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## Suspension

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### Front Suspension

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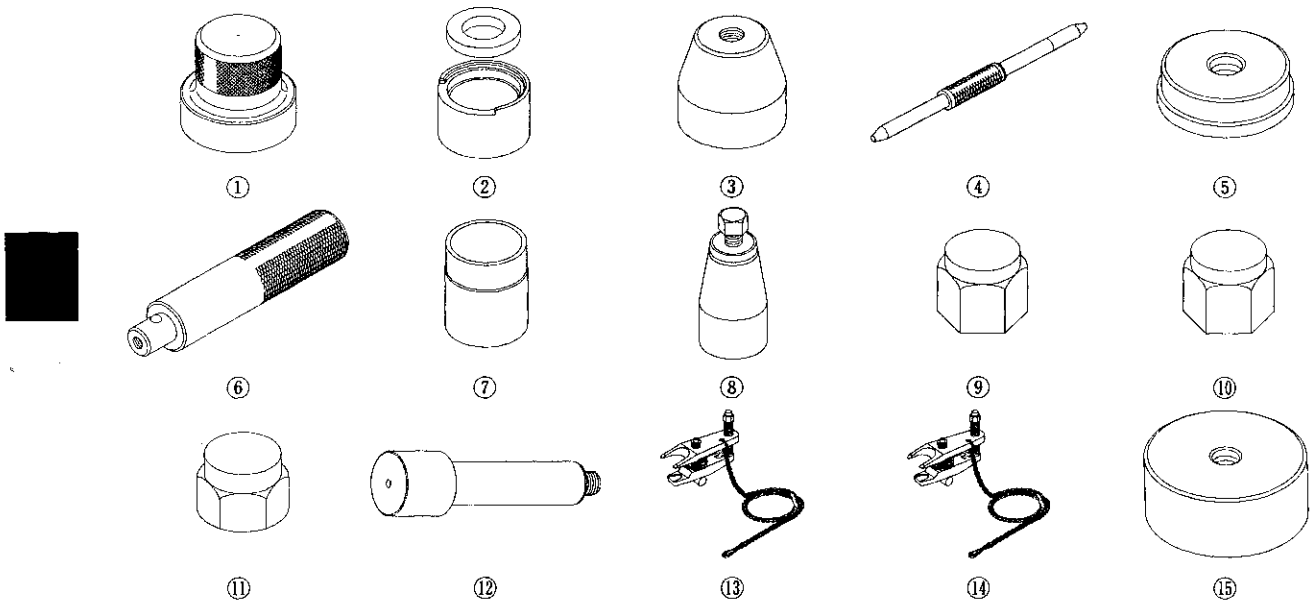
### Rear Suspension

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# Front and Rear Suspension

## Special Tools

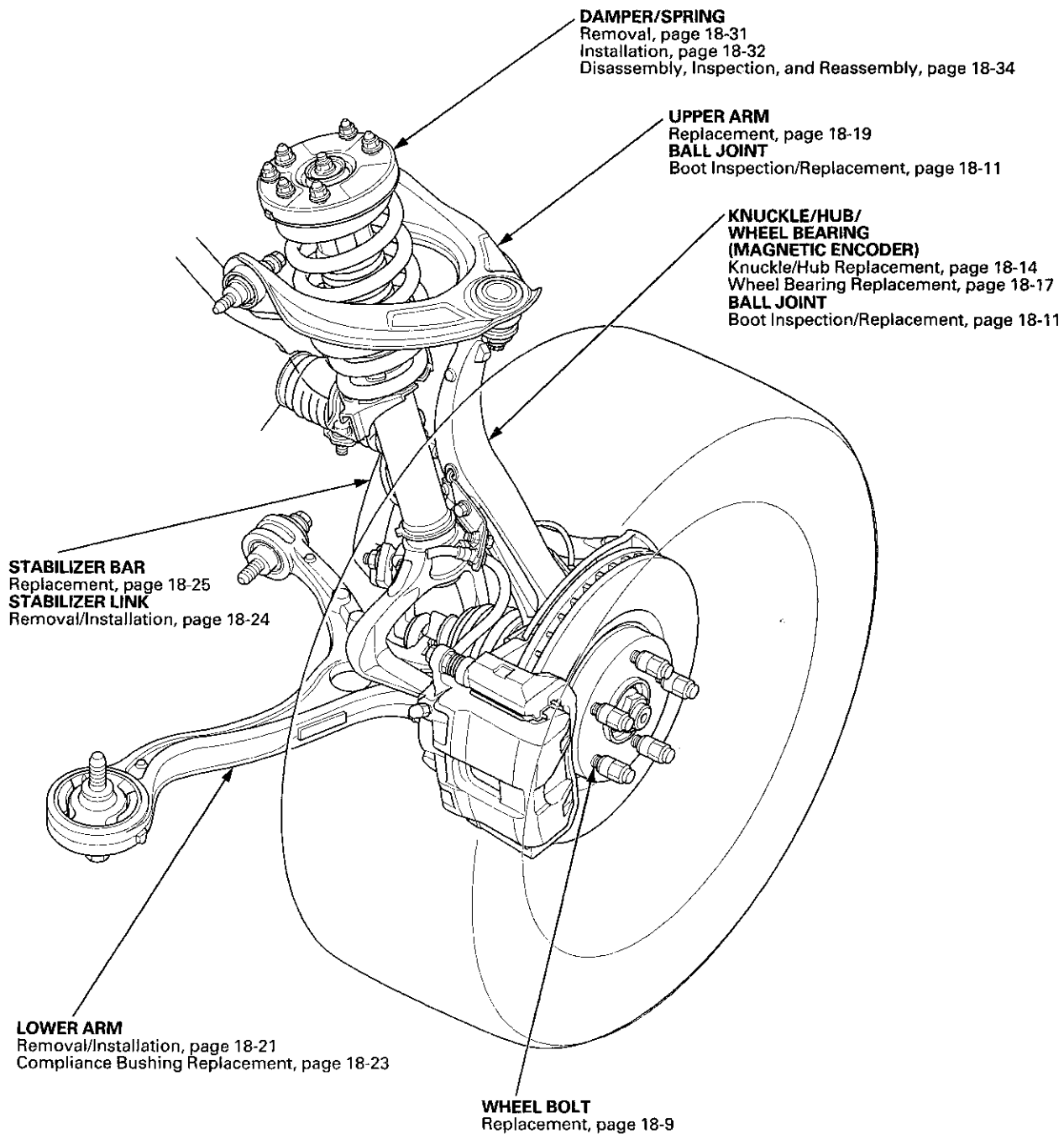
Ref.No.	Tool Number	Description	Qty
①	070AF-TA0A100	Bushing Driver	1
②	070AF-TA0A220	Bushing Receiver Set	1
③	070AG-SJA0300	Clip Guide, 45 mm	1
④	070AG-SJAA10S	Subframe Alignment Pin	1
⑤	07746-0010600	Attachment, 72 x 75 mm	1
⑥	07749-0010000	Driver Handle, 15 x 135L	1
⑦	07965-SD90100	Support Base	1
⑧	07974-SA50700	Clip Guide, 41 mm	1
⑨	07AAE-SJAA100	Ball Joint Thread Protector, 14 mm	1
⑩	07AAF-SDAA100	Ball Joint Thread Protector, 12 mm	1
⑪	07AAF-SECA120	Ball Joint Thread Protector, 10 mm	1
⑫	07GAF-SD4A100	Hub Dis/Assy Tool	1
⑬	07MAC-SL0A102	Ball Joint Remover, 32 mm	1
⑭	07MAC-SL0A202	Ball Joint Remover, 28 mm	1
⑮	07ZAD-PNA0100	Oil Seal Driver Attachment, 96 mm	1





## Component Location Index

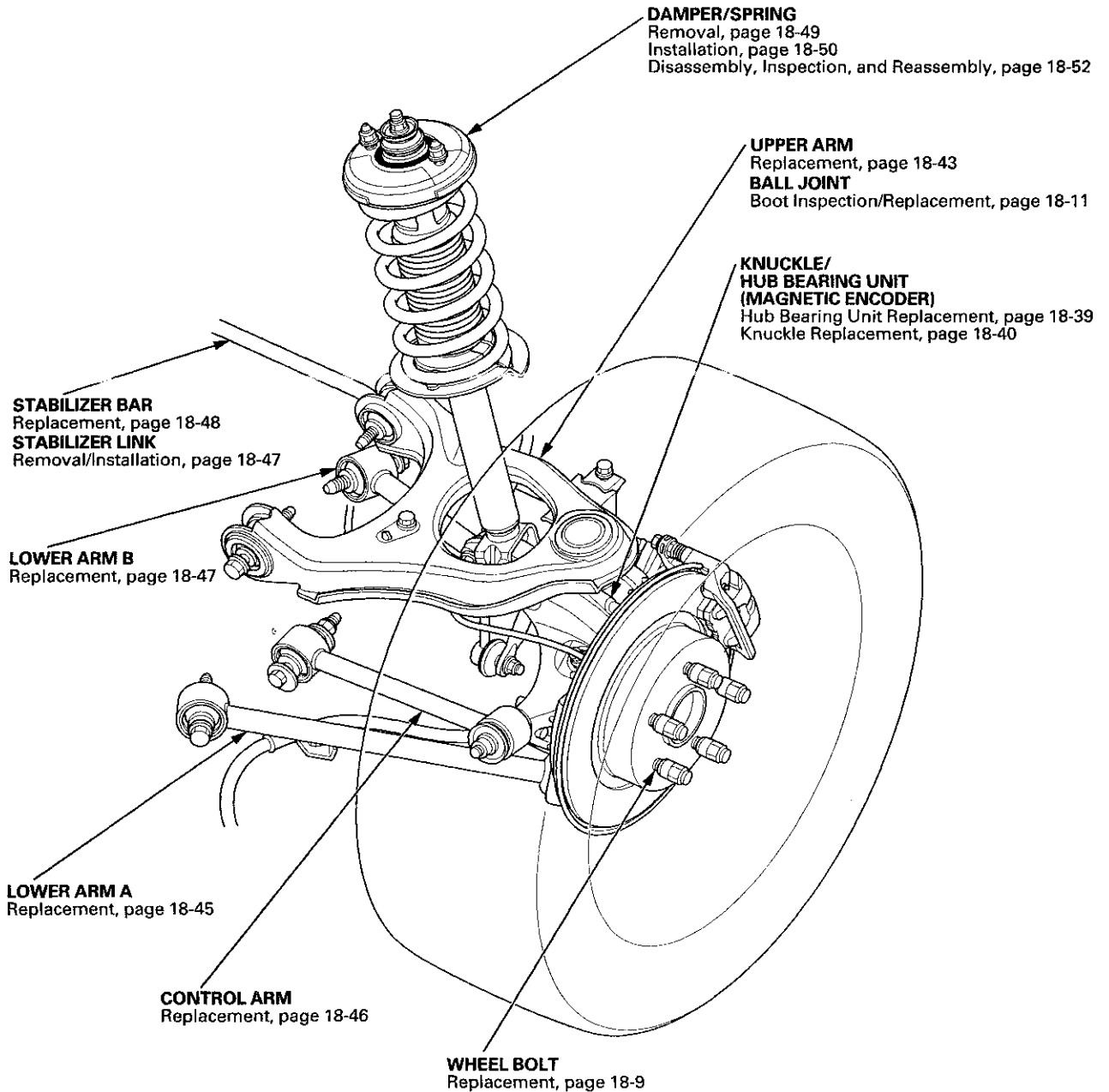
### Front Suspension



# Front and Rear Suspension

## Component Location Index (cont'd)

### Rear Suspension





## Wheel Alignment

The suspension can be adjusted for front and rear toe.

### Pre-Alignment Checks

For proper inspection and adjustment of the wheel alignment, do these checks:

1. Release the parking brake to avoid an incorrect measurement.
2. Make sure the suspension is not modified.
3. Make sure the fuel tank is full, and that the spare tire, the jack, and the tools are in place on the vehicle.
4. Check the tire size and tire pressure.

#### Tire size (4-door):

LX, LX-P, LX PZEV, and LX-P PZEV models:

Front/Rear: P215/60R16 94H

EX, EX-L, EX PZEV, and EX-L PZEV models:

Front/Rear: P225/50R17 93V

#### Tire size (2-door):

Front/Rear: P225/50R17 93V

#### Tire pressure (4-door) (at cold):

LX, LX-P, LX PZEV, and LX-P PZEV models:

Front/Rear: 210 kPa (2.1 kgf/cm<sup>2</sup>, 30 psi)

EX, EX-L, EX PZEV, and EX-L PZEV models:

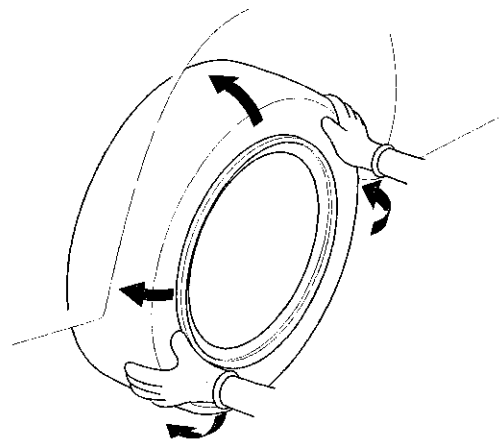
Front/Rear: 220 kPa (2.2 kgf/cm<sup>2</sup>, 32 psi)

#### Tire pressure (2-door) (at cold):

Front/Rear: 220 kPa (2.2 kgf/cm<sup>2</sup>, 32 psi)

5. Check the runout of the wheels and tires (see page 18-8).

6. Check the suspension ball joints (Raise and support the vehicle (see page 1-13). Hold a tire with your hands, and move it up and down and right and left to check for movement).



7. Before doing alignment inspections, be sure to remove all extra weight from the vehicle, and no one should be inside the vehicle (driver or passengers).
8. Lower the vehicle to ground. Bounce the vehicle up and down several times to stabilize the suspension.
9. Check that the steering column is set at the center tilt and telescopic position.

### Caster Inspection

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

1. Check the caster angle.

#### Caster angle:

4-door: 3° 48' <sup>+0° 25'</sup> <sub>-1° 05'</sub>

2-door: 3° 47' <sup>+0° 25'</sup> <sub>-1° 05'</sub>

(Maximum difference between the right and left side: 0° 45')

- If the measurement is within specifications, measure the camber angle.
- If the measurement is not within specifications, check for bent or damaged suspension components.

(cont'd)

# Front and Rear Suspension

## Wheel Alignment (cont'd)

### Camber Inspection

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

1. Check the camber angle.

**Camber angle:**

**Front:**  $0^{\circ} 00'$   $^{+30'}$   $^{-45'}$

**Rear:**  $-1^{\circ} 00'$   $^{+30'}$   $^{-45'}$

(Maximum difference between the right and left side:  $0^{\circ} 30'$ )

- If the measurement is within specifications, measure the toe-in.
- If the measurement is not within specifications, check for bent or damaged suspension components.

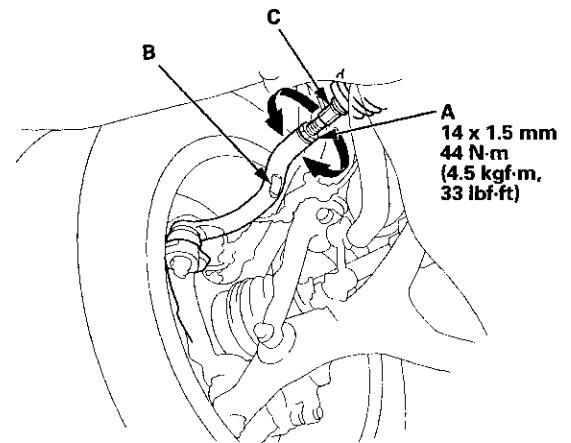
### Front Toe Inspection/Adjustment

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

1. Set the steering column to the middle tilt and telescopic positions. Center the steering wheel spokes, and install a steering wheel holder tool.
2. Check the toe with the wheels pointed straight ahead.

**Front toe-in:**  $0 \pm 2$  mm ( $0 \pm 0.08$  in)

- If adjustment is required, go to step 3.
  - If no adjustment is required, go to rear toe inspection/adjustment.
3. Loosen the tie-rod locknuts (A) while holding the flat surface sections (B) of the tie-rod end with a wrench, and turn both tie-rods (C) until the front toe is within specifications.



4. After adjusting, tighten the tie-rod locknuts to the specified torque. Reposition the rack-end boot if it is twisted or displaced.
5. Go to rear toe inspection/adjustment.



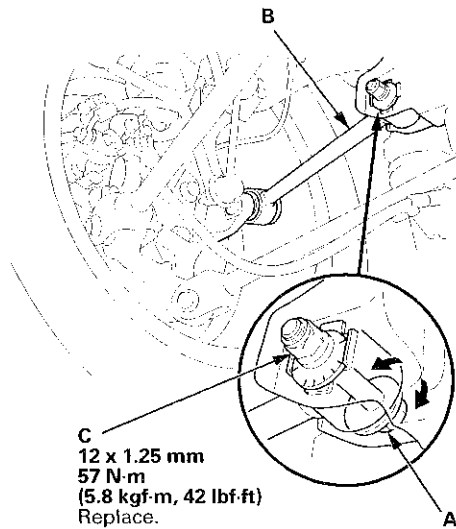
## Rear Toe Inspection/Adjustment

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

1. Release the parking brake to avoid an incorrect measurement.
2. Check the toe.

**Rear toe-in:  $2 \pm 2$  mm ( $0.08 \pm 0.08$  in)**

- If adjustment is required, go to step 3.
  - If no adjustment is required, go to turning angle inspection.
3. Hold the adjusting bolt (A) on the rear control arm (B), and loosen the self-locking nut (C).



4. Replace the self-locking nut with a new one, and lightly tighten it.

**NOTE:** Always use a new self-locking nut whenever it has been tightened to the specified torque.

5. Adjust the rear toe by turning the adjusting bolt until the toe is correct.
6. Tighten the self-locking nut while holding the adjusting bolt to the specified torque.

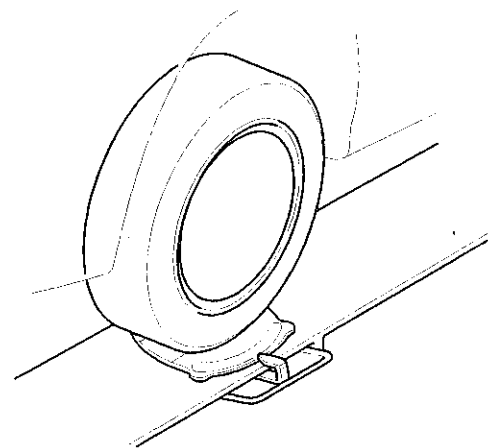
## Turning Angle Inspection

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

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

### Turning angle:

**Inward:**  $39^{\circ} 00' \pm 2^{\circ}$   
**Outward (reference):**  $31^{\circ} 50'$



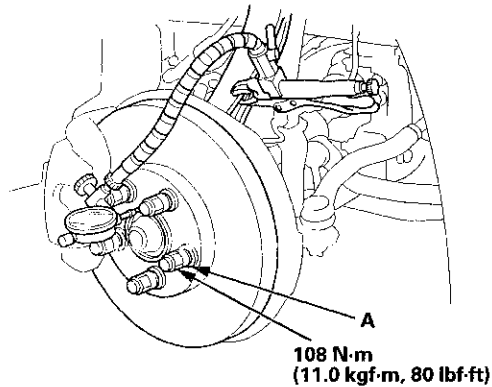
2. If the measurement is not within the specifications, even up both sides of the tie-rod threaded section length while adjusting the front toe. If it is correct, but the turning angle is not within the specifications, check for bent or damaged suspension components.

# Front and Rear Suspension

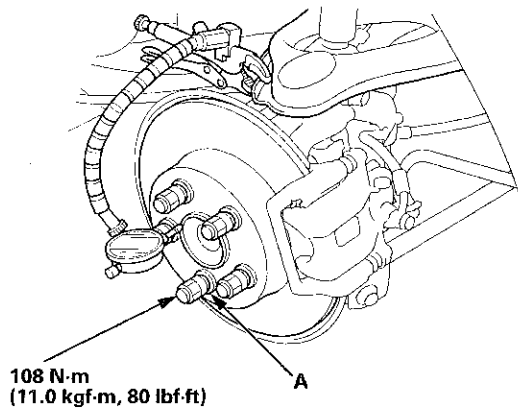
## Wheel Bearing End Play Inspection

1. Raise and support the vehicle (see page 1-13).
2. Remove the wheels.
3. Install suitable flat washers (A) and the wheel nuts. Tighten the nuts to the specified torque to hold the brake disc securely against the hub.

### Front



### Rear



4. Attach the dial gauge. Place the dial gauge against the hub flange.
5. Measure the bearing end play while moving the brake disc inward and outward.

### Wheel bearing end play:

Front/Rear: 0–0.05 mm (0–0.002 in)

6. If the bearing end play measurement is more than the standard, replace the wheel bearing or the hub bearing unit.

## Wheel Runout Inspection

1. Raise and support the vehicle (see page 1-13).
2. Check for a bent or deformed wheel.
3. Set up the dial gauge as shown, and measure the axial runout by turning the wheel.

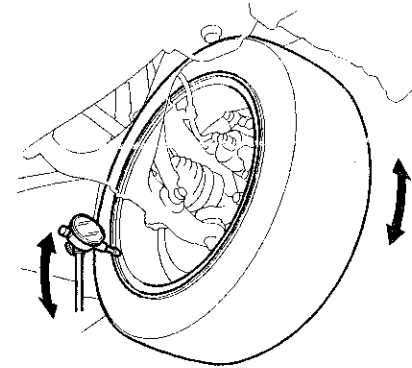
### Front and rear wheel axial runout:

#### 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)



4. Reset the dial gauge to the position shown, and measure the radial runout.

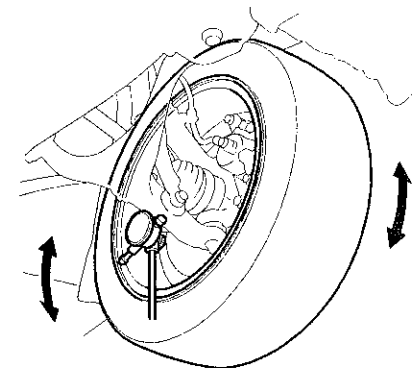
### Front and rear wheel radial runout:

#### 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 not within the specification, check the wheel bearing end play (see page 18-8), and make sure the mating surfaces on the brake disc and the inside of the wheel are clean.
6. If the bearing end play is within the specification but the wheel runout is more than the service limit, replace the wheel.





## Wheel Bolt Replacement

### Special Tools Required

Ball Joint Remover, 28 mm 07MAC-SL0A202

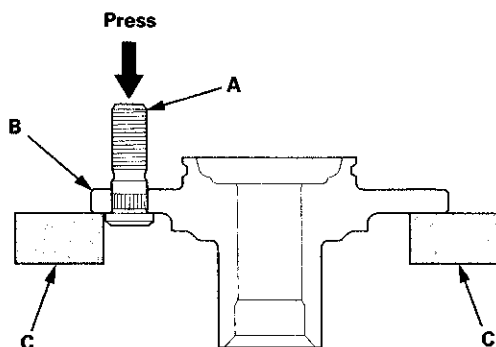
### NOTICE

- Do not use a hammer or impact tools (pneumatic or electric) to remove and install the wheel bolts.
- Be careful not to damage the threads of the wheel bolts.

### Front

1. Remove the front hub (see page 18-14).
2. Separate the wheel bolt (A) from the hub (B) using a hydraulic press. Support the hub with hydraulic press attachments (C) or equivalent tools.

NOTE: Before installing the new wheel bolt, clean the mating surfaces on the bolt and the hub.



3. Insert the new wheel bolt into the hub while aligning the splined surfaces on the hub hole with the wheel bolt.

### NOTE:

- Degrease the area around the wheel bolt.
- Make sure the wheel bolt is installed vertically in relation to the hub disc surface.

4. Install the wheel bolt using a hydraulic press until the wheel bolt shoulder is fully seated.

5. Install the front hub (see page 18-14).

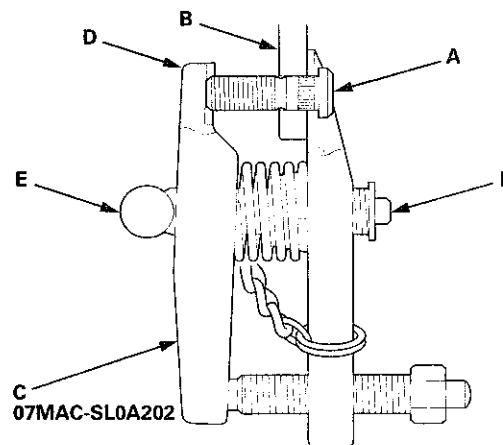
NOTE: If you cannot tighten the wheel nut to the specified torque when installing the wheel, replace the front hub as an assembly.

### Rear

1. Raise and support the vehicle (see page 1-13).
2. Remove the rear brake disc (see page 19-34).
3. Separate the wheel bolt (A) from the hub (B) using the ball joint remover (C), and keep the jaw (D) of ball joint remover vertical against the wheel bolt (see page 18-10).

### NOTE:

- If the angle of the remover against the wheel bolt is not square, readjust the ball joint remover by turning the head (E) of the adjusting bolt (F).
- Before installing the new wheel bolt, clean the mating surfaces on the bolt and the hub.



(cont'd)

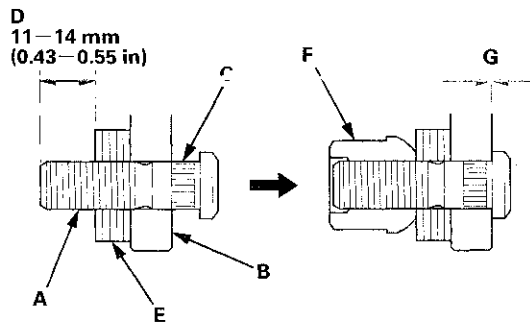
# Front and Rear Suspension

## Wheel Bolt Replacement (cont'd)

4. Insert the new wheel bolt (A) into the hub (B) while aligning the splined surfaces (C) on the hub hole with the wheel bolt. Adjust the measurement (D) with the washers (P/N 94101-12800 or equivalent) (E), then install a nut (P/N 90304-SC2-000 or equivalent) (F) hand-tight.

**NOTE:**

- Degrease the area around the wheel bolt and the threaded section of the nut.
- Make sure the wheel bolt is installed vertically in relation to the hub disc surface.
- Do not install the nut and the washers that have been used as tools on a vehicle.



5. Tighten the nut until the wheel bolt is drawn fully into the hub. Do not exceed the maximum torque limit. Make sure there is no gap (G) between the bolt and the hub.

**Limited torque:**

**108 N·m (11.0 kgf·m, 80 lbf·ft) max.**

6. Install the rear brake disc (see page 19-34).

**NOTE:**

- If you cannot tighten the wheel nut to the specified torque when installing the wheel, replace the rear hub bearing unit as an assembly.
- Before installing the wheel, clean the mating surfaces of the brake disc and the inside of the wheel.

## Ball Joint Removal

**Special Tools Required**

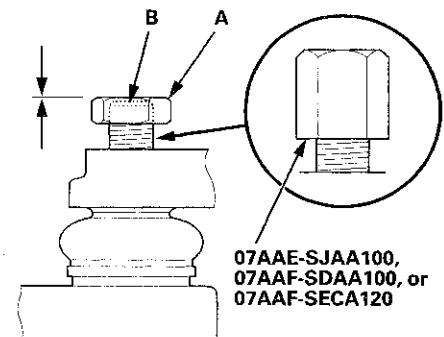
- Ball Joint Thread Protector, 14 mm 07AAE-SJAA100
- Ball Joint Thread Protector, 12 mm 07AAF-SDAA100
- Ball Joint Thread Protector, 10 mm 07AAF-SECA120
- Ball Joint Remover, 32 mm 07MAC-SLOA102
- Ball Joint Remover, 28 mm 07MAC-SLOA202

**NOTICE**

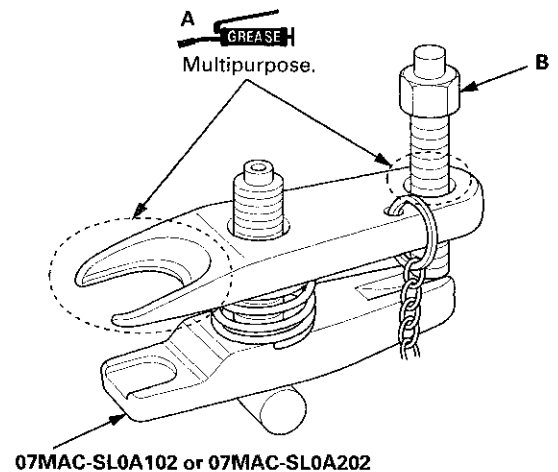
Always use a ball joint remover to disconnect a ball joint. Do not strike the housing or any other part of the ball joint connection to disconnect it.

1. Install a hex nut (A) or the ball joint thread protector onto the threads of the ball joint (B).

**NOTE:** Using a hex nut, make sure the nut is flush with the ball joint pin end to prevent damage to the threaded end of the ball joint pin.



2. Apply grease to the ball joint remover on the areas shown (A). This will ease the installation of the tool, and prevent damage to the pressure bolt (B) threads.

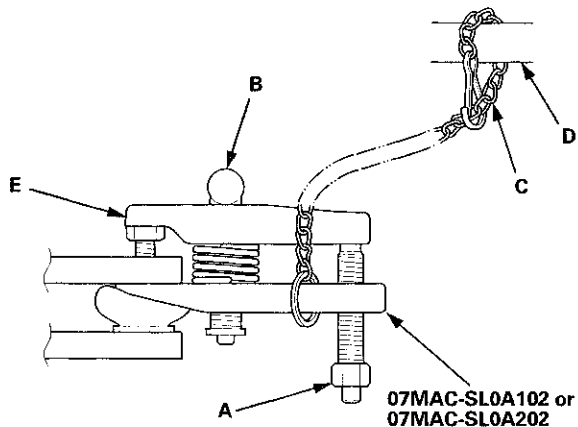




## Ball Joint Boot Inspection/Replacement

- Loosen the pressure bolt (A), and install the ball joint remover as shown. Insert the jaws carefully, making sure not to damage the ball joint boot. Adjust the jaw spacing by turning the adjusting bolt (B).

**NOTE:** Fasten the safety chain (C) securely to a suspension arm or the subframe (D). Do not fasten it to a brake line or wire harness.



- After adjusting the adjusting bolt, make sure the head of the adjusting bolt is in the position shown to allow the jaw (E) to pivot.
  - With a wrench, tighten the pressure bolt until the ball joint pin pops loose from the ball joint connecting hole. If necessary, apply penetrating type lubricant to loosen the ball joint pin.
- NOTE:** Do not use pneumatic or electric tools on the pressure bolt.
- Remove the ball joint remover, then remove the nut or the ball joint thread protector from the end of the ball joint pin, and pull the ball joint out of the ball joint connecting hole. Inspect the ball joint boot, and replace it if damaged.

### Special Tools Required

- Clip Guide, 45 mm 070AG-SJA0300
- Clip Guide, 41 mm 07974-SA50700

- Check the ball joint boot for weakness, damage, cracks, and grease leaks.

### NOTE:

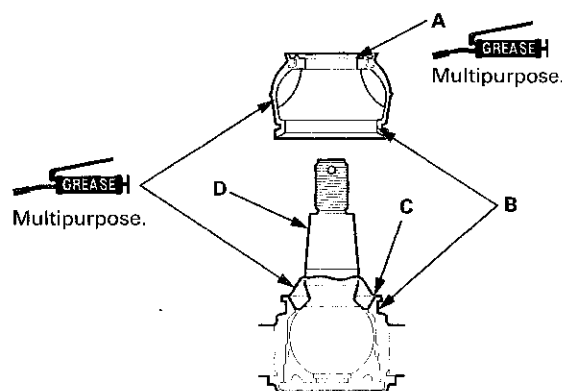
- If the ball joint boot is damaged with grease leaks, replace the appropriate part as an assembly.
- If the ball joint boot is soft and cracked without grease leaks, go to step 2. Replace the appropriate ball joint boot.

- Disconnect the appropriate ball joint connection, and remove the component including the ball joint:

- The front knuckle (see page 18-14)
- The front upper arm (see page 18-19)
- The rear upper arm (see page 18-43)

- Remove the boot clip and the boot.

- Pack the interior and lip (A) of a new boot with grease. Keep the grease off of the boot-to-housing mating surfaces (B).



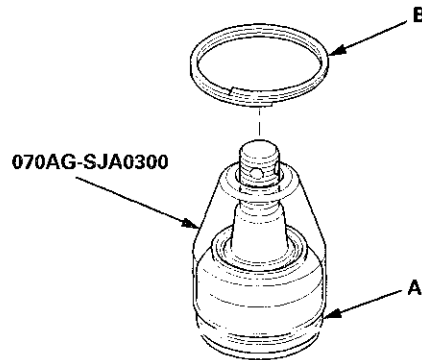
- Pack fresh grease into the base (C). Do not let dirt or other foreign materials get into the boot.
- Install the boot on the ball joint, then squeeze it gently to force out any air, then wipe the grease off the tapered portion of the ball joint pin (D).

(cont'd)

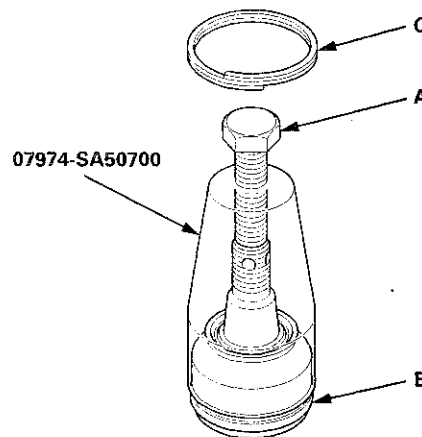
# Front and Rear Suspension

## Ball Joint Boot Inspection/Replacement (cont'd)

7. The front knuckle ball joint or the rear upper arm ball joint: Adjust the depth by turning the clip guide until its base is just above the groove around (A) the bottom of the boot. Then slide the clip (B) over the clip guide and into position on the boot.



8. The front upper arm ball joint: Adjust the clip guide with the adjusting bolt (A) until its base is just above the groove around (B) the bottom of the boot. Then slide the clip (C) over the clip guide and into position on the boot.



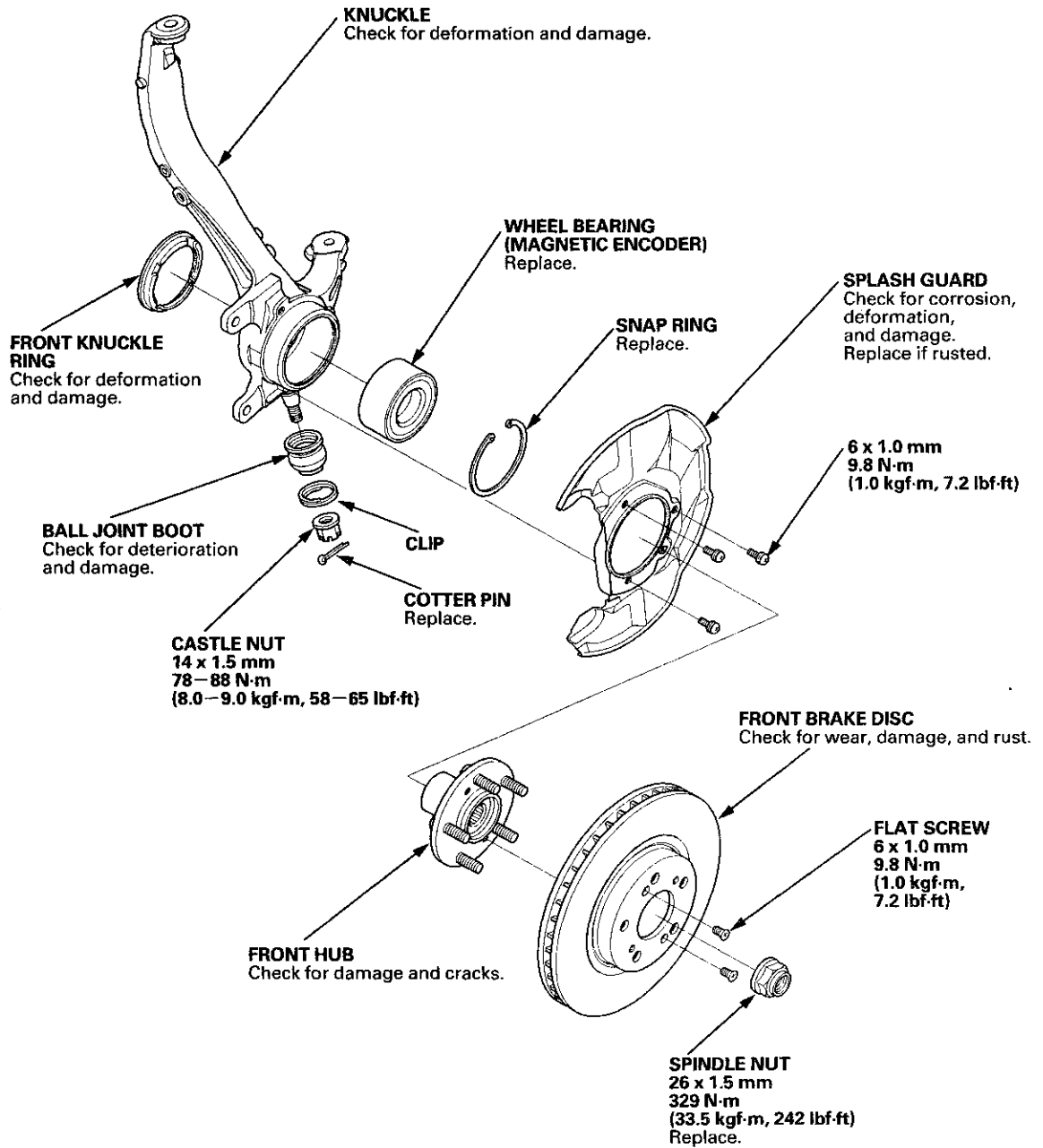
9. After installing a boot, wipe any grease off the exposed portion of the ball joint pin.  
10. Install all of the removed parts.

# Front Suspension



## Knuckle/Hub/Wheel Bearing Replacement

### Exploded View



Apply a small amount of engine oil to the seating surface of the nut.

(cont'd)

# Front Suspension

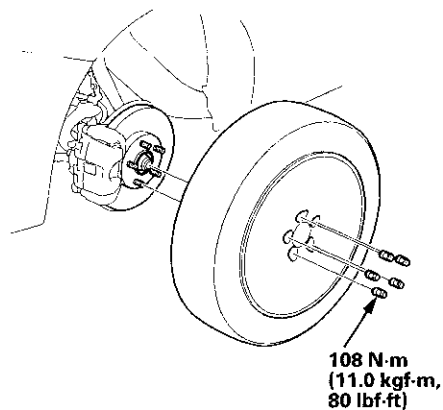
## Knuckle/Hub/Wheel Bearing Replacement (cont'd)

### Special Tools Required

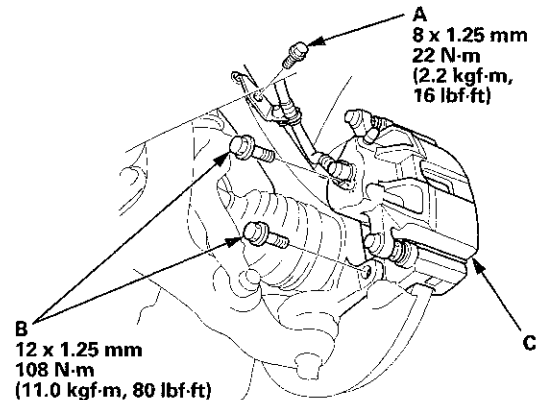
- Ball Joint Thread Protector, 14 mm 07AAE-SJAA100
- Ball Joint Thread Protector, 12 mm 07AAF-SDAA100
- Ball Joint Thread Protector, 10 mm 07AAF-SECA120
- Ball Joint Remover, 28 mm 07MAC-SL0A202
- Hub Dis/Assy Tool 07GAF-SD4A100
- Attachment, 72 x 75 mm 07746-0010600
- Driver Handle, 15 x 135L 07749-0010000
- Oil Seal Driver Attachment, 96 mm 07ZAD-PNA0100
- Support Base 07965-SD90100

### Knuckle/Hub Replacement

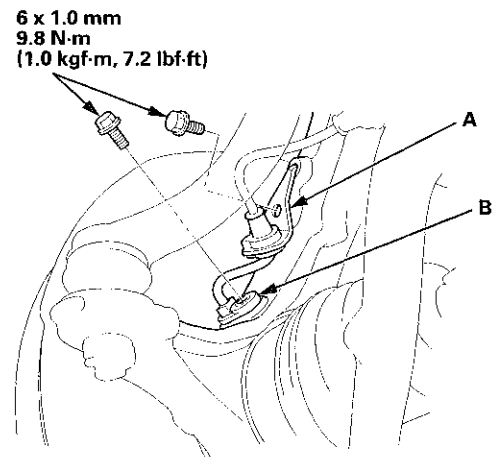
1. Raise and support the vehicle (see page 1-13).
2. Remove the wheel nuts and the front wheel.



3. Remove the brake hose bracket mounting bolt (A).

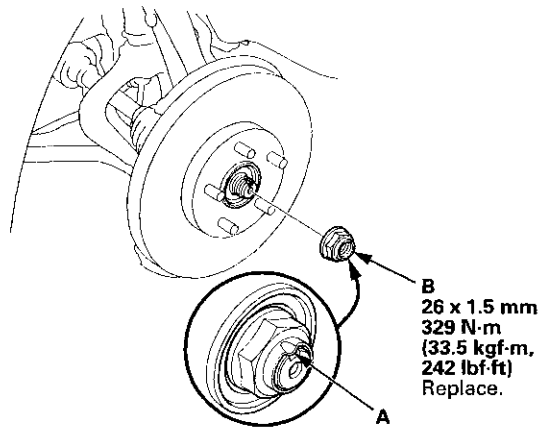


4. Remove the brake caliper bracket mounting bolts (B), then remove the caliper assembly (C) from the knuckle. To prevent damage to the caliper assembly or the brake hose, use a short piece of wire to hang the caliper assembly from the undercarriage. Do not twist the brake hose excessively.
5. Remove the wheel speed sensor harness bracket (A) and the wheel speed sensor (B) from the knuckle. Do not disconnect the wheel speed sensor connector.



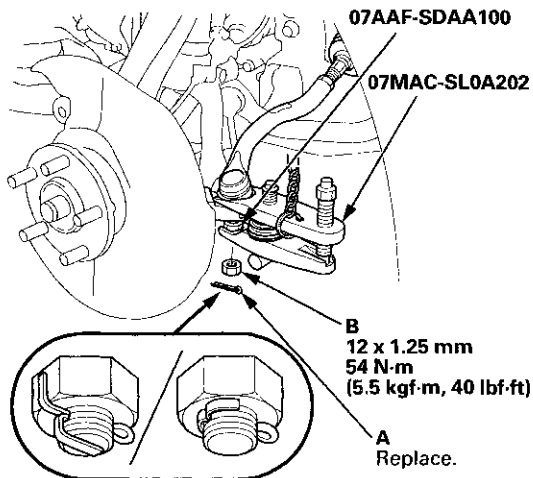


6. Pry up the stake (A) on the spindle nut (B), then remove the nut.



7. Remove the front brake disc (see page 19-21).  
8. Check the front hub for damage and cracks.  
9. Remove the cotter pin (A) from the tie-rod end ball joint, then remove the nut (B).

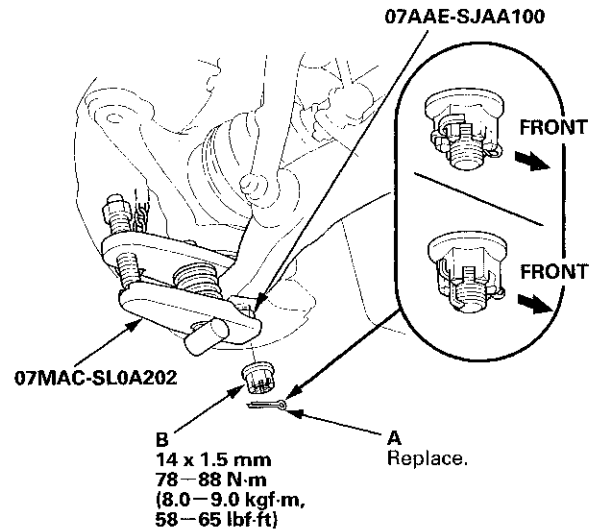
**NOTE:** During installation, install the new cotter pin after tightening the nut, and bend its end as shown.



10. Disconnect the tie-rod end ball joint from the knuckle using the ball joint thread protector and the ball joint remover (see page 18-10).

11. Remove the cotter pin (A) from the knuckle ball joint, then remove the castle nut (B).

**NOTE:** During installation, insert the new cotter pin into the ball joint pin hole from the front to the rear of the vehicle, and bend its end as shown. Check the ball joint pin hole direction before connecting the ball joint.



12. Disconnect the knuckle ball joint from the lower arm using the ball joint thread protector and the ball joint remover (see page 18-10).

**NOTE:**

- Be careful not to damage the ball joint boot when installing the remover.
- Do not force or hammer on the lower arm, or pry between the lower arm and the knuckle. You could damage the ball joint.

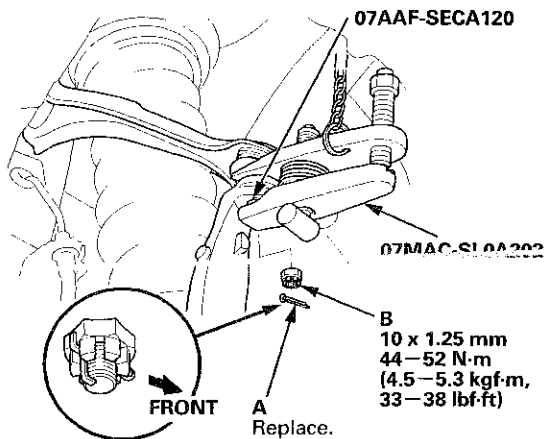
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# Front Suspension

## Knuckle/Hub/Wheel Bearing Replacement (cont'd)

13. Remove the cotter pin (A) from the upper arm ball joint, then remove the castle nut (B).

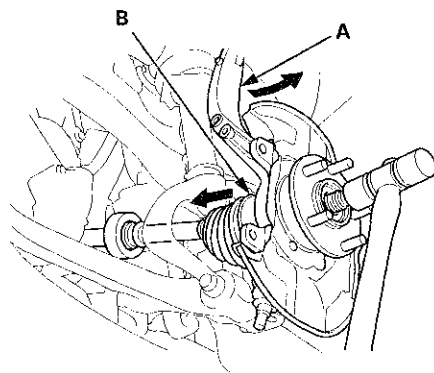
**NOTE:** During installation, insert the new cotter pin into the ball joint pin hole from the front to the rear of the vehicle, and bend its end as shown. Check the ball joint pin hole direction before connecting the ball joint.



14. Disconnect the upper arm ball joint from the knuckle using the ball joint thread protector and the ball joint remover (see page 18-10).
15. Pull the knuckle (A) outward, and separate the outboard joint (B) from the front hub with a plastic hammer outward, then remove the knuckle/hub.

**NOTE:**

- Do not pull the driveshaft end outward. The driveshaft inboard joint may come apart.
- During installation, apply grease to the mating surfaces of the wheel bearing and the driveshaft outboard joint (see step 1 on page 16-19).



16. Install the knuckle/hub in the reverse order of removal, and note these items:

- First install all of the components, and lightly tighten the bolts and the nuts, then raise the suspension to load it with the vehicle's weight before fully tightening to the specified torque. Do not place the jack against the ball joint pin of the knuckle.
- Be careful not to damage the ball joint boot when connecting the knuckle.
- Before connecting the ball joint, degrease the threaded section and the tapered portion of the ball joint pin, the ball joint connecting hole, and the threaded section and the mating surfaces of the castle nut.
- Torque the castle nut to the lower torque specification, then tighten it only far enough to align the slot with the ball joint pin hole. Do not align the castle nut by loosening it.
- Use a new spindle nut on reassembly.
- Before installing the spindle nut, apply a small amount of engine oil to the seating surface of the nut. After tightening, use a drift to stake the spindle nut shoulder against the driveshaft.
- Before installing the brake disc, clean the mating surfaces of the front hub and the inside of the brake disc.
- Before installing the wheel, clean the mating surfaces of the brake disc and the inside of the wheel.

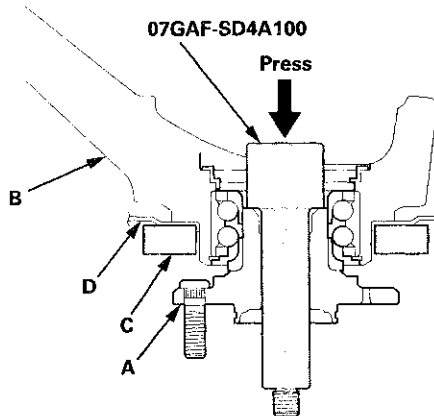
17. Check the wheel alignment, and adjust it if necessary (see page 18-5).



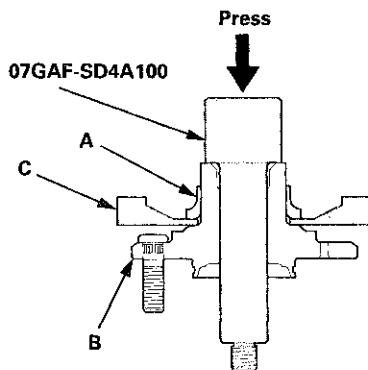


## Wheel Bearing Replacement

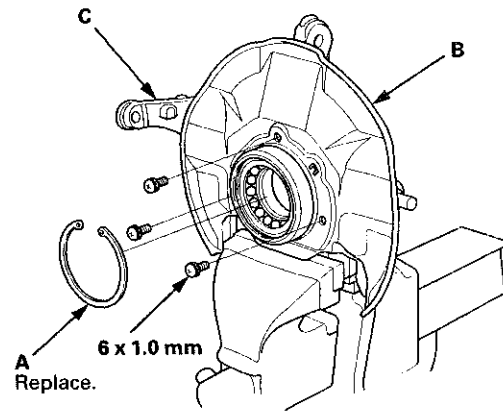
1. Remove the knuckle/hub.
2. Separate the hub (A) from the knuckle (B) using the hub dis/assy tool and a hydraulic press. Hold the knuckle with the attachment (C) of the hydraulic press or equivalent tool. Be careful not to damage or deform the splash guard (D). Hold onto the hub to keep it from falling when pressed clear.



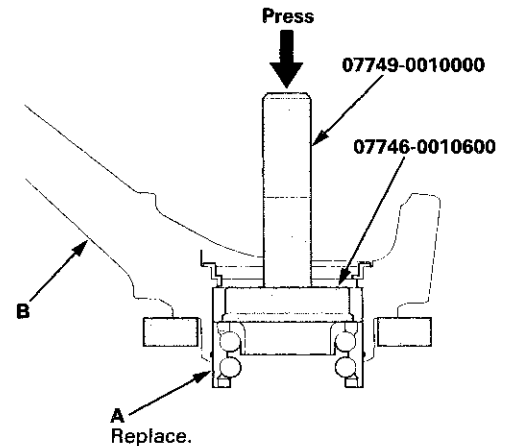
3. Press the wheel bearing inner race (A) off of the hub (B) using the hub dis/assy tool, a commercially available bearing separator (C), and a press.



4. Remove the snap ring (A) and the splash guard (B) from the knuckle (C).



5. Press the wheel bearing (A) out of the knuckle (B) using the attachment, the driver handle, and a press.



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

(cont'd)

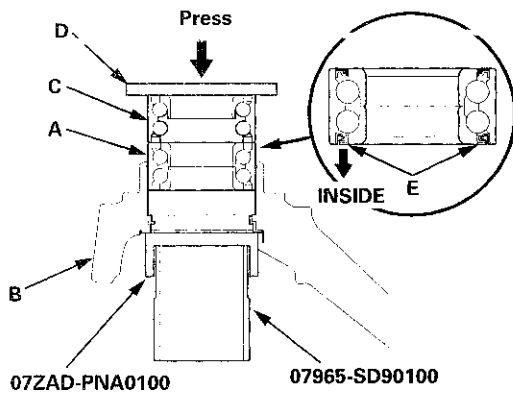
# Front Suspension

## Knuckle/Hub/Wheel Bearing Replacement (cont'd)

7. Press a new wheel bearing (A) into the knuckle (B) using the old bearing (C), a steel plate (D), the attachment, the support base, and a press.

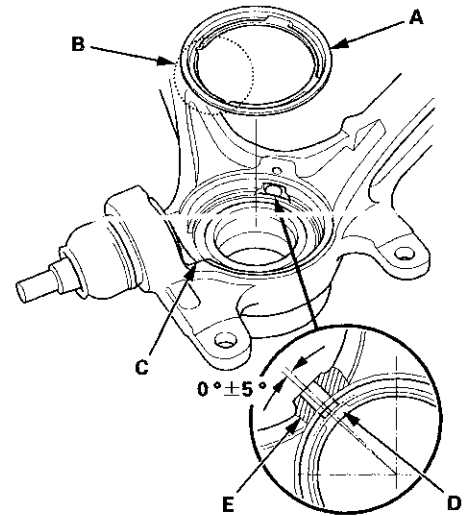
**NOTE:**

- Install the wheel bearing with the wheel speed sensor magnetic encoder (E) (brown color), toward the inside of the knuckle.
- Remove any oil, grease, dust, metal debris, and other foreign material from the magnetic encoder surface.
- Keep any magnetic tools away from the magnetic encoder surface.
- Be careful not to damage the magnetic encoder surface when you insert the wheel bearing.

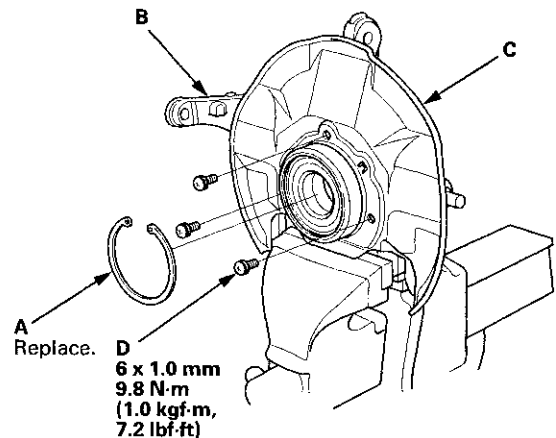


8. Check the front knuckle ring (A) for damage or deformation, and replace it if necessary.

**NOTE:** When installing the new front knuckle ring, position the knuckle ring notch portion (B) toward cut out (C) near the ball joint in the knuckle, and align the center of the knuckle ring ledge portion (D) with the center of the wheel speed sensor hole (E) on the knuckle as shown.



9. Install the new snap ring (A) securely in the knuckle (B).

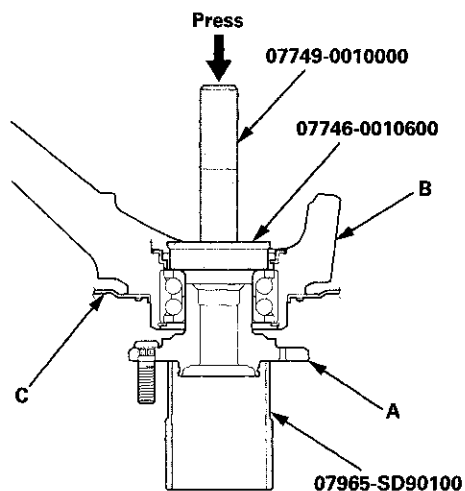


10. Install the splash guard (C), and tighten the screws (D) to the specified torque.



## Upper Arm Replacement

11. Install the hub (A) onto the knuckle (B) using the attachment, the driver handle, the support base, and a hydraulic press. Be careful not to damage the splash guard (C).

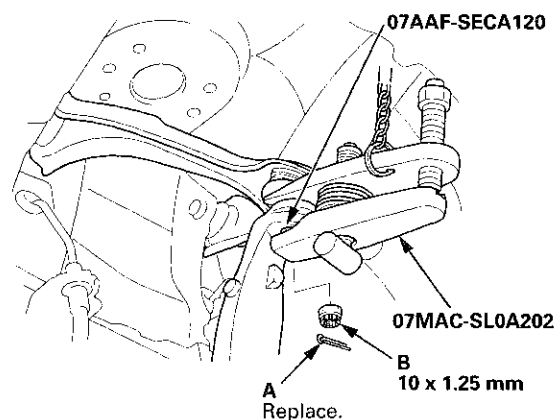


12. Install the knuckle/hub.

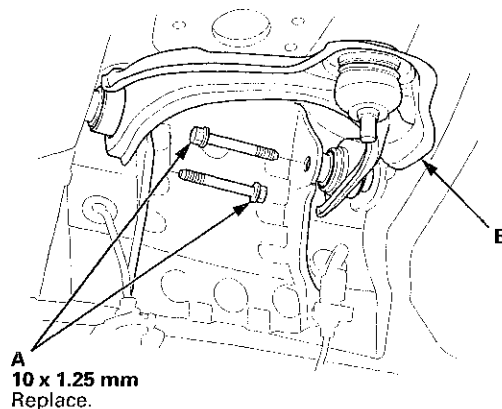
### Special Tools Required

- Ball Joint Thread Protector, 10 mm 07AAF-SECA120
- Ball Joint Remover, 28 mm 07MAC-SL0A202

1. Raise and support the vehicle (see page 1-13).
2. Remove the front wheel.
3. Remove the front damper/spring (see page 18-31).
4. Remove the cotter pin (A) from the upper arm ball joint, then remove the castle nut (B).



5. Disconnect the upper arm ball joint from the knuckle using the ball joint thread protector and the ball joint remover (see page 18-10).
6. Remove the upper arm mounting bolts (A), then remove the upper arm (B).



(cont'd)

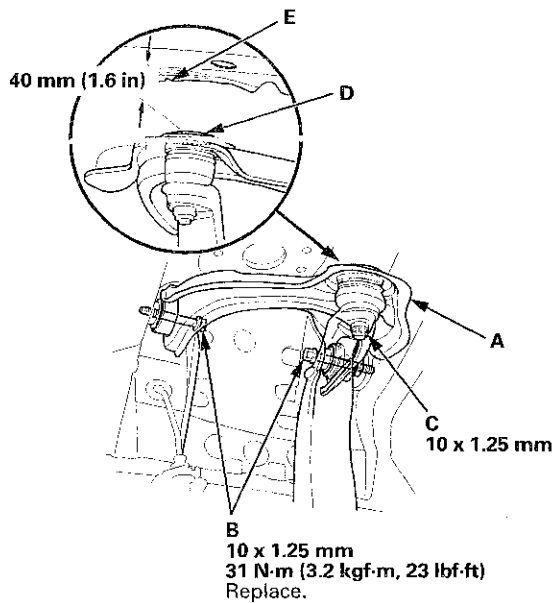
# Front Suspension

## Upper Arm Replacement (cont'd)

7. Install the upper arm (A), and lightly tighten the new upper arm mounting bolts (B), then connect the knuckle, and lightly tighten the castle nut (C).

**NOTE:**

- Be careful not to damage the ball joint boot when connecting the knuckle.
- Before connecting the ball joint, degrease the threaded section and the tapered portion of the ball joint pin, the ball joint connecting hole, and the threaded section and the mating surfaces of the castle nut.



8. Place a floor jack under the lower arm, and raise the suspension until the clearance between the top (D) of the upper arm ball joint and the backside of the fender cut out point (E) is 40 mm (1.6 in), then tighten the upper arm mounting bolts to the specified torque.

**NOTE:** To measure the specified clearance, temporarily remove the front inner fender (see page 20-290).

9. Lower the floor jack.

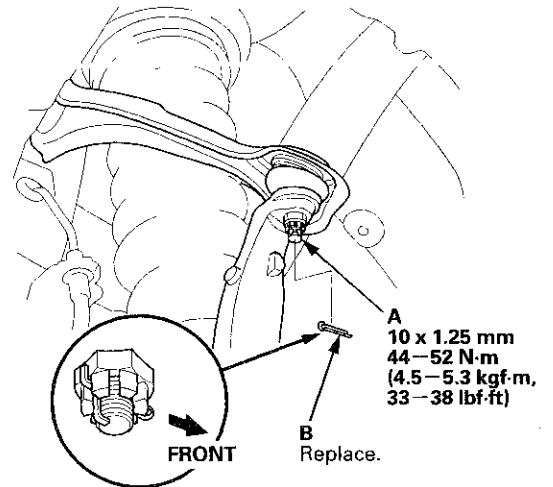
10. Install the front damper/spring (see page 18-32).

11. Place the floor jack under the lower arm, and raise the suspension to load it with the vehicle's weight.

12. Tighten the castle nut (A) on the upper arm ball joint to the specified torque.

**NOTE:**

- Torque the castle nut to the lower torque specification, then tighten it only far enough to align the slot with the ball joint pin hole. Do not align the castle nut by loosening it.
- Insert the new cotter pin (B) into the ball joint pin hole from the front to the rear of the vehicle, and bend its end as shown. Check the ball joint pin hole direction before connecting the ball joint.



13. Clean the mating surfaces of the brake disc and the inside of the wheel, then install the front wheel.

14. Check the wheel alignment, and adjust it if necessary (see page 18-5).



## Lower Arm Removal/Installation

### Special Tools Required

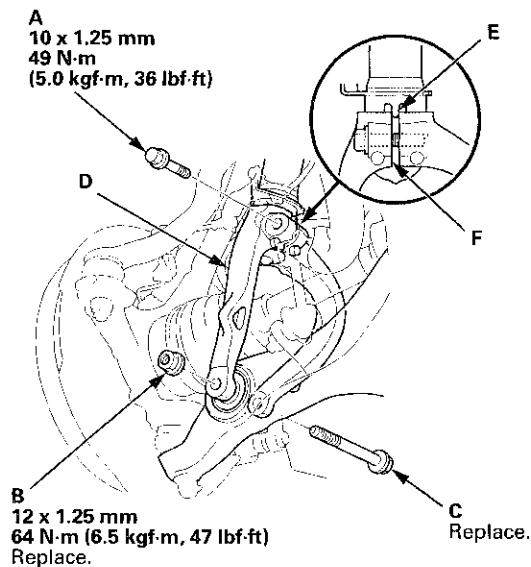
- Ball Joint Thread Protector, 14 mm 07AAE-SJAA100
- Ball Joint Remover, 28 mm 07MAC-SL0A202
- Bushing Driver 070AF-TA0A100
- Bushing Receiver Set 070AF-TA0A220

### Removal/Installation

1. Raise and support the vehicle (see page 1-13).
2. Remove the front wheel.
3. Remove the damper pinch bolt (A) and the damper fork mounting nut (B) while holding the mounting bolt (C), then remove the damper fork (D) from the damper and the lower arm.

#### NOTE:

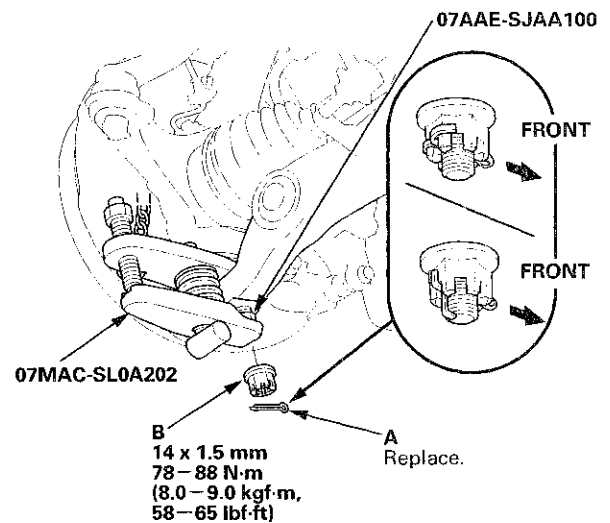
- During installation, insert the aligning tab (E) on the damper unit into the slot (F) of the damper fork.
- Use the new damper fork mounting bolt and the new mounting nut, and torque the nut while holding the bolt during reassembly.



4. Disconnect the stabilizer link from the lower arm (see page 18-24).

5. Remove the cotter pin (A) from the knuckle ball joint, then remove the castle nut (B).

NOTE: During installation, insert the new cotter pin into the ball joint pin hole from the front to the rear of the vehicle, and bend its end as shown. Check the ball joint pin hole direction before connecting the ball joint.



6. Disconnect the knuckle ball joint from the lower arm using the ball joint thread protector and the ball joint remover (see page 18-10).

#### NOTE:

- Be careful not to damage the ball joint boot when installing the remover.
- Do not force or hammer on the lower arm, or pry between the lower arm and the knuckle. You could damage the ball joint.

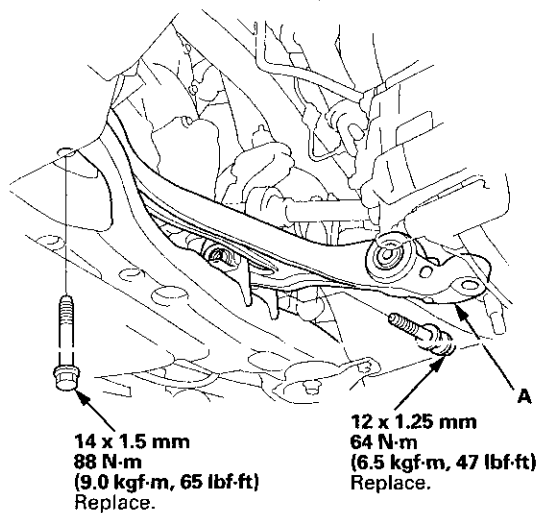
(cont'd)

# Front Suspension

## Lower Arm Removal/Installation (cont'd)

7. Remove the lower arm mounting bolts, and remove the lower arm (A).

**NOTE:** Use new lower arm mounting bolts during reassembly.



8. Install the lower arm in the reverse order of removal, and note these items:

- First install all of the components, and lightly tighten the bolts and the nuts, then raise the suspension to load it with the vehicle's weight before fully tightening it to the specified torque. Do not place the jack against the ball joint pin of the knuckle.
- Be careful not to damage the ball joint boot when connecting the knuckle.
- Before connecting the ball joint, degrease the threaded section and the tapered portion of the ball joint pin, the ball joint connecting hole, and the threaded section and the mating surfaces of the castle nut.
- Torque the castle nut to the lower torque specification, then tighten it only far enough to align the slot with the ball joint pin hole. Do not align the castle nut by loosening it.
- Before installing the wheel, clean the mating surfaces of the brake disc and the inside of the wheel.

9. Check the wheel alignment, and adjust it if necessary (see page 18-5).



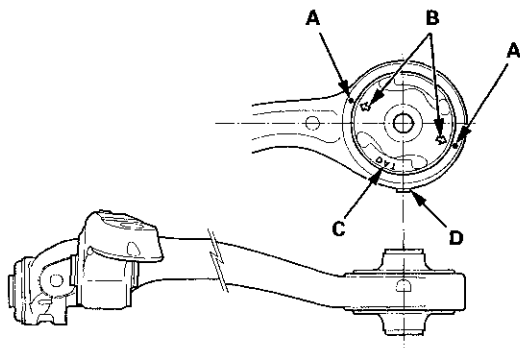
## Compliance Bushing Replacement

1. Remove the lower arm.
2. Mark alignment marks (A) on the bottom of the lower arm next to the aligning marks (B) on the compliance bushing.

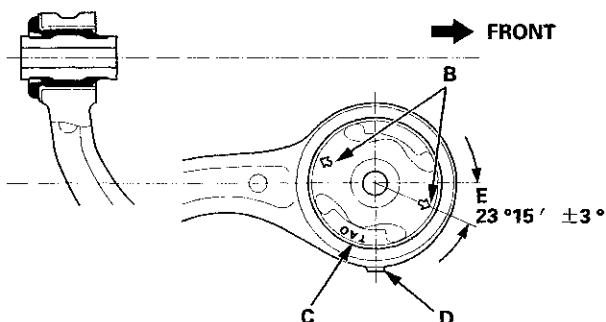
**NOTE:** The compliance bushing has a specific installation position. Turn the lower arm so that its bottom side is up. Position the bushing identifying mark (C) face up and near the tab (D) on the lower arm. Then align the bushing aligning marks on the bushing and the lower arm.

If the alignment marks are gone, align the angle (E) between the lower arm and the bushing as shown.

### Aligning the marking position

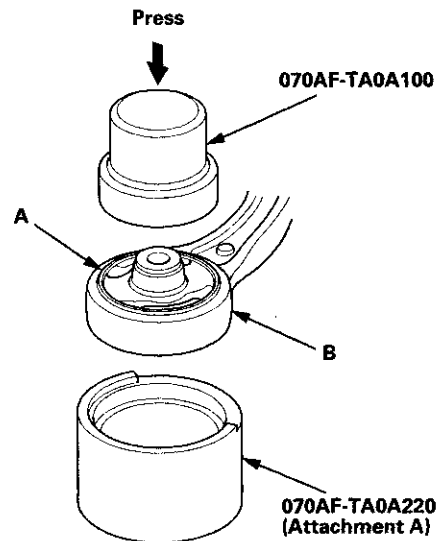


### Aligning the angle (reference)



3. Press out the compliance bushing (A) with the bushing driver, the bushing receiver set (attachment A), and a hydraulic press, and remove the bushing from the lower arm (B).

**NOTE:** Be careful not to damage the inside of the bushing hole on the lower arm.

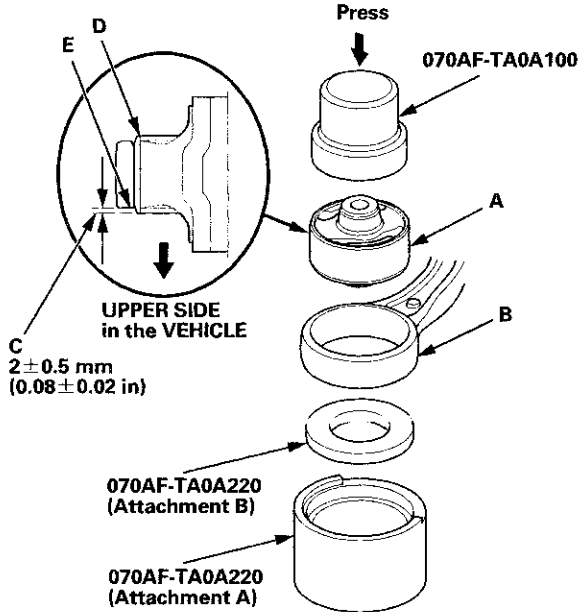


(cont'd)

# Front Suspension

## Lower Arm Removal/Installation (cont'd)

4. Clean the mating surfaces of the new compliance bushing (A) and the lower arm (B).



5. Make sure of the compliance bushing installation direction, align the bushing aligning marks with the lower arm, then press in the bushing into the lower arm using the bushing driver, the bushing receiver set (attachments A and B), and a hydraulic press.

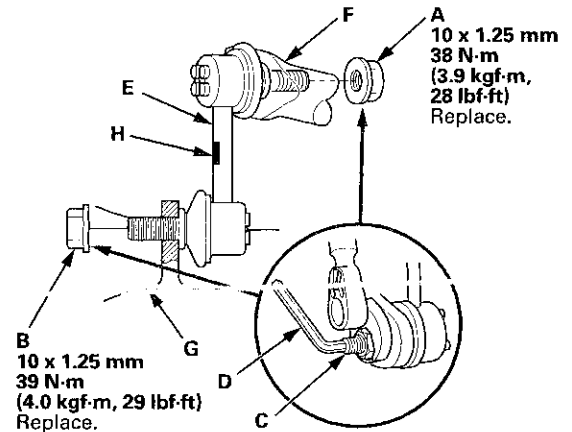
**NOTE:**

- Press in the bushing from the bottom side of the lower arm.
- After installation, check the protrusion (C) of the bushing outer sleeve (D) through the lower arm bushing hole (E).

6. Install the lower arm.

## Stabilizer Link Removal/Installation

1. Raise and support the vehicle (see page 1-13).
2. Remove the front wheel.
3. Remove the self-locking nut (A) and the flange nut (B) while holding the respective joint pin (C) with a hex wrench (D), then remove the stabilizer link (E).



4. Install the stabilizer link on the stabilizer bar (F) and the lower arm (G) with the joint pins set at the center of their range of movement.

**NOTE:** The stabilizer link has a paint mark (H). The left stabilizer link is marked with yellow paint, and the right stabilizer link is marked with white paint.

5. Install the new self-locking nut and the new flange nut, and tighten them to the specified torque while holding the respective joint pin with a hex wrench.
6. Clean the mating surfaces of the brake disc and the inside of the wheel, then install the front wheel.
7. Test-drive the vehicle.
8. After 5 minutes of driving, tighten the self-locking nut again to the specified torque.





## Stabilizer Bar Replacement

### Special Tools Required

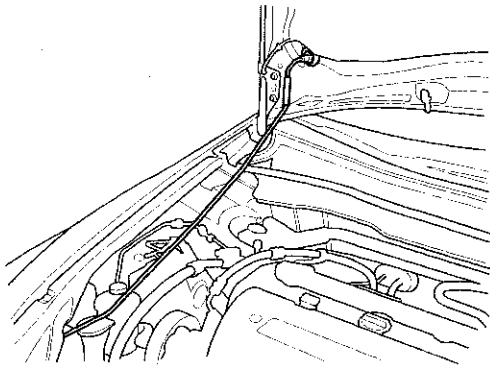
- Engine Hanger Adapter VSB02C000015\*
- Engine Support Hanger, A and Reds AAR-T1256\*
- Subframe Adapter VSB02C000016\*
- Subframe Alignment Pin 070AG-SJAA10S

\*: Available through the Honda Tool and Equipment Program, 888-424-6857.

#### 1. Note these items during replacement:

- Be sure to remove the steering wheel before disconnecting the steering joint. Damage to the cable reel can occur.
- Lower the front subframe from the body, and replace the front stabilizer bar through the gap created by lowering the front subframe.

#### 2. Remove the hood support rod, then use it as shown to prop the hood in the wide-open position.



#### 3. Remove the front grille cover:

- 4-door (see page 20-274)
- 2-door (see page 20-274)

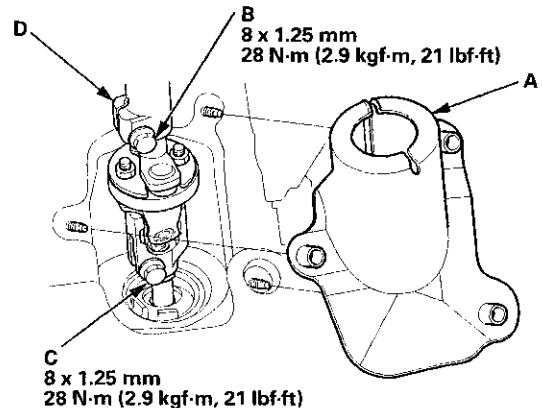
#### 4. Do the battery terminal disconnection procedure (see page 22-91).

#### 5. Raise and support the vehicle (see page 1-13).

#### 6. Remove the front wheels.

#### 7. Remove the driver's airbag and the steering wheel (see page 17-6).

#### 8. Remove the steering joint cover (A).

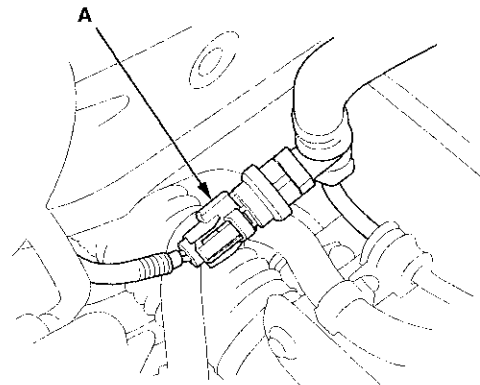


#### 9. Loosen the steering joint upper bolt (B), and remove the steering joint lower bolt (C). Disconnect the steering joint by sliding the steering joint into the column shaft (D). Tighten the steering joint upper bolt to hold the column shaft.

#### NOTE:

- Do not disconnect the steering joint from the column shaft.
- If the center guide is in place and has not moved, leave it in place.
- If the center guide has moved or been removed, discard it.

#### 10. Disconnect the power steering pressure (PSP) switch connector (A).



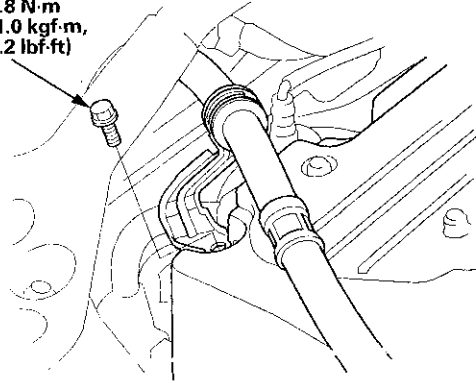
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# Front Suspension

## Stabilizer Bar Replacement (cont'd)

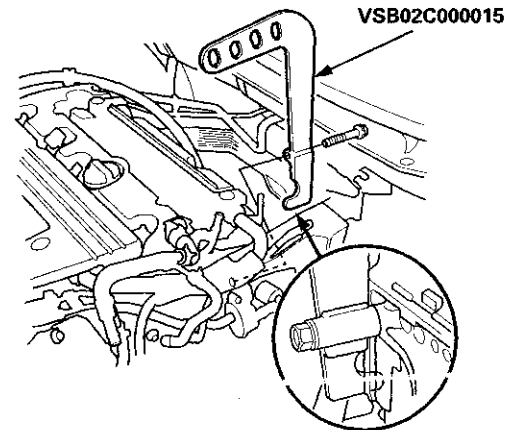
11. Remove the power steering pump outlet hose mounting bolt (A).

A  
6 x 1.0 mm  
9.8 N·m  
(1.0 kgf·m,  
7.2 lbf·ft)



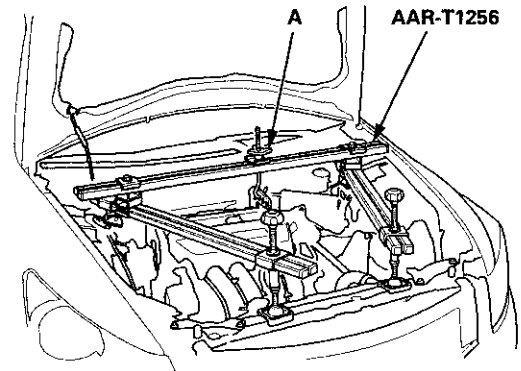
12. Remove the front strut brace (if equipped) (see page 20-306).

13. Attach the engine hanger adapter (VSB02C000015) to the threaded hole in the cylinder head.



14. Install the engine support hanger (AAR-T1256), then attach the hook to the slotted hole in the engine hanger adapter. Tighten the wing nut (A) by hand to lift and support the engine/transmission.

**NOTE:** Be careful when working around the windshield.

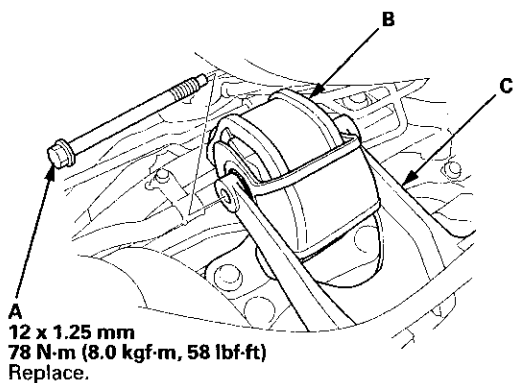




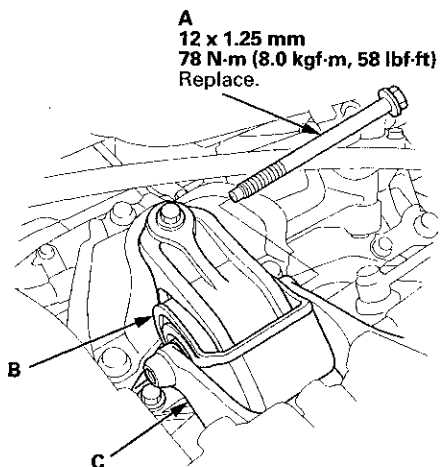
15. Remove the engine mount bolt (A) from the rear engine mount (B) and the rear engine mount bracket (C).

NOTE: Use a new engine mount bolt during reassembly.

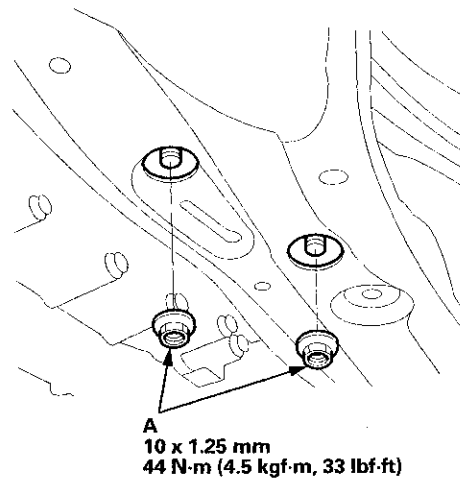
M/T



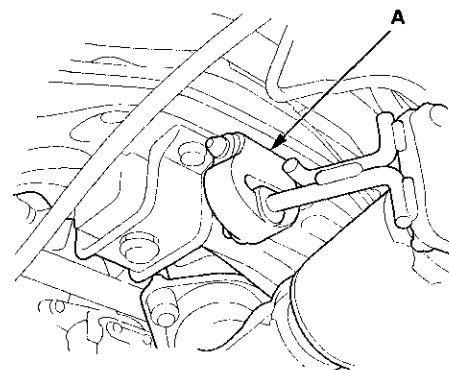
A/T



16. Raise the vehicle on the lift to full height.  
17. Remove the front splash shield (see page 20-291).  
18. Remove the nuts (A) securing of the lower transmission mount.



19. Remove the exhaust pipe A hanger (A) from the front subframe.



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