Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date:\_\_\_\_\_\_\_\_\_\_\_\_\_

Time on Task:\_\_\_\_\_\_\_\_\_\_\_\_\_

Make/Model/Year:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

VIN:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Evaluation (Enter number from 4, 3, 2, 1) :\_\_\_\_\_\_\_\_\_

**Meets ASE Task: :** (A4-B-8) P-1 Inspect, replace, and/or adjust tie rod ends (sockets), tie rod sleeves, and clamps (non-rack and pinion).

**Tie-Rod End Inspection and Replacement**

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

Torn 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.