

# Inner Tie Rod Ends and Bellows Boots

**Meets ASE Task:** (A4-B-8) P-1 Inspect and replace rack and pinion steering gear inner tie ends (sockets) and bellows boots.

Name \_\_\_\_\_ Date \_\_\_\_\_ Time on Task \_\_\_\_\_

Make/Model/Year \_\_\_\_\_ VIN \_\_\_\_\_ Evaluation: 4 3 2 1

\_\_\_\_\_ 1. Check the service information and write the specified procedure to inspect and replace the inner tie rod ends.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ 2. Hoist the vehicle safely and visually check the condition of the inner tie rod end bellows boots.

- \_\_\_\_\_ OK
- \_\_\_\_\_ Cracked in places, but not all the way through (recommend replacement)
- \_\_\_\_\_ Cracked open places (requires replacement)
- \_\_\_\_\_ Missing

\_\_\_\_\_ 3. Most vehicle manufacturers recommend that the entire rack and pinion steering gear assembly be removed from the vehicle when replacing the inner tie rod ends (ball socket assemblies).

- \_\_\_\_\_ **Yes** (recommend that rack be removed)
- \_\_\_\_\_ **No** (the tie rod end can be removed with the rack in the vehicle)

\_\_\_\_\_ 4. Describe the method used to retain the inner ball sockets to the ends of the rack.

- \_\_\_\_\_ Pin
- \_\_\_\_\_ Rivet
- \_\_\_\_\_ Stacked
- \_\_\_\_\_ Other (describe) \_\_\_\_\_

\_\_\_\_\_ 5. List all precautions found in the service information regarding this procedure.

\_\_\_\_\_

\_\_\_\_\_ 6. Describe any problems \_\_\_\_\_