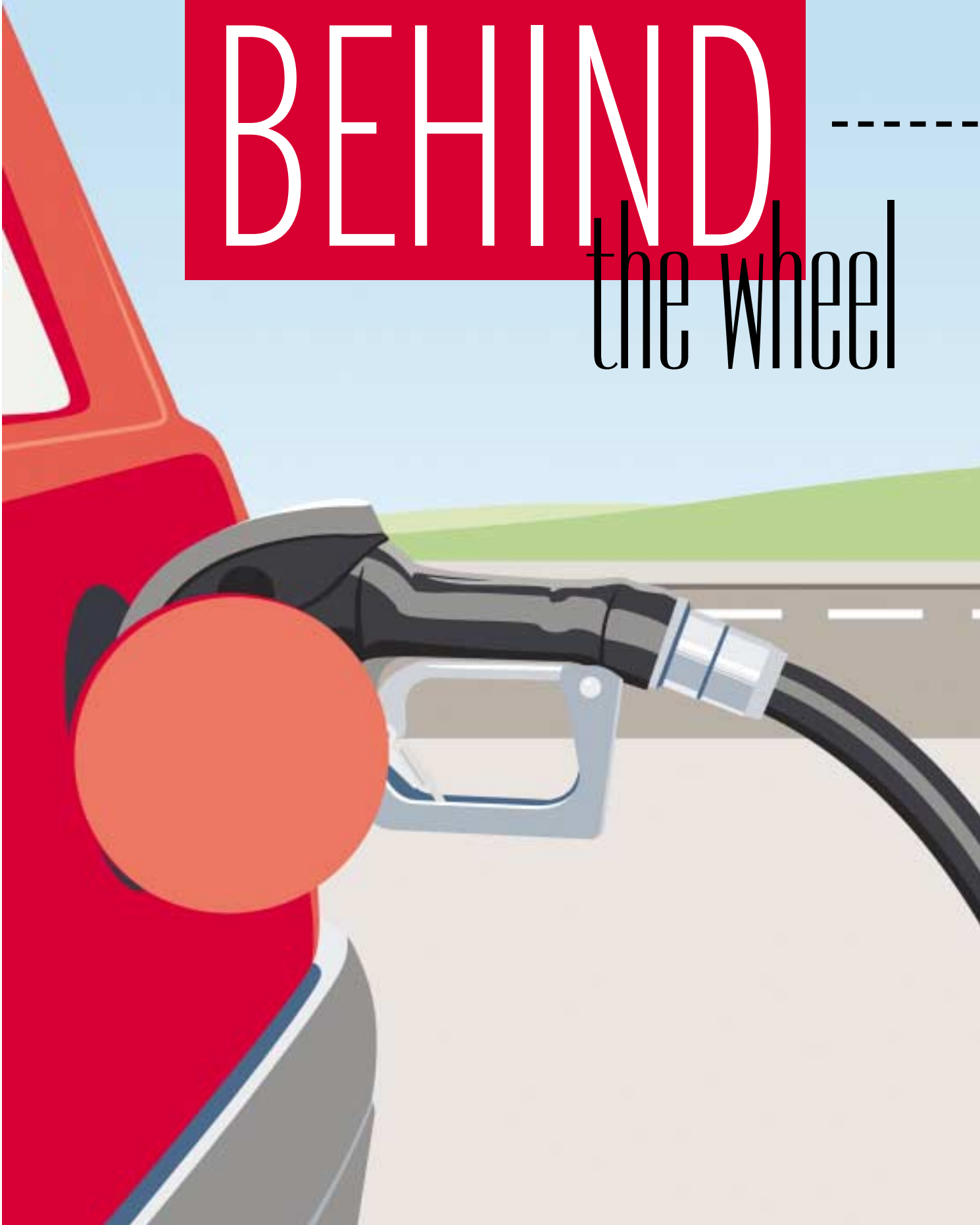


the automobile

BEHIND

the wheel



Cleaner, safer, higher quality American cars

The 1970s and early 1980s were not a happy time for the U.S. auto industry. First, there was the 1973 Arab oil embargo that introduced American drivers to the new and unpleasant experience of waiting in line to pay top dollar for scarce gas. Then, in 1979, just as memories of the energy crisis were fading, political turmoil in Iran triggered energy crisis II.

And if expensive gas wasn't enough of a challenge for Detroit, there was also the "quality gap." During the 1970s, Japanese cars had earned a reputation for fit, finish, and reliability, while American cars had gained notoriety for faulty door handles, rusting rocker panels, and exploding gas tanks.

By the early 1980s, Detroit's gas guzzlers were being widely written off as wasteful, inefficient dinosaurs, ill-suited to compete and survive in a world of rising energy prices. The future belonged to reliable, fuel efficient subcompacts from Japan.

Or so it seemed.

But once again, the future had a surprise in store. By the mid-1990s, American cars were making a strong comeback . . . and gas guzzlers were leading the way!

What had changed?

For one thing, the energy crunch didn't last. The real price of gasoline (in constant 1995 dollars) declined from a historic high of \$2.27 a gallon in 1981 to a historic low of just under 97 cents in 1998.

That had a big impact on buyer preferences. Americans started going back to those big, roomy vehicles that most had never really wanted to give up in the first place.

But there was a twist. Instead of returning to full-size family sedans and high-performance muscle cars, consumers turned their affections to light trucks — minivans, pickups, and sport utility vehicles.

The trend started in 1983 with the highly successful rollout

What Mattered to Car Buyers

| | 1980 | 1998 |
|---------------|------------|------------|
| Fuel economy | 42 percent | 4 percent |
| Dependability | 31 percent | 36 percent |
| Low price | 14 percent | 5 percent |
| Quality | 4 percent | 20 percent |
| Safety | 9 percent | 34 percent |

Source: U.S. Department of Energy, Office of Transportation Technologies
<http://www.ott.doe.gov/facts/archives/fotw178supp.shtml>

of Chrysler minivans. Then pickup truck and SUV sales took off, and by 2001, light trucks had captured 51 percent of the market.

Another striking difference between the early '80s and the late '90s was the increased demand for safe cars. For years, car companies had been guided by the maxim that "safety doesn't

U.S. Highway Fatalities

| | 1980 | 1998 |
|--|--------|--------|
| Total fatalities (drivers and passengers) | 41,927 | 35,359 |
| Fatalities per: | | |
| 100 million vehicle miles traveled | 3.3 | 1.6 |
| 100,000 licensed drivers | 35.2 | 22.4 |
| 100,000 registered vehicles | 31.6 | 20.0 |
| 100,000 population | 22.5 | 15.3 |

Source: National Highway Traffic Safety Administration and U.S. Census Bureau, *Statistical Abstract of the United States: 2000*.

sell." And for most of those years, they'd been right. Safety had always taken a back seat to style, comfort, and price. But when consumer advocates and government regulators made safety a high-profile issue, buyers began to demand safer cars, and manufacturers responded with innovations such as dual airbags,

side impact protection, and antilock brakes — all of which became common features by the end of the '90s. And the safety enhancements paid off in lives saved. (See table “U.S. Highway Fatalities.”)

Cars also became a lot cleaner, thanks to the combined impact of public pressure, federal legislation, and technological innovation. Although the number of cars on U.S. roads nearly doubled in the 29 years after Congress passed the Clean Air Act of 1970, vehicular emissions of carbon monoxide, volatile organic compounds, and small particulate matter declined by 43 percent, 59 percent, and 32

LOVE THOSE BIG CARS

Americans never really wanted to give up big cars — not even when the gas pumps went dry in the 1970s. And when we couldn't drive them ourselves, we turned on our televisions or settled into a seat at the movies to watch other people burn up the highways in high-performance machines.

In 1977, midway between energy crisis I and energy crisis II, moviegoers lined up at the box office to watch the Bandit outrun Smokey in a '77 Pontiac SE Trans Am that no one would ever describe as fuel efficient. Then in 1979, when the cutoff of Iranian oil sent gas prices skyward, viewers tuned in every week to watch the Duke boys, Bo and Luke, tear through Hazzard County in The General Lee — a '69 Dodge Charger that couldn't have gotten more than 12 miles per gallon. And let's not forget *Knight Rider*. In 1982, when a lot of people still thought the world was going to run out of oil in 50 years, Michael Long — a.k.a. Michael Knight, a.k.a. David Hasselhof — motored into prime time behind the wheel of a customized Trans Am.

But times change. Those old, rumbling American muscle cars are all but gone — victims of changing fashions and steep insurance rates. When GM announced that 2002 would mark the end of the road for Chevy Camaros and Pontiac Trans Ams, it cited a 53 percent drop in sales as the reason.

These days, drivers are more interested in boxy, high-riding SUVs. And if there's one thing Detroit learned during the 1980s, it's this: “Listen to your customers, and give them what they want.” That's how markets work.

But, still, you have to wonder if drivers will ever look back and smile when they think about “that old four-wheel-drive sport utility vehicle” they used to own.

percent, respectively. And federal regulations leading to the phase-out of leaded gasoline virtually eliminated one of the biggest sources of lead emissions.

Cleaner, safer, higher-quality American cars: Who could have imagined it in 1980?

Want to Know More?

The Department of Energy web site has an excellent timeline of energy-related issues, 1939-1998.

<http://www.energy.gov/aboutus/history/timeline.html>

The Department of Energy's Office of Transportation Technology maintains a “Fact of the Week” archive that contains more than 200 entries. Be sure to check it out.

<http://www.ott.doe.gov/facts/archives>

The OTT site also has information on the latest trends in automotive energy efficiency. <http://www.ott.doe.gov/pdfs/oaatacomp.pdf>

