

INSURANCE INSTITUTE FOR HIGHWAY SAFETY

NEWS RELEASE

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HONDA EQUIPS NEW SUV WITH ACCEPTABLE BUMPERS, BUT BUMPERS ON SIX OTHER VEHICLES FAIL TO BUMP

ARLINGTON, VA — The 2003 Honda Element, a small sport utility vehicle that's new for the 2003 model year, performed reasonably well in 5 mph crash tests. However, the performances of two other new SUVs, the Mitsubishi Outlander (small) and Volvo XC90 (mid-size) were poor. Also poor were the performances of four large luxury cars — the 2002 Acura RL, 2003 Cadillac CTS, 2003 Infiniti Q45, and 2003 Lincoln Town Car. The crash tests were conducted by the Insurance Institute for Highway Safety to assess how well bumpers resist damage in low-speed impacts.

"The large cars we tested might be luxurious in terms of their style and amenities, but their bumpers are anything but luxurious. They don't bump. Every one of the large

5 MPH CRASH TEST RESULTS, LARGE LUXURY CARS AND SMALL AND MIDSIZE SUVs

	Front into flat barrier	Rear into flat barrier	Front into angle barrier	Rear into pole	Total damage 4 tests	Average damage per test	Bumper rating
Large luxury cars							
2002 Acura RL	\$461	\$149	\$1,613	\$2,188	\$4,411	\$1,103	POOR
2003 Lincoln Town Car	\$559	\$1,099	\$1,771	\$1,160	\$4,589	\$1,147	POOR
2003 Cadillac CTS	\$531	\$648	\$1,460	\$2,049	\$4,688	\$1,172	POOR
2003 Infiniti Q45	\$657	\$1,252	\$2,661	\$1,208	\$5,778	\$1,445	POOR
Midsize SUV							
2003 Volvo XC90	\$774	\$888	\$722	\$2,238	\$4,622	\$1,156	POOR
Small SUVs							
2003 Honda Element	\$512	\$346	\$697	\$594	\$2,149	\$537	ACCEPTABLE
2003 Mitsubishi Outlander	\$959	\$984	\$1,042	\$1,217	\$4,202	\$1,051	POOR

Repair costs reflect January 2003 prices.

— MORE —

luxury cars we tested sustained an average of at least \$1,000 damage per test," says Institute chief operating officer Adrian Lund.

The Institute's series of four bumper tests includes front- and rear-into-flat-barrier impacts plus front-into-angle-barrier and rear-into-pole impacts. These low-speed tests reflect the range of impacts that frequently occur in commuter traffic and parking lots.

Four large luxury cars: Among the four cars the Institute tested, only the Acura RL performed reasonably well in the simplest tests, front- and rear-into-flat-barrier. However, this car sustained the most damage (\$2,188) among the large cars in the rear-into-pole test. The CTS also sustained huge damage in the pole test. In both cases, the bumpers failed to keep the damage away from the car bodies. The RL's trunk lid was crushed and had to be replaced at a cost of more than \$1,000. Replacing the bumper cover added another \$739.

The bumpers on the CTS (front and rear) and Town Car (rear bumper only) are attached with mounts designed to absorb low-speed crash forces and then return to their original positions, just like shock absorbers. However, the Town Car sustained more than \$1,000 damage in each of the Institute's rear bumper tests (flat-barrier and pole) because the mounts are "flimsy and frail. They fully stroked, but this wasn't enough to absorb the crash forces. There was plenty of force left after the stroking to damage the car body's expensive sheet metal parts," Lund says.

In the front-into-angle-barrier test, the housings for the headlights on both the RL and Q45 broke and had to be replaced. The one for the Q45 cost nearly twice as much as the RL's (\$858 for the part alone compared with \$435).

Nissan boasts that the headlights on the Q45 focus "more powerfully than any other headlight in the world." Lund adds that "the price matches. In fact, it's other-worldly." Largely because of the cost of the headlamp assembly, the damage to the Q45 in the angle-barrier impact totaled \$2,661. This was far higher than the cost

of repairing any of the other three large luxury cars after the same test. It helped to boost the Q45's overall damage total in the Institute's four tests to the highest among the four cars.

One midsize SUV: The Institute tested one midsize SUV, Volvo's new XC90. "It was awful," Lund says. "Even in the simplest test, front-into-flat-barrier, the damage extended well beyond the bumper system. The XC90's hood was raised and the latch jammed. This is a brand new vehicle design, but Volvo didn't put any priority on the bumpers during the design process. There's basically no reinforcement in the XC90's rear bumper system. There's something that resembles a bar under the bumper cover, but it doesn't 'give' like a bumper bar is supposed to in order to absorb energy. In fact, it does virtually nothing to keep damage away from the vehicle body."

The body of the XC90 was knocked out of line in three of the Institute's four bumper tests. The most extensive damage occurred in the pole test. The whole bumper system (cover, foam, and plastic filler beam) had to be replaced. So did the lower tailgate. The rear body panel and floor pan were crushed, and the lower tailgate opening was driven out of line with the rear structure of the vehicle.

Two small SUVs: "Honda is the only manufacturer in this series of tests that earns at least some praise for bumpers," Lund says.

In the flat-barrier impacts, the Element's front and rear bumper systems kept damage away from the expensive-to-repair sheet metal body parts. There was some body damage in the angle-barrier and pole impacts, but it wasn't extensive. And Honda has taken steps to keep down the cost of repairing the damage that does occur in low-speed impacts. For example, the headlight mount broke in the angle-barrier test, but this didn't mean the whole headlight assembly had to be replaced. Honda designed the headlight so that, if it's damaged, it will be more likely to break in a particular place, and then the manufacturer makes a kit available to repair it. Another plus is that the Element's rear bumper system is mounted below the rear body

panel, so if the bumper is driven toward the vehicle body in a low-speed impact it won't necessarily contact the rear panel. This reduces the likelihood of damage to the car body. Partly because of this design, the Element sustained far less damage (\$594) than the other vehicles in the rear-into-pole test.

In contrast, the Mitsubishi Outlander sustained \$1,217 damage in the pole test and another \$1,042 in the angle-barrier test. Damage extended beyond the bumper system in these two tests plus the rear flat-barrier test. The bumper covers had to be replaced after all but the angle-barrier test.

"It's a stark contrast between the two small SUVs," Lund notes. "Both the Element and the Outlander are brand new designs. There was an opportunity for both Mitsubishi and Honda to put a priority on the bumper designs so the owners of these vehicles wouldn't be hit with big repair bills after minor impacts. Honda did so, and it also built in aspects of the bumper intended to protect pedestrians. Mitsubishi didn't pay any attention to damage resistance in designing the bumpers on the Outlander, so owners are going to be spending a lot of money for repairs."

**End 4-page release on 5 mph crash tests
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