

# SUSPENSION AND STEERING

CONDITION	POSSIBLE CAUSES	POTENTIAL CORRECTIONS
Front End Whine On Turns	<ol style="list-style-type: none"> <li>1. Defective Wheel Bearing</li> <li>2. Incorrect Wheel Alignment</li> <li>3. Worn Tires</li> <li>4. Low Power Steering Fluid Level</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace Wheel Bearing</li> <li>2. Check And Reset Wheel Alignment</li> <li>3. Replace Tires</li> <li>4. Fill power steering fluid reservoir to proper level and check for leaks (make sure all air is bled from the system fluid)</li> </ol>
Front End Growl Or Grinding On Turns	<ol style="list-style-type: none"> <li>1. Defective Wheel Bearing</li> <li>2. Engine Mount Grounding Against Frame Or Body Of Vehicle.</li> <li>3. Worn Or Broken C/V Joint</li> <li>4. Loose Wheel Lug Nuts</li> <li>5. Incorrect Wheel Alignment</li> <li>6. Worn Tires</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace Wheel Bearing</li> <li>2. Check For Motor Mount Hitting Frame Rail And Reposition Engine As Required</li> <li>3. Replace C/V Joint</li> <li>4. Verify Wheel Lug Nut Torque</li> <li>5. Check And Reset Wheel Alignment</li> <li>6. Replace Tires</li> </ol>
Front End Clunk Or Snap On Turns	<ol style="list-style-type: none"> <li>1. Loose Wheel Lug Nuts</li> <li>2. Worn Or Broken C/V Joint</li> <li>3. Worn Or Loose Tie Rod Or Ball Joint</li> <li>4. Worn Control Arm Bushing</li> <li>5. Loose Sway Bar Or Upper Strut Attachment</li> </ol>	<ol style="list-style-type: none"> <li>1. Verify Wheel Lug Nut Torque</li> <li>2. Replace C/V Joint</li> <li>3. Tighten Or Replace Tie Rod End Or Ball Joint</li> <li>4. Replace Control Arm</li> <li>5. Tighten Sway Bar Or Upper Strut Attachment To Specified Torque</li> </ol>
Front End Popping/Clicking/Snapping During Acceleration After Drive-To-Reverse Shift, Reverse-To-Drive Shift Or While Turning	<ol style="list-style-type: none"> <li>1. Insufficient grease on mating surface of axle half shaft outer C/V joint mating surface to wheel hub/bearing.</li> </ol>	<ol style="list-style-type: none"> <li>1. Separate half shaft from hub and bearing and wipe mating surfaces clean. Apply light coating of wheel bearing grease to C/V joint mating surface and reassemble. Tighten hub nut to specified torque.</li> </ol>
Front End Whine With Vehicle Going Straight At A Constant Speed	<ol style="list-style-type: none"> <li>1. Defective Wheel Bearing</li> <li>2. Incorrect Wheel Alignment</li> <li>3. Worn Tires</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace Wheel Bearing</li> <li>2. Check And Reset Wheel Alignment</li> <li>3. Replace Tires</li> </ol>
Front End Growl Or Grinding With Vehicle Going Straight At A Constant Speed	<ol style="list-style-type: none"> <li>1. Engine Mount Grounding</li> <li>2. Worn Or Broken C/V Joint</li> </ol>	<ol style="list-style-type: none"> <li>1. Reposition Engine As Required</li> <li>2. Replace C/V Joint</li> </ol>
Front End Whine When Accelerating Or Decelerating	<ol style="list-style-type: none"> <li>1. Worn Or Defective Transaxle Gears Or Bearings</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace Transaxle Gears Or Bearings</li> </ol>
Front End Clunk When Accelerating Or Decelerating	<ol style="list-style-type: none"> <li>1. Loose Wheel Lug Nuts</li> <li>2. Worn Or Broken Engine Mount</li> </ol>	<ol style="list-style-type: none"> <li>1. Verify Wheel Lug Nut Torque</li> <li>2. Replace Engine Mounts</li> </ol>

	<ul style="list-style-type: none"> <li>3. Worn Or Defective Transaxle Gears Or Bearings</li> <li>4. Worn Or Broken C/V Joint</li> <li>5. Worn Or Loose Ball Joint</li> <li>6. Worn Or Loose Control Arm Bushing</li> <li>7. Loose Crossmember Bolts</li> </ul>	<ul style="list-style-type: none"> <li>3. Replace Transaxle Gears Or Bearing</li> <li>4. Replace C/V Joint</li> <li>5. Tighten Or Replace Ball Joint</li> <li>6. Tighten To Specified Torque Or Replace Control Arm</li> <li>7. Tighten Crossmember Bolts To Specified Torque</li> </ul>
Road Wander	<ul style="list-style-type: none"> <li>1. Incorrect Tire Pressure</li> <li>2. Incorrect Front Or Rear Wheel Toe</li> <li>3. Worn Wheel Bearings</li> <li>4. Worn Control Arm Bushings</li> <li>5. Excessive Friction In Steering Gear</li> <li>6. Excessive Friction In Steering Shaft Coupling</li> <li>7. Excessive Friction In Strut Upper Bearing</li> </ul>	<ul style="list-style-type: none"> <li>1. Inflate Tires To Recommended Pressure</li> <li>2. Check And Reset Front Wheel Toe</li> <li>3. Replace Wheel Bearing</li> <li>4. Replace Control Arm</li> <li>5. Replace Steering Gear</li> <li>6. Replace Steering Coupler</li> <li>7. Replace Strut Bearing</li> </ul>
Lateral Pull	<ul style="list-style-type: none"> <li>1. Unequal Tire Pressure</li> <li>2. Radial Tire Lead</li> <li>3. Incorrect Front Wheel Camber</li> <li>4. Power Steering Gear Imbalance</li> <li>5. Wheel Braking</li> <li>6. Excessive Cross-Caster</li> </ul>	<ul style="list-style-type: none"> <li>1. Inflate All Tires To Recommended Pressure</li> <li>2. Rotate or Cross-switch tires - Refer To Tires And Wheels</li> <li>3. Check And Reset Front Wheel Camber</li> <li>4. Replace Power Steering Gear</li> <li>5. Correct Braking Condition Causing Lateral Pull</li> <li>6. Check wheel alignment and adjust as necessary</li> </ul>
Excessive Steering Free Play	<ul style="list-style-type: none"> <li>1. Incorrect Steering Gear Adjustment</li> <li>2. Worn Or Loose Tie Rod Ends</li> <li>3. Loose Steering Gear Mounting Bolts</li> <li>4. Loose Or Worn Steering Shaft Coupler</li> </ul>	<ul style="list-style-type: none"> <li>1. Adjust Or Replace Steering Gear</li> <li>2. Replace Or Tighten Tie Rod Ends</li> <li>3. Tighten Steering Gear Bolts To The Specified Torque</li> <li>4. Replace Steering Shaft Coupler</li> </ul>
Excessive Steering Effort	<ul style="list-style-type: none"> <li>1. Low Tire Pressure</li> <li>2. Lack Of Lubricant In Steering Gear</li> <li>3. Low Power Steering Fluid Level</li> <li>4. Loose Power Steering Pump Belt</li> </ul>	<ul style="list-style-type: none"> <li>1. Inflate All Tires To Recommended Pressure</li> <li>2. Replace Steering Gear</li> <li>3. Fill Power Steering Fluid Reservoir To Correct Level</li> <li>4. Check and replace automatic belt tensioner as necessary. If drive belt is worn or glazed, replace belt.</li> </ul>

	5. Lack Of Lubricant In Steering Ball Joints	5. Lubricate Or Replace Steering Ball Joints
	6. Steering Gear Malfunction	6. Replace Steering Gear
	7. Lack Of Lubricant In Steering Coupler	7. Replace Steering Coupler