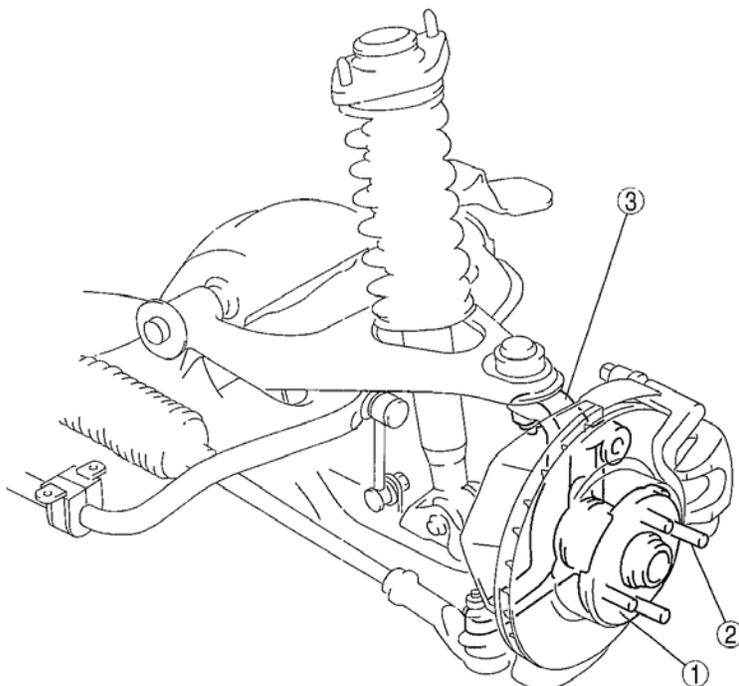


2005 DRIVELINE/AXLE

Front Axle - MX-5 Miata

FRONT AXLE LOCATION INDEX



1	Wheel hub (See WHEEL HUB, STEERING KNUCKLE PRE-INSPECTION) (See WHEEL HUB, STEERING KNUCKLE REMOVAL/INSTALLATION)
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2	Wheel hub bolt (See WHEEL HUB BOLT REPLACEMENT)
3	Steering knuckle (See WHEEL HUB, STEERING KNUCKLE REMOVAL/INSTALLATION)

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Fig. 1: Identifying Front Axle
 Courtesy of MAZDA MOTORS CORP.

WHEEL HUB, STEERING KNUCKLE PRE-INSPECTION

WHEEL BEARING PLAY

1. Remove the brake caliper component and disc plate.
2. Position a dial indicator against the wheel hub.
3. Push and pull the wheel hub by hand in the axial direction and measure the wheel bearing play.

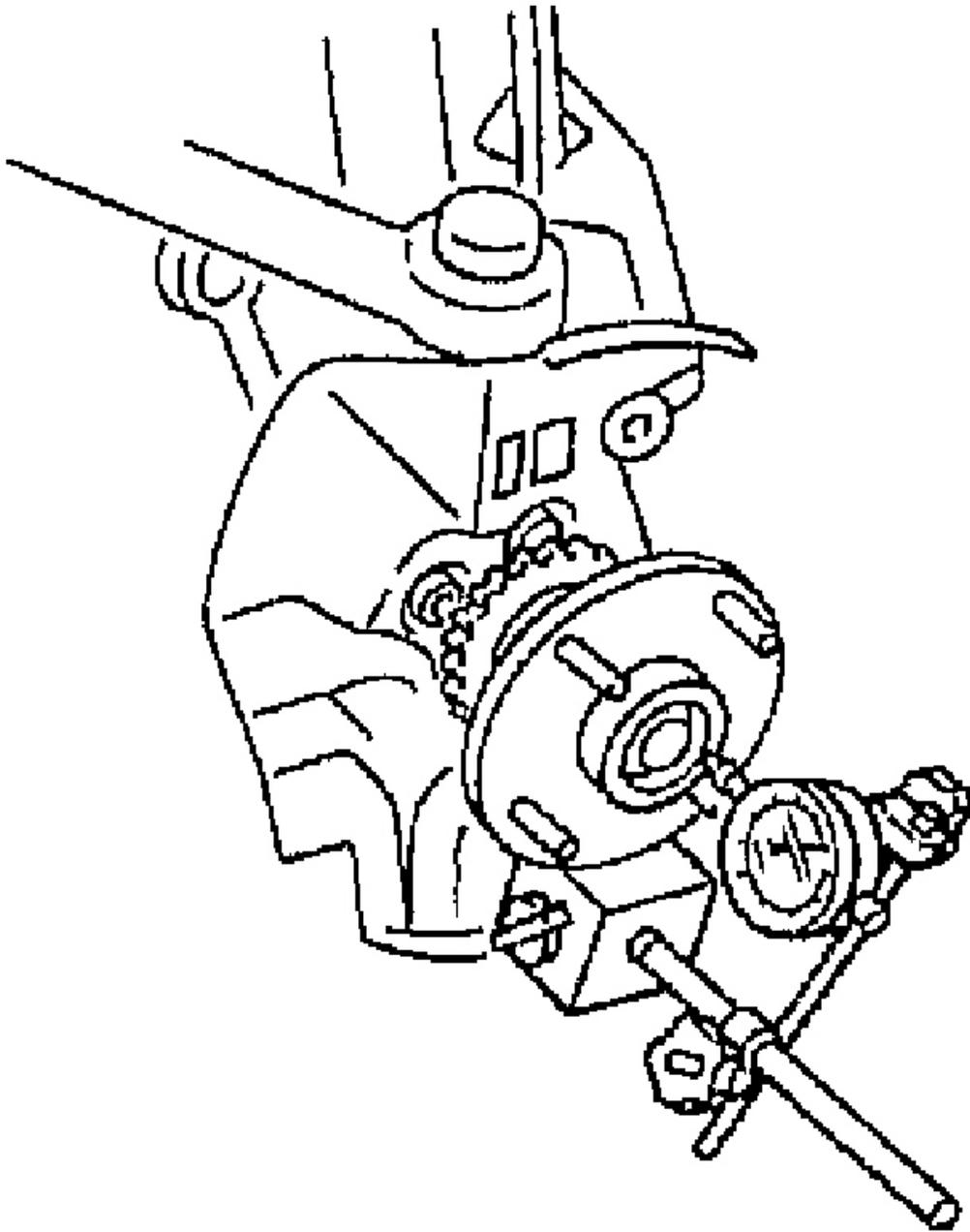
2005 Mazda MX-5 Miata

2005 DRIVELINE/AXLE Front Axle - MX-5 Miata

4. If the bearing play exceeds the specification, inspect and tighten the locknut to the specified torque and retest.
 - Replace the wheel bearing as necessary.

Maximum wheel bearing play

0.05 mm {0.002 in}

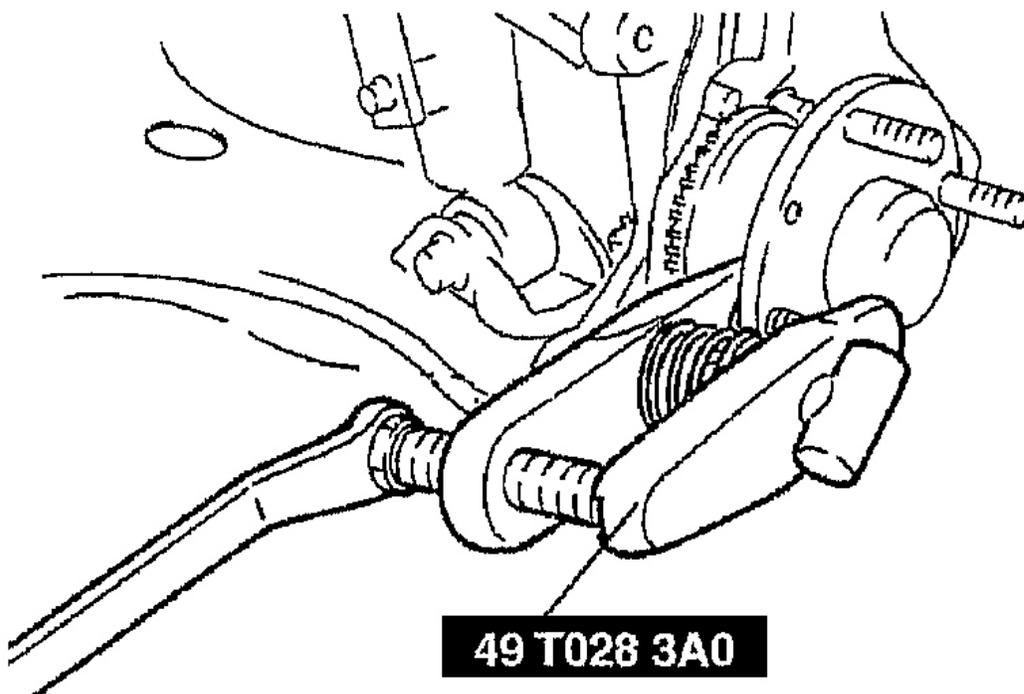


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Fig. 2: Measuring Wheel Bearing Play
Courtesy of MAZDA MOTORS CORP.

WHEEL HUB BOLT REPLACEMENT

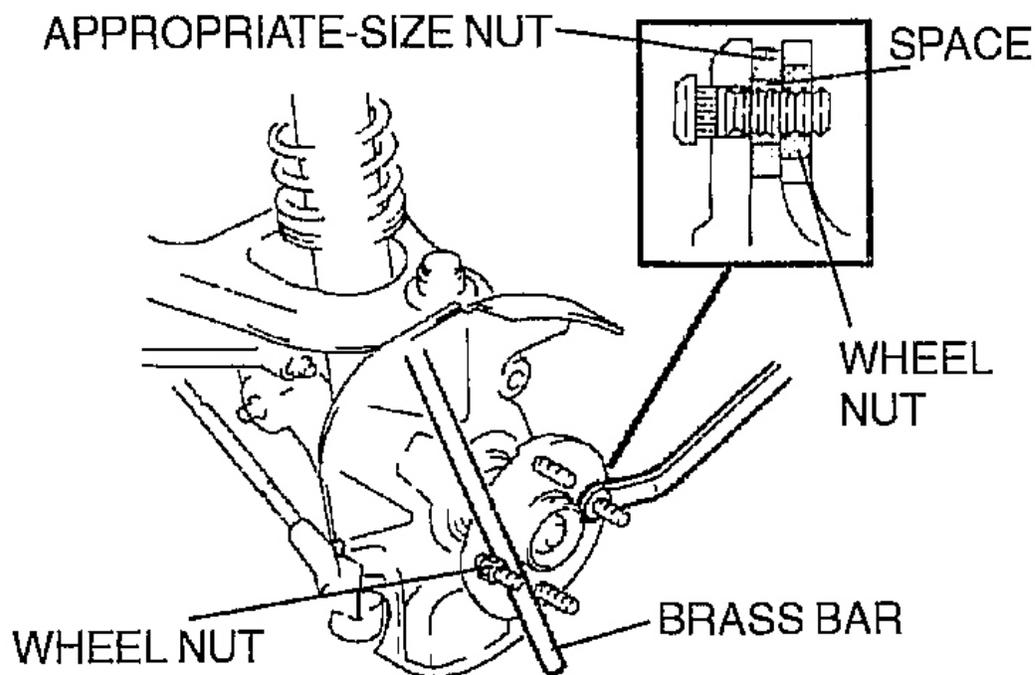
1. Remove the hub bolt using the SST.
2. Install the hub bolt into the wheel hub and install a washer and hub nut on the hub bolt using a brass bar.



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Fig. 3: Installing Hub Bolt Into Wheel Hub
Courtesy of MAZDA MOTORS CORP.

3. Tighten the hub nut while holding the wheel hub using a brass bar.



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Fig. 4: Tightening Hub Nut While Holding Wheel Hub
 Courtesy of MAZDA MOTORS CORP.

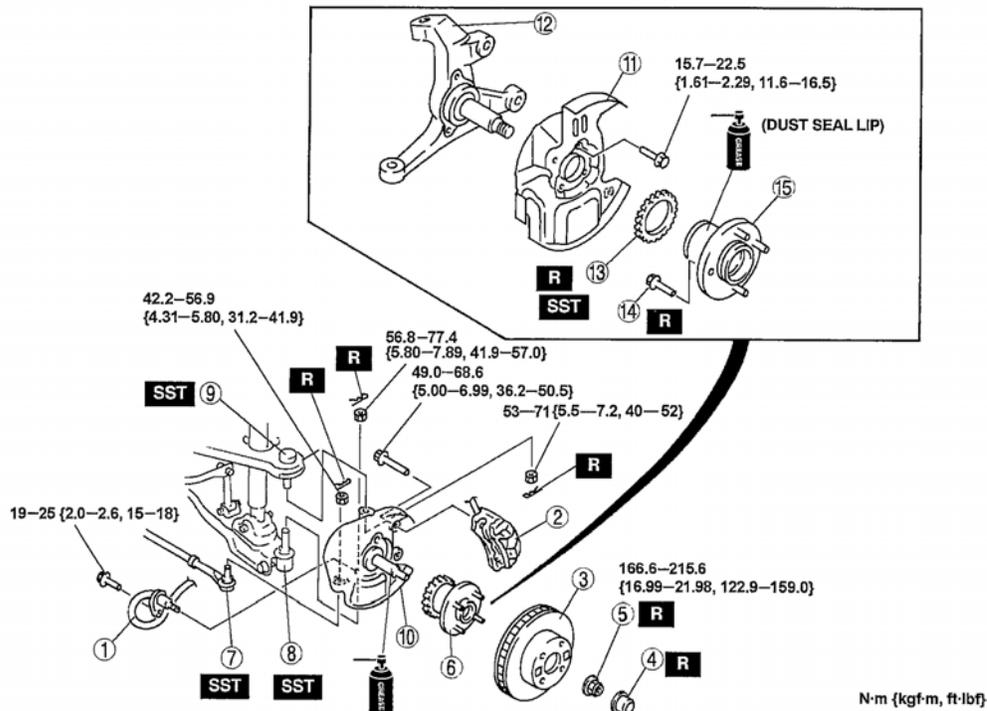
WHEEL HUB, STEERING KNUCKLE REMOVAL/INSTALLATION

- CAUTION:**
- Performing the following procedures without first removing the ABS wheel-speed sensor may possibly cause an open circuit in the harness if it is pulled by mistake. Before performing the following procedures, remove the ABS wheel-speed sensor (axle side) and fix it to an appropriate place where the sensor will not be pulled by mistake while servicing the vehicle.

1. Remove in the order indicated in the table.
2. Install in the reverse order of removal.
3. After installation, adjust the total toe-in. (See **TOTAL TOE-IN ADJUSTMENT** .)

2005 Mazda MX-5 Miata

2005 DRIVELINE/AXLE Front Axle - MX-5 Miata



1	ABS wheel-speed sensor (if equipped)
2	Brake caliper component
3	Disc plate (See Disc Plate Removal Note) (See Disc Plate Installation Note)
4	Hub cap
5	Locknut (See Locknut Installation Note)
6	Front wheel hub component
7	Tie-rod end ball joint (See Tie-rod End Ball Joint Removal Note)
8	Front lower arm ball joint (See Lower Arm Ball Joint Removal Note)

9	Front upper arm ball joint (See Upper Arm Ball Joint Removal Note)
10	Dust cover and knuckle spindle
11	Dust cover
12	Knuckle spindle
13	ABS sensor rotor (See ABS Sensor Rotor Removal Note) (See ABS Sensor Rotor Installation Note)
14	Wheel hub bolt (See Wheel Hub Bolt Removal Note) (See Wheel Hub Bolt Installation Note)
15	Front wheel hub

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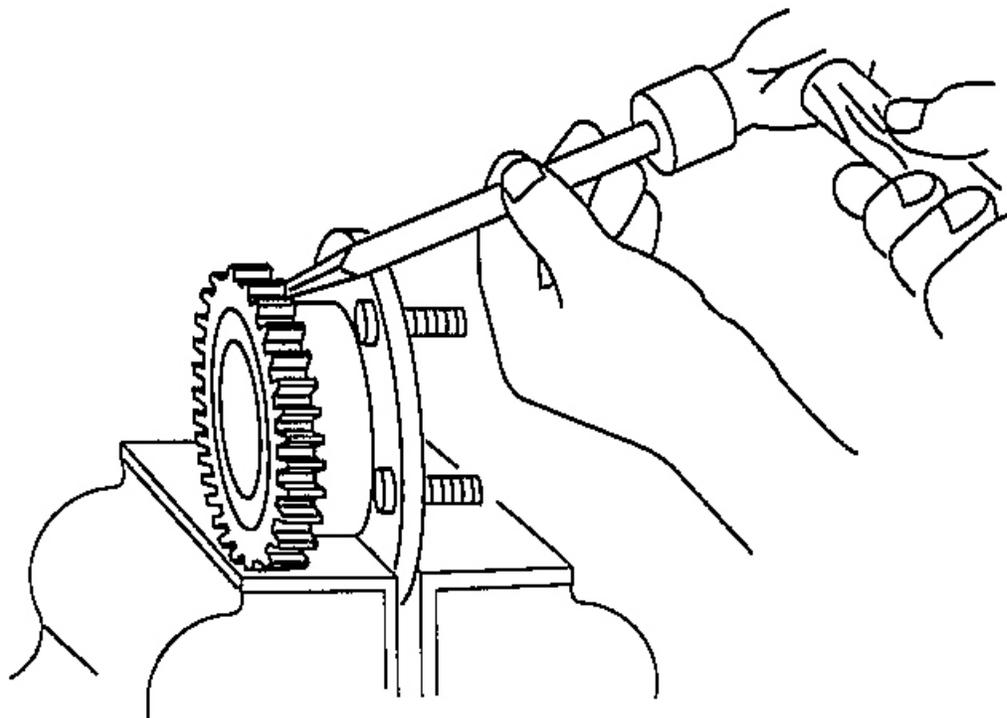
Fig. 5: Adjusting Total Toe-In & Torque Specifications
Courtesy of MAZDA MOTORS CORP.

ABS SENSOR ROTOR REMOVAL NOTE

1. Remove the sensor rotor using a chisel.

NOTE:

- The sensor rotor does not need to be removed unless replacing it.



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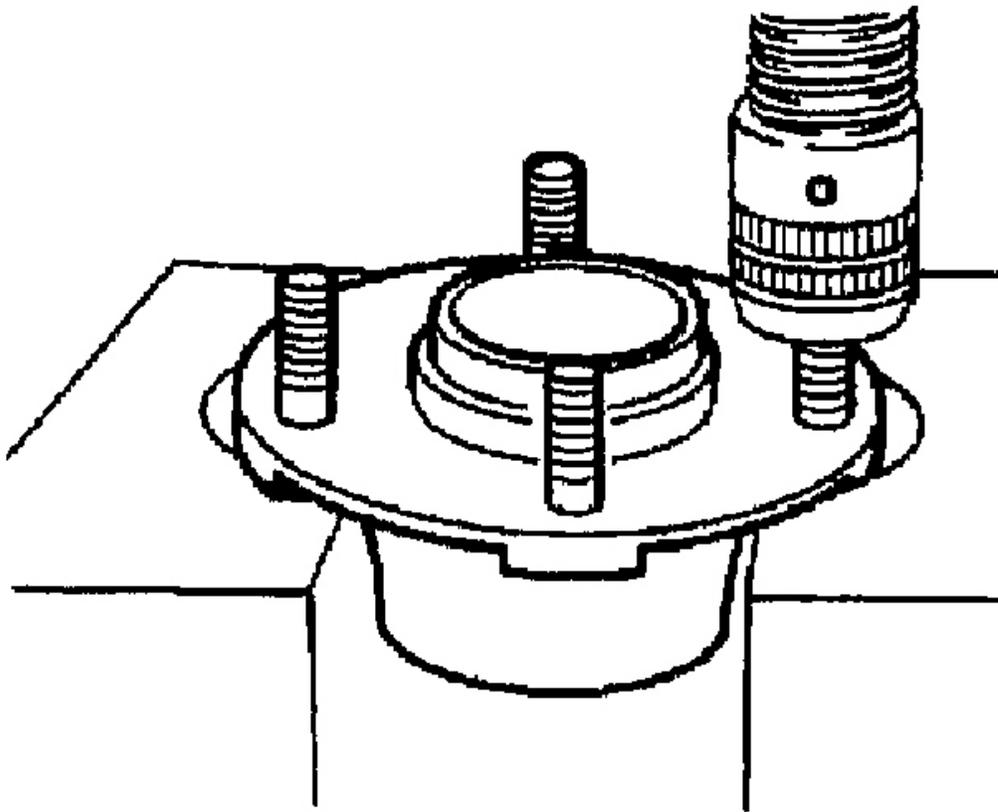
Fig. 6: Removing Sensor Rotor Using A Chisel
Courtesy of MAZDA MOTORS CORP.

WHEEL HUB BOLT REMOVAL NOTE

NOTE:

- The hub bolts do not need to be removed unless they are being replaced.

1. Remove the hub bolts using a press.

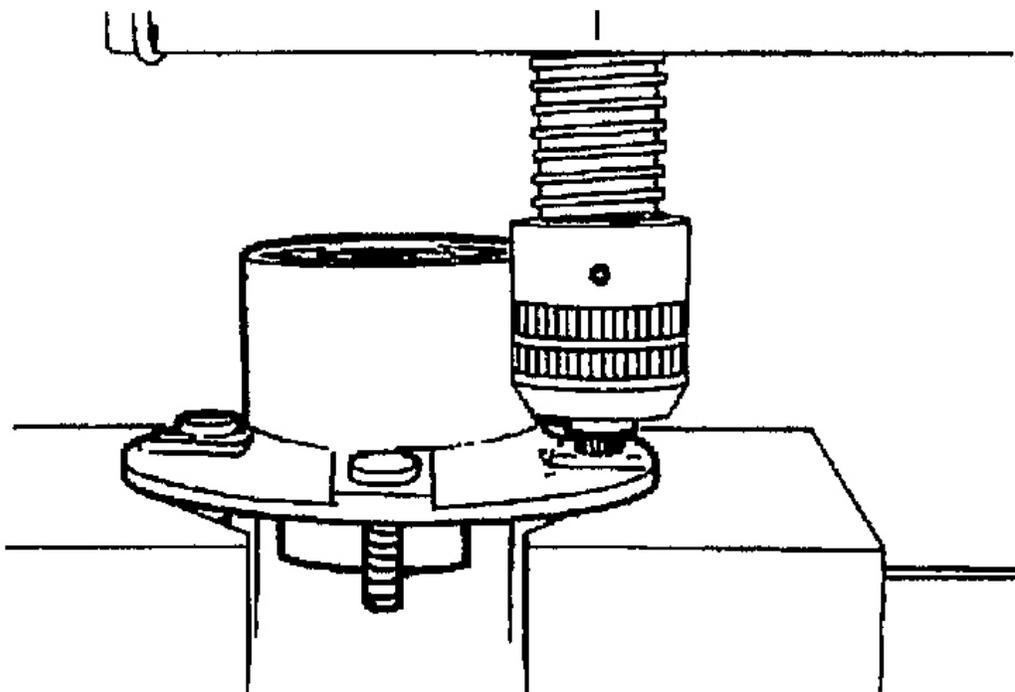


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Fig. 7: Removing Hub Bolts Using A Press
Courtesy of MAZDA MOTORS CORP.

WHEEL HUB BOLT INSTALLATION NOTE

1. Install the new hub bolts using a press.



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Fig. 8: Installing New Hub Bolts
Courtesy of MAZDA MOTORS CORP.

ABS SENSOR ROTOR INSTALLATION NOTE

1. Install a new sensor rotor using the SST and a press.

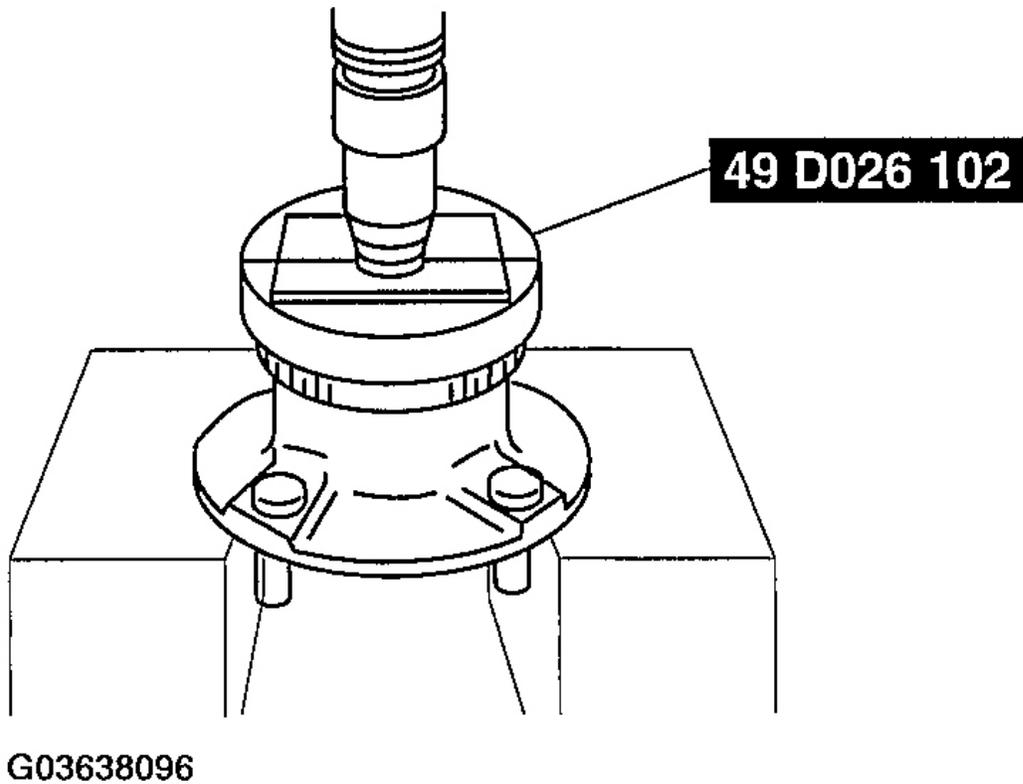
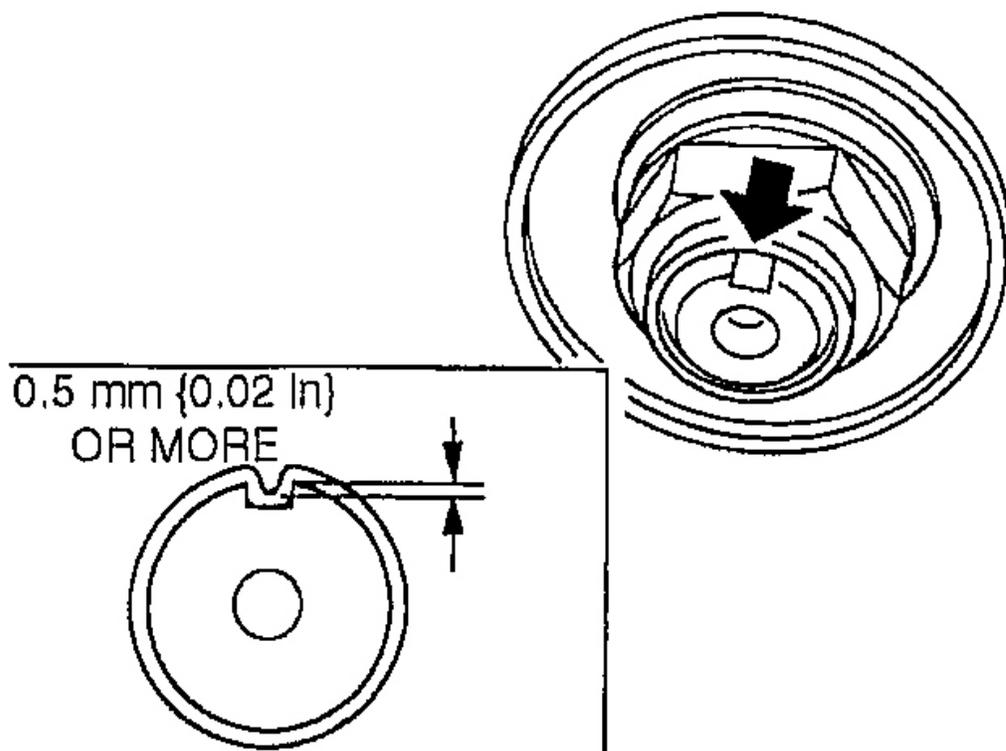


Fig. 9: Installing A New Sensor Rotor Using SST
Courtesy of MAZDA MOTORS CORP.

LOCKNUT INSTALLATION NOTE

1. Install a new locknut and stake it as shown.



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Fig. 10: Installing A New Locknut And Stake
Courtesy of MAZDA MOTORS CORP.