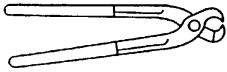



# REMOVAL AND INSTALLATION

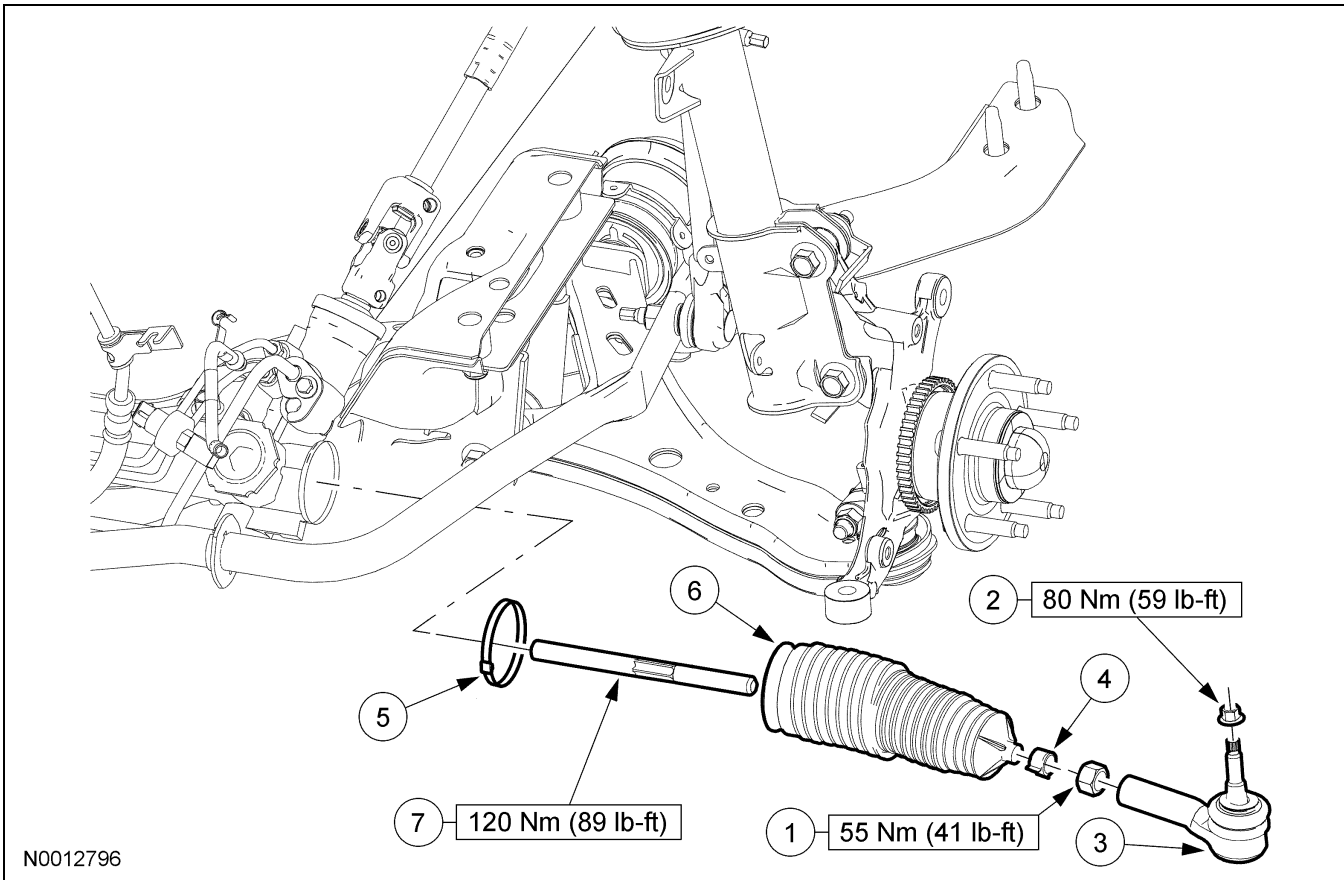
## Inner Tie Rod

### Special Tool(s)

 <p>ST1525-A</p>	<p>Boot Clamp Pliers 205-D067 (D87P-1098-A) or equivalent</p>
 <p>ST1427-A</p>	<p>Inner Tie-Rod Socket Tool 211-D029 or equivalent</p>

### Material

Item	Specification
<p>Premium Long Life Grease XG-1-C</p>	<p>ESA-M1C75-B</p>



**REMOVAL AND INSTALLATION (Continued)**

Item	Part Number	Description
1	N803637-S100	Tie-rod jam nut (part of 3280)
2	W705606-S440	Tie-rod end nut
3	3289	Tie-rod end
4	3C650A	Outer boot clamp
5	3K745	Inner boot clamp
6	3K661	Steering gear boot
7	3280	Inner tie-rod

**Removal**

**⚠ CAUTION:** The boots and clamps are designed to provide an airtight seal and protect the internal components of the steering gear. If the seal is not airtight the vacuum generated during turning will draw water and contamination into the gear causing premature damage.

**⚠ CAUTION:** Zip ties do not produce an airtight seal and must not be used.

**⚠ CAUTION:** The inner ball joint grease is not compatible with water and contamination trapped in the grease will degrade the life of the joint.

**⚠ CAUTION:** If present, the orientation of the vent tube must be noted so the boots and vent tubes can be installed in the correct location.

**LH/RH side**

1. With the vehicle in NEUTRAL, position it on a hoist. For additional information, refer to Section 100-02.
2. Loosen the tie-rod jam nut.
3. **NOTE:** Use the hex holding feature on the tie-rod end stud to prevent the stud from turning.

Remove the tie-rod end nut and separate the tie-rod end from the wheel knuckle.

4. **NOTE:** Count the number of turns required to remove the tie-rod end for reference during installation.

Remove the tie-rod end.

5. Remove the tie-rod jam nut.
6. **NOTE:** A new boot clamp must be installed. Remove and discard the outer boot clamp.
7. **NOTE:** A new boot clamp must be installed. Remove and discard the inner boot clamp.
8. Remove the steering gear boot.

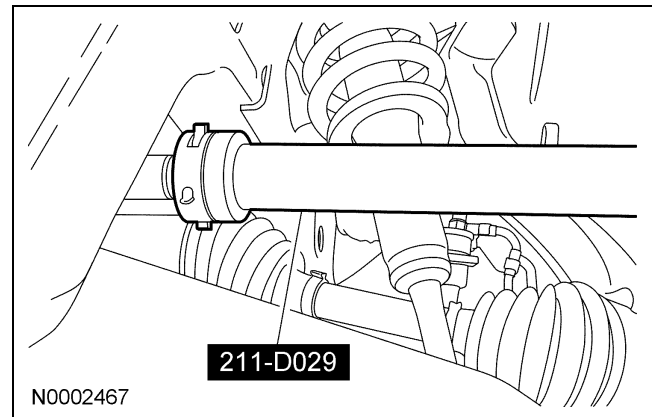
**RH side**

9. **NOTE:** A new boot clamp must be installed. Remove and discard the LH inner boot clamp.
10. Pull the LH steering gear boot back to expose the steering gear rack.

**LH/RH side**

11. **⚠ CAUTION:** Place the steering gear at the center position. Use a suitable tool on the flat of the rack gear to resist rotation and to prevent damage during removal and installation of the inner tie-rod.


Using the special tool, remove the inner tie-rod.



12. **⚠ CAUTION:** Thoroughly remove any abrasive material. This material is extremely harmful to the steering gear.

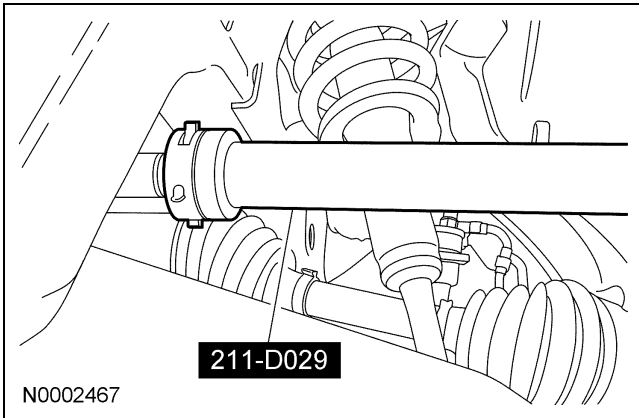
Thoroughly clean and inspect all the parts to be reused. Replace the parts as necessary.

**REMOVAL AND INSTALLATION (Continued)****Installation****LH/RH side**

1.  **CAUTION:** Place the steering gear at the center position. Use a suitable tool on the flat of the rack gear to resist rotation and to prevent damage during removal and installation of the inner tie-rod.

Using the special tool, install the inner tie-rod.

- Tighten to 120 Nm (89 lb-ft).



2. **NOTE:** Apply steering gear grease to the steering gear boot groove in the inner tie-rod.  
**NOTE:** Make sure the steering gear boot is positioned correctly over the steering gear housing bead and the groove in the inner tie-rod.  
**NOTE:** Make sure the steering gear boot is not twisted and that the breather tube (if equipped) is securely inserted into the breather nipple of the steering gear boot.  
Install the steering gear boot.
3. Using the special tool, install the inner boot clamp.
4. **NOTE:** Make sure the end of the steering gear boot is positioned between the groove on the inner tie-rod or an internal leak can result.  
Install the outer boot clamp.

5. Thread the tie-rod jam nut onto the inner tie-rod.
6. **NOTE:** Install the tie-rod end the same number of turns recorded during removal.  
Install the tie-rod end onto the inner tie-rod.
7. **NOTE:** Use the hex holding feature on the tie-rod end stud to prevent the stud from turning.  
Position the tie-rod end to the wheel knuckle and install the tie-rod end nut.
  - Tighten to 80 Nm (59 lb-ft).
8. Tighten the tie-rod jam nut.
  - Tighten to 55 Nm (41 lb-ft).

**RH side**

9. **NOTE:** Make sure the steering gear boot is positioned correctly over the steering gear housing bead and the grooves in the inner tie-rod.  
**NOTE:** Make sure the steering gear boot is not twisted and that the breather tube (if equipped) is securely inserted into the breather nipple of the steering gear boot.  
Install the LH steering gear boot onto the steering gear.
10. Using the special tool, install the LH inner boot clamp.

**LH/RH side**

11. Check and, if necessary, align the front end.  
For additional information, refer to Section 204-00.