

Volkswagen Clean Diesel Cars (B)

The EPA conducts what is known as a 5 cycle test on vehicles. Testing is in a controlled environment, simulating a variety of road conditions. They generate data for the labels seen on new cars, e.g., the MPG (miles per gallon). VW's diesels aced the EPA tests.

1. City test - no heating, ventilation, or air conditioning (HVAC) operation
2. Highway test - no HVAC operation
3. More aggressive/high speed test - no HVAC operation
4. Hot test at 95° F - HVAC set to cool the cabin
5. Cold test at 20° F - HVAC set to specific settings for heat and defrostⁱ

In 2014 West Virginia University's Center for Alternative Fuels Engines and Emissionsⁱⁱ performed its own tests and noticed large differences between emissions when the cars underwent tests or were driven on a road. The researchers approached the EPA and California Air Resources Board (CARB). CARB confirmed that road emissions were up to 40 times the legal limitⁱⁱⁱ. When confronted VW admitted to cheating the tests^{iv}.

VW engineers had, in 2005, conspired to cheat the tests by installing a defeat device. This sophisticated code was almost impossible to detect given the complexity of the vehicle's operations. In effect, the vehicle noticed when it was in a simulated testing environment and ran the engine to lower emissions, sacrificing performance. When the test was over the vehicle increased in performance and emissions rose. Attempts by VW employees over the years to alert superiors to the problems were ignored^v.

The FTC (Federal Trade Commission) charged VW with deceiving customers through its clean diesel campaign^{vi}. Massive recalls were conducted in the US and in Europe where 8.5 million vehicles were taken in^{vii}. VW was estimated to have lost \$29 billion but sales recovered relatively quickly^{viii} and now VW is a leader in electric vehicles^{ix}. Researchers suggested 59 premature deaths might have been caused by this scandal^x.

VW executives were charged with fraud. Martin Winterkorn, the chairman of the board of Volkswagen AG, became a fugitive from US justice^{xi} and is on trial in Germany^{xii}.

Endnotes

- ⁱ EPA, “Fuel Economy and EV Range Testing”, <https://www.epa.gov/greenvehicles/fuel-economy-and-ev-range-testing>, accessed August 8, 2024
- ⁱⁱ West Virginia University, Center for Alternative Fuels Engines and Emissions <https://www.cafee.wvu.edu/>, accessed August 8, 2024
- ⁱⁱⁱ Newsweek, “Why Volkswagen Cheated”, <https://www.newsweek.com/2015/12/25/why-volkswagen-cheated-404891.html>, Dec 15, 2015, Accessed August 8, 2024
- ^{iv} Mike McGlothlin, Driving Life, “The Real Reason VW Got Caught: Behind The Scenes of The Dieselgate Scandal”, <https://www.drivingline.com/articles/the-real-reason-vw-got-caught-behind-the-scenes-of-the-dieselgate-scandal/>, March 5, 2022, accessed August 8, 2024
- ^v Newsweek, “Why Volkswagen Cheated”, <https://www.newsweek.com/2015/12/25/why-volkswagen-cheated-404891.html>, Dec 15, 2015, Accessed August 8, 2024
- ^{vi} FTC, “FTC Charges Volkswagen Deceived Consumers with Its “Clean Diesel” Campaign”, <https://www.ftc.gov/news-events/news/press-releases/2016/03/ftc-charges-volkswagen-deceived-consumers-its-clean-diesel-campaign>, March 29, 2016, Accessed August 8, 2024
- ^{vii} Mark Thompson, CNN Business, <https://money.cnn.com/2015/10/15/news/companies/volkswagen-scandal-recall-germany/index.html>, October, 15, 2015, Accessed August 8, 2024
- ^{viii} Theo Leggett, BBC, “How VW tried to cover up the emissions scandal” <https://www.bbc.com/news/business-44005844>, May 4, 2018, Accessed August 8, 2024
- ^{ix} Georg Kell, Forbes, “From Emissions Cheater To Climate Leader: VW’s Journey From Dieselgate To Embracing E-Mobility”. <https://www.forbes.com/sites/georgkell/2022/12/05/from-emissions-cheater-to-climate-leader-vws-journey-from-dieselgate-to-embracing-e-mobility/>, December 5, 2022, Accessed August 8, 2024
- ^x Adam Vaughan, The Guardian, “VW emissions cheat estimated to cause 59 premature US deaths” <https://www.theguardian.com/environment/2015/oct/29/vw-emissions-estimated-to-cause-59-premature-us-deaths>, October 29, 2015, Accessed August 8, 2024
- ^{xi} David Shepardson, Reuters, “U.S. issues arrest warrant for former VW CEO but unlikely to face charges”, <https://www.reuters.com/article/us-volkswagen-emissions/u-s-issues-arrest-warrant-for-former-volkswagen-ceo-but-unlikely-to-face-charges-idUSKBN1I52M1/>, May 5, 2018, Accessed August 8, 2024
- ^{xii} AP, “Trial of former Volkswagen CEO Winterkorn over diesel scandal set to start in September”, <https://apnews.com/article/germany-volkswagen-diesel-scandal-winterkorn-trial-5eac8ed0b501426a912e3c7524e3874e>, March 15, 2024, Accessed August 8, 2024