



July 6, 2021

## Addressing Catalytic Converter Theft

Thefts of catalytic converters, a key part of the emission control systems of internal combustion vehicles, are on the rise. The devices, which are installed not only on passenger vehicles but also on buses, motorcycles, and commercial trucks, use valuable metals to reduce pollutants emanating from the engine. Replacing a stolen catalytic converter can cost a passenger vehicle owner up to \$3,000. These thefts have generated interest among policymakers in what role the federal government can play in addressing the issue. Some congressional offices are examining how existing federal motor vehicle theft statutes might be amended to address this issue.

### Thefts Are Rising

Press accounts abound about the increase in catalytic converter thefts since the beginning of the COVID-19 pandemic. National crime data collected by the Federal Bureau of Investigation do not specifically track catalytic converter theft, but the National Insurance Crime Bureau (NICB) reports that the number of stolen catalytic converters increased nearly every month in 2020. NICB reports that 2,347 catalytic converters were stolen in December 2020 alone, up from 652 such thefts in January 2020. A total of 14,433 catalytic converters were stolen in 2020, according to NICB data, compared to 3,389 such thefts in 2019. NICB theft data are based on a review of submitted insurance claims, so they likely undercount the actual number of catalytic converter thefts.

---

**What is a catalytic converter?** A catalytic converter is a device used to reduce emissions from a vehicle's exhaust system. It contains a catalyst for chemically converting pollutants in exhaust gases (e.g., carbon monoxide, unburned hydrocarbons, and oxides of nitrogen) into less harmful compounds (e.g., carbon dioxide, water vapor, and nitrogen gas). Precious metals such as palladium, rhodium, and platinum are commonly used as the catalysts. Catalytic converters were first widely introduced in U.S. cars in 1975 to comply with Environmental Protection Agency regulations limiting toxic emissions.

---

Catalytic converters, the sale of which may net thieves \$25 to \$500 depending on the type and model of vehicle they were attached to, have become targets for theft for several reasons. During the pandemic, many cars and fleet vehicles remained parked in the same spot for extended periods since people were not driving as much due to pandemic restrictions. These vehicles might be attractive targets for thieves because people were not paying attention to them and because the value of the precious metals they contain has risen sharply. Rhodium, platinum, and palladium are by-products from mining nickel and copper; they are

sourced largely from mines in South Africa and Russia, but also from Zimbabwe, Canada, and the United States. With the COVID-19 pandemic disrupting supply chains even while demand has been strengthened by stricter car emission rules around the world, including in China and the European Union, prices for these three metals doubled between March 2020 and June 2021. Platinum now sells for \$1,100 per ounce; palladium more than \$2,500 per ounce, and rhodium more than \$23,000 per ounce. Catalytic converters in a typical passenger vehicle may contain a total of about 2/10ths of an ounce of these three metals, while those in larger vehicles and trucks may have up to an ounce.

Catalytic converters are relatively easy for criminals to steal because they are accessible from the underside of a vehicle and can be sawed off with no specialized equipment (**Figure 1**). Converters can be removed from a vehicle in as little as 90 seconds. Accounts indicate that thieves are stealing catalytic converters from unattended cars rather than stealing cars and stripping them for parts in another location. Thieves sell stolen catalytic converters to scrap yards that in turn sell them to recyclers who strip them of their precious metals.

**Figure 1. Catalytic Converter**



**Source:** KY3 Staff, "CATALYTIC CONVERTERS: Springfield [MO] Police Department releases list of vehicles most targeted," April 15, 2021, <https://www.ky3.com/2021/04/15/catalytic-converters-springfield-police-department-releases-list-of-vehicles-most-targeted/>.

Some vehicle owners are having vehicle identification or license plate numbers etched into their catalytic converters with the idea that this could deter theft or aid investigations by making them easily identifiable or traceable. Others are installing anti-theft devices that make it harder for someone to cut off a catalytic converter.

### Federal Experience with Curbing Motor Vehicle and Car Parts Theft

Federal laws to deter vehicle and vehicle parts thefts were enacted in 1984 and again in 1992 to address rising theft of

motor vehicles that were taken to illicit body shops, often called “chop shops,” for disassembly. The parts—mainly bumpers, hoods, fenders and similar large metal parts—were then sold either directly or through a salvage yard. These laws simplified the tracing and recovery of parts from stolen vehicles and established a national information system that enables states to access automobile titling information.

In implementing these laws, the National Highway Traffic Safety Administration (NHTSA) issued a Federal Motor Vehicle Theft Standard, which requires manufacturers to apply or stamp a car’s unique Vehicle Identification Number (VIN) on the engine, transmission, and a dozen other major vehicle parts so law enforcement agencies can better identify vehicles from which the parts were stolen. However, the standard does not require automakers to stamp identification numbers on catalytic converters.

NHTSA permits manufacturers to install immobilizer technology that has prevented many vehicle thefts: when a vehicle’s smart key or transponder is not used, the engine will not run and the vehicle cannot be “hot wired.” By installing immobilizers, manufacturers can obtain an exemption from parts labeling. A 2016 rulemaking by NHTSA added four performance standards that automakers must meet to establish the effectiveness of their anti-theft devices. (Some recent cybersecurity research has demonstrated that it is possible to breach a vehicle’s encryption and bypass the immobilizer.)

Federal law enforcement agencies can investigate vehicle or vehicle part theft under several federal criminal statutes:

- It is illegal to transport a stolen motor vehicle in interstate commerce under 18 U.S.C. §2312.
- It is illegal to receive, possess, conceal, store, barter, sell, or dispose of a stolen car that has crossed state lines under 18 U.S.C. §2313.
- It is illegal to buy, receive, possess, or obtain control of a car part, with the intent to sell or otherwise dispose of it, if the person knows that the identification number was removed, obliterated, tampered with, or altered under 18 U.S.C. §2321.
- It is illegal to operate, own, maintain, or control a chop shop or to conduct operations in a chop shop under 18 U.S.C. §2322.

Investigating car and car part theft does not appear to be a priority for federal law enforcement agencies. According to data from Syracuse University’s TRACFed database, from FY2011 to FY2020 159 vehicle theft cases were referred for federal prosecution in which Section 2312 was the lead charge (meaning it was the sole charge or the charge in a multicount indictment that carried the longest sentence), 45 cases in which Section 2313 was the lead charge, 21 cases in which Section 2321 was the lead charge, and 23 cases in which Section 2322 was the lead charge.

## State and Federal Efforts to Address Catalytic Converter Theft

Existing federal statutes, like those enacted in the past to combat theft of major vehicle parts such as fenders and hoods, would most likely not allow federal law enforcement agencies to investigate offenses in which thieves steal only a catalytic converter and not the entire car in order to strip it for parts at another location. Catalytic converters are removed when vehicles are parked, so immobilizer devices used to deter theft of other parts are ineffective in deterring converter theft. Amending existing statutes to add catalytic converters to the list of vehicle parts that must bear vehicle identification numbers might also be ineffective, since stolen converters are rarely sold for installation on other vehicles. The value is in the metals inside the converter canister, not the canister itself, so labeling would be ineffective once the metals were detached from the canister.

Identifying stolen vehicle parts has been facilitated by the National Motor Vehicle Title Information System, established by federal law in 1992 (P.L. 102-519) to keep stolen vehicles from being resold. Administered by the American Association of Motor Vehicle Administrators, it requires regular reporting by scrap recyclers and salvage yards. Harnessing the cooperation of these businesses could lead to a decline in catalytic converter thefts if additional documentation were to be required before converters are purchased.

Scrap recyclers are a key link in the metals supply chain. The International Association of Chiefs of Police (IACP) has recognized the role of the scrap recycling industry in curbing the theft of metals. The IACP has promoted the Institute of Scrap Recycling Industries’ online portal theft alert system and database, which has assisted in identification of suspects. In addition, the IACP has encouraged all law enforcement agencies to use the scrap recyclers’ metal theft alert system, <http://www.ScrapTheftAlert.com>. The IACP has also recently established a working group to recommend ways to address converter theft.

All states have laws regarding the sale of scrap metal, but they vary in terms of documentation that is required for sales, retention of and access to transaction records, and payments by scrap yards to sellers. California has some of the most stringent standards regarding the sale of catalytic converters to scrap recyclers. In California, scrap recyclers who purchase catalytic converters are required to keep records of each seller’s name, driver’s license number, and license plate, and a description of the catalytic converters sold. Recyclers are required to retain records of sales for two years and to furnish them to law enforcement upon request. Sellers can be paid only by check that is either mailed to the address on the seller’s identification or collected by the seller three days after the sale. Thus far, CRS has not located evidence about the effectiveness of California’s standards in reducing converter theft.

---

**Bill Canis**, Specialist in Industrial Organization and Business

**Nathan James**, Analyst in Crime Policy

---

## Disclaimer

This document was prepared by the Congressional Research Service (CRS). CRS serves as nonpartisan shared staff to congressional committees and Members of Congress. It operates solely at the behest of and under the direction of Congress. Information in a CRS Report should not be relied upon for purposes other than public understanding of information that has been provided by CRS to Members of Congress in connection with CRS's institutional role. CRS Reports, as a work of the United States Government, are not subject to copyright protection in the United States. Any CRS Report may be reproduced and distributed in its entirety without permission from CRS. However, as a CRS Report may include copyrighted images or material from a third party, you may need to obtain the permission of the copyright holder if you wish to copy or otherwise use copyrighted material.