

Reconstruction of a crash

This is the slow-motion, split second reconstruction of what happens when an unbelted driver crashes into a solid, immovable tree at 55 mph.

One-tenth of a second. The front bumper and chrome "frosting" of the grillwork collapse. Slivers of steel penetrate the tree to a depth of 1½ inches or more.

Two-tenths of a second. The hood crumbles as it rises, smashing into the windshield. Spinning rear wheels leave the ground. The front fenders come into contact with the tree, forc-

ing the rear parts out over the front door. The heavy structural members of the car begin to act as a brake on the terrific forward momentum of the 2½-ton car. But the driver's body continues to move forward at the vehicle's original speed—20 times the normal force of gravity; his body weighs approximately 3,200 pounds. His legs, ramrod straight, snap at the knee joints.

Three-tenths of a second. The driver's body is now off the seat, torso upright, broken knees pressing against the dashboard. The plastic and steel frame of the steering wheel begins to bend under his terrible death grip. His head is now near the sun visor, his chest above the steering column.

Four-tenths of a second. The car's front 24 inches have been demolished, but the rear end is still traveling at an estimated speed of 35 mph. The body of the driver is still traveling 55 mph. The rear end of the car, like a bucking horse, rises high enough to scrape bark off low branches.

Five-tenths of a second. The driver's near-frozen hands bend the steering column into an almost vertical position. The force of gravity crushes his chest against the steering wheel, rupturing arteries. Blood spurts into his lungs.

Six-tenths of a second. The driver's feet are ripped from his shoes. The brake pedal shears off at the floor boards. The chassis bends in the middle, shearing body bolts. The driver's head smashes into the windshield. The rear of the car begins its downward fall, spinning wheels digging into the ground.

Seven-tenths of a second. The entire writhing body of the car is forced out of shape. Hinges tear, doors spring open. In one last convulsion, the seat rams forward, pinning the driver against the cruel steel of the steering shaft. Blood leaps from his mouth; shock has frozen his heart. The driver is now dead.

Elapsed time: only seven-tenths of a second.

At least it's not a long time to suffer.
