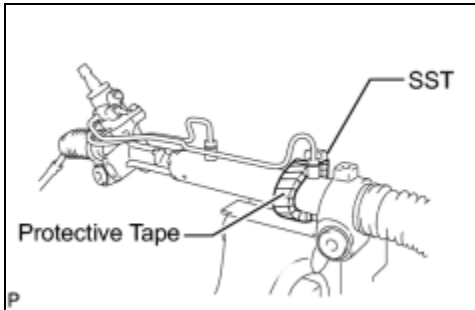


Last Modified: 7-13-2007		1.6 A
Service Category: Steering	Section: Power Assist Systems	
Model Year: 2008	Model: ES350	Doc ID: RM000001S2Q00FX
Title: POWER STEERING: POWER STEERING LINK: DISASSEMBLY (2008 ES350)		

## DISASSEMBLY

### 1. SECURE POWER STEERING LINK ASSEMBLY



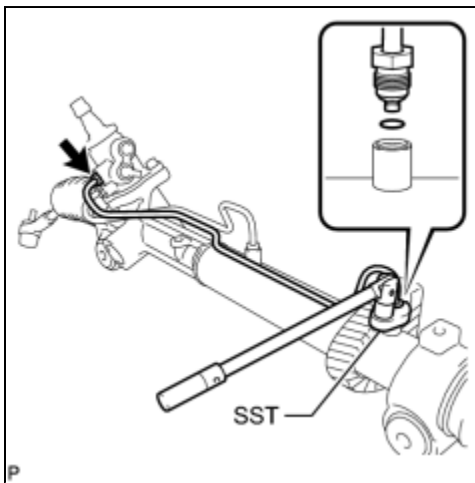
(a) Using SST, secure the power steering link assembly.

**SST: 09612-00012**

#### **HINT:**

**Tape the SST before use.**

### 2. REMOVE STEERING LEFT TURN PRESSURE TUBE



(a) Using SST, remove the steering left turn pressure tube.

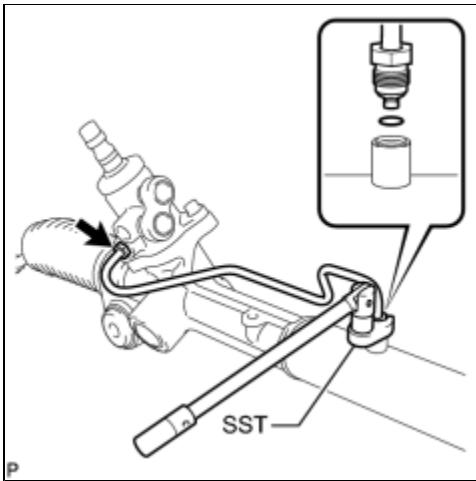
**SST: 09023-38201**

(b) Remove the 2 O-rings from the steering left turn pressure tube.

### 3. REMOVE STEERING RIGHT TURN PRESSURE TUBE

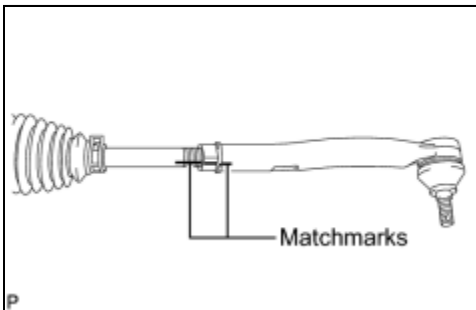
(a) Using SST, remove the steering right turn pressure tube.

**SST: 09023-38201**



(b) Remove the 2 O-rings from the steering right turn pressure tube.

#### 4. REMOVE TIE ROD ASSEMBLY LH



(a) Put matchmarks on the tie rod assembly LH and the steering rack end sub-assembly.

(b) Loosen the lock nut, and remove the tie rod assembly LH and the lock nut.

#### 5. REMOVE TIE ROD ASSEMBLY RH

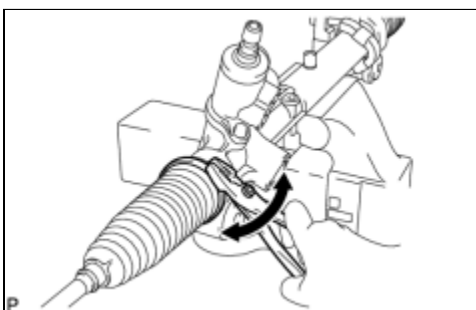
##### **HINT:**

Perform the same procedure as for the LH side.

#### 6. REMOVE STEERING RACK BOOT CLIP

(a) Using pliers, remove the 2 steering rack boot clips.

#### 7. REMOVE NO. 2 STEERING RACK BOOT CLAMP



(a) Using pliers, remove the 2 No. 2 steering rack boot clamps as shown in the illustration.

##### **NOTICE:**

Be careful not to damage the steering rack boot No. 2.

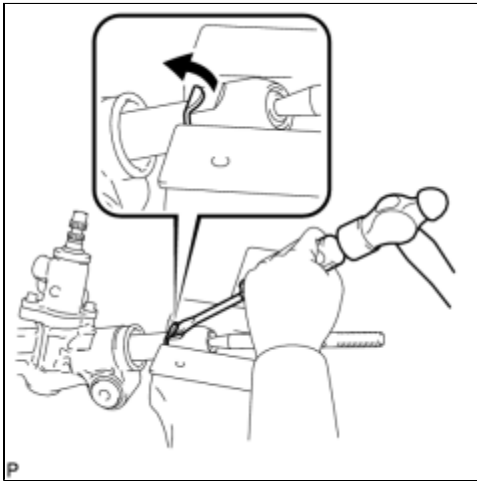
### 8. REMOVE NO. 2 STEERING RACK BOOT

(a) Remove the No. 2 steering rack boot.

### 9. REMOVE NO. 1 STEERING RACK BOOT

(a) Remove the No. 1 steering rack boot.

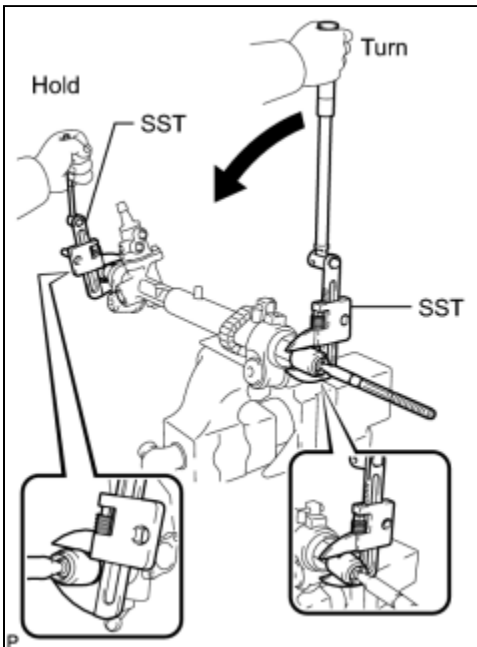
### 10. REMOVE STEERING RACK END SUB-ASSEMBLY



(a) Using a screwdriver and a hammer, unstake the RH and LH claw washers.

**NOTICE:**

Avoid any impact to the steering rack.



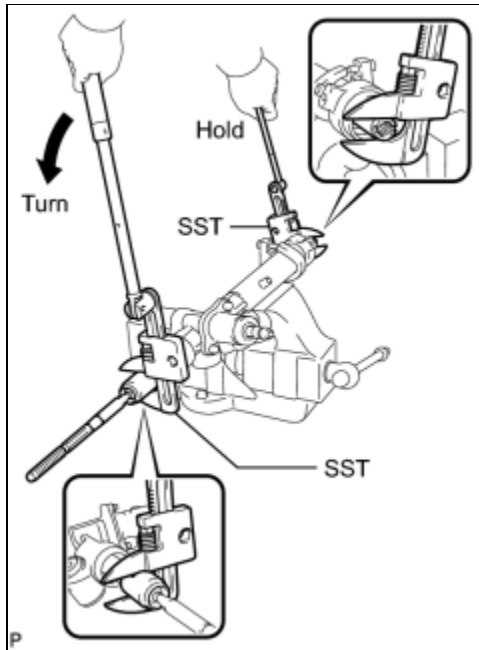
(b) Using SST, remove the steering rack end sub-assembly (RH side) and the claw washer.

**SST: 09922-10010**

**NOTICE:**

Use SST 09922-10010 as shown in the illustration.

(c) Using SST, remove the steering rack end sub-assembly (LH side) and the



claw washer.

**SST: 09922-10010**

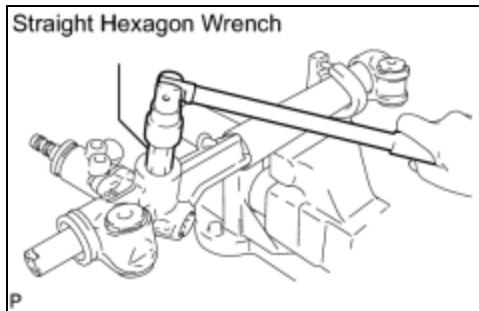
**NOTICE:**

Use SST 09922-10010 as shown in the illustration.

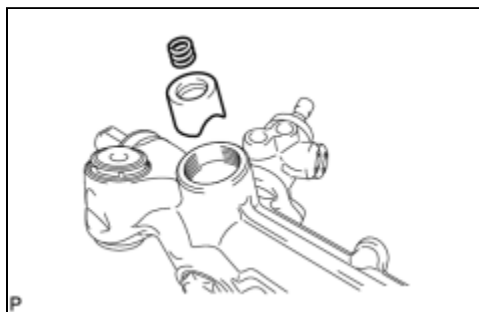
**HINT:**

Using SST, hold the rack and remove the steering rack end sub-assembly.

**11. REMOVE RACK GUIDE**

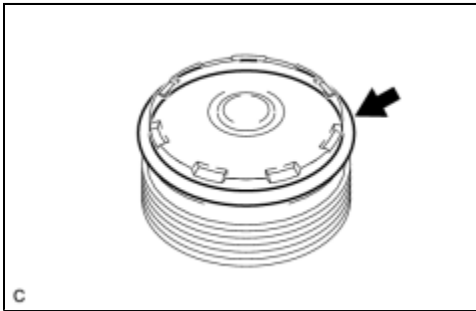
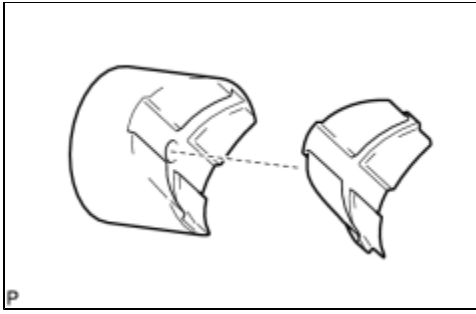


(a) Using a straight hexagon wrench (24 mm (0.94 in.)), remove the rack guide spring cap.



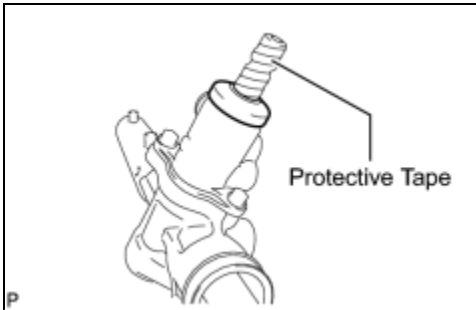
(b) Remove the compression spring and the rack guide sub-assembly.

(c) Remove the rack guide base from the rack guide.



(d) Remove the O-ring from the rack guide spring cap.

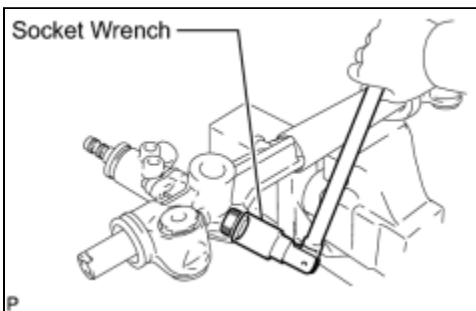
## 12. REMOVE DUST COVER



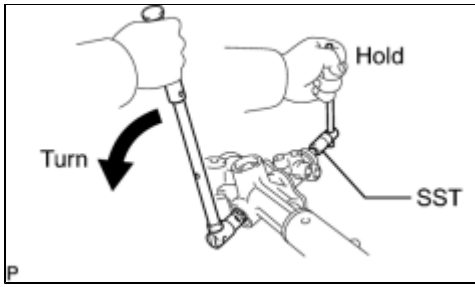
(a) Wrap protective tape around the spline of the control valve in order to prevent damaging the dust cover.

(b) Remove the dust cover.

## 13. REMOVE POWER STEERING CONTROL VALVE ASSEMBLY

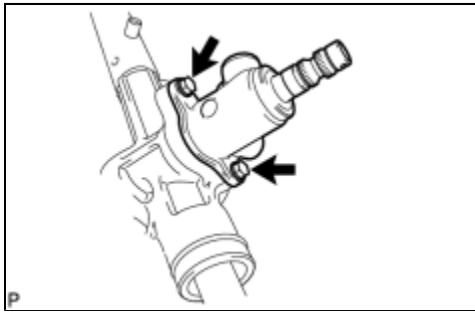


(a) Using a socket wrench (27 mm (1.06 in.)), remove the rack housing cap.



(b) Using SST, hold the control valve shaft and remove the nut.

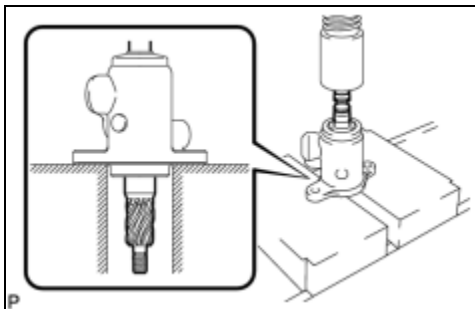
**SST: 09616-00011**



(c) Remove the 2 bolts and the power steering control valve assembly.

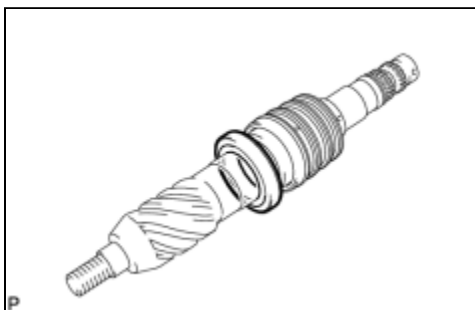
(d) Remove the gasket.

#### 14. REMOVE POWER STEERING CONTROL VALVE SUB-ASSEMBLY



(a) Using a press, remove the power steering control valve sub-assembly.

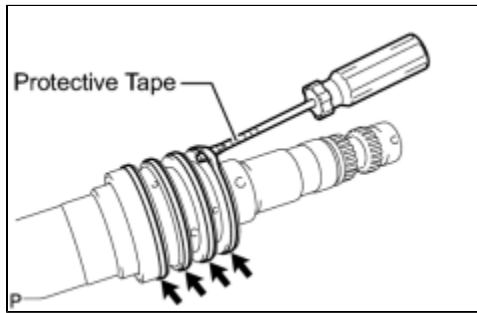
#### 15. REMOVE POWER STEERING CONTROL VALVE LOWER OIL SEAL



(a) Remove the power steering control valve lower oil seal from the power steering control valve sub-assembly.

#### 16. REMOVE POWER STEERING CONTROL VALVE SPACER

(a) Using a screwdriver, remove the 4 power steering control valve spacers



from the power steering control valve sub-assembly.

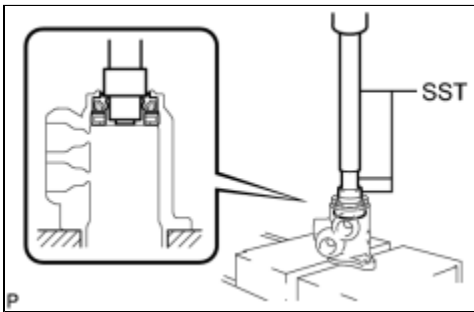
**NOTICE:**

Be careful not to damage the spacer grooves on the control valve.

**HINT:**

Tape the screwdriver tip before use.

**17. REMOVE POWER STEERING CONTROL VALVE UPPER OIL SEAL**



(a) Using SST and a press, press out the power steering control valve upper oil seal and the power steering control valve upper bearing from the control valve housing sub-assembly.

**SST: 09950-70010**

09951-07150

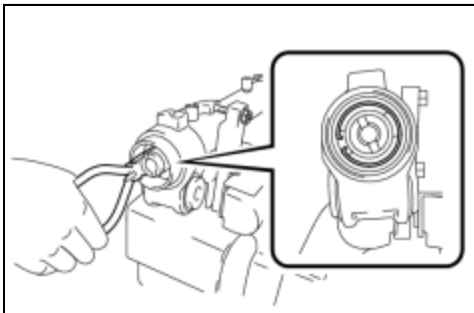
**SST: 09950-60010**

09951-00250

09951-00180

09952-06010

**18. REMOVE CYLINDER END STOPPER HOLE SNAP RING**

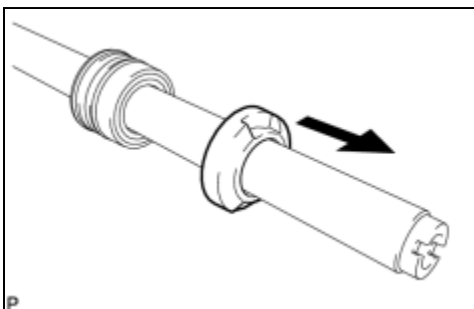


(a) Using needle-nose pliers, remove the cylinder end stopper hole snap ring from the power steering rack housing.

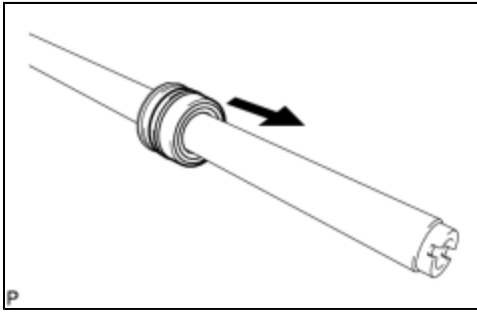
**19. REMOVE POWER STEERING RACK SUB-ASSEMBLY**

(a) Remove the power steering rack sub-assembly with the cylinder end stopper and power steering rack bushing.

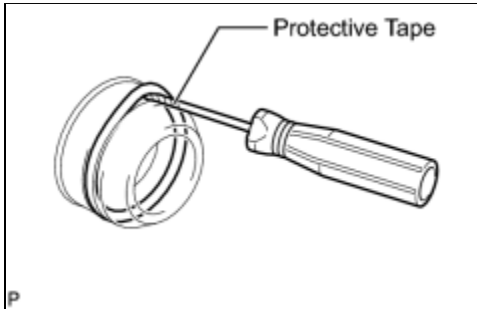
**20. REMOVE CYLINDER END STOPPER**



(a) Remove the cylinder end stopper from the power steering rack sub-assembly.

**21. REMOVE POWER STEERING RACK BUSHING**

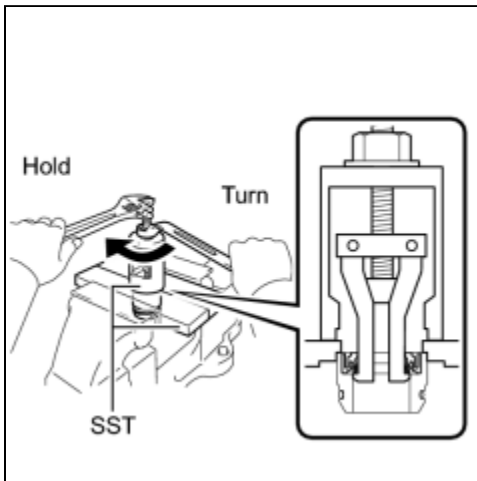
- (a) Remove the power steering rack bushing from the power steering rack sub-assembly.



- (b) Using a screwdriver, remove the O-ring from the power steering rack bushing.

**HINT:**

**Tape the screwdriver tip before use.**



- (c) Using SST, remove the rack bushing oil seal from the power steering rack bushing.

**SST: 09527-21011**

**SST: 09612-24014**

09613-22011

**NOTICE:**

**Be careful not to drop the power steering rack bushing.**

**22. REMOVE POWER STEERING CYLINDER TUBE OIL SEAL**

- (a) Using SST and a press, remove the power steering cylinder tube oil seal.

**SST: 09950-70010**

09951-07360

**SST: 09950-60010**

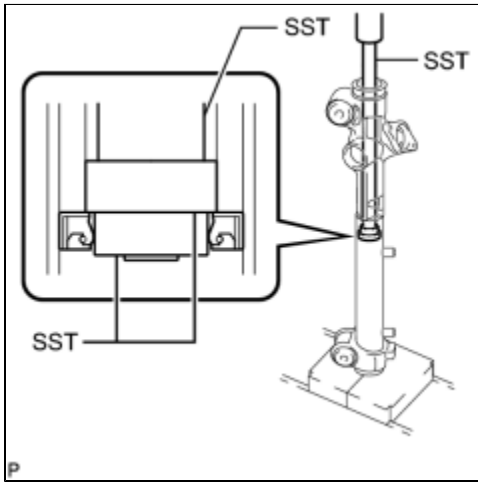
09951-00290

09951-00250

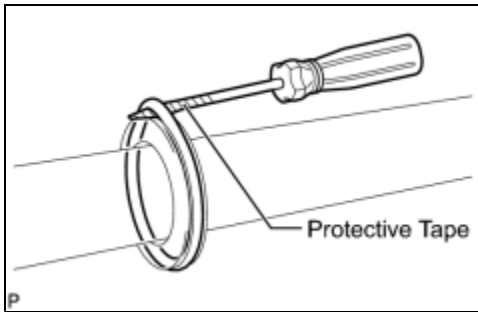
**NOTICE:**

**Be careful not to damage the inside surface of the power steering rack housing.**





### 23. REMOVE POWER PISTON OIL SEAL



(a) Using a screwdriver, remove the power piston oil seal and the O-ring from the power steering rack.

**NOTICE:**

Be careful not to damage the power piston oil seal groove on the power steering rack.

**HINT:**

Tape the screwdriver tip before use.

