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Volkswagen Test Rigging Follows a Long Auto Industry Pattern

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Long before <u>Volkswagen</u> admitted to cheating on emissions tests for millions of cars worldwide, the automobile industry, <u>Volkswagen</u> included, had a well-known record of sidestepping regulation and even duping regulators.

For decades, car companies found ways to rig mileage and emissions testing data. In Europe, some automakers have taped up test cars' doors and grilles to bolster their aerodynamics. Others have used "superlubricants" to reduce friction in the car's engine to a degree that would be impossible in real-world driving conditions.

Automakers have even been known to make test vehicles lighter by removing the back seats.

Cheating in the United States started as soon as governments began regulating automotive emissions in the early 1970s. In 1972, certification of <u>Ford Motor</u>'s new cars was held up after the Environmental Protection Agency found that the company had violated rules by performing constant maintenance of its test cars, which reduced emissions but did not reflect driving conditions in the real world. <u>Ford</u> walked away with a <u>\$7 million fine</u>.

The next year, the agency fined Volkswagen \$120,000 after finding that the company had installed devices intended specifically to shut down a vehicle's pollution control systems. In 1974, Chrysler had to recall more than 800,000 cars because similar devices were found in the radiators of its cars.

Such gadgets became known as "<u>defeat devices</u>," and they have long been banned by the E.P.A. But their use continued to proliferate, and they became more sophisticated, as illustrated by <u>Volkswagen's admission</u> this week that 11 million diesel cars worldwide were equipped with software used to cheat on emissions tests. The scandal played out on Wednesday with the <u>resignation of the automaker's chief executive</u>, Martin Winterkorn.

Beyond emissions, the industry has long been contemptuous of regulation. Henry Ford II called airbags "<u>a lot of baloney</u>," and executives have bristled at rules requiring higher mileage per gallon. Robert A. Lutz, the former General Motors vice chairman and <u>Chrysler</u> president, often said the rules were like "trying to cure obesity by requiring clothing manufacturers to make smaller sizes."

The universe of automotive scandals has been a broad and often tragic one, including Ford's 1978 recalls of 1.5 million Pintos after evidence emerged that its gas tanks were prone to catch fire during impacts. The Chrysler Corporation was indicted in 1987 on charges of disconnecting the odometers of 60,000 cars used by executives and then selling them as new. The Ford-Firestone scandal that started in the late 1990s was linked to 271 deaths. And more than 23 million cars have been recalled by 11 automakers over airbags made by Takata that could violently rupture in an accident.

Misleading gas mileage claims have disturbed regulators and consumers who find that cars often use more gas than promised on the window sticker. Last year, the Korean automakers Hyundai Motor and Kia Motors <u>paid \$300 million</u> in a settlement with the Justice Department and the E.P.A. for overstating the mileage of 1.2 million vehicles. Ford also <u>cut the mileage rating</u> of one of its hybrid <u>electric vehicles</u> in 2013 after complaints, and the E.P.A. has imposed stiffer fines for overstating mileage claims.

No matter the offense, penalties have often been fleeting. Executives are not jailed; fines are manageable.

In the United States, automakers' lobbying has ensured that the statute giving powers to the National Highway Traffic Safety Administration "has no specific criminal penalty for selling defective or noncompliant vehicles," says Joan Claybrook, a former administrator of the agency and a longtime advocate of auto safety. There are no criminal penalties under laws applying to the E.P.A. for violations of motor vehicle clean air rules, though there is a division of the Justice Department devoted to violations of environmental law.

"I don't see them changing this behavior unless criminal penalties are enacted into law that allow the prosecutor to put the executives in jail," Ms. Claybrook said.

Enforcement outside the United States is rarer, and other major car markets, like Germany and Japan, tend to be protective of their domestic automakers. This year, the South Korean authorities claimed that Audi and Toyota had inflated fuel economy claims on two models — the Audi A6 sedan and the Toyota Prius gas-electric hybrid — by over 10 percent. The two automakers have denied the accusations.

The South Korean government's Ministry of Land, Infrastructure and Transport had already accused G.M.'s Korean subsidiary, GM Korea, of inflating the mileage claims on the <u>Chevrolet Cruze</u>, forcing the automaker to revise its stated mileage last year and to draft a plan to compensate Cruze owners.

Software gives automakers a new advantage. Modern cars can sense collisions and start braking before drivers do and are even on the verge of driving themselves. So perhaps it is no surprise they can also sense when they are in a laboratory and, knowing that, put their best foot forward.

The advent of the computerized car and the use of software to dupe regulators have been years in the making. General Motors paid \$45 million in 1995 and recalled nearly half a million Cadillacs

that were equipped with a chip that shut off emissions control systems while the air-conditioner was being used, to improve the car's performance.

In 1998, the E.P.A. announced a settlement of nearly \$1 billion against long-haul truck engine manufacturers for violations similar to Volkswagen's — using software to optimize the performance of diesel engines during laboratory testing.

Some believe that using software to cheat on laboratory results goes beyond Volkswagen.

While officially stated fuel efficiency and carbon-dioxide emissions figures have steadily improved over the years, real-world tests showed no corresponding improvement, according to the European Federation for Transport and Environment, an advocacy group based in Brussels. In fact, the group's testing found that the average diesel car was producing emissions five times as high as what was permitted. Some vehicles from BMW and Opel emitted 10 times as much pollution on the road as in the lab.

The difference between the lab and real-world results swelled to 40 percent last year, on average, from 8 percent in 2002, the group also found.

"We call it the tip of the iceberg," said Jos Dings, the director of Transport and Environment. "We don't think this will be limited to Volkswagen. If you look at the testing numbers for the other manufacturers, they are just as bad."

He said the group had found gaps in both emissions of pollutants and overall fuel efficiency.

Greg Archer, another official at the group and a former director at Britain's renewable fuels regulator, said, "There is something very suspicious about the way in which these tests are being passed, and it strongly suggests that companies are using defeat devices in the laboratory."

The Alliance of Automobile Manufacturers, which represents the industry, referred questions to Volkswagen and called the matter "a company-specific issue about their products."

In a statement on Tuesday, Volkswagen said it did "not tolerate any kind of violation of laws whatsoever."

"It is and remains the top priority of the Board of Management," the company added, "to win back lost trust and to avert damage to our customers."

Winning back trust could prove difficult, especially while the company is doing damage control. In recent days, Volkswagen has been <u>taking down</u> copies of its pro-diesel ads from YouTube.

Dan Becker, director of the safe climate campaign at the Center for Auto Safety, said that in 2011 he was among a group of environmental lawyers and engineers who traveled to Germany to hear automakers make a pitch for diesel cars. He said that while BMW and Daimler had taken the group's concerns seriously, Volkswagen officials had not.

"They talked down to us," he said of the company. "They would definitely win an Academy Award for most egregious automaker. And this is one of the companies that tried desperately to get Americans to buy diesel. I think they just sank that ship."

Keith Bradsher contributed reporting.

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