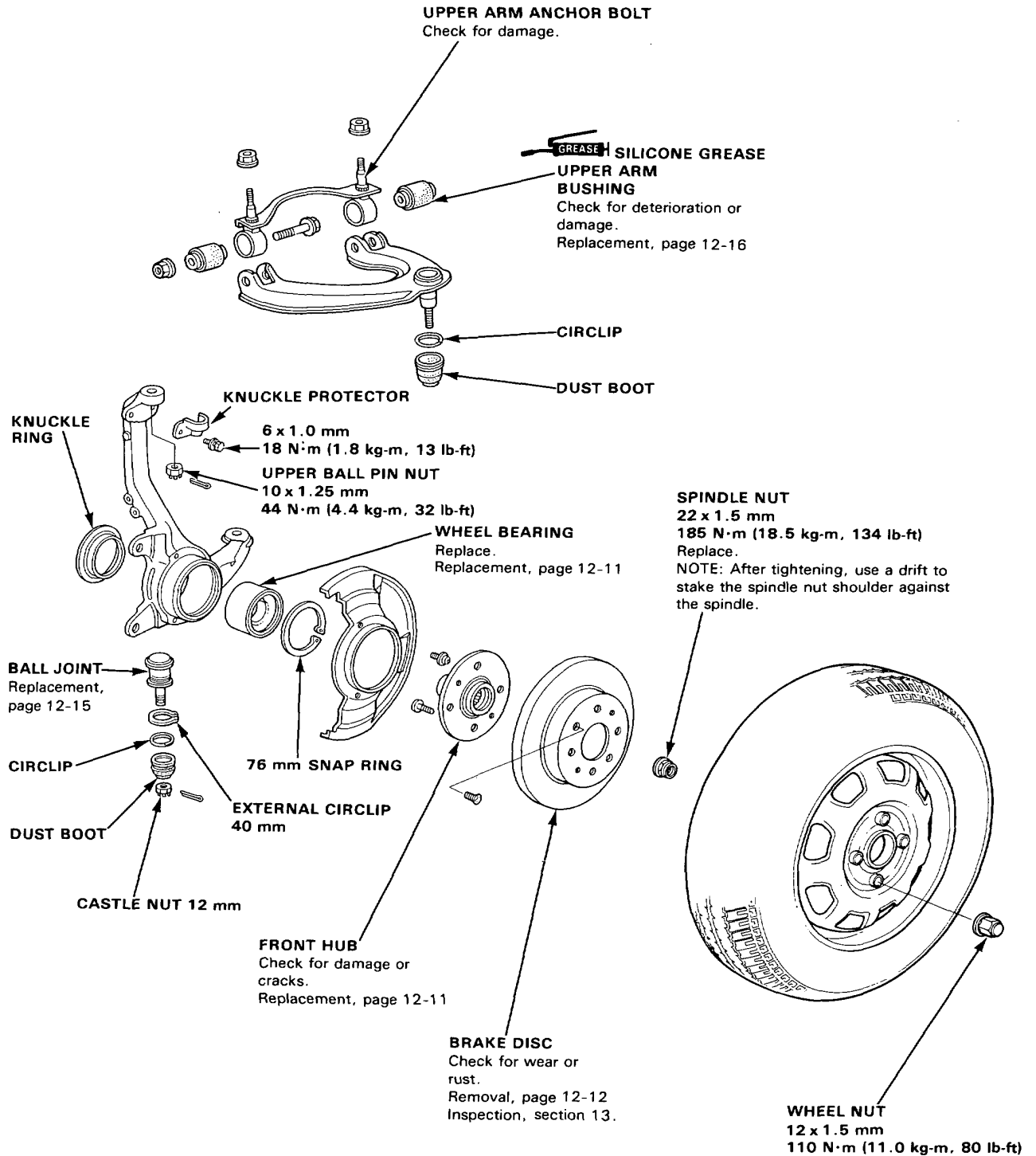
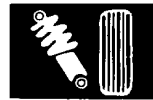


# Front Suspension

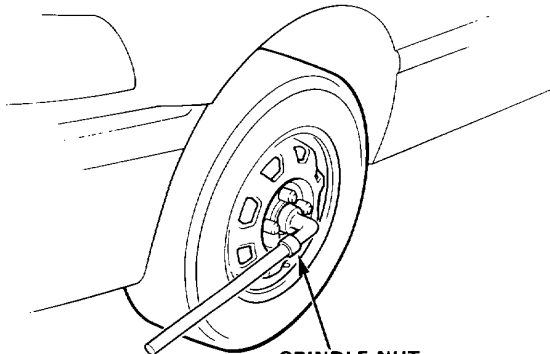
## Knuckle/Hub





## Knuckle/Hub Replacement

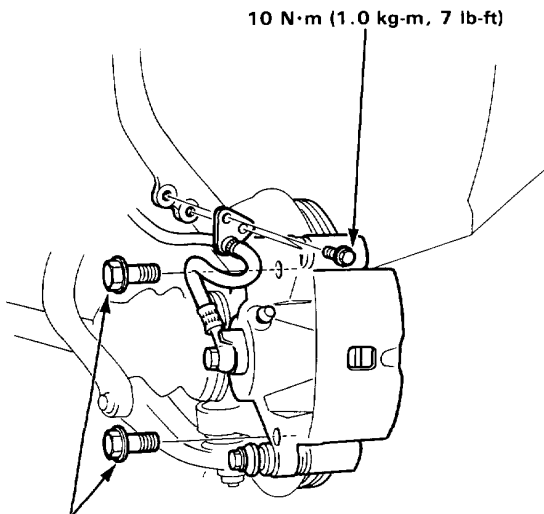
1. Pry the spindle nut stake away from the spindle, then loosen the nut using a 32 mm socket.



**SPINDLE NUT**  
22 x 1.5 mm  
185 N·m (18.5 kg-m, 134 lb-ft)  
Replace.

2. Loosen the wheel nuts slightly.
3. Raise the front of car and support on safety stands in proper locations.
4. Remove the wheel nuts, wheels, and spindle nut.
5. Remove the caliper 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.

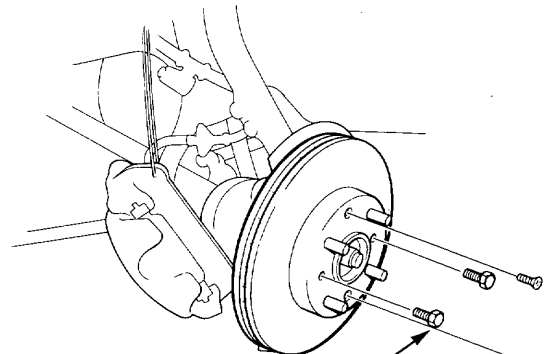


**CALIPER MOUNTING BOLTS**  
78 N·m (7.8 kg-m, 56 lb-ft)

10 N·m (1.0 kg-m, 7 lb-ft)

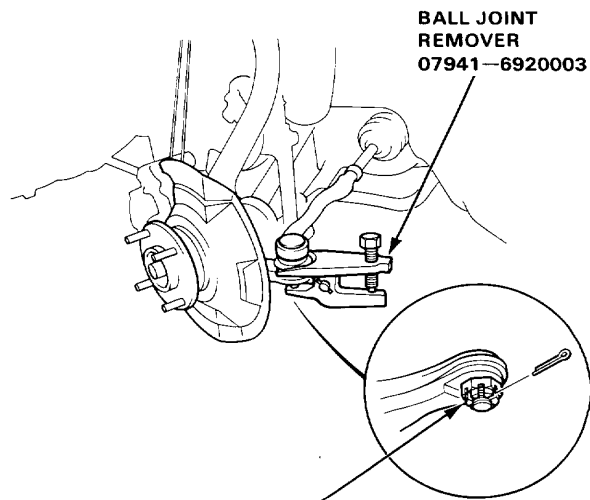
6. Remove the 6 mm brake disc retaining screws.
7. Screw two 8 x 12 mm bolts into the disc to push it away from the hub.

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



**8 x 12 mm BOLT**  
**6 mm BRAKE DISC RETAINING SCREW**

8. Remove the cotter pin from the tie-rod end and remove the castle nut.
9. Break loose the tie-rod ball joint using the special tool, then lift the tie-rod out of the knuckle.



**BALL JOINT REMOVER**  
07941-6920003

**CASTLE NUT**  
10 x 1.25 mm  
45 N·m (4.5 kg-m, 32 lb-ft)

(cont'd)

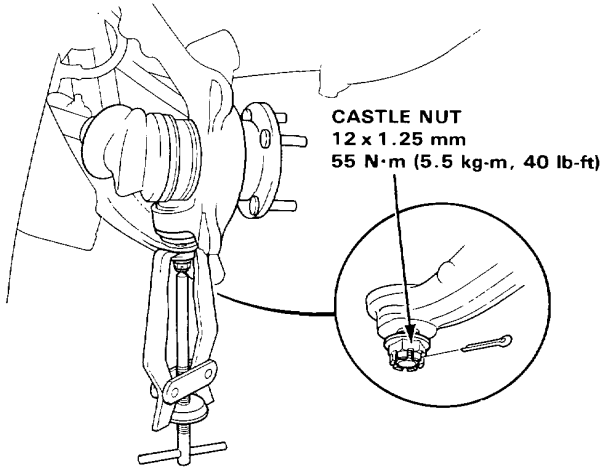
# Front Suspension

## Knuckle/Hub Replacement (cont'd)

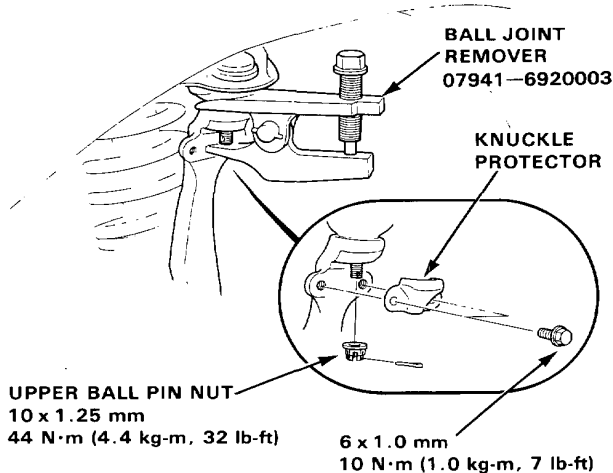
- Remove the cotter pin and loosen the lower arm ball joint nut half the length of the joint threads.
- Separate the ball joint and lower arm using a puller with the pawls applied to the lower arm.

**CAUTION:** Avoid damaging the ball joint boot.

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

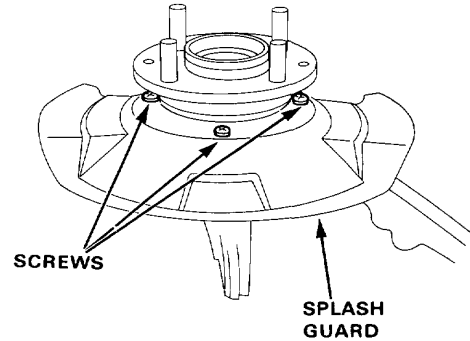


- Remove the knuckle protector.
- Remove the cotter pin and remove the upper ball pin nut.
- Separate the upper ball joint and knuckle using the special tool.



- Remove the knuckle and hub by sliding them off the driveshaft.

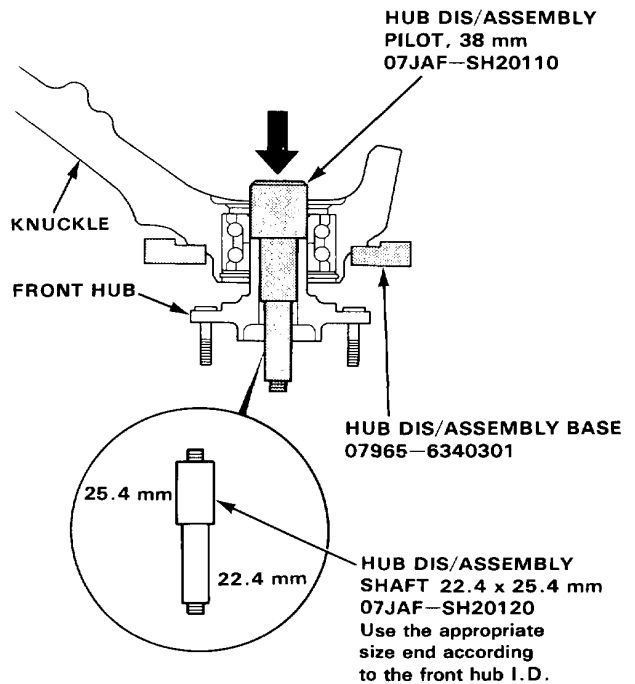
- Remove the splash guard screws from the knuckle.



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

**CAUTION:**

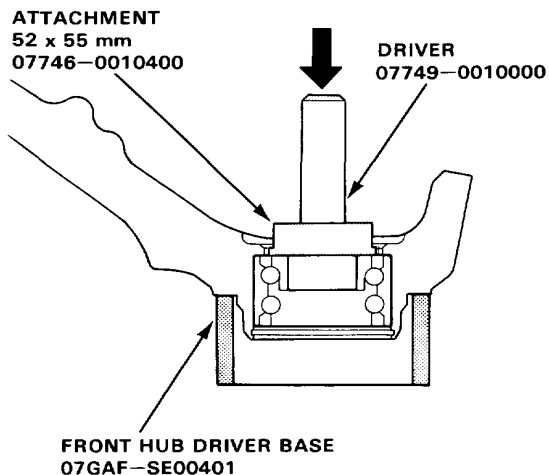
- Take care not to distort the splash guard.
- Hold onto the hub to keep it from falling when pressed clear.
- To prevent damage to the tool make sure the threads are fully engaged before pressing.





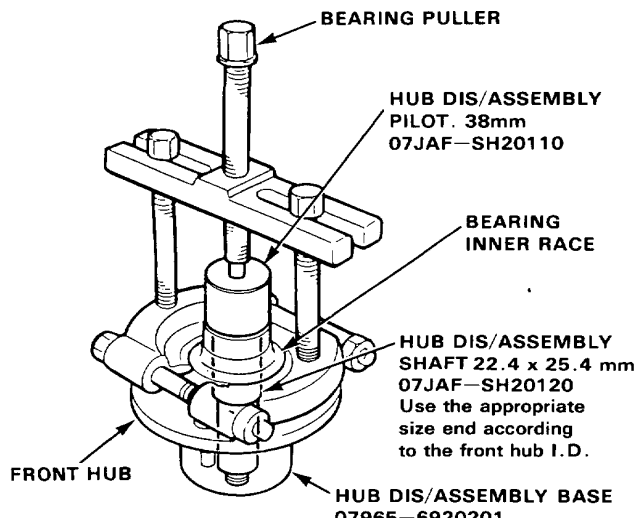
NOTE: Replace the bearing with a new one after removal.

18. Remove the 76 mm snap ring and knuckle ring from the knuckle.
19. Press the wheel bearing out of the knuckle using the special tools shown and a hydraulic press.



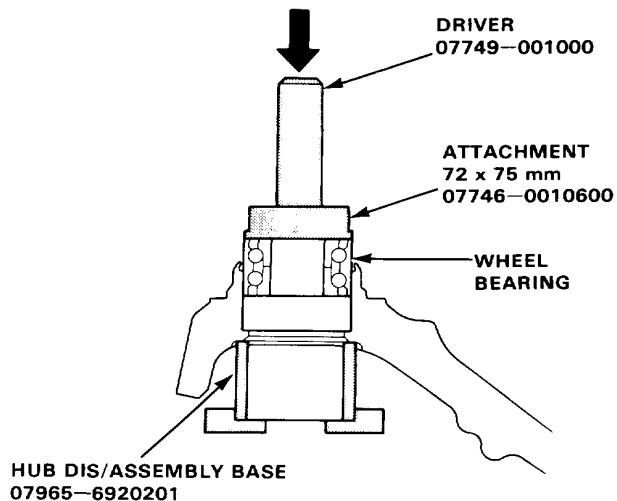
20. Remove the outboard bearing inner race from the hub using the special tools shown and a bearing puller.

**CAUTION:** To prevent damage to the tool make sure the threads are fully engaged before pressing.

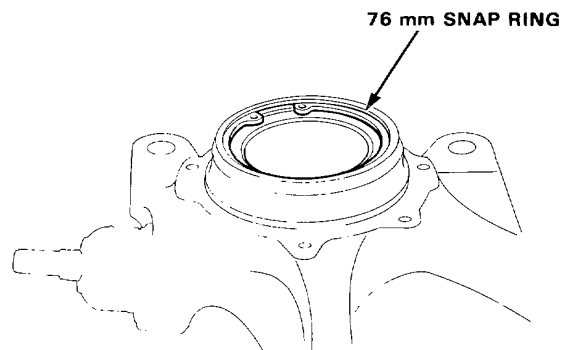


NOTE: Wash the knuckle and hub thoroughly in high flashpoint solvent before reassembly.

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



22. Install the 76 mm snap ring securely in the knuckle groove.

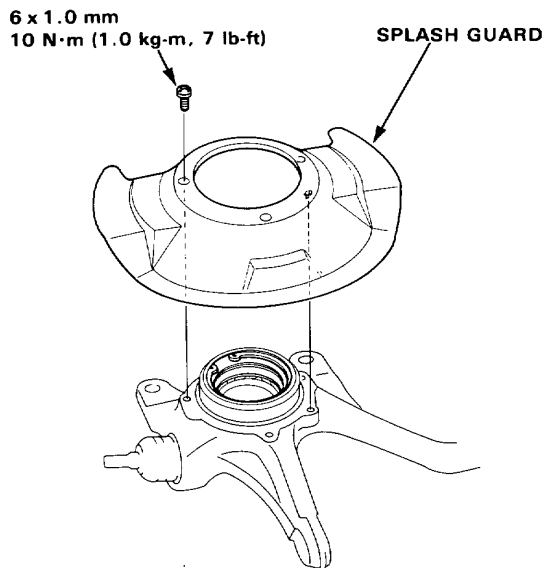


(cont'd)

# Front Suspension

## Knuckle/Hub Replacement (cont'd)

23. Install the splash guard and tighten the screws.



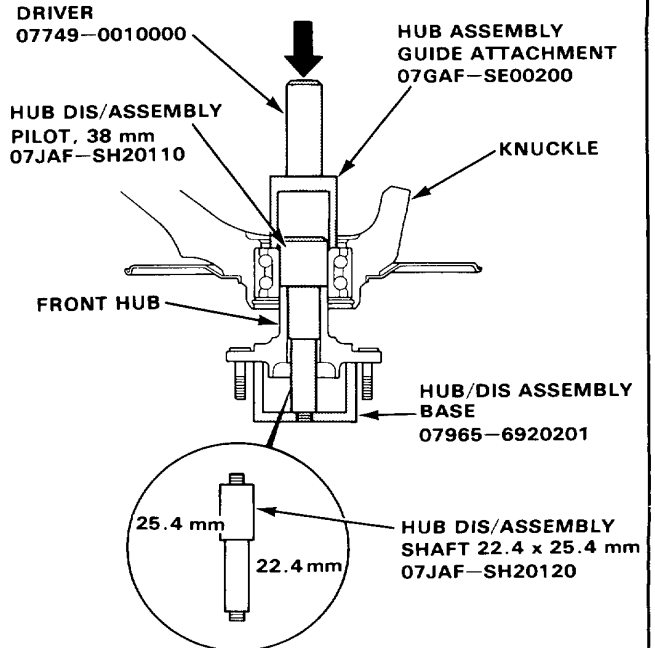
24. Install the shaft into the base with the appropriate size end according to the front hub I.D.

25. Place the front hub onto the special tools and install the pilot.

26. Set the knuckle in position and install using the special tools and a hydraulic press.

### CAUTION:

- Maximum press load: 2 tons.
- To prevent damage to the tool make sure the threads are fully engaged before pressing.



27. Install the front knuckle ring on the knuckle.

