Automatic emergency braking is not great at preventing crashes at normal speeds

Automatic emergency braking (AEB) is pretty good at preventing low-speed rear-end crashes but kind of sucks when vehicles are traveling at more average speeds, according to new research from the American Automobile Association (AAA).

Starting September 2022, all new cars sold in the US are required to come standard with AEB, which uses forward-facing cameras and other sensors to automatically apply the brakes when a crash is imminent. The Insurance Institute for Highway Safety estimates that AEB may help prevent 28,000 crashes and 12,000 injuries by 2025.

Using four common vehicles, AAA wanted to put AEB to the test to see how it's progressed since first rolling out to production vehicles nearly 20 years ago. What they found was not that great.

"Automatic Emergency Braking does well at tackling the limited task it was designed to do," said Greg Brannon, director of AAA's automotive engineering and industry relations, in a statement. "Unfortunately, that task was drawn up years ago, and regulator's slow-speed crash standards haven't evolved."

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The group selected four vehicles for testing, all of which came equipped with driver-assist features that include AEB: 2022 Chevrolet Equinox LT; 2022 Ford Explorer XLT; 2022 Honda

CR-V Touring; and 2022 Toyota RAV4 LE.

AEB has proven itself useful over the years at reducing low-speed rear-end crashes, but AAA wanted to see how well it performs in two more common – and more deadly – crash scenarios: T-bones and left turns in front of oncoming vehicles. From 2016 to 2020, these two types of crashes accounted for nearly 40 percent of total fatalities in crashes involving two passenger vehicles in which the striking vehicle did not lose traction or leave the roadway before the collision.

The results were pretty dispiriting. In both the T-bones and left turns in front of an oncoming vehicle tests, AEB failed to prevent 100 percent of crashes staged by AAA. The system also failed to alert the driver and slow the vehicle's speed.

In rear-end collision testing, AEB performed a little better – as long as the speed was kept low. At 30mph, the system prevented 17 out of 20 crashes, or 85 percent. For the test runs that resulted in a crash, the impact speed was reduced by 86 percent. But at 40mph, AEB only prevented six out of 20 rear-end collisions, or 30 percent. For test runs that resulted in a crash, the impact speed was reduced by 62 percent.

This isn't the first time that AAA has highlighted the shortcoming of automatic braking and other driver-assist features. A 2019 study by the group found that AEB was pretty terrible at preventing cars from running over dummy pedestrians at speeds of 20mph.

These studies will no doubt resonate with automakers that have made eliminating traffic crashes and fatalities a major goal. Meanwhile, regulators are pressuring the auto industry to do more to prevent reckless driving.

https://www.theverge.com/2022/9/29/23377376/automatic-emergency-braking-average-speed-study-aaa