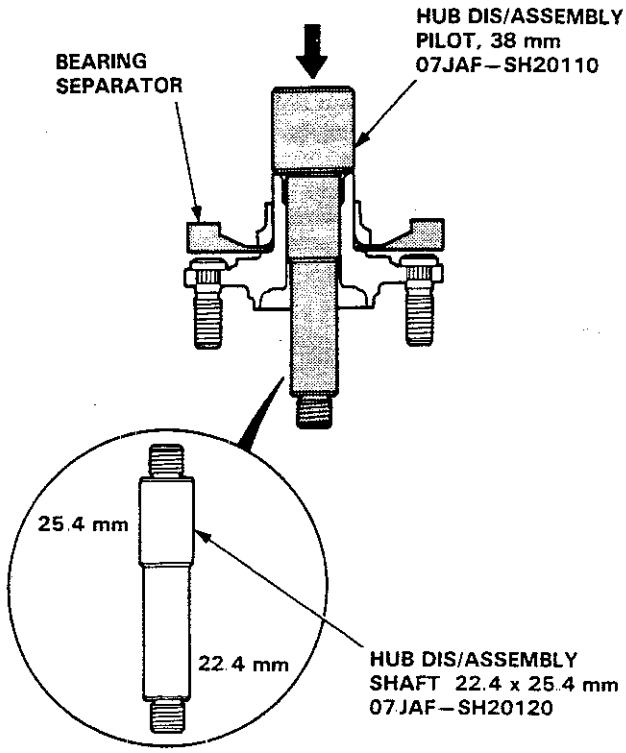
28. Remove the circlip and the splash guard from the knuckle.



29. Press the wheel bearing out of the knuckle using a hydraulic press and the special tools shown below.

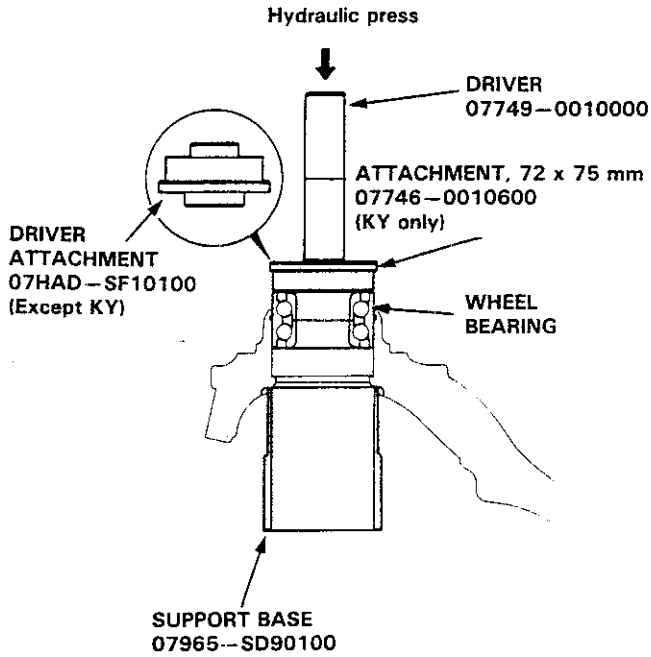


30. Remove the outboard bearing inner race from the hub using the special tools shown and a commercially available bearing separator.



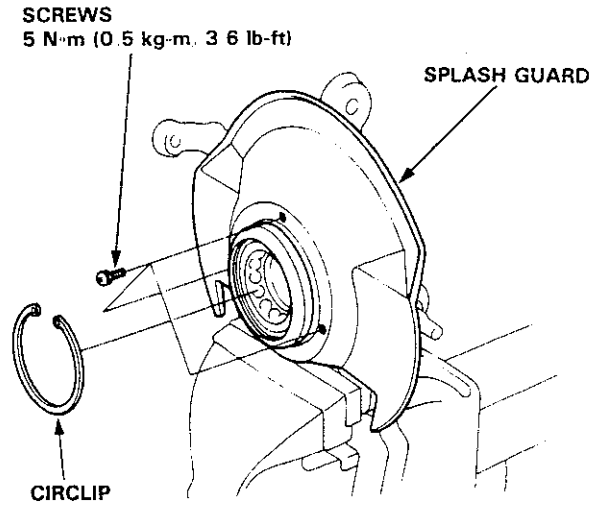
NOTE: Wash the knuckle and hub thoroughly in high flash-point solvent before reassembly.

31. Press a new wheel bearing into the hub using the special tools shown and a hydraulic press



32. Install the circlip securely in the knuckle groove.

33. Install the splash guard and tighten the screws

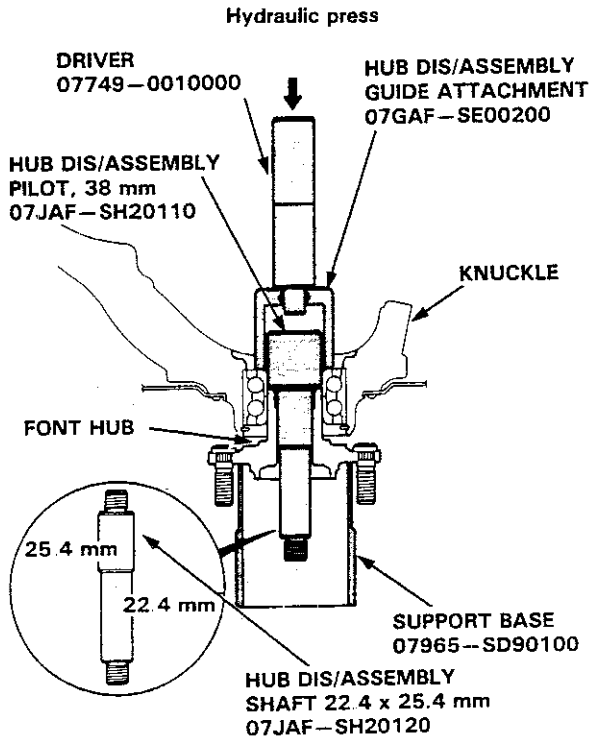


(cont'd)

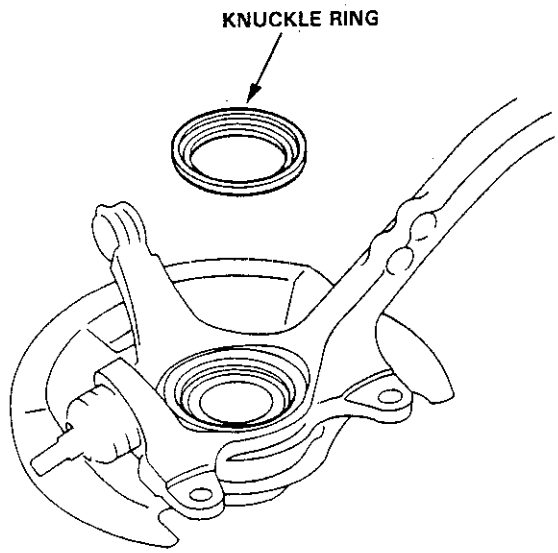
Knuckle/Hub (cont'd)

34. Install the hub on the knuckle using the special tools shown and a hydraulic press.

CAUTION: Take care not to distort the splash guard.



35. Install the knuckle ring on the knuckle.



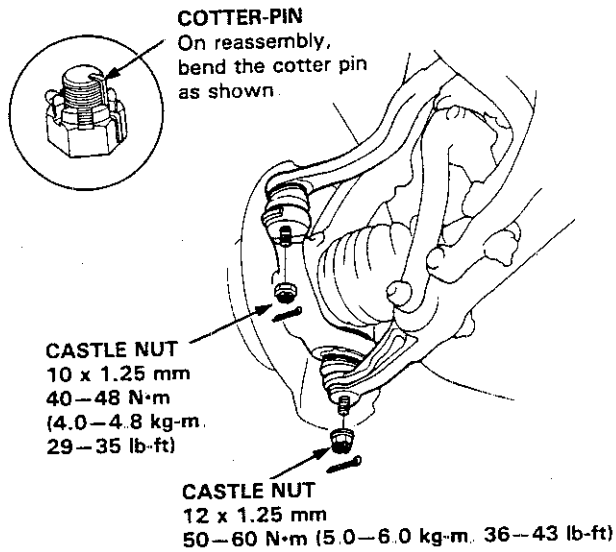
Installation

36. Install the knuckle on the driveshaft

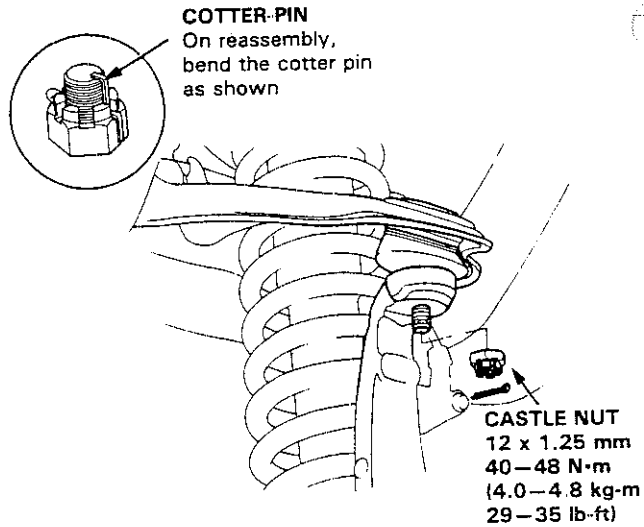
37. Install the knuckle on the lower arm and the tie-rod, then tighten the castle nuts and install new cotter-pins.

CAUTION:

- **Be careful not to damage the ball joint boot.**
- **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.**



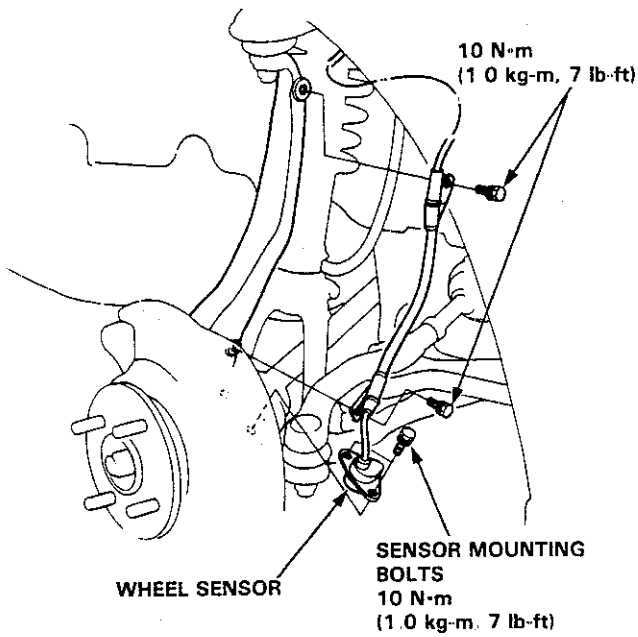
38. Install the knuckle on the upper arm, then tighten the castle nut and install a new cotter-pin



39 Install the wheel sensor with the sensor mounting bolts.

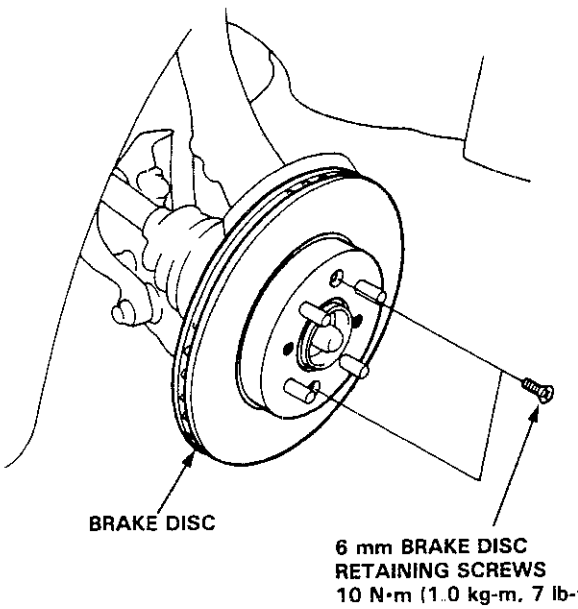
NOTE: Be careful when installing the sensors to avoid twisting wires.

40. Install the sensor wire with the two bolts



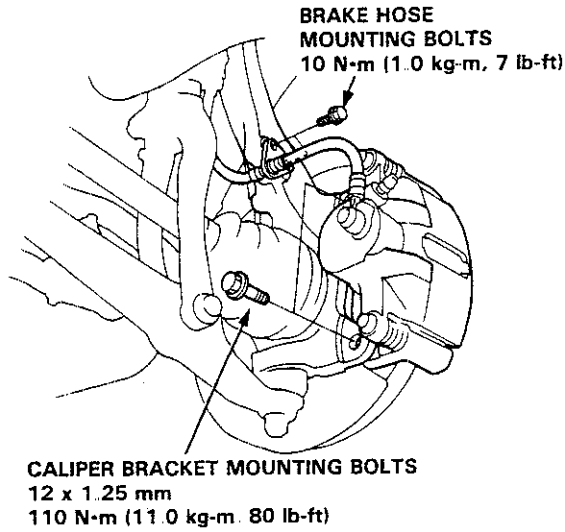
41. Install the brake disc with the 6 mm brake disc retaining screws

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



42. Install the brake caliper with the caliper bracket mounting bolts.

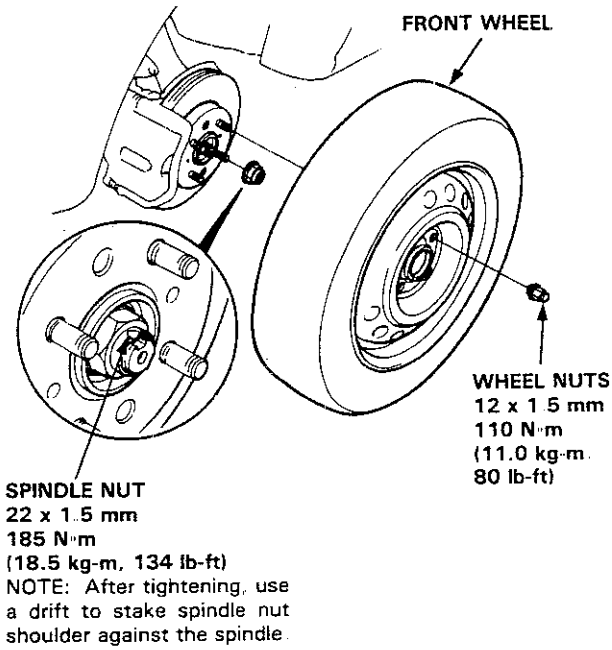
43. Install the brake hose with the brake hose mounting bolts.



44. Tighten the new spindle nut.

45. Install the front wheel with the wheel nuts.

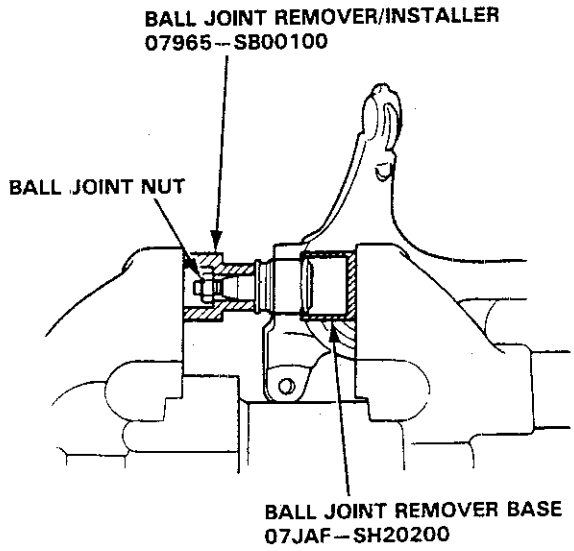
NOTE: Before installing the wheel, clean the mating surface of the brake disc and inside of the wheel.



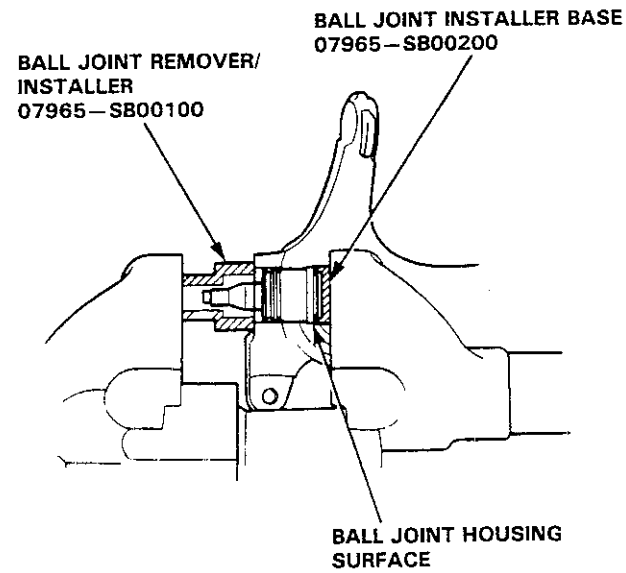
46. Check the front wheel alignment and adjust if necessary (see page 18-4).

Lower Ball Joint Replacement

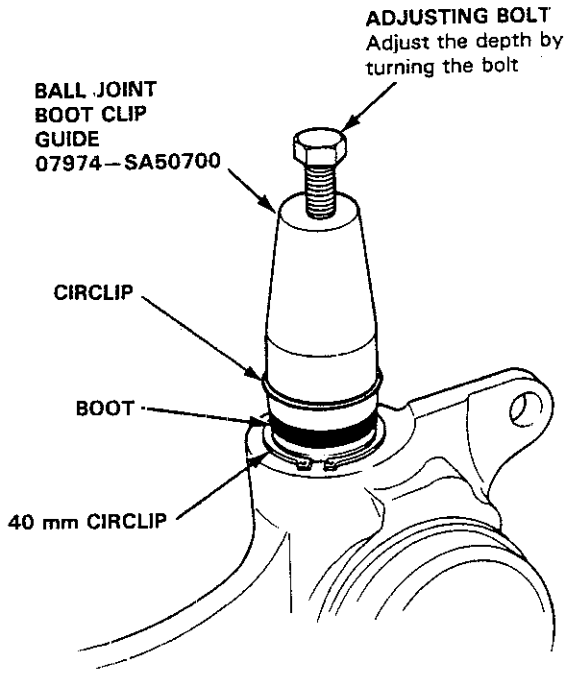
1. Remove the knuckle (see page 18-11).
2. Remove the boot by prying the snap ring off.
3. Remove the 40 mm circlip.
4. Install the special tool on the ball joint and tighten the ball joint nut.
5. Position the special tool over the ball joint as shown then set the assembly in a vise. Press the ball 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.
9. Adjust the special tool with the adjusting bolt until the end of the tool aligns with the groove on the boot. Slide the clip over the tool and into position.



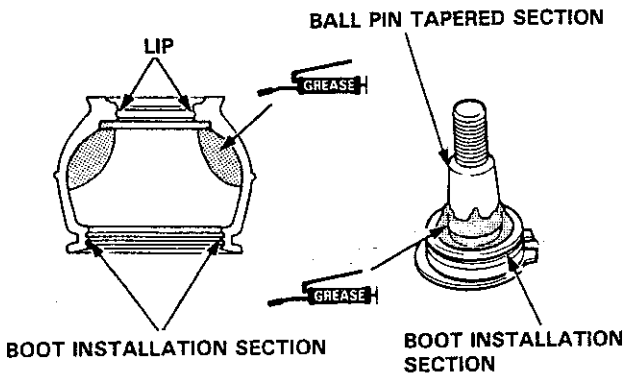
10. Install the knuckle (see page 18-16).
11. Check the front wheel alignment and adjust if necessary (see page 18-4).

Ball Joint Boot Replacement

1. Remove the circlip 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

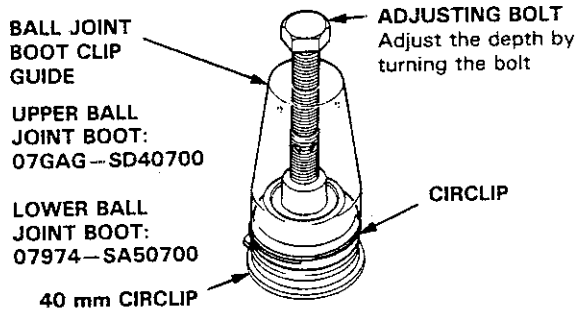
   CAUTION:
   - **Keep grease off the boot installation section and the tapered section of the ball pin.**
   - **Do not allow dust, dirt, or other foreign materials to enter the boot.**

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 clip over the tool and into position.

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

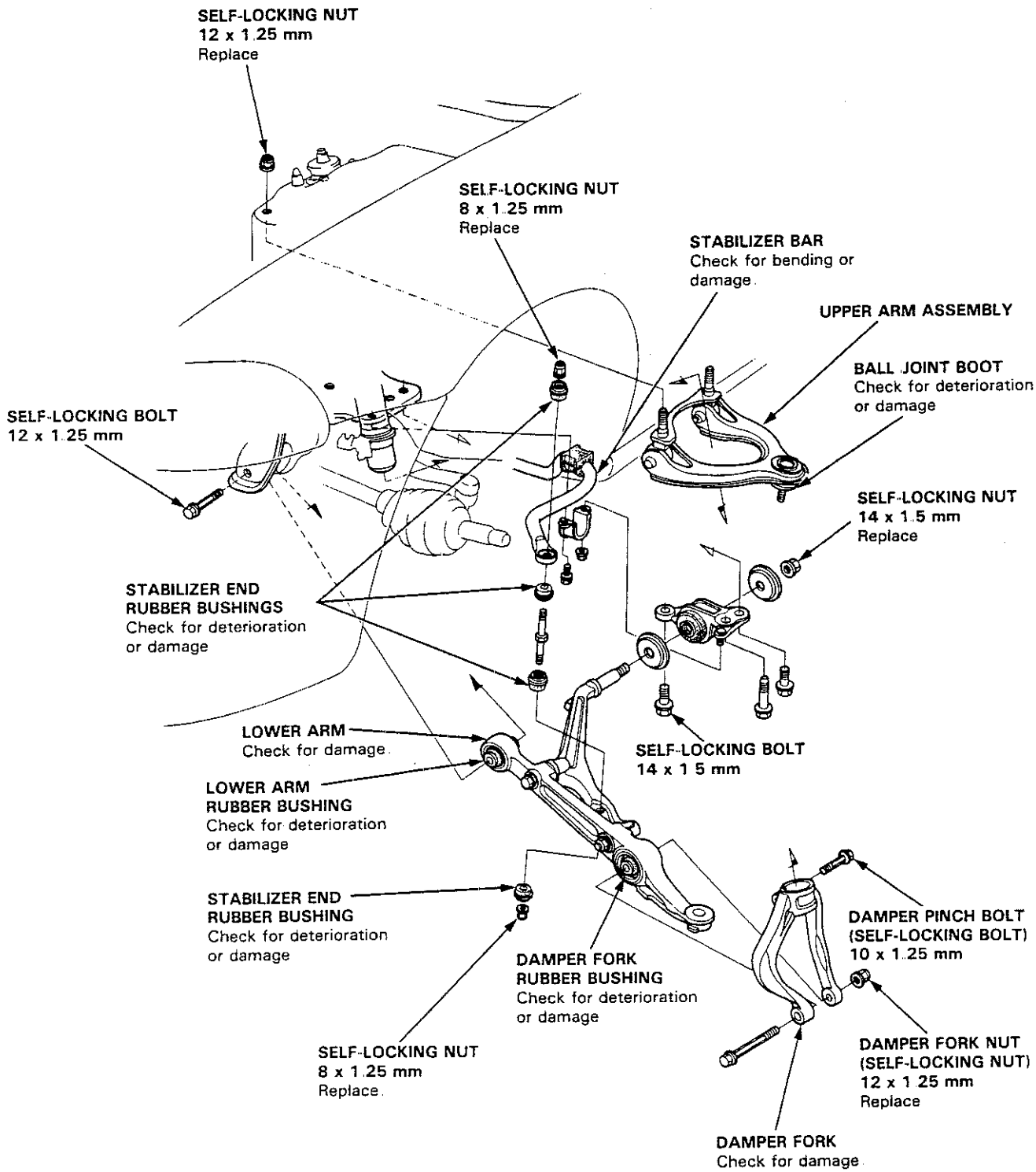


CAUTION: After installing the boot, check the ball pin tapered section for grease contamination and wipe it if necessary.

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 boot.

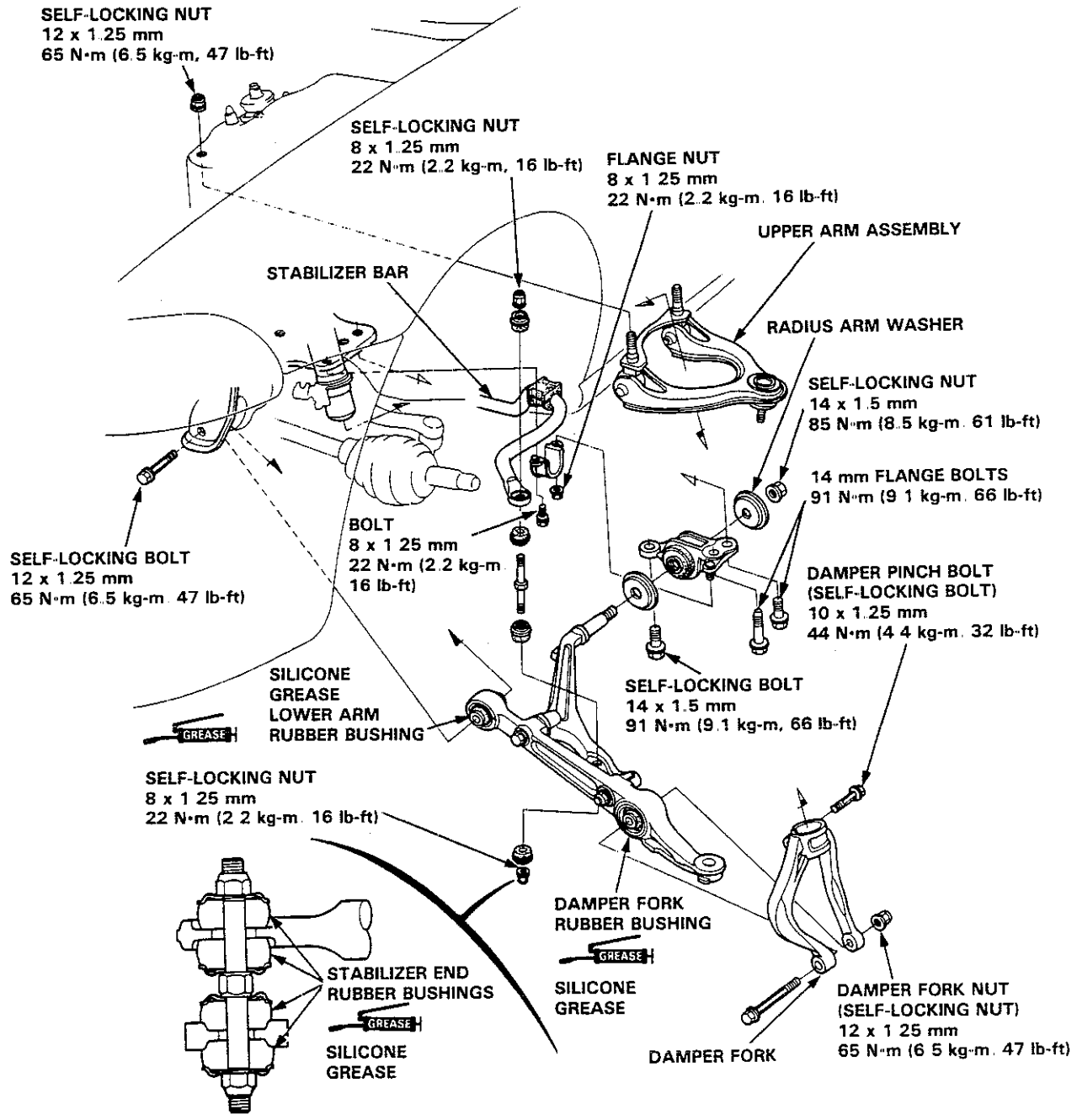


Installation

NOTE:

- Wipe off the grease before tightening the nut at the ball joint.
- The right and left damper forks are symmetrical. The left damper fork is marked with "VL" while the right damper fork is marked with "VR". Do not interchange them.
- The right and left upper arms are symmetrical. The left upper arm is marked with "SRZL " while the right arm is marked with "SRZR" Do not interchange them.
- After installing the suspension arm, check the wheel alignment and adjust if necessary
- When installing the radius arm washers, the "FR" mark faces the front of the car

CAUTION: The vehicle should be on the ground before any bolts or nuts connected to rubber mounts or bushing are tightened.

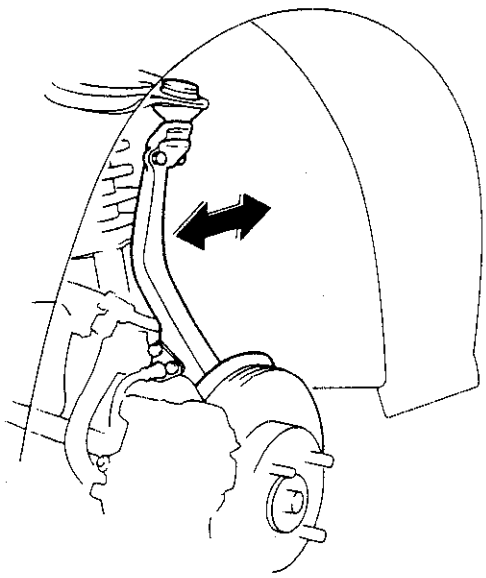


Upper Arm Bushing Replacement

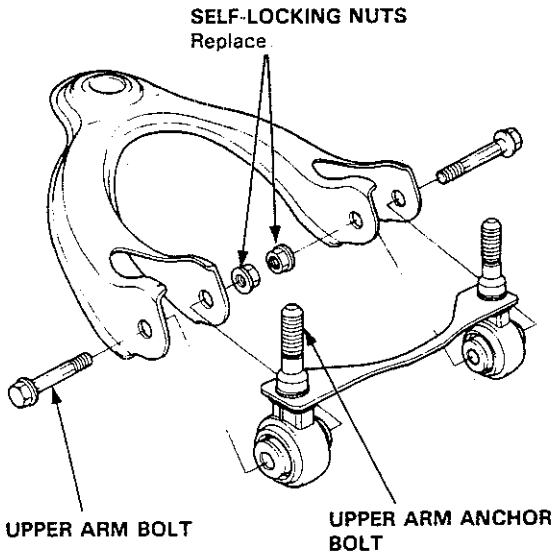
1 Remove the front wheels

2 Rock the upper ball joint front-to-back

3. Replace the upper arm bushings as follows if there is any play



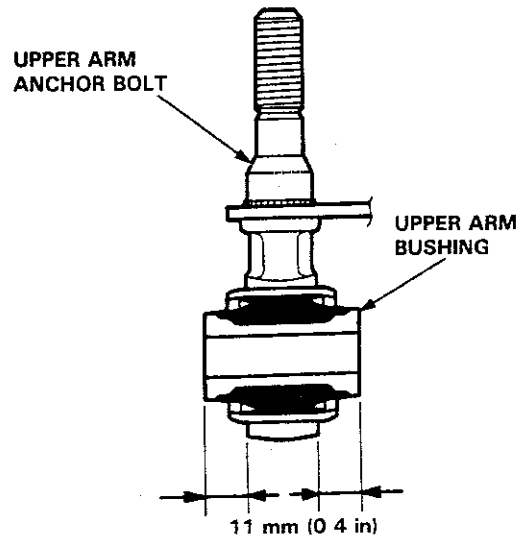
4. Remove the self-locking nuts, upper arm bolts and upper arm anchor bolts.



5. Place each upper arm anchor bolt in a vise and drive out the upper arm bushings.

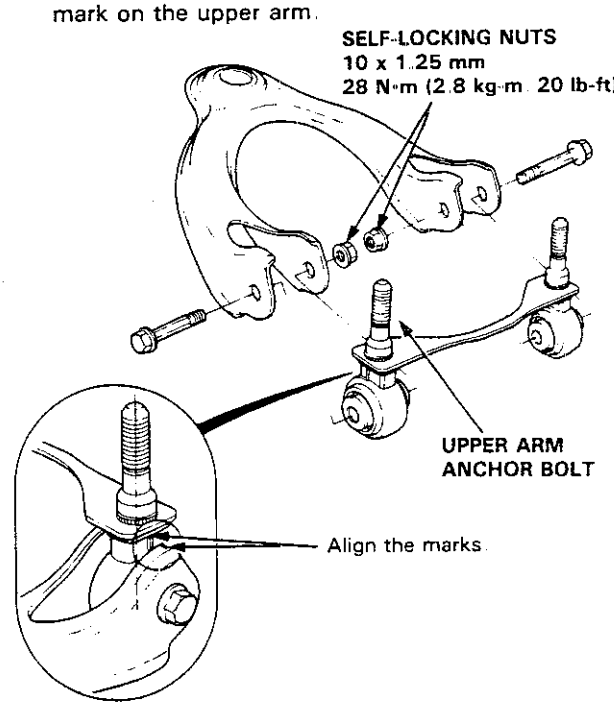
6 Drive the new upper arm bushings into the upper arm anchor bolts

NOTE: Center the bushing so that 11 mm (0 4 in) protrudes from each side of the anchor bolt as shown.



7 Install the upper arm bolts and tighten the self-locking nuts

NOTE: Align the upper arm anchor bolt with the mark on the upper arm.

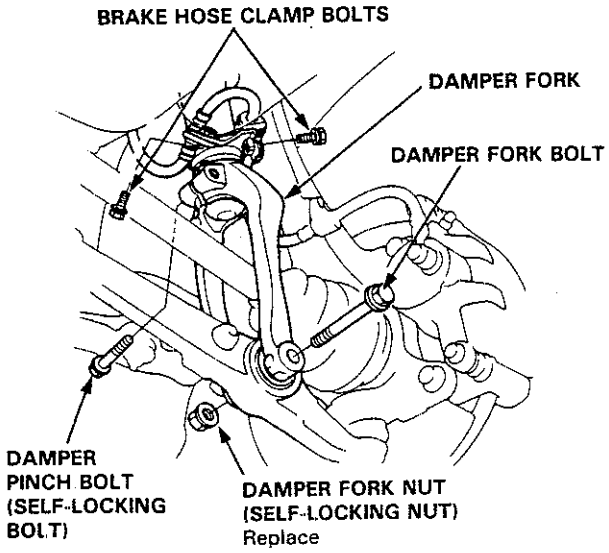


8. After installation, check the camber (page 18-4)

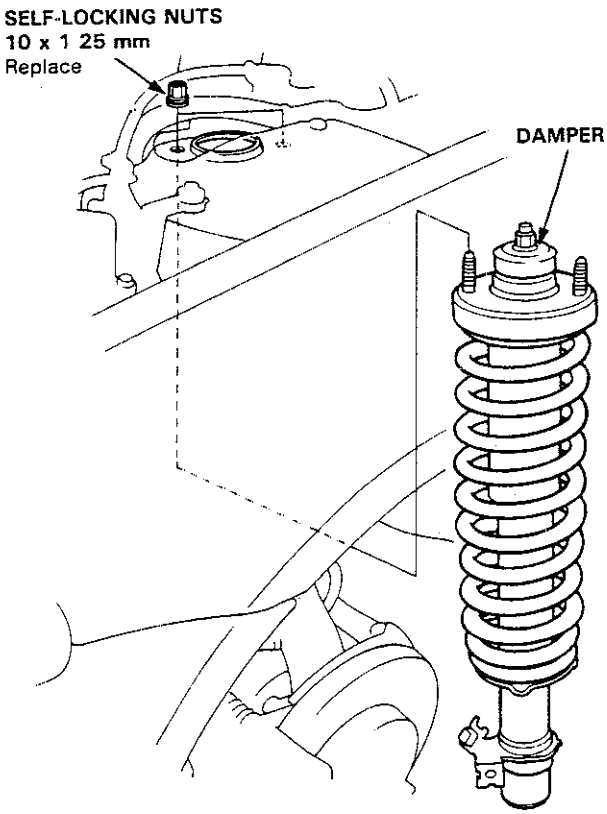
Front Damper

Removal

1. Remove the front wheel (see page 18-11).
2. Remove the brake hose clamp bolts from the damper
3. Remove the damper pinch bolt.
4. Remove the damper fork bolt and remove the damper fork.



5 Remove the damper by removing the two nuts

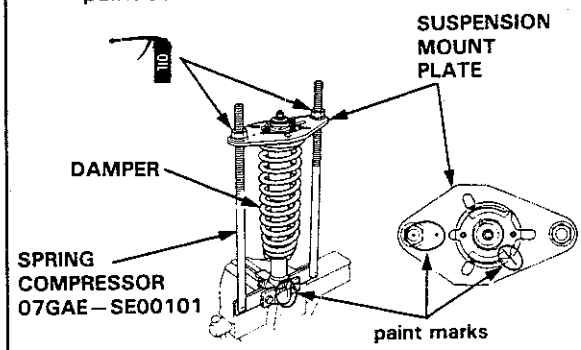


Disassembly

1. Install the damper on the spring compressor by holding the bottom of the damper, and loosely install the holder and bolts
2. Install the suspension mount plate on the spring compressor.
3 Support the spring compressor with damper on the vise, then tighten the damper holder bolts securely.

CAUTION: Do not over tighten the bolts

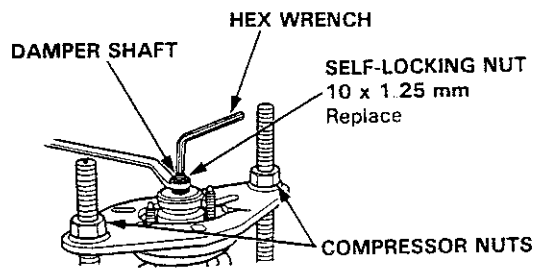
4. Mark the damper case and the spring compressor holder with paint as shown.
5. Mark the mount plate and the spring compressor and mount plate and damper mounting base with paint as shown.



6. Compress the damper by tightening the compressor nuts until the self-locking nut is lift from the seated washer

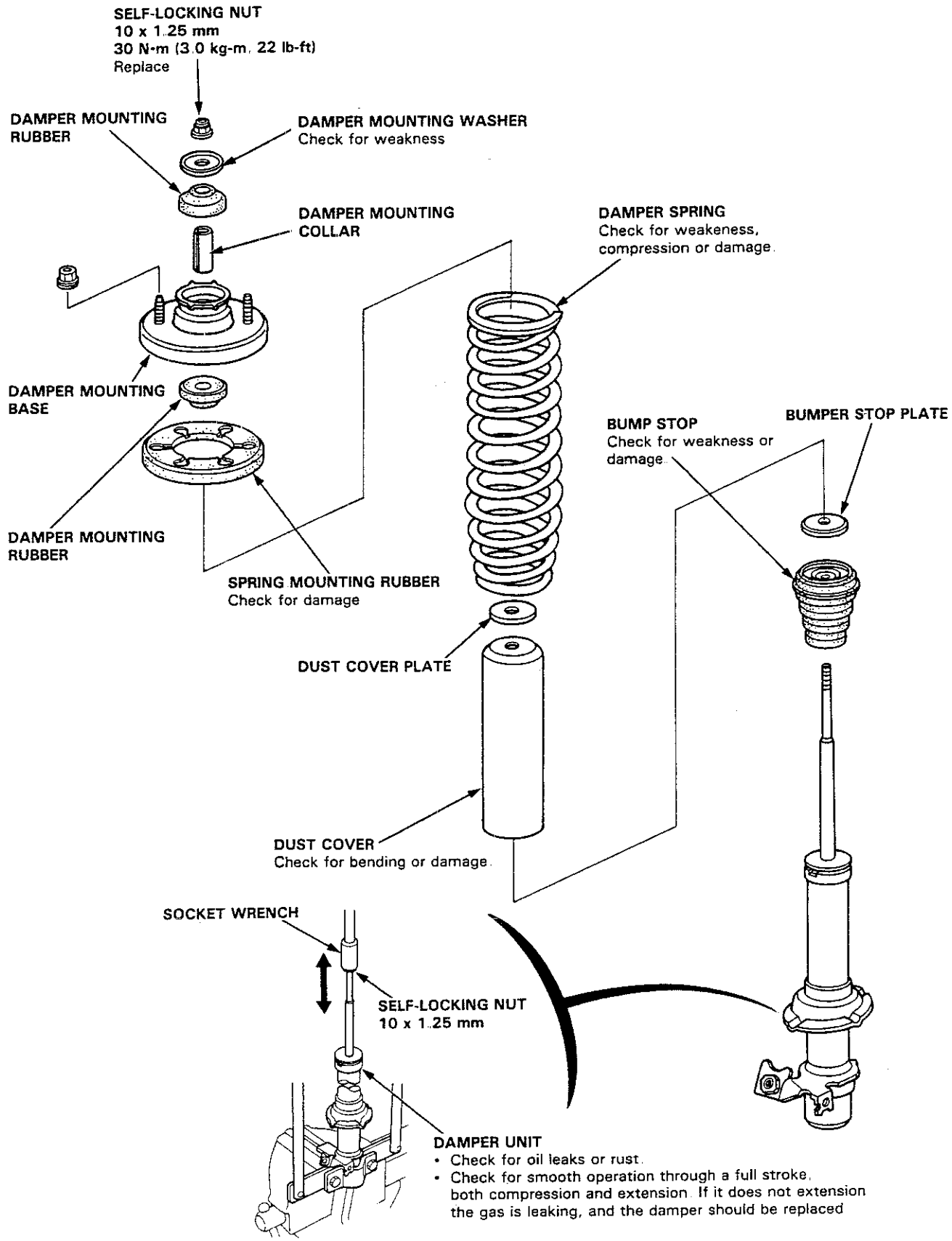
NOTE:
- Tne self-locking nut can not be lift when the mount plate is tilted during compressing the damper.
- Turn each compressor nut gradually and equally

7. Hold the damper shaft by hex wrench and remove the self-locking nut
8. Loosen the compressor nuts, then remove the suspension mount plate.
9 Disassemble the damper on the next page



Front Damper

Inspection



Reassembly

1. Install the damper unit on the spring compressor by aligning the marks on the damper case and the spring compressor holder.

   NOTE: If a new damper is to be installed, mark it on the same position as on the old damper.

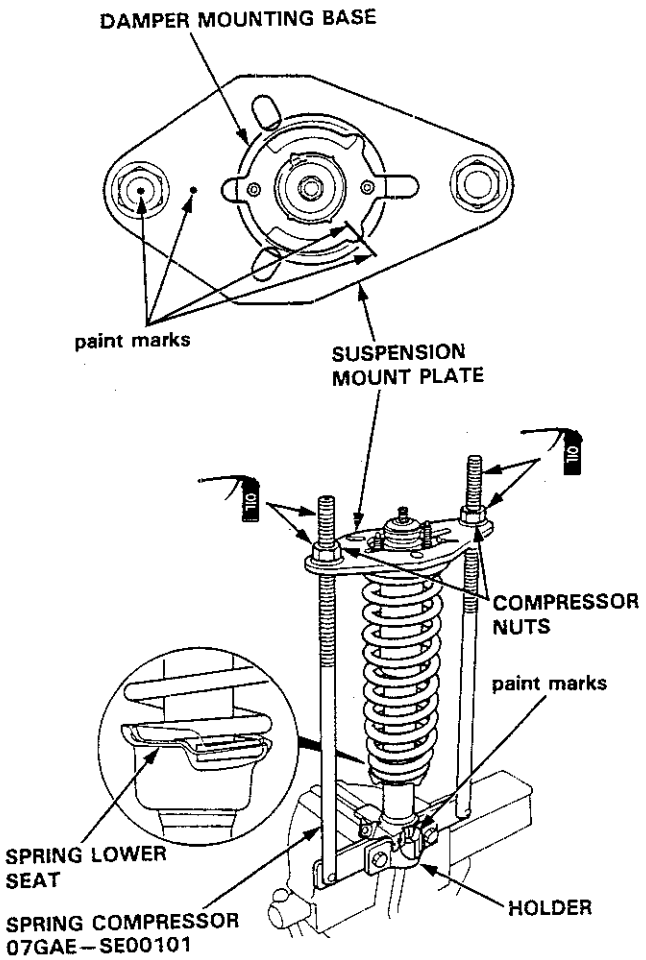
2. Reassemble the damper in reverse order of removal except the damper mounting washer and self-locking nut.

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

3. Install the suspension mount plate on the damper with the mark on the plate facing painted threads

4. Position the damper mounting base by aligning the marks on the damper mounting base and mount plate.

5 Apply oil to the seating surfaces of the compressor nuts and threads of the spring compressor, then loosely install the nuts

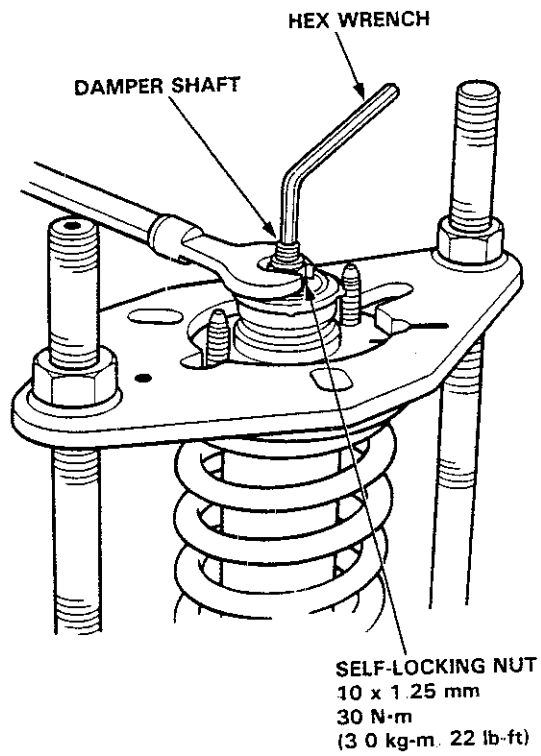


6. Compress the damper spring by turning the compressor nuts

   NOTE: Turn each compressor nut gradually and equally

7. Install the damper mounting washer, then loosely install the new self-locking nut.

8 Hold the damper shaft by hex wrench and tighten the self-locking nut

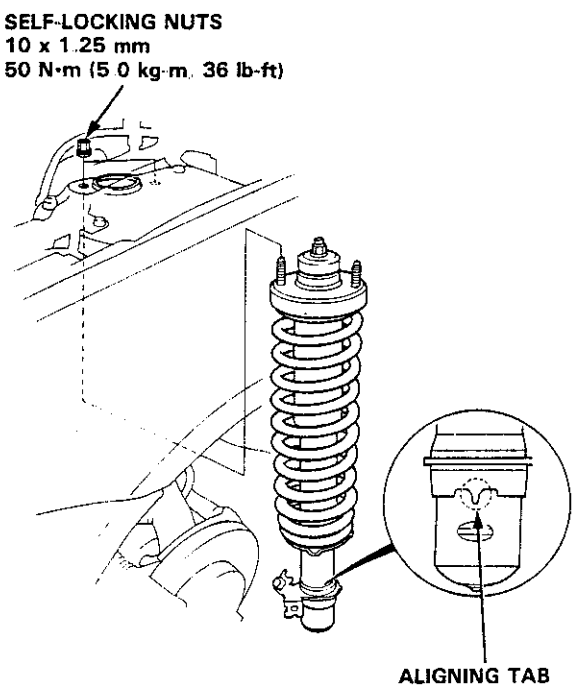


9. Remove the damper from the spring compressor

Front Damper

Installation

1 Loosely install the damper on the frame with the aligning tab facing inside



2. Install the damper fork over the driveshaft and onto the 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

CAUTION: Replace the damper pinch bolt 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)

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

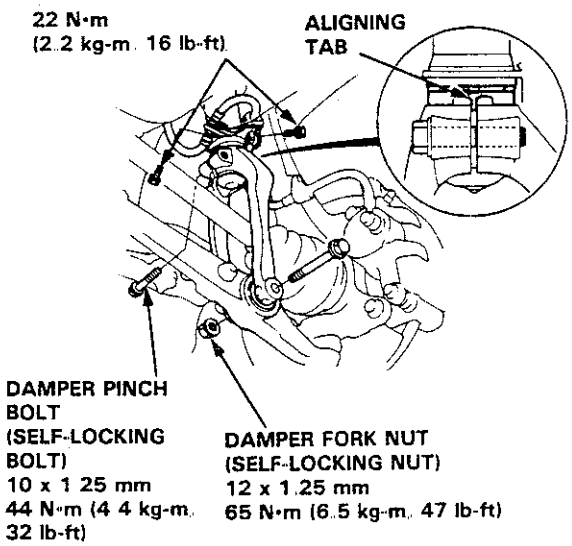
4. Raise the knuckle with a floor jack until the car just lifts off the safety stand

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.

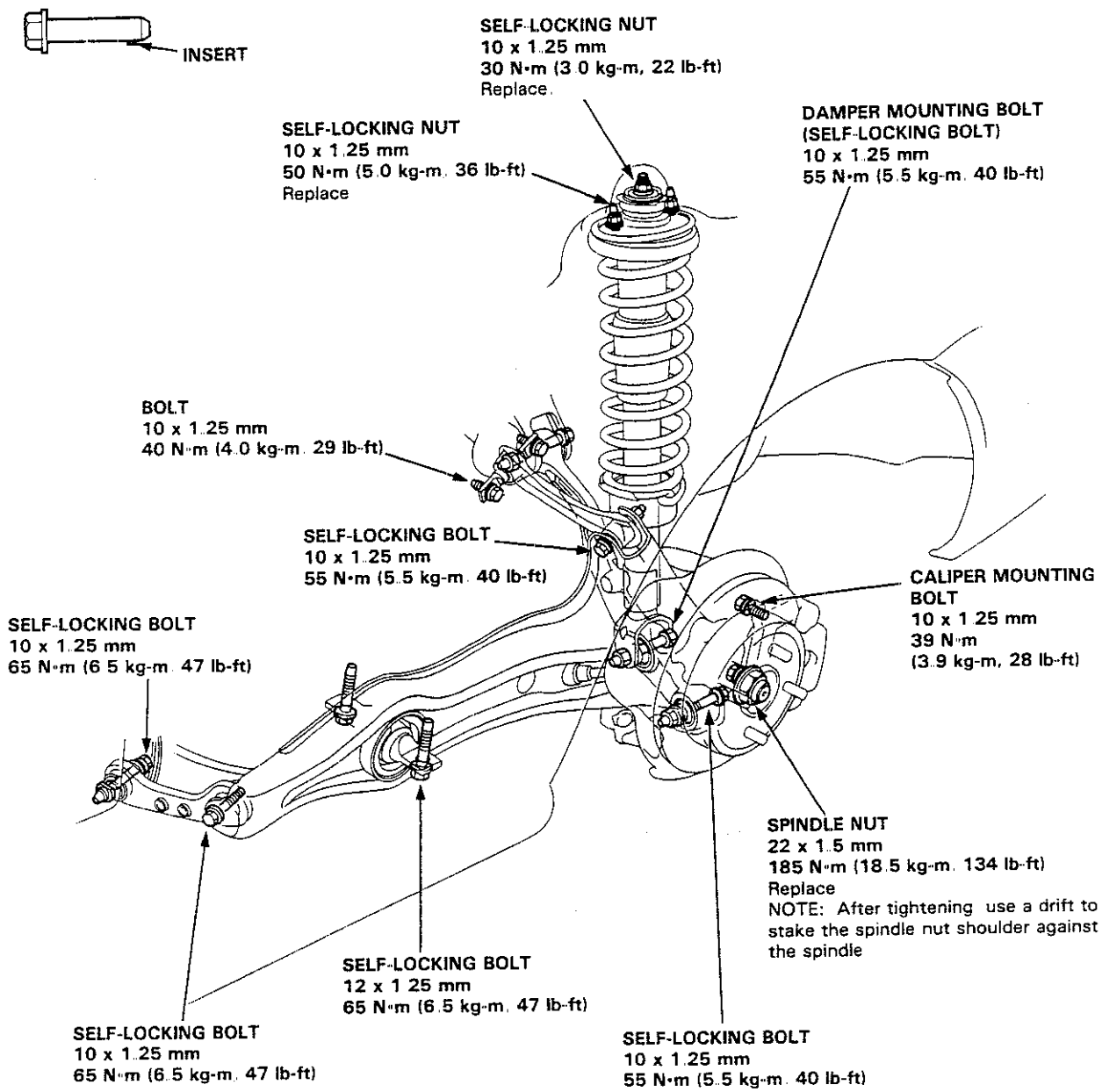
8. Install the brake hose clamps with the two bolts.



9. Install the front wheel (see page 18-17).

Torque Specifications

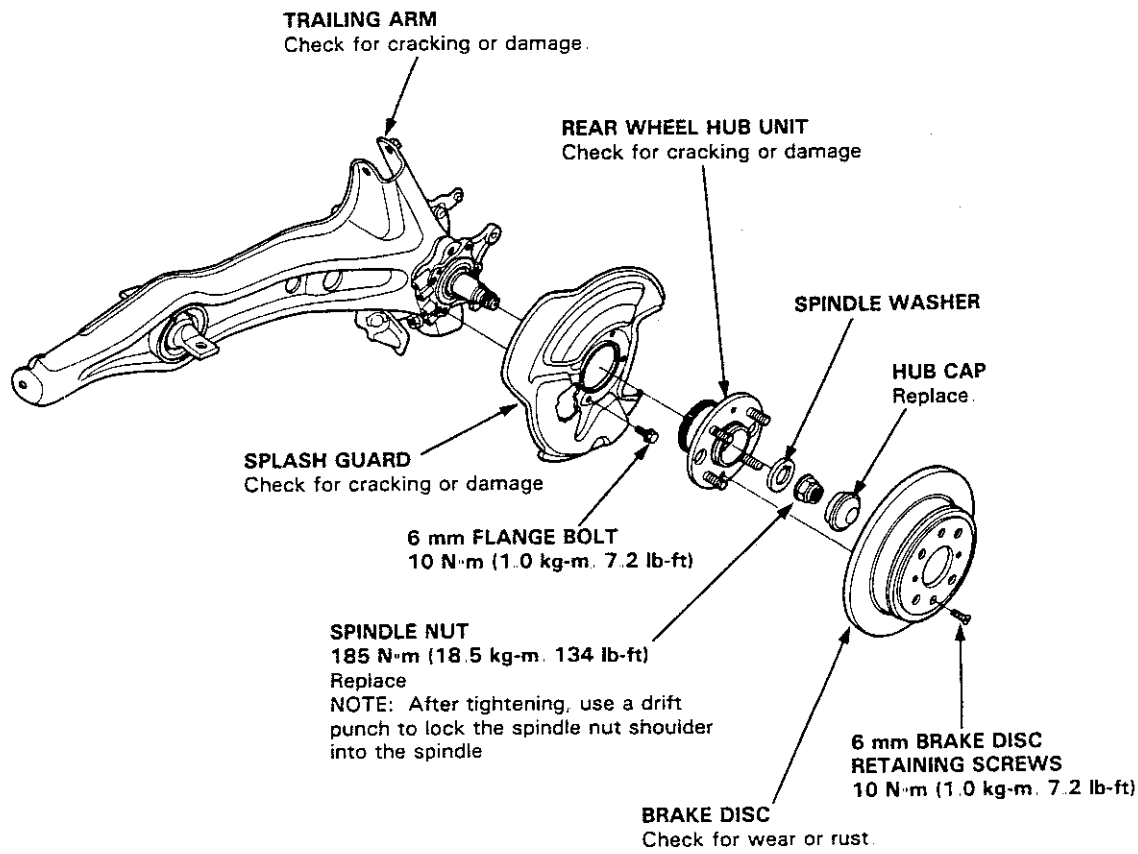
CAUTION:
- Replace the self-locking nuts after removal.
- Replace the self-locking bolts if you can easily thread a non-self-locking nut past their nylon locking inserts. (It should require 1 N·m (0.1 kg-m, 0.7 lb-ft) of torque to turn the nut on the bolt).
- The vehicle should be on the ground before any bolts or nuts connected to rubber mounts or bushings are tightened.



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
- 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 surface of the rear hub and inside of the brake disc.
- Before installing the wheel, clean the mating surface of the brake disc and inside of the wheel.



Hub Bearing Unit

Removal

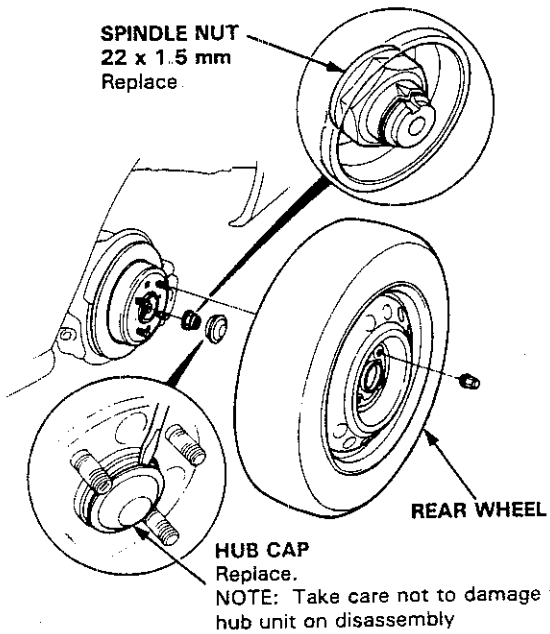
1. Raise the rear of car and support it with safety stands in proper locations.

   NOTE: Do not open or close the power roof when the car is raised by using the safety stands.

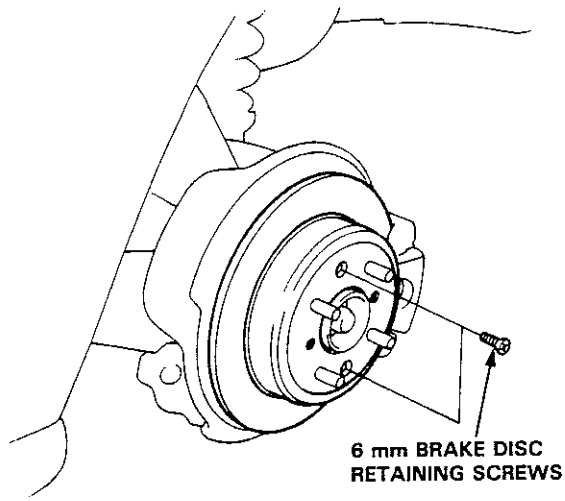
2. Remove the rear wheel.

3. Pull the parking brake lever up.

4. Remove the hub cap, then raise the locking tab on the spindle nut, then remove the nut.

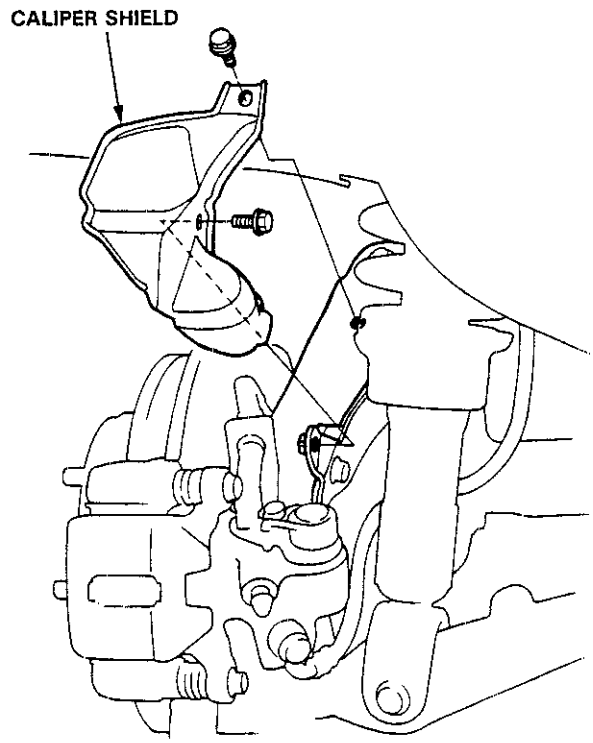


5. Remove the 6 mm brake disc retaining screws.



6. Release the parking brake lever

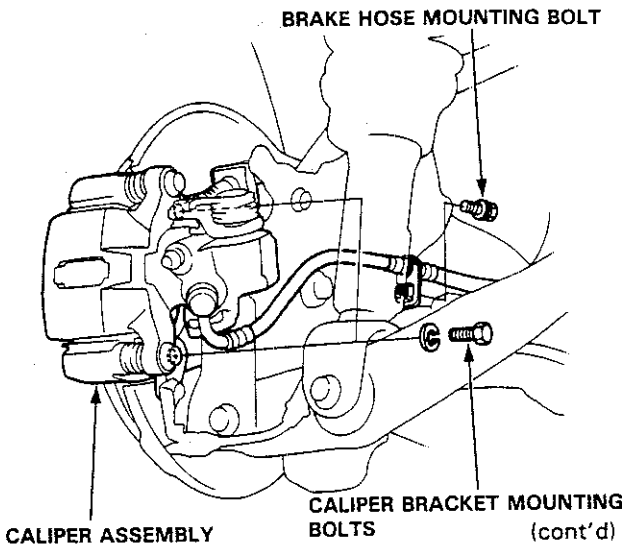
7. Remove the caliper shield.



8. Remove the brake hose mounting bolts.

9. 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.



(cont'd)

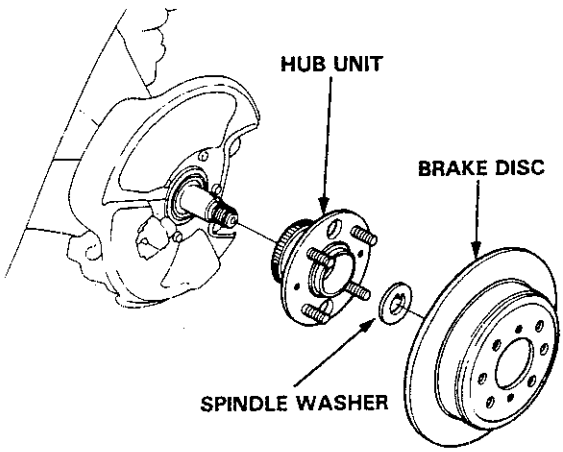
Hub Bearing Unit (cont'd)

10. Screw two 8 x 1.25 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.

11 Remove the brake disc

12. Remove the hub unit from the trailing arm

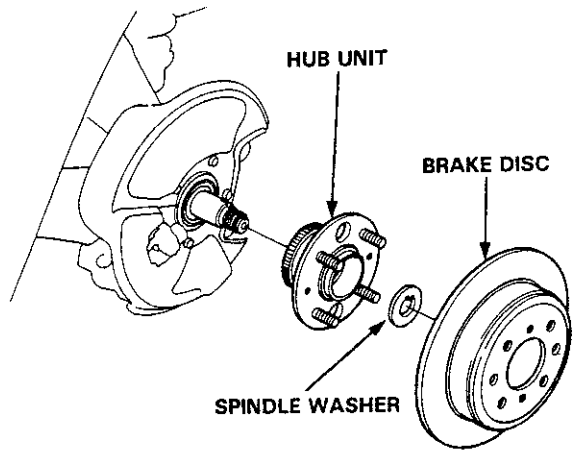


Installation

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

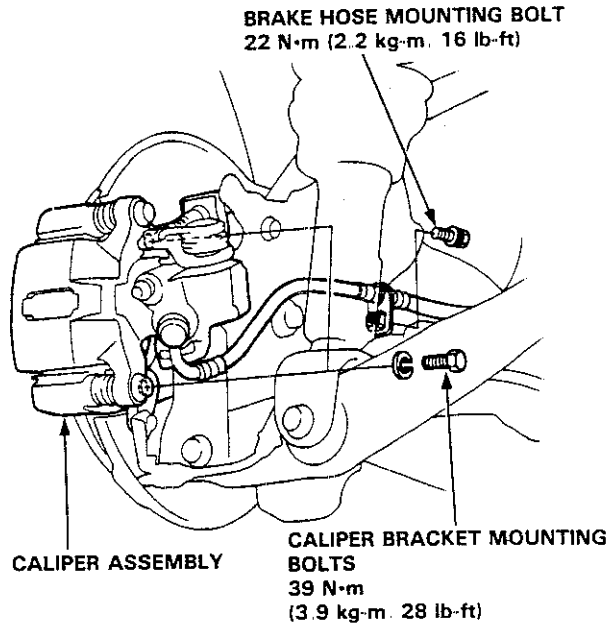
13. Install the hub unit, spindle washer and brake disc.

    NOTE: Before installing the brake disc, clean the mating surface of the rear hub and inside of the brake disc

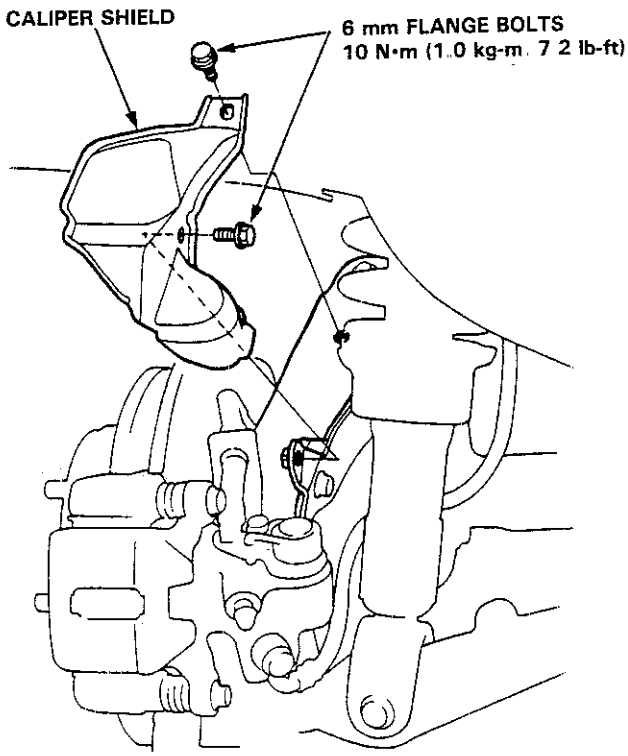


14 Install the brake caliper with the caliper bracket mounting bolts.

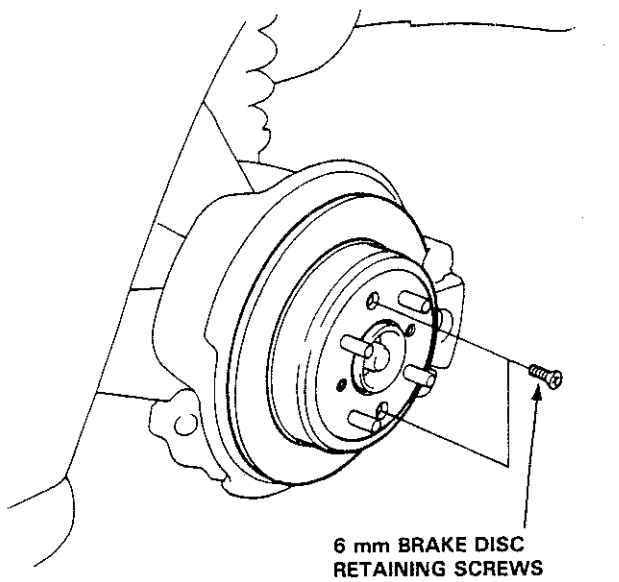
15 Install the brake hose with the brake hose mounting bolts.



16. Install the caliper shield.



17. Tighten the 6 mm brake disc retaining screws

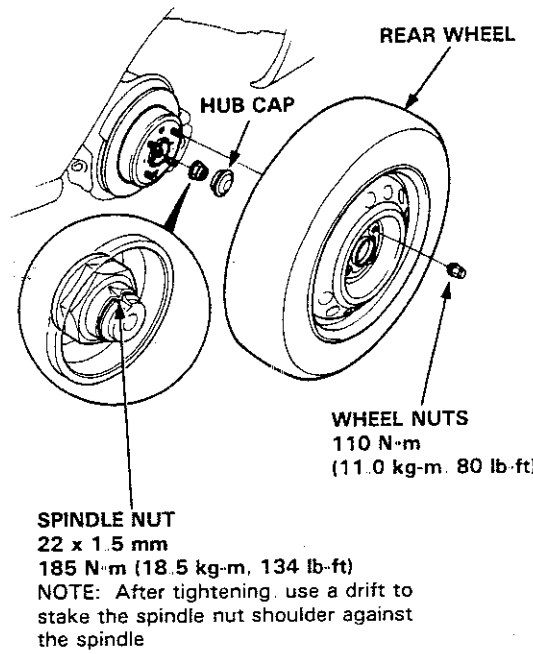


18. Install the new spindle nut, then tighten the nut.

19. Install the new hub cap.

20. Install the rear wheel with the wheel nuts

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

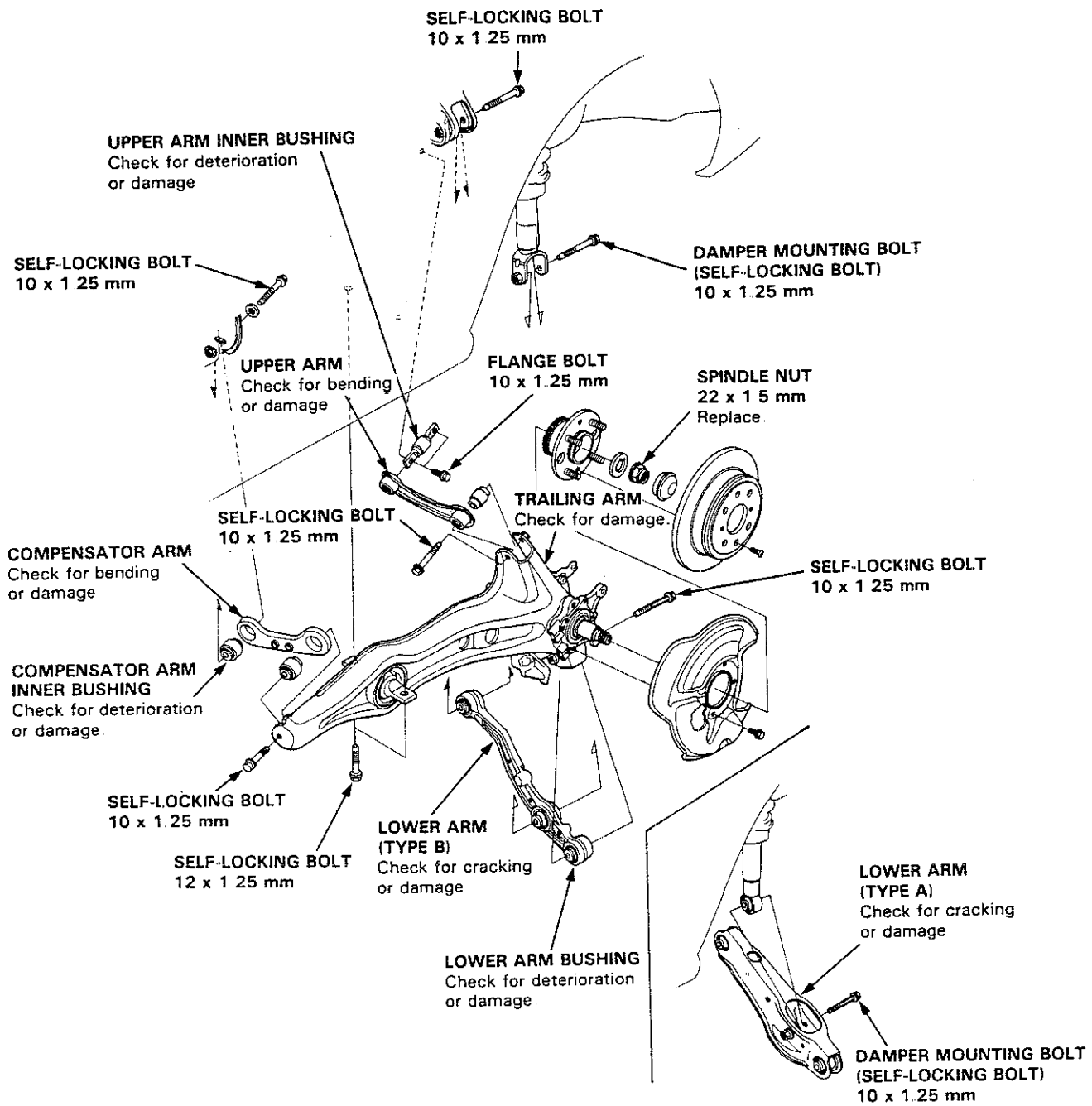


Suspension Arms

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).

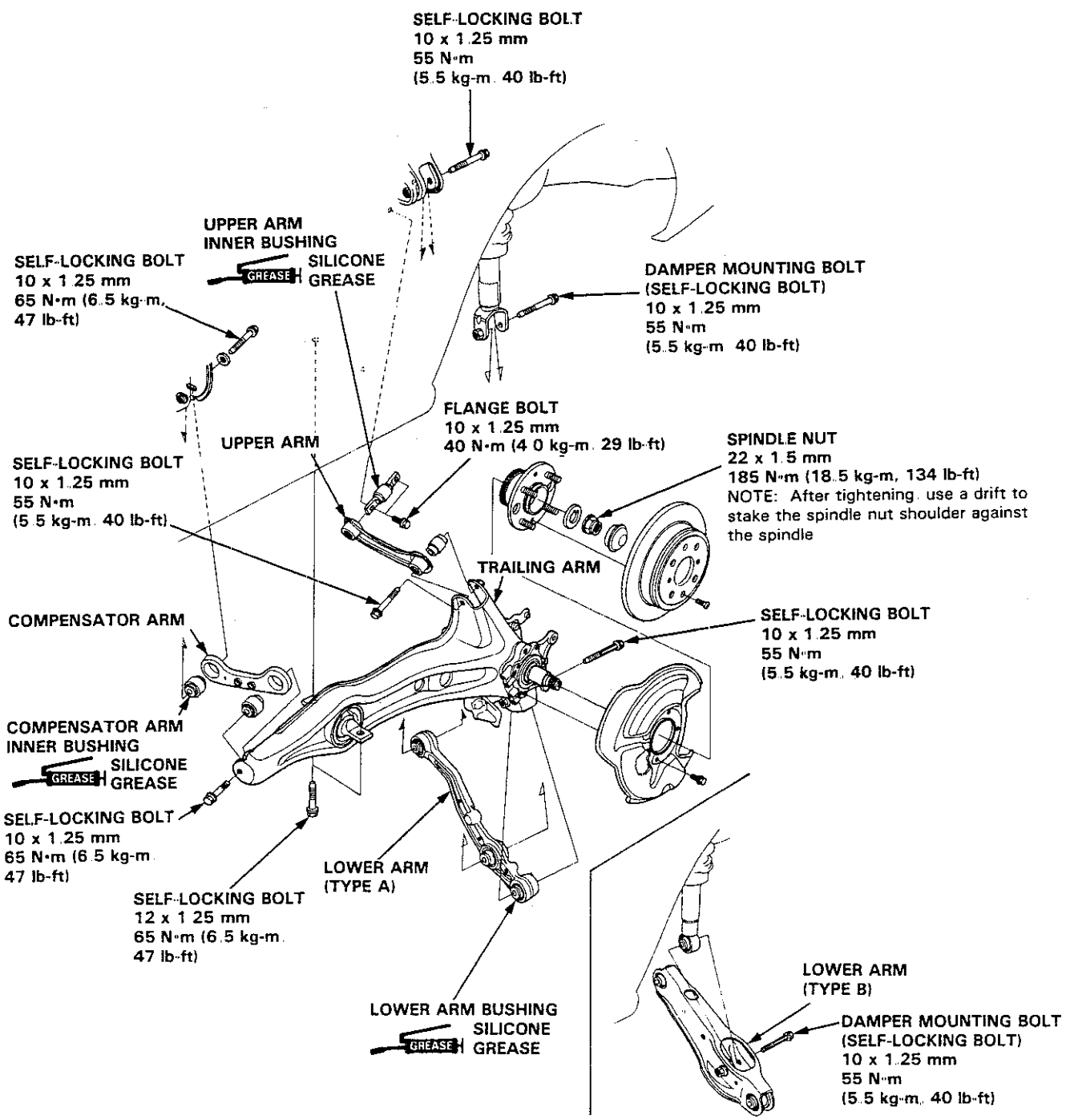


Installation

NOTE:

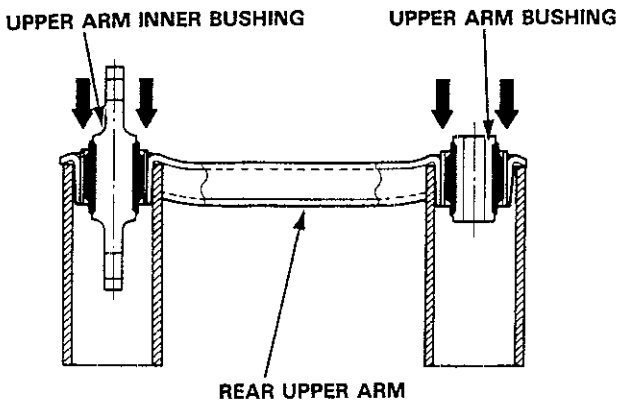
- Make sure the toe adjusting bolts on the compensator arm are installed in the same direction.
- "LH", "LV", "L1" or "L3" is stamped on the left lower arm and "RH", "RV", "R1" or "R3" on the right lower arm.
- "↑ UP LS" or "↑ UP LRS" is stamped on the left upper arm and "↑ UP RS" or "↑ UP RSR" on the right upper arm.
- The right and left compensator arm are symmetical. Install so the "UP ↑" mark points to the front.
- After installing the suspension arm, check the wheel alignment and adjust if necessary.

CAUTION: The vehicle should be on the ground before any bolts or nuts connected to rubber mounts or bushing are tightened.



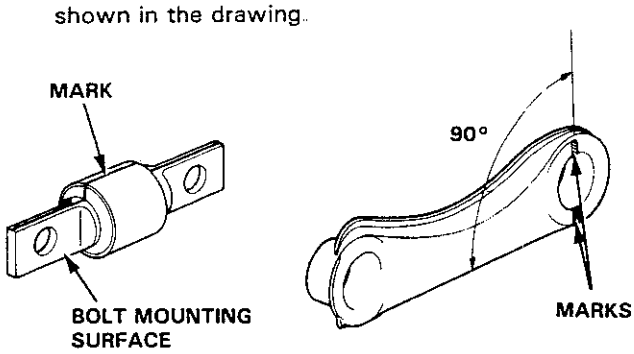
Upper Arm Bushing Replacement

1. Remove the upper arm bushing and inner bushing as shown.



2. Mark a scribe line on the upper arm inner bushing so that it is in line with the bolt mounting surface

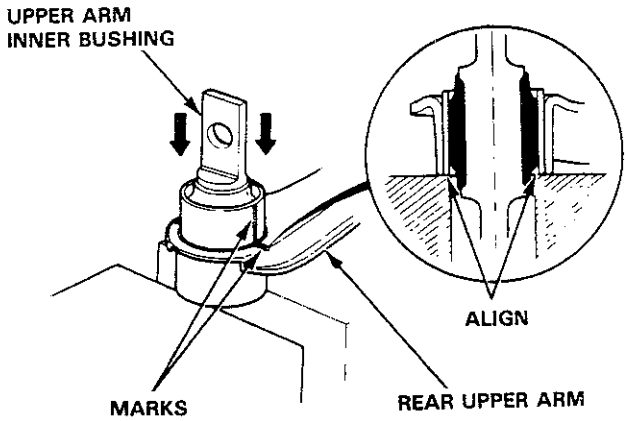
3. Mark on the upper arm at two points so that they are in line and make a right angle with the arm as shown in the drawing.



4. Drive in the upper arm inner bushing with the marks aligned.

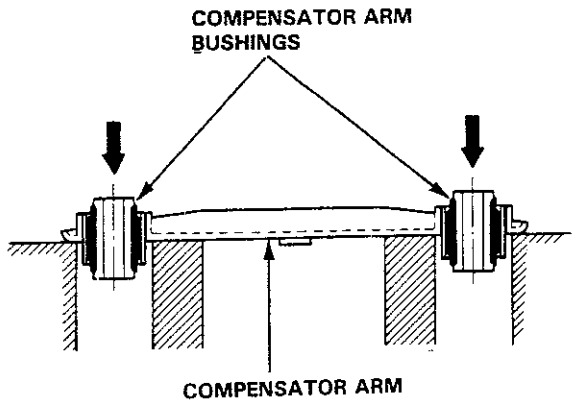
5. Drive the upper arm bushing into the upper arm

NOTE: Drive in the upper arm bushing and inner bushing until their leading edges are flush with the upper arm.



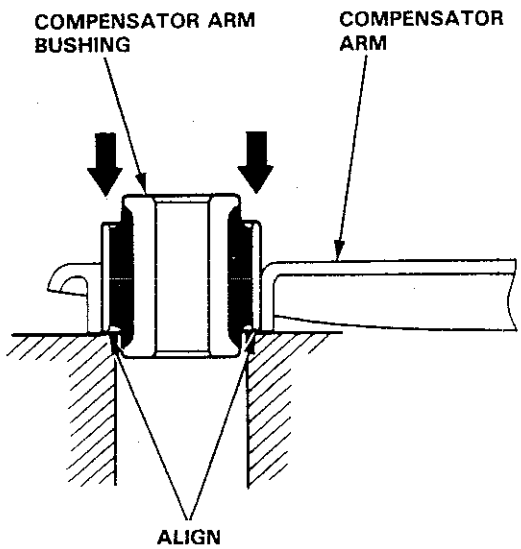
Compensator Arm Bushing Replacement

1. Drive the compensator arm bushing out of the compensator from the direction indicated.



2. Drive in the compensator arm bushings from the direction indicated

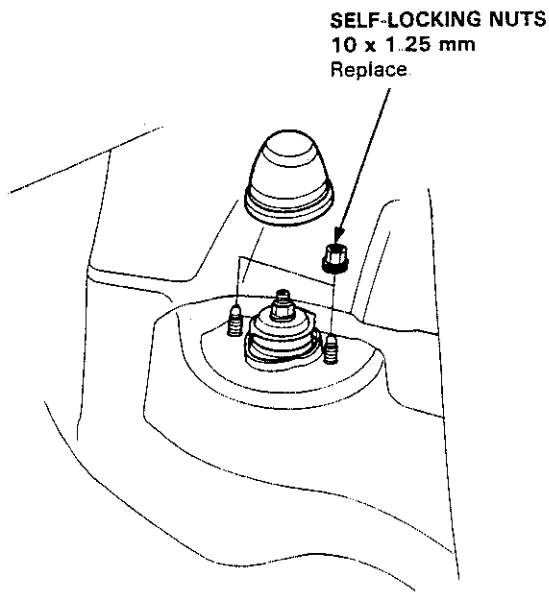
NOTE: Drive in the compensator arm bushings so that their leading edges are flush with the compensator arm.



Rear Damper

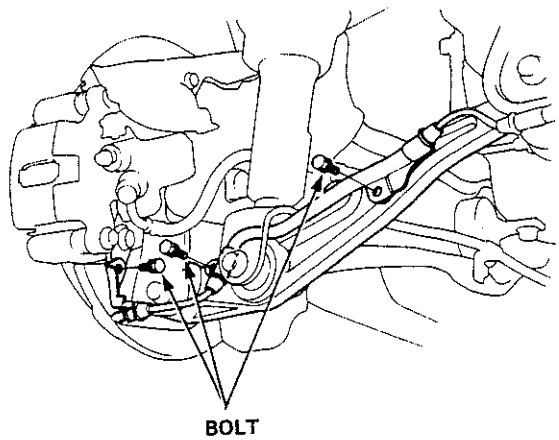
Removal

1. Remove the rear wheel (see page 18-29).
2. Remove the damper upper cover at the rear seat lining.
3. Remove the self-locking nuts.



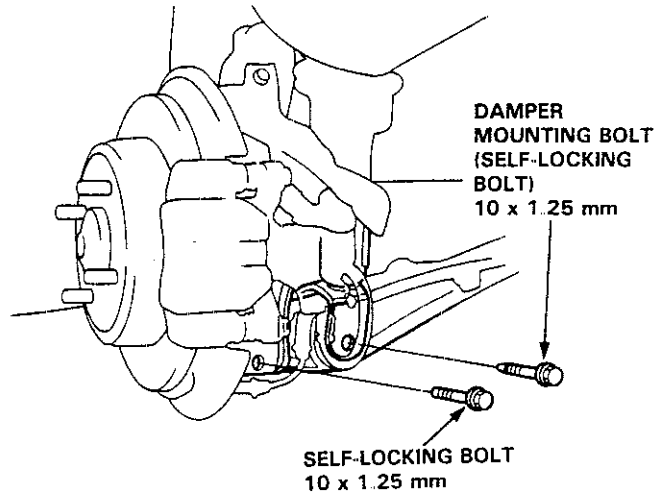
4. Remove the wheel sensor wire bracket (lower arm type A).

   NOTE: Do not disconnect the wheel sensor.

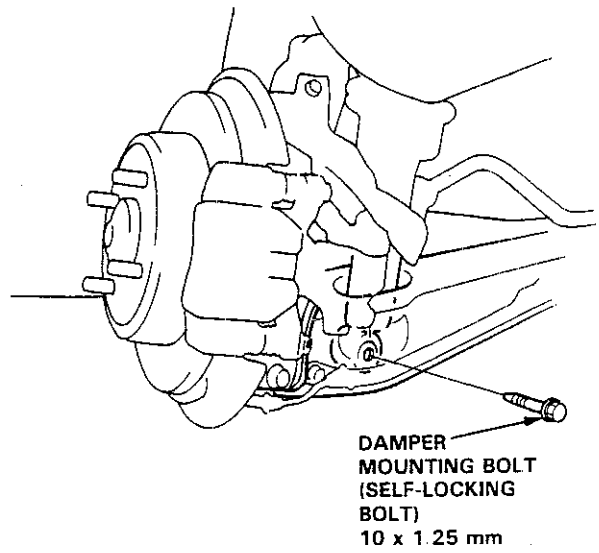


5. Remove the damper mounting bolt.
6. Remove the self-locking bolt (lower arm type A)

Lower Arm Type A:



Lower Arm Type B:



7. Lower the rear suspension and remove the damper assembly.

Rear Damper

Disassembly

1 Install the damper on the spring compressor by holding the bottom of the damper, and loosely install the holder and bolts.

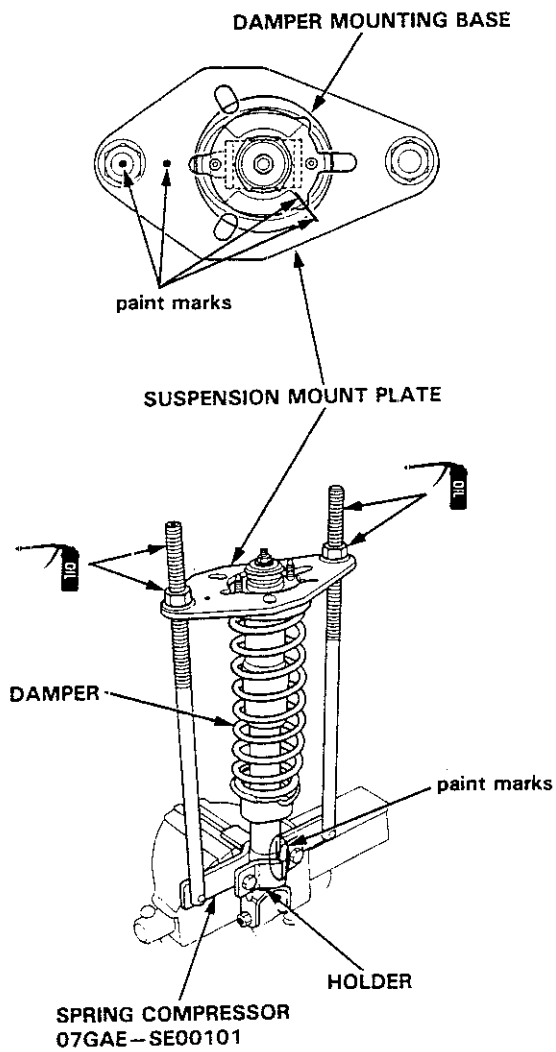
2. Install the suspension mount plate on the spring compressor.

3 Support the spring compressor with damper on the vise, then tighten the damper holder bolts securely

CAUTION: Do not over tighten the bolts.

4. Mark the damper case and the spring compressor holder with paint as shown

5 Mark the mount plate and the spring compressor, and mount plate and damper mounting base with paint as shown



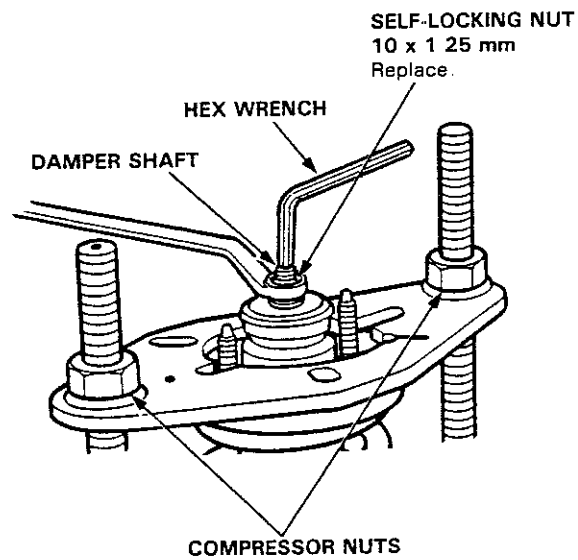
6. Compress the damper by tightening the compressor nuts until the self-locking nut is lift from the seated washer.

NOTE:
- The self-locking nut can not be lift when the mount plate is tilted during compressing the damper.
- Turn each compressor nut gradually and equally.

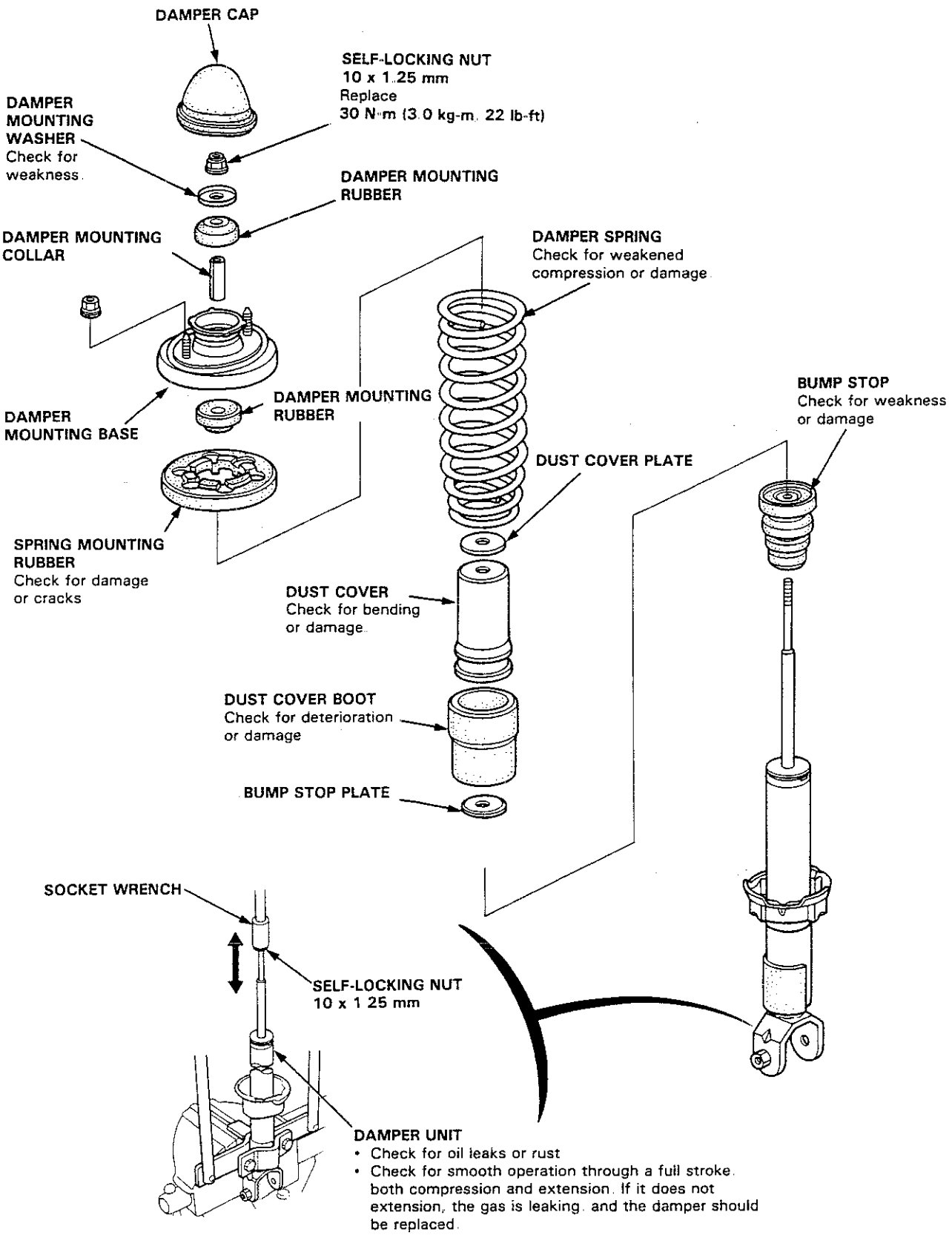
7. Hold the damper shaft by hex wrench and remove the self-locking nut.

8 Loosen the compressor nuts, then remove the suspension mount plate

9. Disassemble the damper on the next page



Inspection


DAMPER CAP
SELF-LOCKING NUT
10 x 1.25 mm
Replace
30 N·m (3.0 kg-m, 22 lb-ft)
DAMPER MOUNTING WASHER
Check for weakness
DAMPER MOUNTING RUBBER
DAMPER MOUNTING COLLAR
DAMPER SPRING
Check for weakened compression or damage
DAMPER MOUNTING RUBBER
DAMPER MOUNTING BASE
BUMP STOP
Check for weakness or damage
DUST COVER PLATE
SPRING MOUNTING RUBBER
Check for damage or cracks
DUST COVER
Check for bending or damage
DUST COVER BOOT
Check for deterioration or damage
BUMP STOP PLATE
SOCKET WRENCH
SELF-LOCKING NUT
10 x 1.25 mm
DAMPER UNIT
• Check for oil leaks or rust
• Check for smooth operation through a full stroke, both compression and extension. If it does not extension, the gas is leaking, and the damper should be replaced.

Reassembly

1. Install the damper unit on the spring compressor by aligning the marks on the damper case and the spring compressor holder.

   NOTE: If a new damper is to be installed, mark it on the same position as on the old damper.

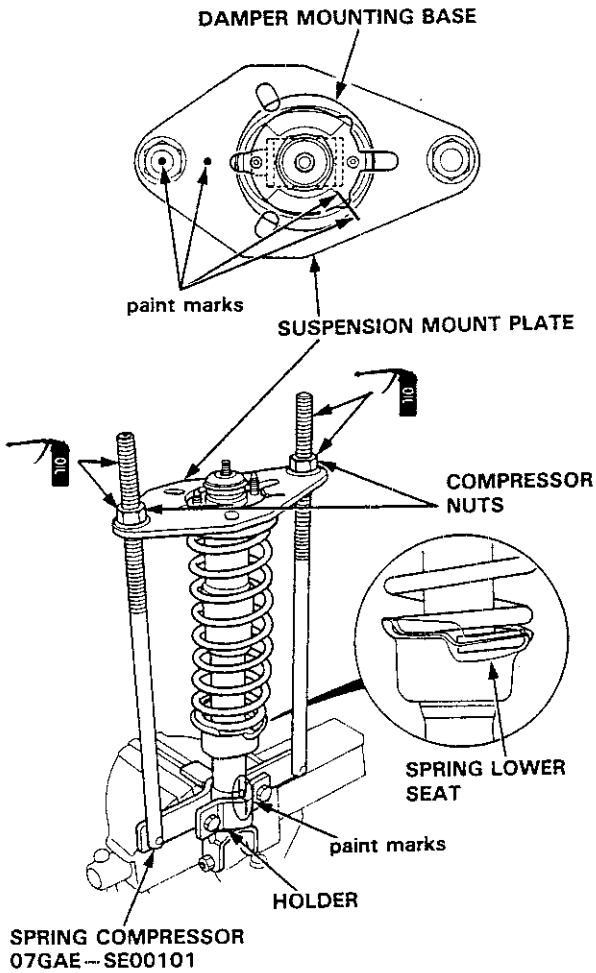
2. Reassemble the damper in reverse order of removal except the damper mounting washer and self-locking nut.

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

3. Install the mount plate on the damper with the mark on the plate facing painted threads.

4. Position the damper mounting base by aligning the marks on the damper mounting base and mount plate.

5. Apply oil to the seating surfaces of the compressor nuts and threads of the spring compressor, then loosely install the nuts

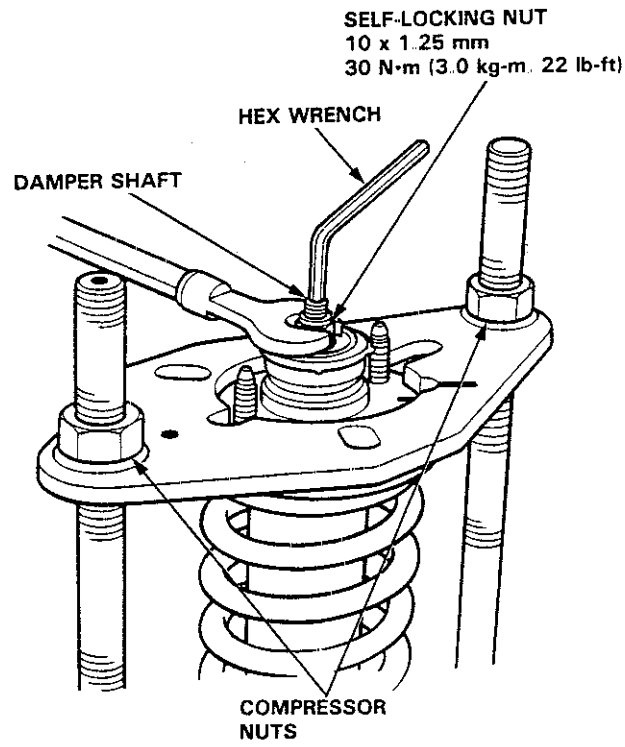


6. Compress the damper spring by turning the compressor nuts.

   NOTE: Turn each compressor nut gradually and equally.

7. Install the damper mounting washer, then loosely install the new self-locking nut.

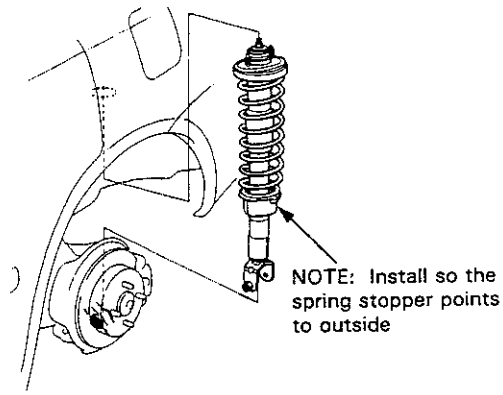
8. Hold the damper shaft by hex wrench and tighten the self-locking nut



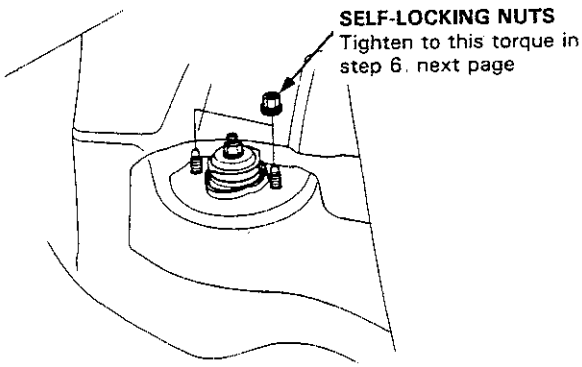
9 Remove the damper from the spring compressor.

Installation

1. Lower the rear suspension and set the damper.



2 Loosely install the self-locking nuts



3. Install the speed sensor wire bracket (lower arm type A)

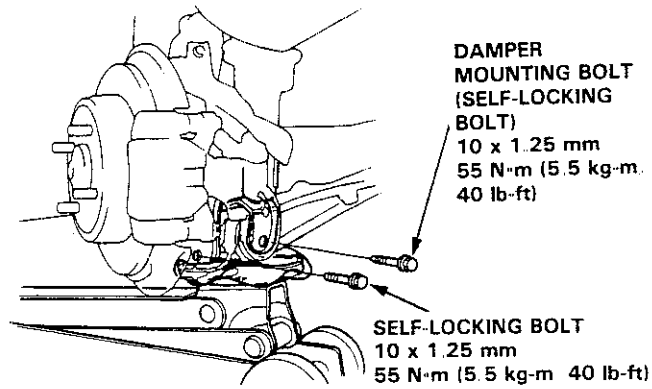
NOTE: Be careful when installing the sensors to avoid twisting wires.

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

5 Install the damper mounting bolt and the self-locking bolt, then tighten the bolts.

CAUTION: 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).

NOTE: The damper mounting bolt and the self-locking bolt should be tightened with the damper under vehicle load.

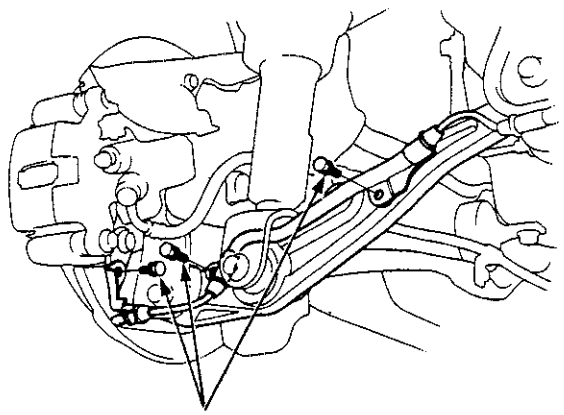


(cont'd)

Rear Damper

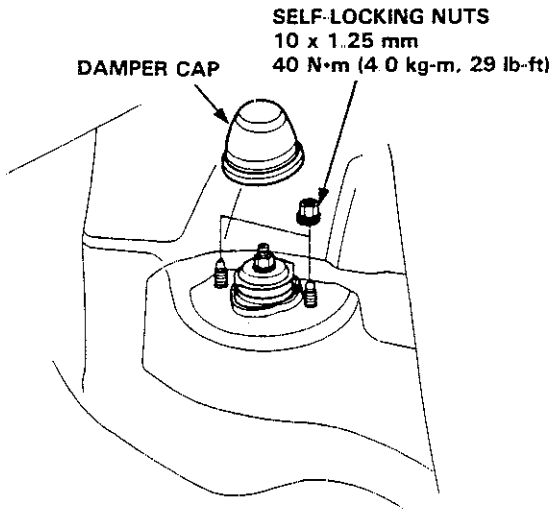
Installation (cont'd)

6. Tighten the wheel sensor wire bracket bolts (lower arm type A).



7. Tighten the self-locking nuts.

8. Install the damper cap.



9. Install the rear wheel (see page 18-31)

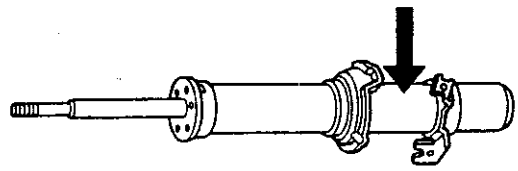
10. Check the rear wheel alignment and adjust if necessary (see 18-4).

Damper Disposal

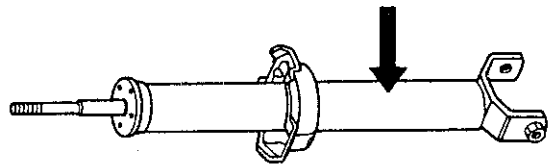
⚠WARNING The dampers contain nitrogen gas and oil under pressure.
The pressure must be relieved before disposal to prevent explosion and possible injury when scrapping.

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



⚠WARNING Always wear eye protection to avoid getting metal shavings in your eyes when the gas damper pressure is relieved.