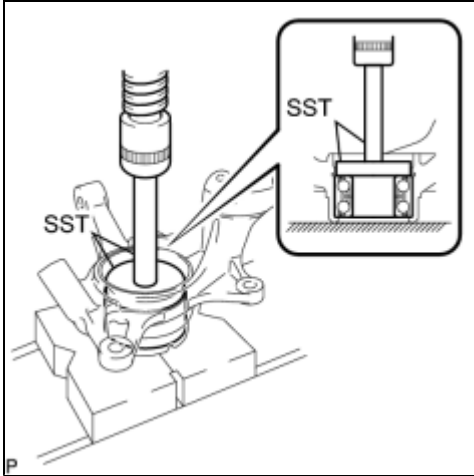


Last Modified: 7-13-2007		1.6 A
Service Category: Drivetrain	Section: Axle/Differential	
Model Year: 2008	Model: ES350	Doc ID: RM000001IWX00KX
Title: AXLE: FRONT AXLE HUB: INSTALLATION (2008 ES350)		

## INSTALLATION

### 1. INSTALL FRONT AXLE HUB BEARING



(a) Using SST and a press, install a new front axle hub bearing to the steering knuckle.

**SST: 09950-60020**

09951-00810

**SST: 09950-70010**

09951-07100

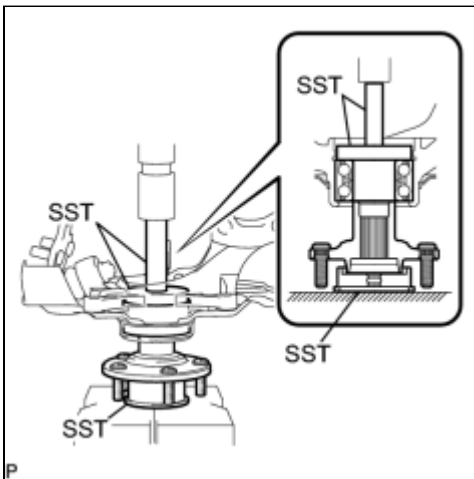
### 2. INSTALL FRONT LOWER BALL JOINT ASSEMBLY INFO

### 3. INSTALL FRONT DISC BRAKE DUST COVER

(a) Install the disc brake dust cover to the steering knuckle with the 4 bolts.

**Torque: 8.3 N·m (85 kgf·cm, 73 in·lbf)**

### 4. INSTALL FRONT AXLE HUB SUB-ASSEMBLY



(a) Using SST and a press, install the front axle hub sub-assembly.

**SST: 09608-32010**

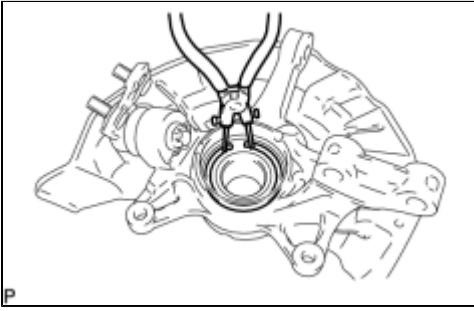
**SST: 09950-60020**

09951-00810

**SST: 09950-70010**

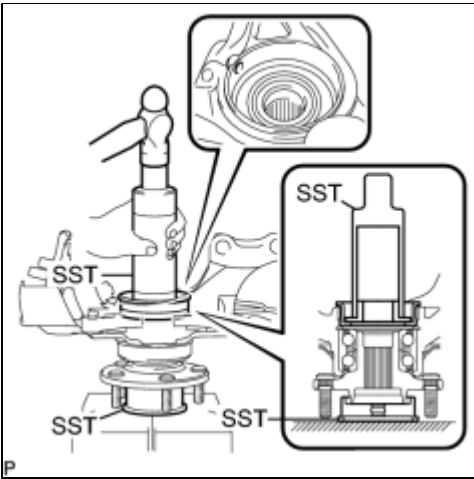
09951-07100

### 5. INSTALL FRONT AXLE HUB HOLE SNAP RING



(a) Using snap ring pliers, install a new front axle hub hole snap ring.

## 6. INSTALL NO. 1 FRONT WHEEL BEARING DUST DEFLECTOR



(a) Using SST and a hammer, install a new No. 1 front wheel bearing dust deflector.

**SST: 09316-60011**

09316-00011

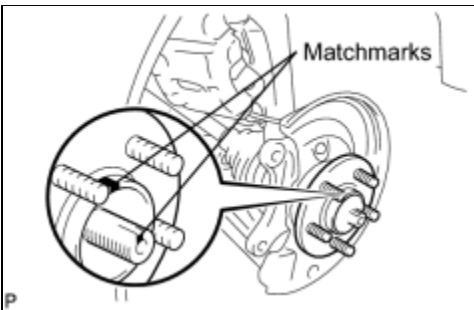
09316-00031

**SST: 09608-32010**

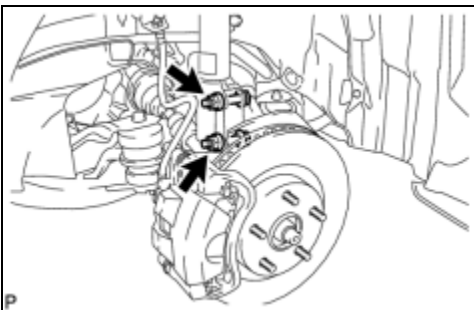
### **HINT:**

**Align the hole for the speed sensor in the No. 1 front wheel bearing dust deflector with the steering knuckle.**

## 7. INSTALL FRONT AXLE ASSEMBLY



(a) Align the matchmarks and install the front drive shaft assembly to the front axle hub sub-assembly.



(b) Install the steering knuckle with the front axle assembly to the front shock absorber with the 2 bolts and 2 nuts.

**Torque: 210 N·m (2140 kgf·cm, 155 ft·lbf)**

### **NOTICE:**

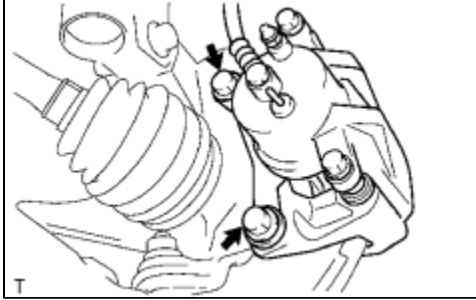
- If the bolts and nuts are reused, apply a small amount of engine oil to the threads of the nuts.
- Be careful not to damage the drive shaft boot or speed sensor rotor.

8. INSTALL FRONT SUSPENSION LOWER NO. 1 ARM INFO

9. INSTALL TIE ROD END SUB-ASSEMBLY INFO

10. INSTALL FRONT DISC INFO

11. INSTALL FRONT DISC BRAKE CALIPER ASSEMBLY



(a) Install the front disc brake caliper assembly to the steering knuckle with the 2 bolts.

**Torque: 107 N·m (1090 kgf·cm, 79 ft·lbf)**

**NOTICE:**

**Do not twist the brake hose when installing the front disc brake caliper assembly.**

12. INSTALL FRONT AXLE HUB NUT

(a) Clean the threaded parts on the drive shaft and axle hub nut using a non-residue solvent.

**NOTICE:**

- Be sure to perform this work for a new drive shaft.
- Keep the threaded parts free of oil and foreign objects.

(b) Using a socket wrench (30 mm), install a new axle hub nut.

**Torque: 294 N·m (3000 kgf·cm, 217 ft·lbf)**

**HINT:**

**Stake the nut after inspecting for looseness and runout in the following steps.**

13. SEPARATE FRONT DISC BRAKE CALIPER ASSEMBLY

(a) Remove the 2 bolts and separate the front disc brake caliper assembly from the steering knuckle.

**NOTICE:**

**Use wire or an equivalent tool to keep the brake caliper from hanging by its flexible hose.**

14. REMOVE FRONT DISC INFO

15. INSPECT FRONT AXLE HUB BEARING LOOSENESS INFO

16. INSPECT FRONT AXLE HUB RUNOUT INFO

17. INSTALL FRONT DISC INFO

18. INSTALL FRONT DISC BRAKE CALIPER ASSEMBLY

(a) Install the front disc brake caliper assembly to the steering knuckle with the 2 bolts.

**Torque: 107 N·m (1,090 kgf·cm, 79 ft·lbf)**

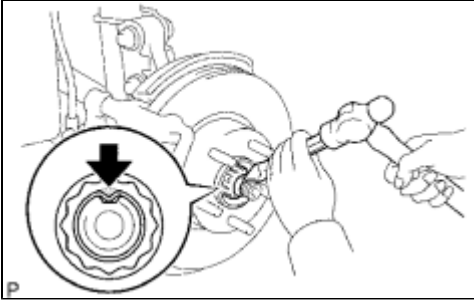
**NOTICE:**

Do not twist the brake hose when installing the front disc brake caliper assembly.

**19. INSTALL FRONT SPEED SENSOR**



**20. INSTALL FRONT AXLE HUB NUT**



(a) Using a chisel and hammer, stake the axle hub nut.

**21. INSTALL FRONT WHEEL**

Torque: 103 N·m (1,050 kgf·cm, 76 ft·lbf)

**22. ADJUST FRONT WHEEL ALIGNMENT**

**HINT:**



**23. CHECK ABS SPEED SENSOR SIGNAL**

**HINT:**

