

Collision Reconstruction • Vehicle Forensics



JENSEN HUGHES

Advancing the Science of Safety

JENSEN HUGHES is a global leader in specialty engineering and consulting services with seven offices across Canada, and over 1,200 engineers, scientists, and consultants worldwide offering extensive expertise across a wide range of technical and scientific disciplines.

As experts in Collision Reconstruction, we understand the insurance and litigation environment and are able to interpret the engineering factors at play in a vehicle collision. We can determine how a vehicle moved prior to, during, and after an incident, as well as understand how a component failure would affect a vehicle's performance. This allows us to discern and analyze the factors that result in a collision, and then communicate the findings clearly and concisely.

Our team has investigated thousands of vehicle collisions and have been qualified to give expert opinions in criminal and civil courts across the country.

Leading Edge Technology

JENSEN HUGHES professionals use leading edge technology to collect and analyze information from a collision site or from an involved vehicle, including digital data stored on the vehicle electronics. This analysis can involve full 3D simulation or animation, or may only require simple calculations based on basic engineering principles. Our experience ensures that we only apply the tools that are needed, and not apply technology simply for the sake of using it. Our clients are provided a budget and time frame for every project, and we ensure that these results are delivered.

If a situation requires analysis beyond collision reconstruction, our team will involve other JENSEN HUGHES experts such as biomechanical, materials, and civil engineers to provide a better understanding of how other factors influenced the collision or how the collision influenced the involved people.



COLLISION RECONSTRUCTION INVOLVING

- Passenger Motor Vehicles
- Commercial Vehicles
- Motorcycles and Scooters
- Pedestrians
- Bicycles and E-Bikes
- Recreational Vehicles
- Farm Equipment
- Trains

SERVICES

- Reconstruction of Pre-Impact/Post-Impact Vehicle Motion
- Assessment Vehicle Impact Speed and Collision Related Motion
- Collision Avoidance Potential Analysis
- Reconstruction of Multi-Vehicle Collisions
- Sightline Assessments
- Collection and Analysis of Airbag Module "Black Box" Data
- Collection and Analysis of Infotainment System Data
- Collision Analysis for Injury Assessments
- Restraint Inspection and Use Assessments
- Vehicle Component Failure Analysis
- Simulation of Vehicle Motion
- Low Speed Collision Severity Assessments
- Vehicle Theft and Stage Collision (SIU) Investigation
- Light Bulb Usage Assessments
- 3D Modelling and Simulation
- Animation of Collision Events
- Photogrammetric Analysis of Destroyed Evidence
- Point Cloud Generation from Photographs
- Tire Failure Analysis
- Assessment of Roadway and Maintenance Issues on Collisions





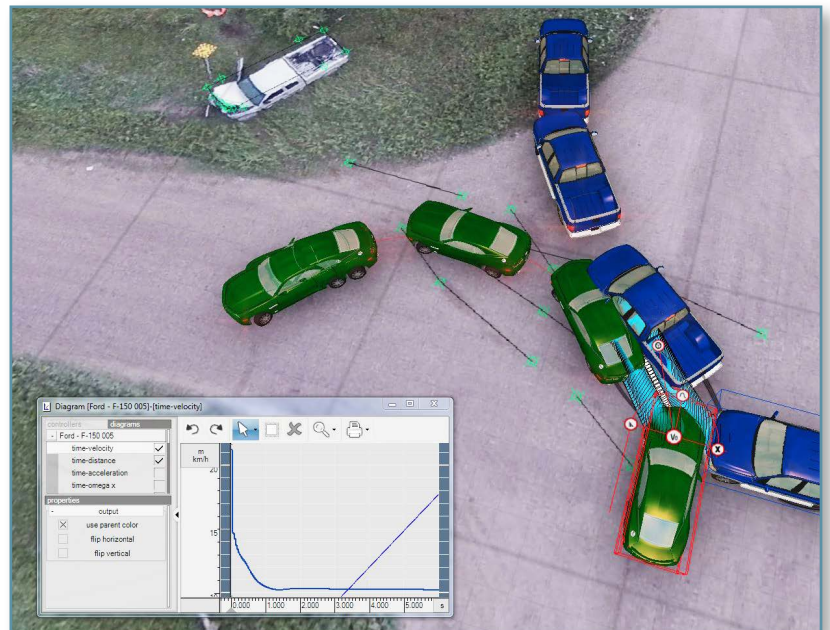
Injury Biomechanics

Our Injury Biomechanics experts provide answers to questions on injury causation arising from personal injury, premises liability and product liability claims. During the various stages of an accident, the subject individual can sustain significant, and sometimes fatal injuries. Our biomechanical engineering analysis determines the mechanism of injuries sustained by the individual, and determines if the forces and accelerations of a given collision could have caused these injuries.

Digital Information

The introduction of airbag modules, infotainment systems and more recently driver assist technologies for autonomous vehicles, has resulted in an explosion of digital data that can be obtained from a vehicle following a crash. JENSEN HUGHES is able to retrieve information from the airbag module “black box”, as well as the Infotainment and Telematics modules.

This type of information can provide key details about how a collision occurred, but our team can also interpret the information, knowing the limitations of the systems that collected it, and provide a complete overview of how this information fits into the collision event.



If you would like more information about how we can help you, please contact one of our seven offices and ask to speak with a collision reconstruction engineer.

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