

## DIAGNOSIS (Continued)

## STEERING SYSTEM DIAGNOSIS (Continued)

CONDITION	POSSIBLE SOURCE	ACTION
<ul style="list-style-type: none"> <li>● Uneven Drive Efforts, Pulls or Leads to One Side—Condition Recognized by the Driver While Turning the Steering Wheel in a Left or Right Turn. This Condition Will Reveal Lighter Efforts in One Direction, Very Noticeable to the Driver. Vehicle Pulls or Leads to One Side. Keep in Mind Road Conditions and Wind, Pulls or Leads Refers to the Tendency of a Vehicle to Drift Consistently to One Side on a Reasonably Flat Road. It May or May Not be Accompanied by Unequal Effort Requirements at the Steering Wheel.</li> </ul> <p>NOTE: Perform the Following Test to Determine if Concern is Related to Steering Gear or Vehicle System.</p> <p>At 15-55 mph on a flat straight surface, set vehicle in a straight line, place shift selector in NEUTRAL position and turn off ignition. If the vehicle continues to pull or drift in the same direction as the original concern, then the steering gear is not the cause. If the vehicle does not pull, but remains on a straight line this indicates a steering gear concern and steering efforts should also be noticeably light in direction of pull. This condition is normally due to an unbalanced steering gear valve assembly.</p>	<ul style="list-style-type: none"> <li>● Radial tires (misaligned belts).</li> <li>● Front or rear end misaligned.</li> <li>● Steering gear valve efforts unbalanced. (Efforts will be lighter in one direction.)</li> <li>● Front suspension components damaged.</li> <li>● Low tire pressure or incorrect front to rear.</li> <li>● Incorrect tire size or incorrect type.</li> <li>● Check front and rear brakes for proper operation.</li> <li>● Check for bent rear axle housing and for damaged or sagging springs in the front or rear suspension.</li> <li>● Check rear suspension for loose or worn shock absorber struts, suspension arm retaining fasteners.</li> <li>● Vehicle unevenly loaded.</li> <li>● Front or rear wheel bearing loose or worn.</li> <li>● Steering gear retaining bolts loose or damaged.</li> <li>● Column misaligned or binding.</li> <li>● Halfshaft or CV joint bind.</li> </ul>	<ul style="list-style-type: none"> <li>● Replace as necessary.</li> <li>● Align.</li> <li>● Replace gear assembly. Refer to Section 11-02.</li> <li>● Replace as required. Refer to Section 04-04.</li> <li>● Check pressure and inflate/deflate as necessary.</li> <li>● Correct as required.</li> <li>● Adjust if necessary. Refer to Section 06-00.</li> <li>● Replace if necessary.</li> <li>● Tighten all retaining fasteners. Refer to Section 04-02.</li> <li>● Correct as required.</li> <li>● Refer to Sections 04-01 or 04-02.</li> <li>● Tighten.</li> <li>● Align column assembly.</li> <li>● Replace CV joints. Refer to Section 05-04.</li> </ul>
<ul style="list-style-type: none"> <li>● Poor Returnability is a Condition Noticed When the Vehicle Fails to Return to a Nearly Straight Ahead Position After a Corner Maneuver. The Wheel Should Return Within a Reasonable Period of Time Without Undue Help From the Driver. Returnability Concerns May Occur From Both Directions or Only From One Direction.</li> </ul> <p>NOTE: This Condition is Accompanied By a Momentary Build Up, Hitch, Lump, or Hesitation, in Steering Efforts Usually Occurring Just Off Center Either in One Direction or Both. Concern Occurs Only During Driving, and Not During Parking Maneuvers.</p>	<ul style="list-style-type: none"> <li>● Column trim rubbing steering wheel.</li> <li>● Front lower control arms worn.</li> <li>● Brinelled or binding upper strut bearing.</li> <li>● Tight tie rod and/or tie rod end ball joints.</li> <li>● Steering valve assembly off balance. Efforts will be light in one direction and return will be poor in light direction.</li> <li>● Improper front end alignment.</li> <li>● Steering linkage, shock absorbers, struts, loose, worn or binding.</li> <li>● Tilt column bearing sideloaded by spring.</li> <li>● Intermediate column shaft joints binding.</li> <li>● Bent or damaged crossmember.</li> <li>● Column bearing binding.</li> <li>● Column misaligned or binding.</li> <li>● Low tire pressure or incorrect pressure front to rear.</li> <li>● Steering wheel clear vision off location.</li> <li>● Incorrect tire size or incorrect type.</li> </ul>	<ul style="list-style-type: none"> <li>● Reposition trim ring in column assembly slots.</li> <li>● Replace lower control arms. Refer to Section 04-01.</li> <li>● Replace bearing.</li> <li>● Replace tie rod and/or tie rod ends.</li> <li>● Replace gear assembly. Refer to Section 11-02.</li> <li>● Align front end.</li> <li>● Lubricate, adjust or replace as necessary.</li> <li>● Remove spring. If improved, replace tilt yoke, shaft or steering wheel.</li> <li>● Replace intermediate shaft assembly.</li> <li>● Replace as necessary. Refer to Section 01-00.</li> <li>● Replace as necessary.</li> <li>● Align column assembly.</li> <li>● Check pressure and inflate/deflate as necessary.</li> <li>● Adjust as required.</li> <li>● Replace as required.</li> </ul>