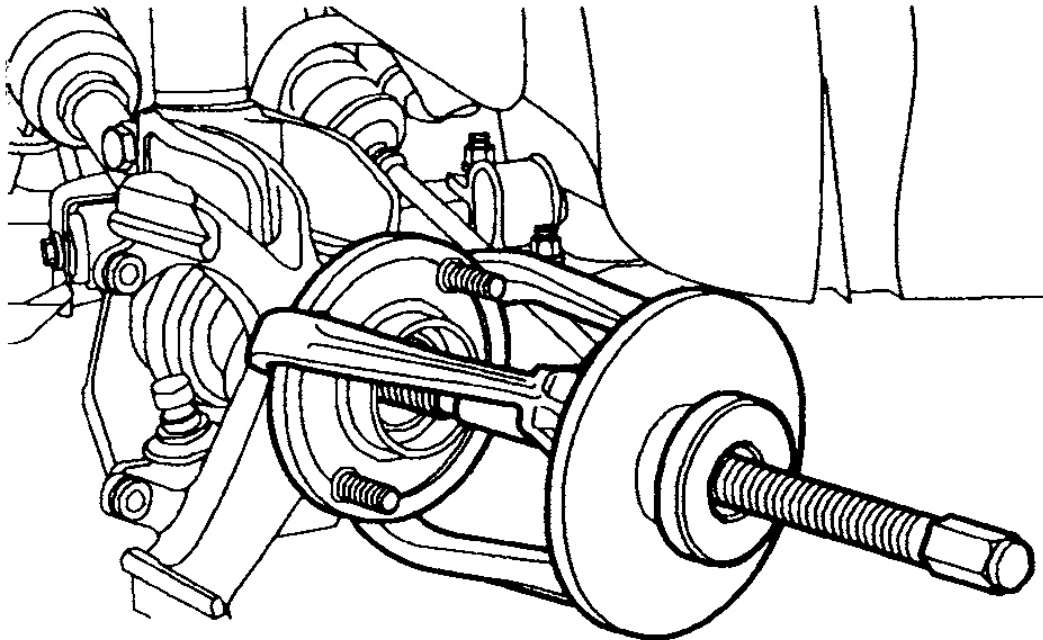


## HUB/STEERING KNUCKLE ASSEMBLY

### Removal

1. Loosen the strut tower nuts by at least five turns. See **Fig. 4** . Loosen the wheel hub retaining nut. Raise and support vehicle. Remove front wheel, brake caliper and rotor. Remove ABS wheel speed sensor (if equipped). Remove tie rod end cotter pin and nut. Using Tie Rod End Separator (211-001), remove tie rod end. See **Fig. 13** .
2. Remove lower control arm nut and pinch bolt. See **Fig. 15** . Separate lower control arm from steering knuckle. Remove wheel hub retaining nut. Using a suitable puller, separate wheel hub from halfshaft. See **Fig. 6** . Remove strut assembly-to-steering knuckle bolt. See **Fig. 3** . Remove steering knuckle.



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**Fig. 6: Removing Halfshaft From Wheel Hub**

Courtesy of FORD MOTOR CO.

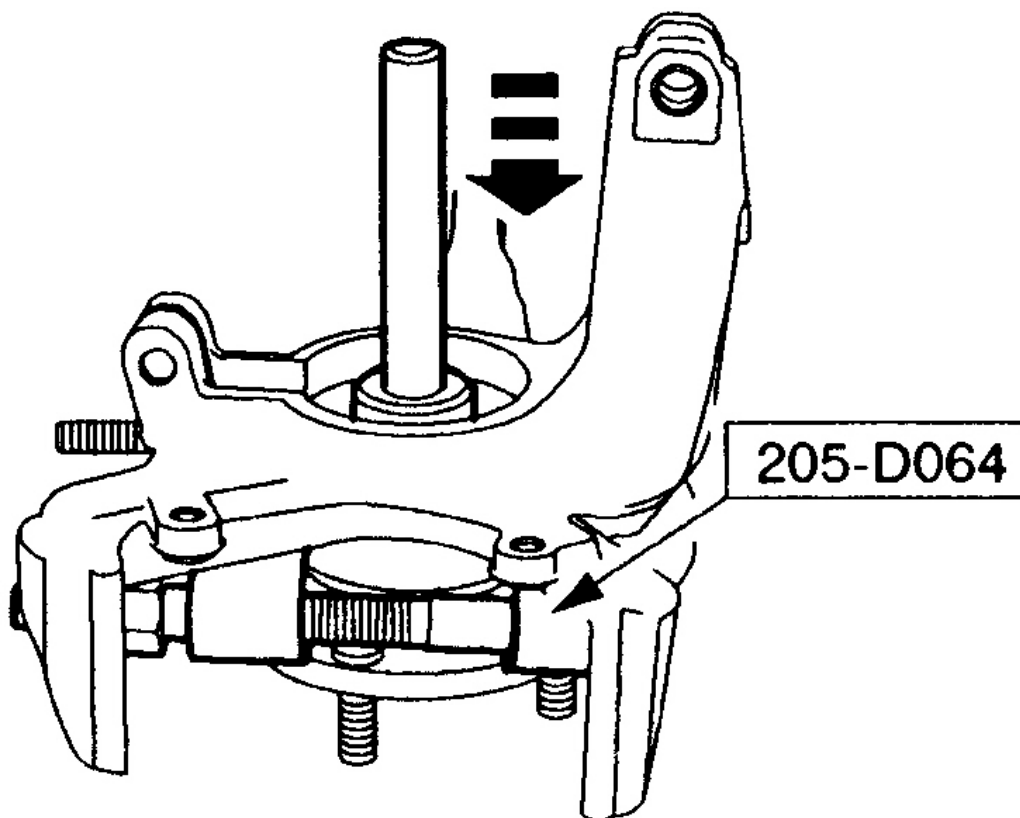
### Disassembly & Reassembly

1. Using Bearing Pulling Attachment (205-D064), press wheel hub from wheel knuckle. See **Fig. 7** . Remove retainer ring from wheel knuckle. See **Fig. 8** . Using a suitable drift, remove front wheel bearing from wheel knuckle. See **Fig. 9** .

**CAUTION: Avoid any impact on the wheel speed sensor ring. Make sure the wheel speed sensor ring is clean. Avoid any contact between the**

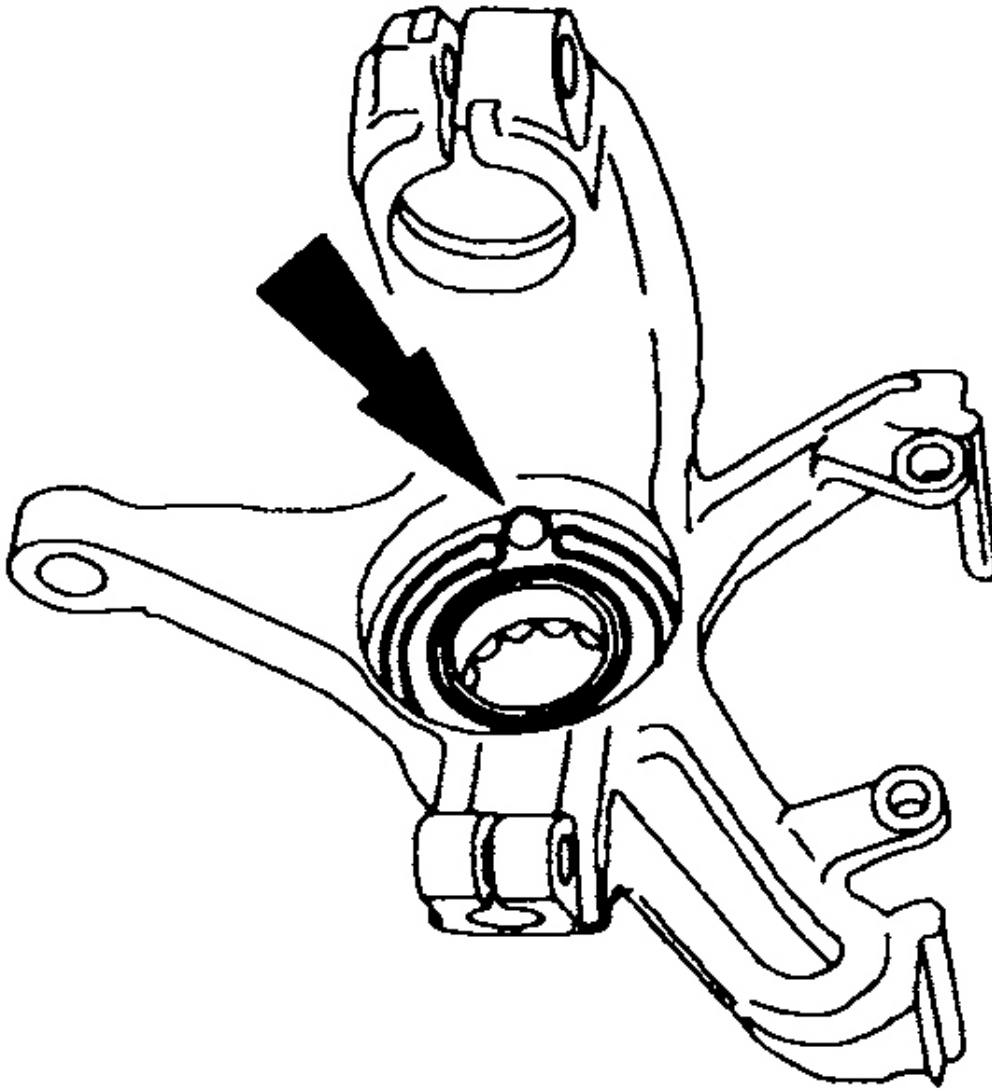
wheel speed sensor ring and a magnetic surface. Make sure the wheel bearing is installed into the wheel knuckle with the wheel speed sensor ring, colored black, at the wheel speed sensor end of the wheel knuckle.

2. To reassemble, reverse disassembly procedure.



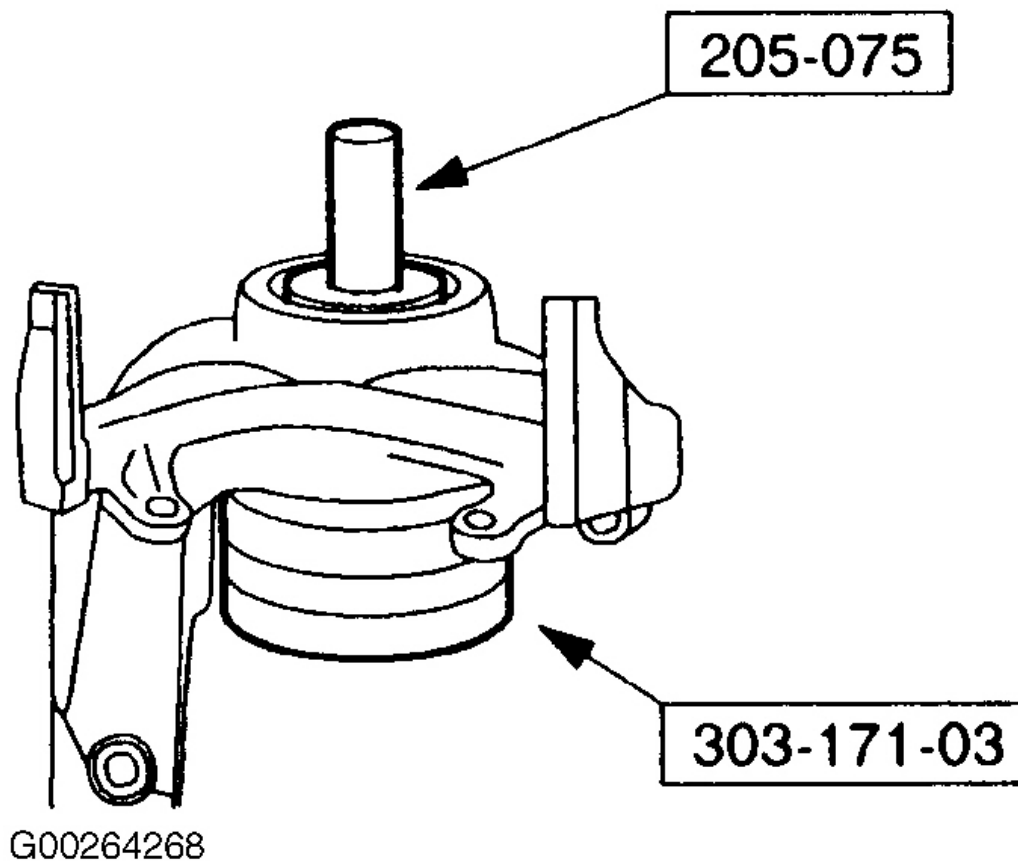
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**Fig. 7: Removing Wheel Hub**  
Courtesy of FORD MOTOR CO.



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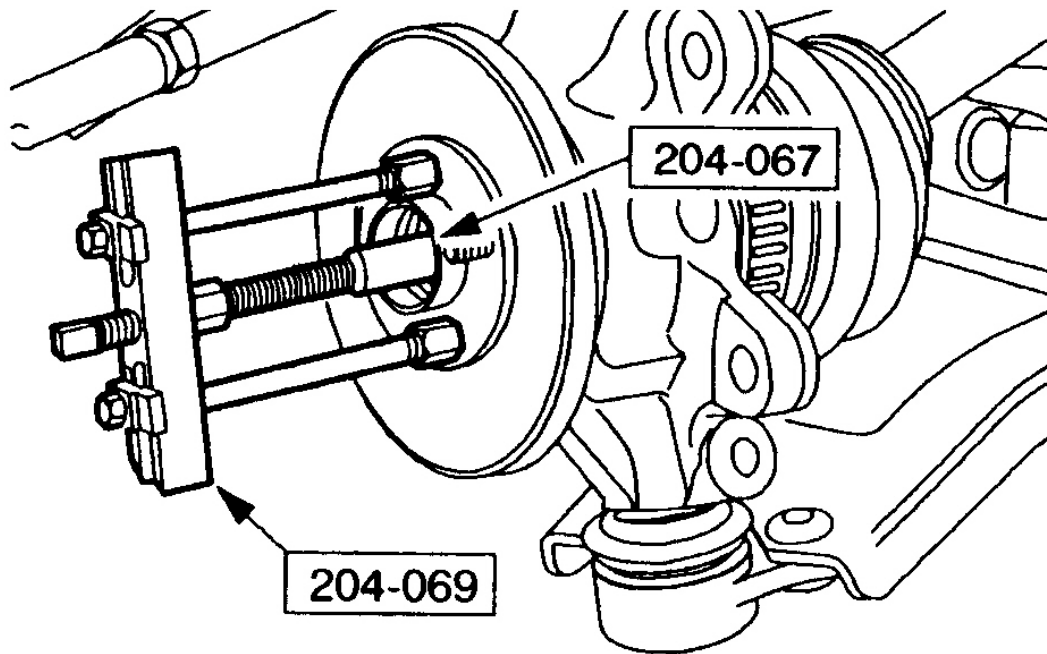
**Fig. 8: Removing Retainer Ring**  
Courtesy of FORD MOTOR CO.



**Fig. 9: Removing Wheel Bearing**  
Courtesy of FORD MOTOR CO.

#### Installation

1. Install the wheel knuckle to strut pinch bolt. Using Halfshaft Installer (204-067) and Front Wheel Hub Remover/Installer (204-069), install the halfshaft. See **Fig. 10**. The wheel hub retaining nut can be re-used four times, inspect the markings on the retaining nut and install a new retaining nut if necessary. **DO NOT** fully tighten the wheel hub retaining nut at this stage.
2. Install the wheel hub retaining nut. Ensure the heat shield is installed to prevent damage to the ball joint. Install the lower arm to wheel knuckle nut and bolt. Install a new tie-rod end retaining nut. Failure to follow this instruction may result in personal injury.
3. Install the tie-rod end. Attach the wheel speed sensor (if equipped). Install the brake disc. Tighten the wheel hub retaining nut to specification. See **TORQUE SPECIFICATIONS**. Tighten the strut tower nuts.



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**Fig. 10: Installing Halfshaft**  
Courtesy of FORD MOTOR CO.

## LOWER BALL JOINT

The lower ball joint is part of the lower control arm must be replaced as a unit. See **LOWER CONTROL ARM**.

## LOWER CONTROL ARM

### Removal

1. Raise and support vehicle. Remove wheel assembly. Remove nut and pinch bolt securing lower ball joint to knuckle. See **Fig. 15**. Separate steering knuckle from lower ball joint.
2. Remove lower control arm pivot bolt. See **Fig. 11**. Remove bolts securing lower control arm rear bushing onto chassis. Remove lower control arm.

### Installation

**NOTE:** Numbers in parenthesis refer to numbers in illustration.

Bolts (1) and (3) are torque-to-yield. See **Fig. 11**. NEW nuts, bolts and ball bearing washers must be installed.

Install the lower arm bolts. Tighten the bolts in the sequence shown in five stages.

**Stage 1** - Tighten nut (1) to 74 ft. lbs. (100 N.m).

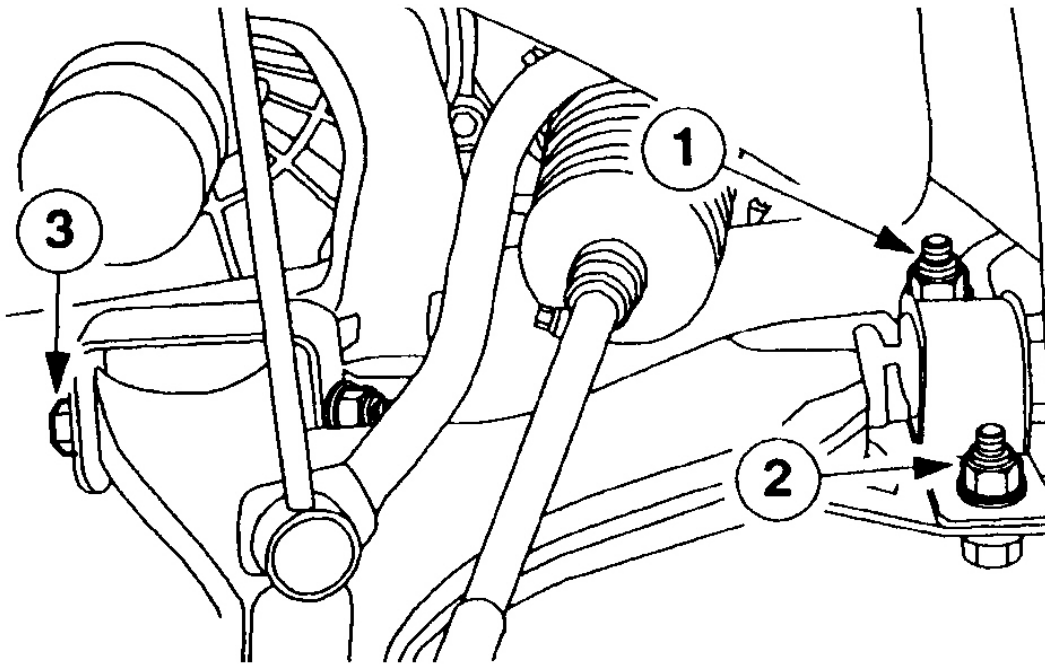
**Stage 2** - Tighten nut (1) an additional 60 degrees.

**Stage 3** - Tighten nut (2) to 89 ft. lbs. (120 N.m).

**Stage 4** - Tighten bolt (3) to 89 ft. lbs. (120 N.m).

**Stage 5** - Tighten bolt (3) to an additional 90 degrees. After 90 degrees, check bolt (3) torque is between 125-170 ft. lbs. (170-230 N.m).

Ensure the heat shield is installed to prevent damage to the ball joint. Install the lower arm ball joint. Install the bolt. Install wheel assembly. Tighten all fasteners to specification. See [TORQUE SPECIFICATIONS](#).



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**Fig. 11: Installing Lower Control Arm**

Courtesy of FORD MOTOR CO.