

# Research Report

## **Jake Brake Restrictions**

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#### Issue

Has Connecticut enacted or considered any laws restricting the use of "Jake Brakes"? What laws have other jurisdictions enacted related to Jake Brake use? This report updates OLR Report 2004-R-0741.

# Summary

"Jake Brake" is a registered trademark of Jacobs Vehicle Systems, Inc. (Jacobs) that refers to all of Jacobs' brake retarding products, which are supplemental braking systems used on heavy trucks and buses. However, the term is often colloquially used to refer to engine compression release brakes generally. These brakes can be loud, particularly when unmuffled, and consequently, citizens have sought to restrict their use in populated areas.

Connecticut law specifically requires that vehicles with engine compression release brakes be equipped with working mufflers. State and federal law also generally (1) restrict vehicle noise emissions and (2) prohibit tampering with or removing exhaust systems. The legislature has also considered three proposals since 2010 to allow municipalities or the Department of Transportation (DOT) to further restrict engine compression release brake use, but the proposals were not voted out of committee.

Brake retarder use restrictions in other jurisdictions appear to be primarily imposed at the local level, but we identified several states with laws requiring mufflers for brake retarders. Additionally, we found one (Delaware) that bans their use and some that address further restriction by localities.

#### **Jake Brakes**

"Jake Brake" is a registered trademark of Jacobs Vehicle Systems, Inc. (Jacobs). The term is often used to refer to engine compression release brakes generally, but it actually refers to all of Jacobs' brake retarding products. A brake retarder is a supplemental brake used on large motor vehicles that slows the vehicle but is not designed to stop it completely. Such devices are common on long-haul trucks and buses.

According to the National Highway Traffic Safety Administration (NHTSA), brake retarder designs include compression release, exhaust, electrical, and mechanical systems. These engine brakes are often activated when the accelerator pedal is released, but a driver may also activate it with a separate control or by applying the brake pedal. The device works by changing the action of the exhaust valves, allowing air to be compressed out of the engine pistons, which slows the vehicle. However, it also makes a distinctive staccato sound, which can be loud.

#### Connecticut

### Existing Law

Connecticut law requires that trucks, tractors, and truck tractors that have engine compression brakes also have a muffler in good working condition for the devices. Violators face a fine of up to \$500, in addition to any fine that may be imposed for violating the state's vehicle noise limit law (CGS § 14-80h). This law was initially passed in 2005 (PA 05-218, § 24). According to the Office of Fiscal Analysis, there have been five tickets issued for this specific violation since the law passed (all of them in FY 06). Four of the tickets were dismissed, and one resulted in a fine and surcharge total of \$146.

In addition to this specific restriction, there are general laws on vehicle exhaust systems and noise emission. Federal and state noise limit laws prohibit the total noise made by a vehicle from exceeding specified noise limits and require that vehicles meet these standards when they are manufactured and when they are sold (49 C.F.R. § 325.7, 40 C.F.R. § 205.52 et seq., CGS § 14-80a). Federal and state law generally prohibit removing or making inoperative any part of the originally installed emissions control system (42 U.S.C.A. § 7522(a)(3); CGS § 14-164c).

# $Proposed\ Legislation$

We found three legislative proposals since 2010 that address restrictions on engine brakes, summarized in Table 1. All of the proposed bills received a public hearing (testimony is summarized below), but none of them were voted out of the Transportation Committee.

Table 1: Compression Release Engine Brake Legislation Since 2010

Bill Number	Summary	Last Action
<u>Proposed</u>	Authorizes municipalities to ban compression release engine	Public hearing
<u>HB 5271</u>	brake use and enforce the ban through signs	
(2011)		
Proposed	Authorizes DOT to place "Do Not Engine Brake" signs on certain	Public hearing
<u>HB 5940</u>	downhill stretches that are near densely populated	
(2015)	neighborhoods where trucks have routinely used these brakes	
Proposed	Authorizes municipalities to ban compression release engine	Public hearing
<u>HB 5951</u>	brake use and enforce the ban through signs	
(2015)		

*Public Hearing Testimony*. Testifying in favor of these proposals were affected residents, the legislators proposing the bills, and the Connecticut Conference of Municipalities (specifically on those granting municipal authority). All those testifying in favor expressed concern about controlling noise pollution, and some residents testified to the effects the noise has had on their property.

Testifying in opposition to these proposals were the Motor Transportation Association of Connecticut, which represents the trucking industry, the Connecticut Farm Bureau Association, Jacobs Vehicle Systems, and DOT. These opponents emphasized the safety benefits of engine compression brakes on steep inclines. They also noted that the loud noise that prompts complaints is caused by improper or nonexistent muffling systems, not the brake system itself, and driving without proper mufflers is already illegal.

# Regulation in Other Jurisdictions

# Local Regulation

Use of engine compression brakes and other brake retarders appears to be primarily regulated at the local level. According to Jacobs, because federal and state regulations on exhaust systems and noise limits are not always aggressively enforced, local communities have responded by adopting ordinances prohibiting the use of these kinds of brakes. For example, Greenwich, New Jersey and Hudson, NY prohibit the act of engine braking at all times, except when the driver reasonably believes that using the brakes is necessary to avoid or mitigate an accident (Greenwich Municipal Code § 660-2, Hudson Municipal Code § 305-4.1), and Holyoke, MA prohibits engine brake use throughout the city (Holyoke Municipal Code § 86-217). As described below, however, some states restrict municipalities' authority to enact these prohibitions.

## State Regulation

We found laws related to brake retarder use in several states. They fell into three categories: (1) muffler requirements, (2) bans, and (3) local regulation restrictions.

Muffler Required. The most common state-level regulation we identified is a specific muffler requirement for vehicles equipped with engine brakes or other brake retarders, like Connecticut has. We found laws similar to Connecticut's in Colorado (Colo. Rev. Stat. § 42-4-225), Indiana (Ind. Code § 9-21-8-44.5) Maryland (MD Code, Transportation, § 22-611), Montana (Mont. Code Ann. § 61-9-321), Nevada (Nev. Rev. Stat. § 484D.285), Oregon (Or. Rev. Stat. § 811.492), and Washington (Wash. Rev. Code § 46.37.395). Additionally, Ohio has a similar requirement in state regulations (Ohio Admin. Code § 5537-3-06).

Engine Brake Bans. We found only one state-level brake retarder ban. Delaware law prohibits drivers from using brakes that are attached to, or an integral part of, the vehicle's engine or exhaust system unless (1) there is an emergency situation or (2) the vehicle is an emergency vehicle (e.g., fire truck or ambulance) (Del. Code tit. 21, § 4303 (c)).

Local Regulation Restrictions. We identified some states with laws concerning local brake retarder restrictions. For example, Pennsylvania prohibits local authorities from banning brake retarder use unless doing so is approved by the state Department of Transportation (67 Pa. Code § 179.10(20)). Montana specifically prohibits restricting commercial motor vehicle operators' use of engine compression brakes if the vehicle has a proper muffler (Mont. Code Ann. § 61-9-321). Washington, on the other hand, specifies that its law prohibiting unmuffled engine brake use does not limit local jurisdictions from implementing ordinances that are more restrictive than state law (Wash. Rev. Code § 46.37.395).

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