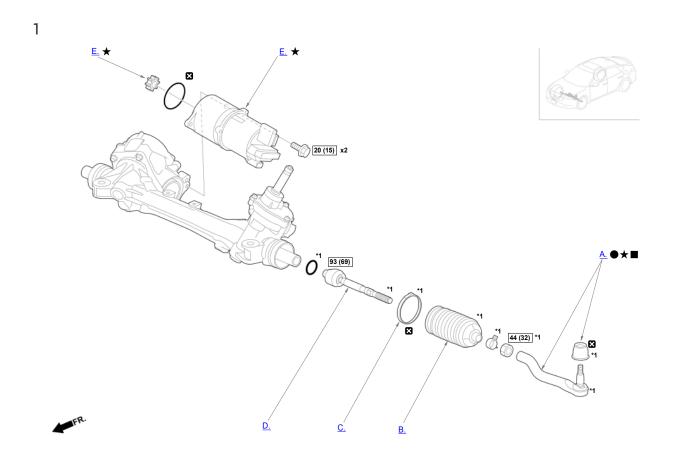
### **Steering Gearbox Components**

# **Special Tool Required**

Image	Description/Tool Number	
	Driver, 32.5 mm 070AD-SAAA100	

How to use this manual.



X : Replace

: Torque, N·m (lbf·ft)

• : Warning/Caution

Inspection/Adjustment

★: Learning

■: SPL Tool

----: Required Removal

NOTE: The tie-rod end ball joint boot can be removed without removing the steering gearbox.

# ■ Key Information

Do the following before starting your work.

#### Remove:

· Front Wheel

#### Disconnect:

• Tie-Rod End

#### ■ Sub-Procedure

### **NOTICE**

Do not allow dust, dirt, or other foreign materials to enter the boot.

## Removal

#### NOTICE

When replacing the tie-rod end ball joint boot, remove the tie-rod end.

## Installation

1. Pack the lower area of the ball pin, the interior of the ball joint boot, and the lip with fresh multipurpose grease.

Lubricant Specifications (Figure 1)

Position	Туре		
а	Service Set Grease		

2. Keep grease off the boot mounting area (b) and the tapered section of the ball pin (c). (Figure 1)



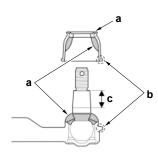
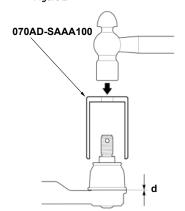


Figure 2



3. Press the boot until the bottom seats on the ball joint housing. (Figure 2)

#### Specifications (Figure 2)

Specification				
d	No Clearan	Cé		

### ■ After Installation

- 1. If grease contaminates to the tapered section of the ball pin and the screw section, wipe off the grease completely.
- 2. Wheel Alignment Check
- 3. VSA Sensor Neutral Position Memorization

В.-

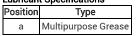
### ■ Sub-Procedure



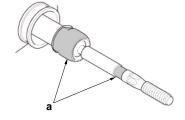
Do not allow dust, dirt, or other foreign materials to enter the steering gearbox.

### Installation

#### **Lubricant Specifications**



• Fit the boot ends properly into the grooves.



### ■ After Installation

· Wipe the grease off the threaded section of the rack end.

C. -

### ■ Sub-Procedure

### Installation

#### NOTICE

The standard value of the ear clamping width differs depending on the boot identification mark (a). (Figure 1)

# Figure 1

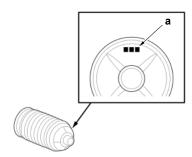
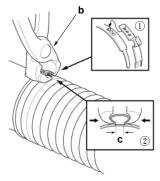


Figure 2



#### Tool Details (Figure 2)

Name		
b	Pincers 1098 (Oetiker) (Commercially Available) or Equivalent Tool	

Specifications (Figure 2)

Position	Mark	Standard Value		
С	T5A or 3W0	3.6 mm (0.142 in) max.		
	T5G	1.4 mm (0.055 in) max.		

# ■ After Installation

• Slide the rack right and left to be certain that the boots are not deformed or twisted.

# D. -

### ■ Sub-Procedure

### NOTICE

- Do not allow dust, dirt, or other foreign materials to enter the steering gearbox.
- Do not clamp the cylinder part of the gearbox housing in a C-clamp.
- Be careful not to damage the mounting surface with a C-clamp.
- Be careful not to damage the rack surface.

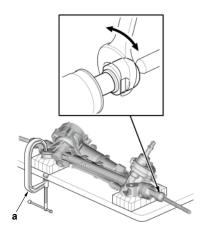
### • Removal/Installation

· Refer to the figure.

NOTE: Hold the right side steering rack flat surfaces with a wrench when unscrewing left side rack end.

#### **Tool Details**

Name		
а	C-clamp (Commercially Available) or Equivalent Tool	

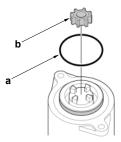


# E. -

### ■ Preconditions

• 12 Volt Battery Terminal Disconnected

# ■ Sub-Procedure



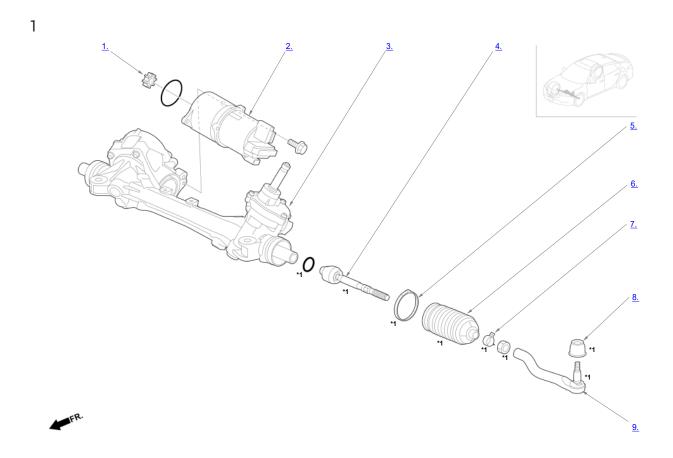
# Installation

Lubricant Specifications (Figure 2)

<u> </u>				
Position	Туре			
а	Steering Grease or Equivalent			
b	Molykote G-1076 Grease or Noxlub TLC 1010 or Equivalent			

# ■ After Installation

- 1. ECU Key Write (When replacing the EPS motor/control unit).
- 2. EPS Control Unit Update (When replacing the EPS motor/control unit).
- 3. VSA Sensor Neutral Position Memorization



- \*1: Part(s) are shown for one side only as the procedure is the same for both sides.
- 1. Motor Bush
- 2. EPS Motor/Control Unit
- 3. Steering Gearbox

5. Boot Band		
6. Boot		
7. Tie-Rod Clip		
8. Tie-Rod End Ball Joint Boot		
9. Tie-Rod End		

4. Rack End