Kraft & Associates
Personal Injury · Social Security Disability · Immigration
Bankruptcy · Consumer Law

Toyota's Runaway-Car Worries May Not Stop At Floor Mats

Written On October 20, 2009 By Bob Kraft

Why don't they just cut off the engine or shift into neutral? That's what I ask myself every time I see a story about a "runaway" vehicle. The latest batch of such stories has been about Toyota and Lexus vehicles, and specifically about the floor mats catching the throttle pedal and not allowing it to spring back to the off position. Now the Los Angeles Times has a very interesting article about this situation, and speculation on the reasons drivers may not be able to easily react to a stuck throttle.

This is important information if you have a newer vehicle, with push-button ignition or electronic transmission equipment. And while the article specifically refers to Toyota and Lexus vehicles, everyone should check their owners' manuals for information on cutting the ignition or shifting into neutral in case of a runaway throttle. Here are excerpts from the article:

The 2009 Lexus ES 350 shot through suburban San Diego like a runaway missile, weaving at 120 miles an hour through rush hour freeway traffic as flames flashed from under the car.

At the wheel, veteran California Highway Patrol Officer Mark Saylor desperately tried to control the 272-horsepower engine that was roaring at full throttle as his wife, teenage daughter and brother-in-law were gripped by fear.

"We're in trouble. . . . There's no brakes," Saylor's brother-in-law Chris Lastrella told a police dispatcher over a cellphone. Moments later, frantic shrieks filled the car as it slammed into another vehicle and then careened into a dirt embankment, killing all four aboard.

Kraft & Associates
2777 Stemmons Freeway
Suite 1300
Dallas, Texas 75207
Toll Free: (800) 989-9999
FAX: (214) 637-2118
E-mail: info@kraftlaw.com

The tragedy Aug. 28 was at least the fifth fatal crash in the U.S. over the last two years involving runaway Toyota and Lexus vehicles made by Toyota Motor Corp. It is also among hundreds of incidents of sudden acceleration involving the company's vehicles that have been reported to Toyota or the federal government, according to an examination of public records by The Times.

Toyota has blamed the incidents — apart from those caused by driver error — on its floor mats, asserting that if they are improperly installed they can jam open the accelerator pedal. A month after the Saylor crash, Toyota issued its biggest recall in company history, affecting 3.8 million vehicles in model years as far back as 2004. But auto safety experts believe there may be a bigger problem with Toyota vehicles than simply the floor mats.

The Saylor crash and others like it across the country, they say, point to a troubling possibility: that Toyota's ignition, transmission and braking systems may make it difficult for drivers to combat sudden or unintended accelerations and safely recover, regardless of their cause.

Toyota is not the only car company to be hit with reports of sudden acceleration, but the San Diego fatality, the massive recall that came in its wake and Toyota's position as the world's largest automaker have focused intense scrutiny on the company by federal safety regulators and others.

One remedy being considered by Toyota implicitly acknowledges what critics have been saying for almost 10 years: that the company's highly computerized engine control system lacks a fail-safe mechanism that can quickly extinguish sudden acceleration events, whether they are caused by floor mats, driver errors or even unknown defects in the electronic control system, as alleged in some lawsuits.

Reports of sudden acceleration in Toyota vehicles has resulted in nine federal inquiries and investigations since 2000, two of which determined that there were improperly positioned floor mats. Another found a loose part in Sienna minivans, and yet another probe remains open. The rest were dismissed with no findings of equipment problems.

Kraft & Associates
2777 Stemmons Freeway
Suite 1300
Dallas, Texas 75207
Toll Free: (800) 989-9999
FAX: (214) 637-2118
E-mail: info@kraftlaw.com

In most Toyota vehicles, the floor mats are held in place by two clips, which can come loose. Toyota offers a standard carpeted floor mat and an optional rubber version. Both mats have a cutout around the accelerator pedal. The vehicle driven by Saylor had a rubber floor mat, but Toyota said it was for a different model of Lexus.

Since the San Diego crash, Toyota has urged all its customers to remove their floor mats as an interim fix. But longer term, Toyota spokesman Brian Lyons said, the company is examining significant design changes.

One possible remedy is to redesign the accelerator pedal to make it harder to get caught by a floor mat, he said. Another potential fix, he said, involves reprogramming the engine's computer to automatically cut power when a driver brakes while the gas pedal is depressed.

Such fail-safes are needed, auto experts say, because sudden acceleration can cause drivers to panic, diminishing their ability to take swift action — such as shutting off the engine or shifting into neutral.

If anybody should have known how to stop an out-of-control car, it was Saylor, who was trained in emergency and high-speed driving as a 19-year CHP veteran. But a close look at the Lexus ES 350 raises questions about whether the car's very design may have compromised Saylor's skills.

One obvious line of defense is to simply shut off the engine, a step that may not be intuitive on the ES 350. The car has a push-button start system, activated by the combination of a wireless electronic fob carried by the driver and a button on the dashboard.

But once the vehicle is moving, the engine will not shut off unless the button is held down for a full three seconds — a period of time in which Saylor's car would have traveled 528 feet. A driver may push the button repeatedly, not knowing it requires a three-second hold.

"When you are dealing with an emergency, you can't wait three seconds for the car to respond at 120 miles an hour," said Clarence Ditlow, executive director of the nonprofit Center for Auto Safety.

Kraft & Associates
2777 Stemmons Freeway
Suite 1300
Dallas, Texas 75207
Toll Free: (800) 989-9999
FAX: (214) 637-2118
E-mail: info@kraftlaw.com

That procedure is explained deep in the owners manual. In a text box labeled “! Caution,” Toyota tells owners, “Do not touch the ‘power’ switch while driving.” But under the warning it adds, “If you have to make an emergency stop, press and hold the ‘power’ switch for more than three seconds.”

Lyons, the Toyota spokesman, said: “I think the text is valid. What I’d prefer it to say is to explain that you’ll lose power assist [for] brakes and steering if you do so.”

The shutdown procedure reflects a larger problem: As auto manufacturers adopt increasingly complex electronic features, it becomes more difficult to explain how they work, said Paul Green, a human factors expert at the University of Michigan’s Transportation Research Institute. A study by the institute found that in some cases, owners manuals would have to run up to 1,000 pages to fully disclose everything.

“In the past, systems were pretty simple,” Green said. “You put a key in the lock and turn it. Now we have a fob with functionality.”

The other common defense tactic advised by experts is to simply shift a runaway vehicle into neutral. But the ES 350 is equipped with an automatic transmission that can mimic manual shifting, and its shift lever on the console has a series of gates and detents that allow a driver to select any of at least four forward gears.

The arrangement of those gear selections could make it difficult to shift from a forward gear directly into neutral in a panic situation, Toyota spokesman Lyons acknowledged.

The most obvious impulse for any driver experiencing sudden acceleration is to apply the brakes. But when an engine goes to full throttle and is speeding at 120 mph, the brake might not stop the car.

The ES 350 and most other modern vehicles are equipped with power-assisted brakes, which operate by drawing vacuum power from the engine. But when an engine opens to full throttle, the vacuum drops, and after one or two pumps of the brake pedal the power assist feature disappears.

Kraft & Associates
2777 Stemmons Freeway
Suite 1300
Dallas, Texas 75207
Toll Free: (800) 989-9999
FAX: (214) 637-2118
E-mail: info@kraftlaw.com

As a result, a driver would have to apply enormous pressure to the brake pedal to stop the car, and if the throttle was wide open might not be able to stop it at all, safety experts say.

“I don’t think you can stop a car going 120 mph and an engine at full throttle without power assist,” said Ditlow, the safety center director.

Lyons acknowledged that the vacuum can be depleted when an engine throttle is wide open, leaving the drivers without power-assisted brakes.

“There’s a [federal] standard where you have to be able to stop the car without power-assisted brakes, but obviously I don’t think it includes situations where the throttle is wide open,” he added.

The National Highway Traffic Safety Administration, meanwhile, says it has an open investigation into sudden acceleration events involving Toyota vehicles.

Kraft & Associates
2777 Stemmons Freeway
Suite 1300
Dallas, Texas 75207
Toll Free: (800) 989-9999
FAX: (214) 637-2118
E-mail: info@kraftlaw.com