

A4/U3/L1 STEERING LINKAGE

JOB SHEET A4B9 Inner Tie Rod Ends

Name: _____ Start Date: _____
Make: _____ Model: _____ End Date: _____
VIN: _____ Year: _____
Mileage: _____

LEARNING OBJECTIVE/NATEF TASK



- Inspect and replace manual or power rack and pinion steering gear inner tie rod ends (sockets) and bellows boots. **NATEF TASK A4B9, P1. ICS155, 166**

MATERIALS

Classroom Vehicle (s), OEM service information, hand tools, lift, safety stands

PROCEDURE

- Wear Safety Glasses for this entire procedure.
- Review “Steering Linkage Inspection Procedures” in Lesson 1 of UNIT 3 of the A4 course. Locate in the OEM service information, the process for the inspection and replacement of the rack and pinion steering gear inner tie rod ends sockets and bellows for the vehicle you are using for this job sheet. Submit this process to your instructor or mentor for approval.

Your Instructor **MUST** stamp or initial the box to the right before you can proceed with this job sheet.



1. List the symptoms that would require a rack & pinion steering gear inner tie rod end replacement:

2. During the process of removing the tie rod end should you change the rack bearing preload adjustment while removing the inner tie rod from the steering rack? _____
3. Will you have to remove the rack and pinion boot? _____
4. Can you replace the tie rod end without removing the gear? _____

A4/U3/L1 STEERING LINKAGE

5. Explain the rack and pinion gear removal and installation process:

6. Will you have to readjust the front toe? _____

7. Will you have to bleed the power steering system? _____

8. Will you have to reset the front camber setting? _____

9. What is the power steering gear mounting bolts tightening torque? _____

TASK SUMMARY

- Now that you have completed this NATEF task, can you think of anything (tools, information, knowledge etc.) that would have made this task easier.

A4/U3/L1 STEERING LINKAGE

- List a customer complaint together with the cause that might appear on a work order, which would require this task as the correction.

COMPLAINT: _____

1. Perform Checks/Inspect: _____

2. Referencing Bulletin: _____

CAUSE: _____

1. Diagnosis: _____

2. Operating as designed: _____

3. Cause identified as: _____

CORRECTION: **THIS NATEF TASK JOB SHEET**

1. Other Correction: _____

2. Correction Verified By: _____

Use this Rubric to RATE the completion of Job Sheet

1 = Demonstrated exposure/observation of the competency

2 = Applies the competency but only mastered a few essential attributes of the competency

3 = Capable of the competency but needs further practice

4 = Performs the competency satisfactorily

5 = MASTERED the competency



Instructor _____ **Mentor** _____