Controversies

Rollover and Firestone Tire controversy

Main article: Firestone vs Ford Motor Company controversy

Rollover risk is inherently higher than cars in many truck-based vehicles if they are driven unsafely, as modification for bulky 4 wheel drive hardware requires increases in height to avoid compromising ground clearance (raising the center of gravity), while a short wheelbase further reduces stability. The previous Bronco II had already been cited by Consumer Reports for rollover tendencies in turns; as with the Explorer, however, it was cleared by the NHTSA as being no more dangerous than any other truck when driven unsafely. With a longer passenger compartment, the Explorer added 600 pounds, but Ford did not deem it necessary to revise the suspension or tires to carry the bigger load. It used the same tires as the Ford Ranger with a relatively low rating for high temperatures. Lowering tire pressure recommendations softened the ride further and improved emergency stability through increased traction, but increased the chances of overheating tires. A 1995 redesign with a new suspension slightly raised the Explorer's center of gravity, but it was called inconsequential by a Ford spokesman. Memos by Ford engineers suggested lowering the engine height, but it would have increased the cost of the new design.

In May 2000, the US National Highway Traffic Safety Administration (NHTSA) contacted Ford and Firestone about a higher than normal incidence of tire failures on Ford Explorers, Mercury Mountaineers, and Mazda Navajos fitted with Firestone tires (later including Ford Ranger and Mazda B-Series pickup trucks). The failures all involved tread separation, in which the outer tread carcass would delaminate and cause a rapid loss of tire pressure. Ford investigated and found that several models of 15 in (381 mm) Firestone tires (ATX, ATX II, and Wilderness AT) had higher failure rates, especially those made at Firestone's Decatur, Illinois plant.

Ford argued that Firestone was at fault, noting that its SUVs and pickups equipped with Goodyear tires experienced no rollover issues, even when inflated at low air pressure. By now, most Explorer, Mountaineer, Ranger, B-Series, and Navajo tires have been replaced, and the rollover reports have subsided, further lending credit to Ford's position that the design of its vehicles was not at fault, although the Explorer's manufacturer recommended tire inflation of only 26 pounds per square inch (179 kPa) likely contributed to the tread separation problem by causing the tires to operate at higher than normal temperatures.

Part of the rollover issue was poor driver reaction to the tire blowout. When a tire blew, the vehicle would experience a sudden sharp jerk, and many drivers reacted by counter-steering in an attempt to regain control. This action would cause a shift of the vehicle's weight, resulting in a rollover especially at higher speeds (many reports of rollovers were of vehicles being driven at speeds of 70 mph (110 km/h) and above). In a test simulating dozens of tire blowouts, Larry Webster, a test-driver for Car & Driver magazine, was repeatedly able to bring a 1994 Explorer to a stop without a single rollover, even at speeds of 70 mph (110 km/h). According to Forbes magazine, car experts and NHTSA claim that the vast majority of crash accidents and deaths are caused not by the vehicle, but by the driver, by road conditions or some combination of the two.

In response to Firestone's allegations of the Explorer's design defects, NHTSA undertook a preliminary investigation and reported that further action was not required. Its conclusion was that the Explorer was no more prone to rollover than other SUVs given their high center of gravity. The subsequent introduction and proliferation of electronic stability control systems have essentially addressed and mitigated this shortcoming.