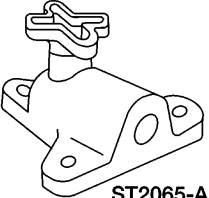

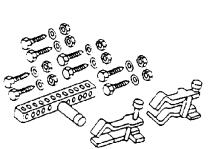


## DISASSEMBLY AND ASSEMBLY

### Gear

#### Special Tool(s)

 <p>ST2065-A</p>	Head Mounting Fixture 303-D041 (D83L-500-B1) or Equivalent
 <p>ST1427-A</p>	Inner Tie Rod Socket Tool 211-D025 (D90P-3290-A) or Equivalent
 <p>ST1426-A</p>	Steering Gear Holding Fixture 211-D011 (D87P-3504-B) or Equivalent

#### Material

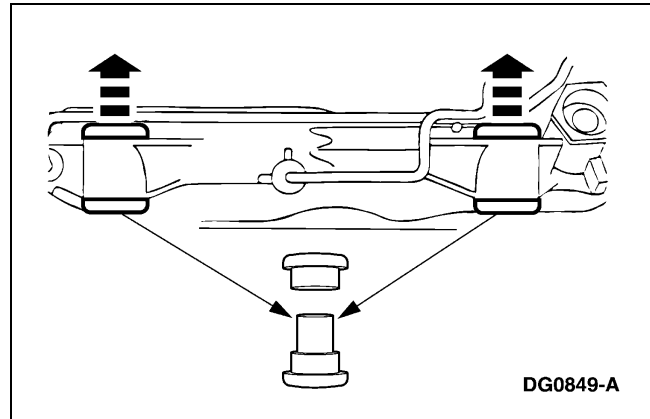
Item	Specification
Multi-Purpose Grease XG-4	ESR-M1C159-A
Silicone Brake Caliper Grease and Dielectric Compound D7AZ-19A331-A	ESE-M1C171-A

### Disassembly

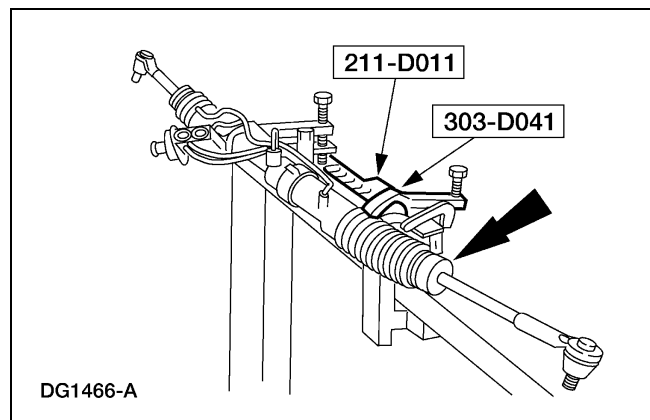
**NOTE:** The steering gear is serviceable as either a long or short rack assembly. This procedure covers the removal and installation of the components not supplied with a short rack assembly. On short rack assembly only the front wheel spindle tie-rods and front suspension steering ball stud dust seals are serviced separately.

#### All steering gears

1. Remove the steering gear mounting bracket housing insulators.
  - Discard worn or damaged steering gear mounting bracket housing insulators.



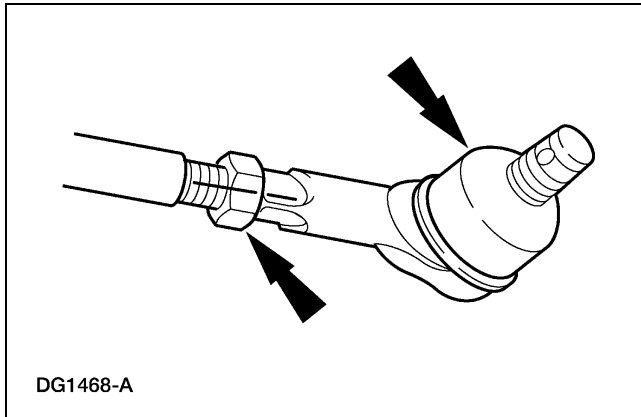
2. Install the steering gear into the special tools.



3. Clean the exterior of the steering gear with solvent. If necessary, drain any excess power steering fluid.
4. Inspect the steering gear housing for cracks and other damage. If necessary, install a new steering gear.
5. Verify the power steering gear input shaft bearing rotates freely. If necessary, install a new steering gear.

## DISASSEMBLY AND ASSEMBLY (Continued)

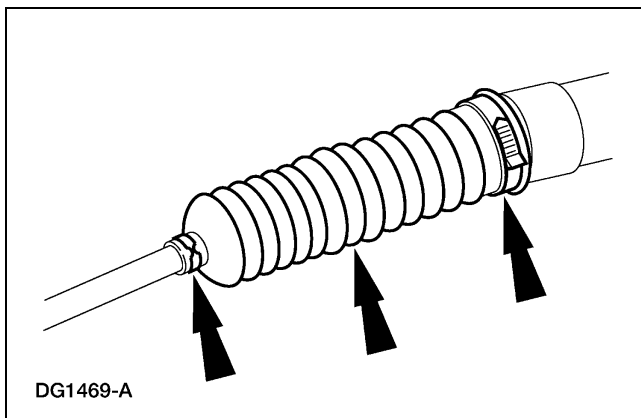
6. Place an alignment mark on the tie-rod ends, nuts and front wheel spindle tie-rods. Remove the tie-rod ends and nuts.



7. **CAUTION:** Use care not to damage the front suspension steering ball stud dust seals. If the front suspension steering ball stud dust seals are damaged, this will allow contamination into the steering gear and cause leakage.

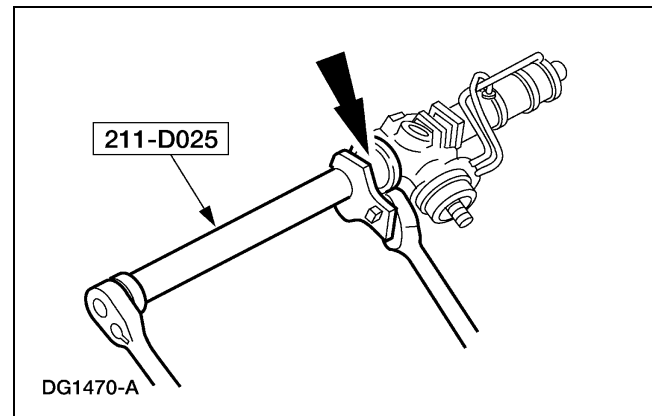
Remove the clamps and the two front suspension steering ball stud dust seals.

- Discard any clamps that are damaged or excessively corroded.
- Discard any front suspension steering ball stud dust seals that are damaged.



8. **CAUTION:** Place the steering gear at the center position. Use a crowfoot on the flat of the rack gear to resist rotation and prevent damage to the steering gear during removal and installation of the front wheel spindle tie-rods.

Place the steering gear at the center position. Install a crowfoot on the flat of the steering gear. Using the special tool remove the front wheel spindle tie-rods.



### Steering gears equipped with travel restrictors

9. **NOTE:** Some steering gears may contain one or two rack travel restrictors on each side of the steering gear. The restrictors are split washers and can be removed if necessary.

Remove the travel restrictors.

- Discard any travel restrictors that are heavily worn.

### All steering gears

10. Remove the steering gear from the special tools.

### Assembly

#### All steering gears


1. Install the steering gear in the special tools.

#### Steering gears equipped with travel restrictors

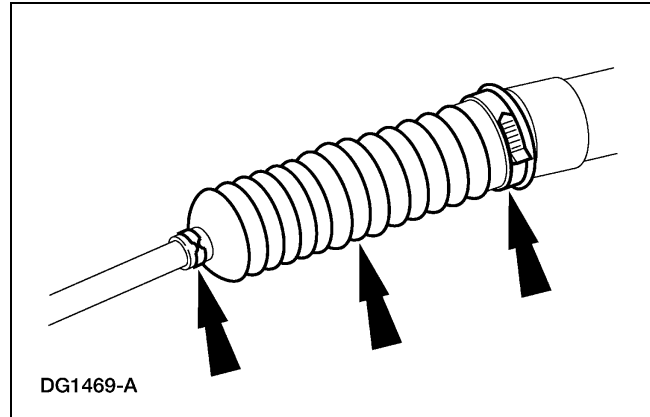
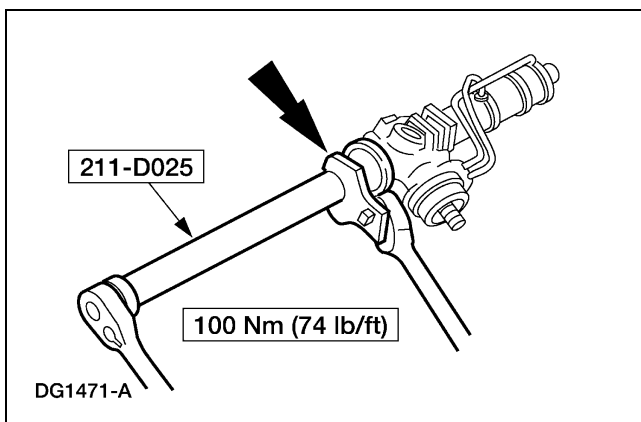
2. Install the travel restrictors.
- Install new travel restrictors as necessary.


## DISASSEMBLY AND ASSEMBLY (Continued)

### All steering gears

3.  **CAUTION:** Place the steering gear at the center position. Use a crowfoot on the flat of the rack gear to resist rotation and prevent damage to the steering gear during removal and installation of the front wheel spindle tie-rods.

Place the steering gear at the center position. Install a crowfoot on the flat of the steering gear. Using the special tool install the front wheel spindle tie-rods.



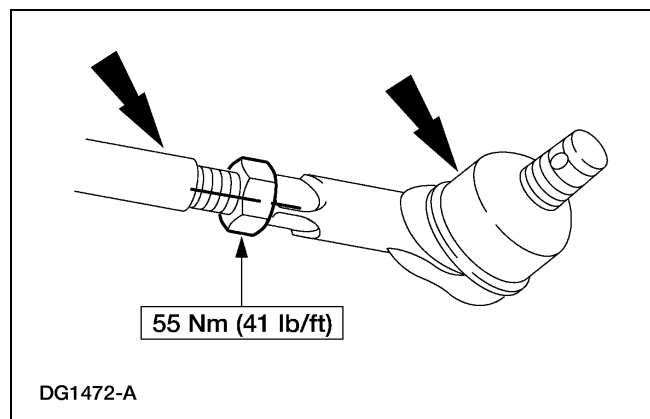
4. Thoroughly clean the steering gear of any foreign material.
5.  **CAUTION:** Use care not to damage the front suspension steering ball stud dust seals. If the front suspension steering ball stud dust seals are damaged, this will allow contamination into the steering gear and cause leakage.

Install the front suspension steering ball stud dust seals and clamps.

- Position the front suspension steering ball stud seals and steering gear rack tubes as shown.
- Install new front suspension steering ball stud dust seals and clamps as necessary.
- To prevent the front suspension steering ball stud dust seals from twisting during toe adjustment, apply grease to the groove in the front wheel spindle tie-rods and uniformly to the inner-diameter of the front suspension steering ball stud dust seals.

6. Install the nut and the tie-rods ends. Align the marks.

- Apply silicone dielectric compound to the front wheel spindle tie-rod threads.



7. Remove the steering gear from the special tools.

**DISASSEMBLY AND ASSEMBLY (Continued)**

8. Install the steering gear mounting bracket housing insulators.
  - Install new steering gear mounting bracket housing insulators as necessary.
  - The large end of the metal sleeve must be positioned downward.
  - Check that the mounting surfaces are clean and free of foreign material.

