

# A4/U2/L2 POWER STEERING DIAGNOSIS

## JOB SHEET A4B12 Steering Fluid Diagnosis

Name: \_\_\_\_\_ Start Date: \_\_\_\_\_  
Make: \_\_\_\_\_ Model: \_\_\_\_\_ End Date: \_\_\_\_\_  
VIN: \_\_\_\_\_ Year: \_\_\_\_\_  
Mileage: \_\_\_\_\_

### LEARNING OBJECTIVE/NATEF TASK



- Diagnose power steering fluid leakage; determine necessary action **NATEF TASK A4B12, P2. ICS167**

### MATERIALS

Classroom Vehicle (s), OEM service information, hand tools, lift, safety stands, leak detection equipment.

### PROCEDURE

- Wear Safety Glasses for this entire procedure.
- Review “Diagnosing Fluid Leaks” IN Lesson 2 of UNIT 2 in the A4 course. Locate in the OEM service information, the process for the diagnosis of power steering fluid leaks for the vehicle you are using for this job sheet. Submit this diagnosis 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 and faults that would result from power steering fluid leakage:  
\_\_\_\_\_  
\_\_\_\_\_
2. Was the power steering reservoir filled to the proper level? \_\_\_\_\_
3. Make sure the power steering fluid is at normal operating temperature. If necessary, rotate the steering wheel several times from lock-to-lock.
4. What is the normal operating temperature? \_\_\_\_\_

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5. Inspect the fluid reservoir for signs of leaks. If evidence of leakage is found, describe where the fluid appears to be coming from:

\_\_\_\_\_

6. What method of leak detection did you use? \_\_\_\_\_

7. Inspect the power steering pump for signs of leakage. If evidence of leakage is found, describe where the fluid appears to be coming from:

\_\_\_\_\_

8. Carefully check the power steering hoses and fittings at the pump for signs of leakage. Do this check while an assistant turns the wheels with the engine running. If evidence of leakage is found, describe where the fluid appears to be coming from:

\_\_\_\_\_

9. Inspect the cylinder end of the steering gear for oil leaks. If evidence of leakage is found, describe where the fluid appears to be coming from:

\_\_\_\_\_

10. Inspect the steering gear for oil leaks at the pitman shaft end and/or stub shaft end of the gear with the engine running and the steering wheel turned so the rack is against the left internal stop. If evidence of leakage is found, describe where the fluid appears to be coming from:

\_\_\_\_\_

11. Inspect the steering shaft coupling area for oil leaks. If evidence of leakage is found, describe where the fluid appears to be coming from:

\_\_\_\_\_

12. Inspect all the lines and fittings on the steering gear for oil leaks as an assistant turns the wheels with the engine running. If evidence of leakage is found, describe where the fluid appears to be coming from:

\_\_\_\_\_

13. With the engine running, turn the steering wheel fully in each direction and check the steering effort. How does the turning effort feel and does it feel the same in both directions?

\_\_\_\_\_

14. If the replacement of a power steering pump is required, are there any procedures in the Service Information for “breaking in” a new pump?

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## 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.

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- List a customer complaint together with the cause determined by this diagnostic/inspection task that might appear on a work order, and then list the NATEF Task CORRECTION you would use to resolve the complaint.

**COMPLAINT:** \_\_\_\_\_

1. Perform Checks/Inspect: \_\_\_\_\_

2. Referencing Bulletin: \_\_\_\_\_

**CAUSE:** \_\_\_\_\_

1. Diagnosis: **USED THIS NATEF DIAGNOSIS TASK**

2. Operating as designed: \_\_\_\_\_

3. Cause identified as: \_\_\_\_\_

**CORRECTION:** \_\_\_\_\_

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** \_\_\_\_\_