

DIAGNOSIS AND TESTING (Continued)

Pump Noise, CII

Refer to the pump noise diagnosis chart.

PUMP NOISE DIAGNOSIS

CONDITION	POSSIBLE SOURCE	ACTION
<ul style="list-style-type: none"> ● Power Steering 	<ul style="list-style-type: none"> ● Check belt for proper tension or glazing. 	<ul style="list-style-type: none"> ● Tighten or replace belt as required.
<ul style="list-style-type: none"> ● Pump Noisy 	<ul style="list-style-type: none"> ● Low fluid level and possible leakage. 	<ul style="list-style-type: none"> ● Refill to specified level. Purge air from system. Check for leaks. Service as required.
<ul style="list-style-type: none"> ● Swish-Type Noise 	<ul style="list-style-type: none"> ● Fluid flow into the bypass valve of the pump valve housing with fluid temperature below 54°C (130°F). 	<ul style="list-style-type: none"> ● Normal noise.
<ul style="list-style-type: none"> ● Whine-Type Noise 	<ul style="list-style-type: none"> ● Aerated fluid, or cam contour damaged. 	<ul style="list-style-type: none"> ● Purge system of air. If condition is not resolved, replace rotor assembly.
<ul style="list-style-type: none"> ● Clicking Mechanical-Type Noise 	<ul style="list-style-type: none"> ● Pump slippers too long, excessive wear of pumping elements. Excessive slipper to slot clearance, or out of square slipper springs. 	<ul style="list-style-type: none"> ● Replace rotor assembly.
<ul style="list-style-type: none"> ● Chatter-Type Noise 	<ul style="list-style-type: none"> ● Chipped corners on rotor outside diameter or distorted slipper spring. 	<ul style="list-style-type: none"> ● Replace rotor assembly.
<ul style="list-style-type: none"> ● Other Cause of Noise 	<ul style="list-style-type: none"> ● Improper assembly of components such as slippers. ● Imperfections on rotor outside diameter or rotor end surface. ● Damaged rotor splines. ● Hairline crack on cam inner surface. ● Interference between rotor and cam. ● Excessively worn or scored pumping elements and pressure plates. 	<ul style="list-style-type: none"> ● Rebuild pump and replace components as required. ● Replace rotor assembly. ● Replace rotor assembly. ● Replace rotor assembly. ● Replace rotor assembly. ● Replace rotor assembly and pressure plates.

CG4058-C

The diagnosis charts provide procedures to resolve typical concerns encountered with the power steering system.

Follow the sequence indicated to save time during condition identification and corrective action.

Electrical Component Diagnosis

Tools Required:

- Rotunda Digital Volt Ohmmeter 007-00001
- Rotunda Inductive Dwell-Tach-Volt-Ohm Tester 059-00010

This portion of the power steering diagnosis refers only to the electrical components of the VAPS system:

- VAPS Control Module
- Speed Sensor
- Actuator Valve
- Wiring Harness and Connectors