



The Real Science of Pet Safety
Life Saving Principals For Crash Tested Dog Crates



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MIM Construction AB has been designing and manufacturing automotive travel and safety products since 1986. We have extensive hands-on experience and vast knowledge of automotive crash safety testing. In 2004, we developed a crash tested automobile dog crate, Variocage, which has been stringently tested for frontal, rear-end and rollover accidents. This testing includes the use of actual automotive crash test vehicles, as well as crash test dummies. The cage has a proven track record of safety in both Europe and America in real world accidents. Variocage is engineered with everyone's safety in mind – both people and pets.

MIM Construction AB believes there should be regulations for traveling with pets and standardized testing for assessing the safety of pet travel products. It is critical, however, that these regulations and standards incorporate all aspects of crash testing and work together with vehicle safety features. This is the ONLY way to help people travel safely with their pets.

While we appreciate all efforts to raise awareness about traveling safely with pets, it is essential that people understand all aspects of travel safety. Incomplete or inaccurate information about travel safety and crash dynamics can be dangerous and counterproductive. How one travels with pets can mean the difference between life and death for people and pets in an accident, so providing accurate information and sound recommendations is of paramount importance.

The following are vital facts one must keep in mind when traveling with a dog crate in a vehicle.

1. Rear seats are an integral part of the safety system in an automobile designed to protect human occupants in the event of a collision from objects stored in the cargo space.
2. Heavy cargo, including dog crates, should always be secured in the cargo area up against the rear seat. This is the standard safety recommendation by automobile manufacturers and automotive safety agencies to reduce the risk of injury or death from cargo impacts in an accident.
3. Placing heavy cargo up against the rear seat will limit the momentum cargo will gain should it move during regular travel or in an accident.
4. While cargo hooks help keep items in place during travel, they have load limits. The forces generated in an accident can often exceed the cargo hooks' load capacity, causing them to break and release the cargo. This reinforces the need for items, such as dog crates, to be in the cargo area directly behind the rear seat.

5. Solid items placed in the cargo area will disrupt a vehicle's crumple zone, which is designed to reduce the impact felt in the passenger compartment by slowing down and dispersing the crash energy away from the passengers. Solid items, such as rigid dog crates, will push the energy of the crash forward into the passenger compartment, thus increasing the risk of injury to both people and pets.
6. In rear-end collisions, the most common type of collision, solid items become battering rams against the rear seat, significantly increasing the risk of whiplash and spinal injury. Depending on the forces generated, these items can penetrate or completely break the rear seat, putting passengers at great risk of injury or death.
7. Solid items, including dog crates that cannot absorb or withstand the forces generated in an accident, can break apart, releasing potentially dangerous shrapnel inside the vehicle. A broken dog crate can injure the dog and cause it to be thrown within or out of the vehicle.
8. Dog crates must be designed to protect both pets AND people in the event of an accident.
9. Dog crates must be tested in as close to "real world" scenarios as possible, in the same manner in which automobiles are tested. This includes frontal and rear-end collisions, as well as rollover accidents. These tests must use actual automotive safety equipment utilized in current production vehicles, including cargo hooks and rear seats.
10. Dog crates must be tested with crash test dummies to ensure that they will not increase the risk of injury to passengers in the event of an accident, especially rear-end collisions.
11. Dog crates must work with a vehicle's safety features, including the crumple zone, to minimize the risk of injury to passengers.
12. Dog crates must be strong enough, yet flexible enough, to withstand the forces generated in an accident and remain intact to keep the pet secure until they can be released safely.
13. Dog crates must remain intact after an accident with a fully functioning door, so that the dog can be removed quickly and easily.
14. Dog crates must also have an emergency escape hatch, so that in the event the vehicle's cargo door cannot be opened, the dog can still be released quickly and easily.
15. The SPCT (Safe Pet Crate Test) in Sweden, formulated in 2007, uses government automotive safety standards to test dog crates for the ability to protect dogs and people in the event of an accident. SPCT requires testing for frontal, rear-end and rollover scenarios.
16. SPCT utilizes crash test dummies for rear crash testing to assess a crates impact on rear seat passengers in order to ensure it does not increase the risk of injury for human occupants.
17. The Variocage complies with all aspects of the SPCT method.

For further information and/or questions please feel free to contact us:

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