



# Tie-Rod End Inspection and Replacement

Meets NATEF Task: (A4-B-17) Inspect, replace, and adjust tie rod ends (sockets), tie rod sleeves and clamps. (P-1)

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

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

\_\_\_\_\_ 1. Verify that the tie-rod end(s) requires replacement. Check all that apply.

\_\_\_\_\_ Torn grease boot

\_\_\_\_\_ Joint has side-to-side movement

\_\_\_\_\_ Physically damaged

\_\_\_\_\_ Other (specify) \_\_\_\_\_

\_\_\_\_\_ 2. Hoist the vehicle safely.

\_\_\_\_\_ 3. Compare the replacement tie-rod end with the original to be sure that the new end is correct.

\_\_\_\_\_ 4. Remove the retaining nut and use a tie-rod puller to separate the tie-rod end from the steering knuckle and/or center link.

**HINT:** Often a hammer can be used to jar loose the tie-rod end especially if a downward force is exerted on the tie-rod while an assistant taps on the steering knuckle at the tie-rod end.

\_\_\_\_\_ 5. Measure the distance between the center of the tie-rod end and the adjusting sleeve and record this distance so the replacement tie-rod end can be installed in approximately the same location so that the wheel alignment (toe setting) will be close to being correct.

\_\_\_\_\_ 6. Unscrew the old tie-rod end and discard.

\_\_\_\_\_ 7. Install the replacement tie-rod end and adjust to the same distance as measured and recorded in #5.

\_\_\_\_\_ 8. Install the tie-rod end onto the steering knuckle and torque the retaining nut to factory specifications.

Torque specifications for the tie-rod retaining nut = \_\_\_\_\_

\_\_\_\_\_ 9. Lower the vehicle and align the vehicle before returning it to the customer.