



# HYUNDAI Technical Service Bulletin

		Group	CHASSIS
		Number	05-50-012
Subject  <b>DIAGNOSIS AND CORRECTION OF VEHICLE PULL</b>		Date	NOVEMBER, 2005
		Model	ALL
<b>CIRCULATE TO:</b>	<input type="checkbox"/> GENERAL MANAGER	<input checked="" type="checkbox"/> PARTS MANAGER	<input checked="" type="checkbox"/> TECHNICIAN
<input checked="" type="checkbox"/> SERVICE ADVISOR	<input checked="" type="checkbox"/> SERVICE MANAGER	<input checked="" type="checkbox"/> WARRANTY MGR	<input type="checkbox"/> SALES MANAGER

**DESCRIPTION:**

Several factors may cause vehicle pull, both vehicle related and external conditions. The purpose of this bulletin is to assist in identifying the vehicle related conditions that cause pull and how to correct those conditions.

**CAUSES OF VEHICLE PULL:**

Vehicle pull is the tendency of the vehicle to drift right or left while driving in a straight ahead direction on a straight road at a constant speed with no pressure on the steering wheel. This pull or drift may be gradual and can always be compensated for by inputs through the steering wheel. One or more of the following conditions may cause the vehicle to pull:

Non-vehicle conditions that may cause the vehicle to pull:

- Cambered road surfaces - Most highways are built with cambered or "crowned" surfaces to drain rain water. Sometimes the road camber is visually noticeable. Other times, it is not. The vehicle may tend to pull to the left or right, depending on the camber of the road surface.
- Cross-winds - A sometimes overlooked, yet possible cause of steering drift is cross-winds. Side winds at higher vehicle speeds may cause vehicle pull. Please do not rule out cross-winds when diagnosing a vehicle pull.

Vehicle pull caused by these two conditions is not related to vehicle adjustments and no repair should be made.

Vehicle conditions that may cause the vehicle to pull:

- Tire inflation pressure - As small as a 2 pounds/square inch tire inflation pressure difference between the right and left tires may cause a vehicle to pull. Be sure to check the tire pressure before the tires are warmed up prior to attempting more extensive diagnosis.
- Wheel alignment - Slightly out of specification wheel alignment causes very few vehicles to pull. Therefore, if the vehicle wheel alignment has been adjusted as close as possible to specification, DO NOT attempt to correct the vehicle pull by changing the wheel alignment angles by bending suspension components or other non-approved methods.
- Uneven brake adjustment - If one of the four brakes is dragging, the vehicle may pull to the side of the dragging brake. Verify that none of the brakes are dragging and that they are adjusted correctly prior to attempting more extensive diagnosis.
- Incorrect vehicle trim height - If the trim height of the vehicle is not equal on all sides, the vehicle may pull to the side of the lower trim height. Check and adjust the trim height of the vehicle as necessary. Please note that a slight variation in the vehicle trim height seldom causes a noticeable vehicle pull.
- Tire construction - The way in which the tire is built can produce vehicle pull. An example of this is the placement of the under tread belt. An off-center radial tire belt can cause the tire to develop a side force while rolling straight down the road and the tire will tend to roll like a cone. To correct this condition, please use the attached flow chart. This chart provides the sequence of procedures designed to be performed for all conditions of vehicle pull.
- Tire size - Different size tires or different make of tires, on either axles, may cause a vehicle pull.



## FLOW CHART FOR CORRECTING VEHICLE PULL CONDITION

