



The Basics

New cars too tough for crash rescuers

The stronger metals and sturdier construction of today's autos make it harder than ever to cut accident victims out of crumpled vehicles -- but the new technology saves lives, too.

By The Associated Press

Capt. Clint Roberts makes his living cutting accident victims out of hideously mangled vehicles, but even he could hardly believe it when two people in a 2007 midsize car survived a head-on crash with a full-size pickup last year.

The Ford Fusion's reinforced steel construction probably saved the lives of the 18-year-old driver and his 16-year-old passenger. But Roberts said it gave his Hillsborough County (Fla.) Fire Rescue crew fits as it tried to free them last November.

Because hydraulic cutters couldn't shear the roof posts, rescue workers turned to heavy-duty electric saws, replacing blade after blade as they dulled on the rugged material.

"It was just beating the snot out of the tools," adding minutes and delaying medical treatment, Roberts said.

There is no question that today's cars save lives by cocooning motorists in reinforced alloys, impact-absorbing crumple zones and as many as a dozen air bags.

But rescue officials and experts from around the U.S. say the new technology is also hindering extrication of injured people, increasingly forcing crews to work deeper into the critical "golden hour" between accident and treatment by emergency-room doctors.

On many 2005 and newer cars, an extrication that once took 10 or 15 minutes can now take twice that or longer.

To catch up, counties and cities are spending tens of thousands of dollars -- if they can afford it -- to buy more-powerful equipment that can cut through newer cars' reinforced steel and the lighter, tougher exotic metals used in roofs, posts and doors.

Greater dangers for rescuers

Then there are obstacles that threaten rescuers' safety. Pressurized gas canisters that inflate air bags can explode if pierced by cutting tools. Rescuers can be blown from cars if air bags suddenly inflate. Hidden battery cables in hybrid cars can deliver powerful shocks.

To protect themselves, workers now have to peel away the ceiling and interior plastic to see what's underneath before they can even start cutting.

Experts cannot say for certain whether the delays in getting these victims to hospitals have resulted in people dying. But that's the fear.

"We build more fire stations; we make faster firetrucks; we've got helicopters to get

you to the hospital," said Roberts, an expert who teaches extrication to colleagues around Florida. "But what's slowing us down are these vehicles that are harder for us to get into."

The problem has rescue workers scrambling to update their tools and explore different ways to attack cars with their cutters, spreaders and saws. Some agencies with equipment more than a few years old are arriving at accident scenes and finding out that it will no longer do the job.

"Because their shearing materials had been so successful for so many years, some agencies hadn't developed a plan B," said Tom Hollenstain, who works to educate rescuers about new auto technology at the State Farm Insurance vehicle research center.

Bigger, costlier tools

Leading hydraulic-tool makers such as Hurst Jaws of Life -- whose namesake George Hurst introduced the first hydraulic extrication tools for auto racing in the early 1970s -- must keep putting more oomph into their equipment, making it heavier and more expensive. A single Hurst cutter and power unit runs about \$25,000. Add hydraulic spreaders and other tools, and the price rises quickly.

A fire crew in Bonita Springs, Fla., discovered the problem last year when it rolled up on a 2007 Lexus that had overturned. Hydraulic cutters only a few years old wouldn't shear the strengthened steel roof posts, so the crew had to move quickly to cut other parts of the car. A job that should have taken a few minutes required 20 minutes of cutting and sawing to remove the driver.

Continued: Bigger, costlier tools

Assistant Chief Ken Craft said the incident led the department to buy new rescue tools costing \$54,000, a sizable expense for a city of about 40,000 people.

"If the automakers roll out something new next year, we could be right back where we were at," Craft said. "That's the problem we're confronted with."

Mike Ader, a volunteer firefighter in Rockville, Md., recalled the layered-steel roof post from a 2008 Toyota Camry that wouldn't budge under the blades of a hydraulic cutter after a crash Jan. 2. The patient, whose injuries were serious but not life-threatening, finally had to be maneuvered around the post.

Ader used two types of saws and numerous blades to remove the post after the patient was removed. The department quickly decided to buy a new, more powerful cutter.

The good news in the statistics

The flip side, of course, is that more people are surviving horrific crashes that would have killed them just a few years ago.

The Fusion's passenger, for example, was hurt but conscious and joking with Roberts as the crew worked to get him out. The driver of the other vehicle, a 2001 Ford F-150 pickup, was dead at the scene.

With about three people hurt in car crashes every minute in the U.S., National Highway Traffic Safety Administration spokesman Rae Tyson said he is comfortable with the trade-off. Rescue workers, he said, will have to work harder to keep up with technology, just like everybody else.

"The fatality rate for passenger vehicles is the lowest in history," Tyson said. "That, to me, is a pretty good news story."

One problem for rescue workers is how to get the latest technical information about newer cars and how to deal with them.

Later this year, the nonprofit group Comcare Emergency Response Alliance, with cooperation from automakers, plans to introduce a Web site that will offer schematics and safety specs for most cars on the road. Rescue workers will be able to flip open a laptop computer on the way to a crash scene to find out about the

construction of the car, the placement of air bag canisters and other details.

Automakers say they are doing more to make safety information available to rescuers and tool makers before new models come out. For instance, Ford is already offering a look at the skeleton of the 2009 F-150 pickup, built with the strongest steel construction the company has ever used.

"We want to facilitate the discussion as much as possible, because we understand the critical nature of their work," Ford spokesman Wesley Sherwood said.

This article was reported and written by Mitch Stacy for The Associated Press.

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