

AUTOMOTIVE

Mercedes-Benz test dummies sport streetwear for best-in-class safety showcase

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Mercedes-Benz upholds its reputation as a pioneer of vehicular safety with its continued innovation. Image credit: Mercedes-Benz

By MARYBETH CONNAUGHTON

German automaker Mercedes-Benz has launched its "Safety for Everyone" campaign, which acknowledges the protection and performance its drivers will continue to enjoy, thanks to its many rigorous safety measures.

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Fundamental to the brand's protocol is its patented Electronic Stability Program (ESP), which has become a standard of safety across all vehicle classes. In fact, since November 2011, it has become a legal requirement for all new European passenger car registrations.

Taking Every Measure

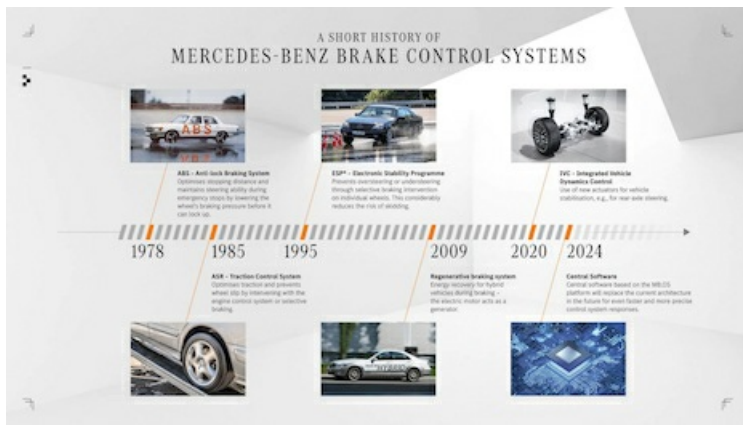
A system of swift and targeted braking interventions on individual wheels, ESP detects and corrects potential breakaways from surrounding vehicles, in addition to fulfilling more than 100 other essential safety functions across various car systems.

The feature made its debut in 1995 as part of the S-Class coupe (C140 series). On Oct. 21, 1997, "Teknikens Varld," a leading Swedish automotive magazine performed an "elk test" on what was then the new A-Class model. This test, required in Scandinavia, gauges a car's ability to safely and successfully avoid an elk should one wander into the road.

The A-Class failed this test when it grandly flipped over, moving the brand to install ESP in all A-class models the following year. It even went so far as to recall the 18,000 already delivered, and retrofit them with the system at no cost to owners.

Since 1999, all **Mercedes-Benz** vehicles are outfitted with ESP technology. The automaker is credited with pioneering today's driving assistance systems.

In the intervening years, the brand has implemented several other notable safety measures.



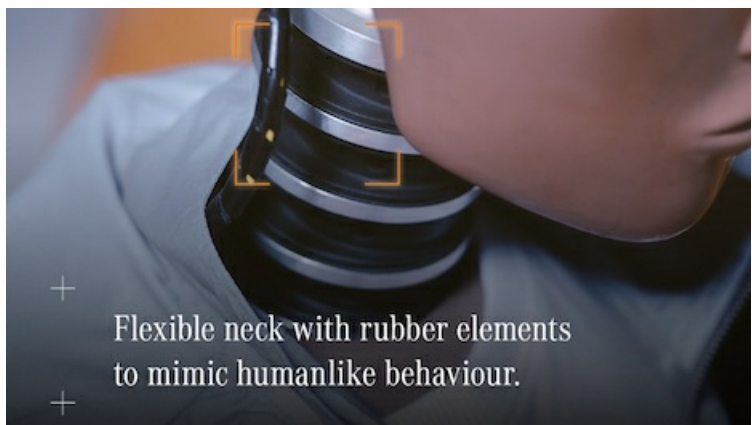
Since its watershed performance during a safety test, the brand has considered its passengers' safety from every angle. Image credit: Mercedes-Benz

The brand introduced its holistic four-phase "Pre-Safe" system, in which the car's active elements support passive measures to lessen the outcome of an accident, in 2002. This system itself has evolved over the years, incorporating new features to match ongoing needs.

One such measure was the integration of 2005's "Brake Assist Plus" – this has since become Active Brake Assist – which allows for the automatic closing of side windows and the inflation of support cushions in anticipation of a crash.

In 2016, Pre-Safe Impulse Side was introduced, which pushes front-end passengers inward when their respective side of the vehicle faces impact.

The Pre-Safe Sound feature, also rolled out in 2016, goes so far as to emit a whooshing sound from the car's speakers in the event of a crash. This "pink noise" triggers a reflex in the inner ear, which allows it to protect itself from the damaging sound of an auto accident.



The H3 50 crash test dummy, the longest-running model, mimics the average male's bodily response to vehicular trauma. Image credit: Mercedes-Benz

A regenerative braking system, introduced in 2010, provides energy recovery for the maker's hybrid vehicles. When braking, the motor switches to generator operation, and the wheels hand over kinetic energy to the generator.

In 2020, the TwoBox system went into production, which combines the ESP with an electromechanical brake booster, which particularly benefits electric cars. This shortens the braking distance in an emergency.

That most venerated of the average male crash test dummies, the H3 50 is used to test the safety restraint systems in frontal crash testing.

The road ahead
Looking forward to 2024, Mercedes-Benz has plans to install a central software platform to replace its current mechanical framework. This will allow for quicker and more accurate vehicle responses.

Considering the brand's status as one of this year's most-sold vehicles (see story), the move could work to create a safer road reality across the board (see story).

Given the grim statistics put out by the World Health Organization – between 20 and 50 million people globally suffer serious road injuries, and another 1.3 million die in road accidents – Mercedes-Benz has vowed to help.

In support of "Vision Zero," a nonprofit campaign and strategy to eliminate serious road injuries and fatalities, it is working toward the ultimate goal of accident-free travel. More specifically, this would mean eliminating road deaths by 2050.

En route to this destination, by 2030, the organization hopes to halve the number of deaths and injuries that occurred in 2020.

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