

DIAGNOSIS (Continued)

STEERING SYSTEM DIAGNOSIS (Continued)

CONDITION	POSSIBLE SOURCE	ACTION
<p>● Noise/Rattle/Chuckle/Clicks/Pops/Squeaks/Creaks/Clunk/Squawk/Hiss</p> <p>There are Many System Noises Which Can be Misdiagnosed as Originating From the Power Steering Gear. Most System Noises are RPM Sensitive. Therefore, Turning the Steering Wheel will Vary the RPM and Consequently the Noise Pitch. Careful Diagnosis is Necessary to Prevent Unnecessary Services. Disconnecting of Belts and Re-evaluation is Essential in Many Cases, as is Partially Cycling the Steering Wheel With the Engine in OFF.</p> <p>NOTE: A Common Noise in the Rack-and-Pinion Steering Gear is a Hissing Sound. The Sound is Most Evident at Static Position or During Parking Maneuvers. There is No Relationship Between this Noise and Performance of the Steering. "Hiss" May Occur at End of Steering Wheel Travel or When Slowly Turning at Stand Still, or at a Particular Position.</p>	<ul style="list-style-type: none"> <li>● Column intermediate shaft connecting bolt loose.</li> <li>● Column trim rubbing steering wheel.</li> <li>● Loose or worn pump belt.</li> <li>● Front lower control arm worn or binding.</li> <li>● Brinelled or binding upper strut bearing.</li> <li>● Flex coupling distorted.</li> <li>● Flex coupling clamp bolt loose.</li> <li>● Pump bracket loose or misaligned.</li> <li>● Lack of lubricant where horn brush contacts rub steering wheel plate.</li> <li>● Column shaft clips missing.</li> <li>● Column U-joints loose.</li> <li>● Loose tie rod ends or ball joints.</li> <li>● Gear assembly loose on frame.</li> <li>● Loose suspension struts.</li> <li>● Flex coupling fractured.</li> <li>● Loose wheel lug nuts.</li> <li>● Pressure hose grounded against fender or vacuum canister.</li> <li>● Front wheel bearing loose or worn.</li> <li>● Column misaligned or lower bearing out of position.</li> <li>● Steering shaft insulators cracked or dry.</li> <li>● Kinked pressure hoses.</li> <li>● Steering gear or pump external leak.</li> <li>● Pulley loose or warped.</li> <li>● Aerated fluid.</li> <li>● Water in steering fluid.</li> </ul>	<ul style="list-style-type: none"> <li>● Tighten. Refer to Section 11-04.</li> <li>● Reposition trim on column.</li> <li>● Adjust or replace as required. Refer to Section 03-05.</li> <li>● Replace as required. Refer to Section 04-01.</li> <li>● Replace strut bearing. Refer to Section 04-01.</li> <li>● Align flex coupling.</li> <li>● Tighten. Refer to Section 11-04.</li> <li>● Tighten and align. Refer to Section 11-02.</li> <li>● Lubricate or adjust as required.</li> <li>● Replace as required.</li> <li>● Replace if necessary.</li> <li>● Replace tie rod assembly.</li> <li>● Tighten. Refer to Section 11-02.</li> <li>● Adjust or replace as required.</li> <li>● Replace as required.</li> <li>● Tighten. Refer to Section 04-04.</li> <li>● Reposition pressure hoses.</li> <li>● Replace bearing. Refer to Section 04-01.</li> <li>● Correct as necessary.</li> <li>● Replace or lubricate as required.</li> <li>● Reposition pressure hoses. Refer to Section 11-02.</li> <li>● Inspect and replace or service as required.</li> <li>● Replace pulley assembly.</li> <li>● Purge and evacuate system.</li> <li>● Purge and evacuate system.</li> </ul>