Steel IS automobile safety

We rely on our cars to transport us from place to place, perhaps even to take steel materials to a recycling drop-off center. We also depend on automobiles to keep us and our family safe when we’re behind the wheel. Fortunately, car manufacturers depend on steel to protect us. In addition to its strength, durability and dependability, steel is also the key to recycling your car at the end of its long life as it is continuously recyclable and contains recycled steel.

Nationwide recycling efforts

Automobiles are the most recycled consumer product. Used cars, vehicle trades and cars used to the end-of-life, all eventually end up being recycled. Steel scrap is a vital ingredient in making new steel; melting the scrap to make new steel is fundamental to energy and emissions savings and resource conservation. Each year, the steel industry recycles more than 14 million tons of steel from cars that are no longer fit for the road. This is equivalent to nearly 14 million new cars. When comparing the amount of steel recycled from automobiles each year to the amount of steel used to produce new automobiles that same year, automobiles maintain a recycling rate of nearly 100 percent.

Recycled content in automobiles

By weight, the typical passenger car consists of about 60 percent steel and iron. The steel used to make the shell of your car, including the doors, hood, trunk and quarter panels, contains a minimum of 25 percent recycled content. Many internal steel and iron parts are made using even higher percentages of recycled steel. All steel products contain recycled steel because steel scrap is a necessary ingredient in the production of new steel. With steel, unlike other materials, scrap from cars can become new steel for cans, appliances, construction materials or even new cars. Likewise, steel scrap for new cars is collected not only from automobiles but also from steel cans, appliances and construction material.
How are cars recycled?

Each year, nearly 100 percent of the cars leaving the road are recycled for their iron and steel content. While some people take their cars directly to the scrap yards, other people trade their cars at automobile dealerships. Regardless of their path, most out-of-service autos eventually end up at the scrap yard.

At the scrap yard, reusable parts such as doors, seats, hoods, trunk lids, windows, wheels and other parts are removed from the cars. During this same process, cars are drained of fluids and the cars are prepared for environmentally responsible recycling.

Once the cars are stripped of reusable parts, the remaining automobile hulks enter the shredder. The shredding process for cars lasts only 45 seconds. The shredder rips the car into fist-sized chunks of steel, nonferrous metals and fluff (non-recyclable rubber, glass, plastic, etc.).

The iron and steel are magnetically separated from the other materials and recycled. The metal scrap is then shipped to secondary processors (often scrap brokers) or steel mills where it is recycled to produce new steel.

Environmental benefits

Recycling steel saves energy and natural resources. The collection of recycled steel through recycle services annually saves the equivalent energy to power about 18 million households for a year. The importance of recycling steel is emphasized when you consider recycling a single ton conserves 2500 pounds of iron ore, 1400 pounds of coal and 120 pounds of limestone. Conserving natural resources such as these is just another benefit on the long list of recycling steel positives. Visit the sustainability section of the steel recycling website to learn more about the numerous benefits that come about due to steel being continuously recyclable.

About the Steel Recycling Institute

The Steel Recycling Institute (SRI), a unit of the American Iron and Steel Institute, educates the solid waste management industry, government, business and, ultimately, the consumer about the economic and environmental benefits of recycling steel. SRI works to ensure the continuing development of the steel recycling infrastructure.