STATEWIDE INSURANCE AGENCY DIGEST NO. 107

FOUR-WHEEL VS ALL-WHEEL-DRIVE VEHICLES

Parts of Texas experience considerable snow and ice during a typical year, although all of Texas (including the Houston area as recently as December 4, 2009) can experience snow! Of course, many Texans choose four-wheel or all-wheel-drive vehicles because they need this capability for other types of conditions. Knowing the differences that distinguish four-wheel from all-wheel drive vehicles is important in choosing the right vehicle for your needs. When driving in snow, ice, or other conditions where traction is difficult, having the right kind of vehicle is important for driving safety.

One of the biggest differences between all-wheel drive vehicles (AWD) and four-wheel drive vehicles (4WD) is in how the decision is made to transfer power to all four wheels. With all-wheel drive vehicles, electronic sensors play this role; with four-wheel rives, it is the driver who throws a lever or flips a switch to give power to all four wheels.

AWD is always "on," meaning that the electronic sensors can send power to all four wheels anytime the sensors decide it is necessary.

4WD is engaged manually, and usually has a high range for highway speeds, and a low-range for driving off-road or in heavy snow.

Both systems work well in slippery conditions. Indeed, both are superb, especially when compared to the performance of rear-wheel-drive vehicles on snow or ice. (Front-wheel drive vehicles typically have more weight over the powered wheels, making them easier than rear-wheel drive vehicles to handle in slippery conditions.)

Suburban drivers who do not face snow and ice very often may prefer AWD vehicles; 4WD vehicles may be preferred by drivers in places where winter comes early, stays long, and is fairly harsh. Both systems affect gas mileage because they add weight to the vehicles, and both mean more wear and tear on tires.

Source: compiled in part from www.onthesnow.com