

INSURANCE INSTITUTE FOR HIGHWAY SAFETY

NEWS RELEASE

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5 MPH CRASH TESTS: NONE OF 9 MIDSIZE CARS EARNS GOOD RATING FOR BUMPER PERFORMANCE; 5 OF THE 9 ARE POOR

ARLINGTON, VA — In low-speed crash tests, the bumpers on the 2002 Lexus ES 300 and Toyota Camry performed reasonably well, preventing extensive damage in the 5 mph tests. The bumpers on the 2002 Nissan Altima and Acura TL didn't perform as well, and those on the remaining five cars — the Jaguar X-Type, Saab 9-5, Lexus IS 300, Volvo S60, and Hyundai XG350 — allowed excessive damage (see table, p.2).

The average damage per test ranged from less than \$500 to almost \$1,700 for the worst performer, the Jaguar X-Type. The four impacts conducted by the Insurance Institute for Highway Safety to assess how well bumpers prevent damage in low-speed impacts are front- and rear-into-flat-barrier plus front-into-angle-barrier and rear-into-pole. These tests reflect a range of low-speed impacts that are common in commuter traffic and parking lots.

Worst bumper performance: The X-Type sustained more than \$2,000 damage in two of the four tests, front-angle-barrier and pole. This car also sustained more than \$1,000 damage in the simplest of the four impacts, front-into-flat-barrier.

"A car really shouldn't sustain any damage at all in the flat-barrier impact," says Adrian Lund, the Institute's chief operating officer. "It's a very minor impact, and the energy of the impact is spread across the whole front of the car. It should be routine to go through this test unscathed."

In both the front-into-angle-barrier and rear-into-pole tests, the X-Type sustained extensive damage beyond the bumper system. Damage in the angle-barrier impact extended

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5 MPH CRASH TEST RESULTS, MIDSIZE CARS							
	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
<u>Inexpensive cars</u>							
2002 Toyota Camry	\$243	\$384	\$723	\$759 (off-center)	\$2,109	\$527	ACCEPTABLE
2002 Nissan Altima	\$288	\$614	\$1,519	\$678	\$3,099	\$775	MARGINAL
<u>Moderately priced cars</u>							
2002 Acura TL	\$295	\$432	\$893	\$995	\$2,615	\$654	MARGINAL
2002 Hyundai XG350	\$1,092	\$777	\$624	\$864	\$3,357	\$839	POOR
<u>Luxury cars</u>							
2002 Lexus ES 300	\$234	\$541	\$521	\$537 (off-center)	\$1,833	\$458	ACCEPTABLE
2002 Volvo S60	\$873	\$322	\$759	\$1,681	\$3,635	\$909	POOR
2002 Lexus IS 300	\$977	\$417	\$1,341	\$1,190	\$3,925	\$981	POOR
2002 Saab 9-5	\$569	\$971	\$1,287	\$1,265	\$4,092	\$1,023	POOR
2002 Jaguar X-Type	\$1,211	\$739	\$2,513	\$2,307	\$6,770	\$1,693	POOR
<u>Earlier designs</u>							
1997 Toyota Camry	\$126	\$104	\$495	\$649	\$1,374	\$344	GOOD
2000 Nissan Altima	\$450	\$19	\$427	\$814	\$1,710	\$428	ACCEPTABLE
1999 Saab 9-5	\$100	\$126	\$1,230	\$909	\$2,365	\$591	MARGINAL

All repair costs reflect February 2002 prices.
Note: The pole tests of the Toyota Camry and Lexus ES 300 were conducted off-center because of reinforcement in the middle of the rear bumper system that's effective in only a narrow range of impacts.

to the hood, front fender, and headlight assembly. The rear bumper system didn't absorb the energy of the crash, and the result was severe crushing of the trunk lid in the pole impact.

The X-Type "has sensors in the rear bumper to alert a driver to an obstacle as the car backs up," Lund explains. "The idea is to avoid collisions, and it may be a safety plus. It could keep a driver from backing into a small child behind the car, for example.

But the sensors aren't a substitute for effective bumpers that reduce damage because they cannot prevent other vehicles from rear-ending you in commuter traffic."

Better bumper performances: The ES 300 and Camry are essentially the same cars with similar bumper systems, so it's not surprising that their performances in the 5 mph tests also were similar. The biggest difference was in the pole test. The rear bumper systems on both cars include steel inserts in the middle of the foam in the rear bumpers. This energy-absorbing insert, placed exactly where the car hits the pole in the Institute's test, would manage the energy of a low-speed crash in only a narrow range of impacts, so the pole tests of these vehicles were conducted slightly off-center. The result was a reasonable performance for the ES 300, which sustained \$537 damage, the best performer in this test among the nine midsize cars. The Camry sustained \$759 damage in the pole test. The difference in large part is because the Camry's bumper cover split (the cover on the ES 300 didn't), necessitating repair and refinishing.

Performances of earlier designs: Three of the nine midsize cars the Institute tested are redesigns of models tested in previous years. All three redesigned models performed worse than their predecessor versions — in two cases much worse. The 2002 Altima sustained an average of \$775 damage in the four bumper tests compared with an average of \$428 for the 2000 model. The redesigned Saab sustained average damage of \$1,023 compared with \$591 for the 1999 model.

"There's no excuse for this," Lund points out. "Nissan, Saab, and Toyota all know how to design and equip their cars with better bumpers — after all, the previous models of these cars had better bumpers. So the manufacturers are going the wrong way. They should be concerned about providing their customers with designs that prevent damage as well as injuries in a range of crashes from low to high speed. But these automakers apparently have forgotten about the very frequent low-speed crashes."

End 3-page release on damage in 5 mph tests
Video news release Fri. 5/24, 1-1:30 p.m. EDT
(C)Telstar 6/Trans. 8; crash test footage & more

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