

MILLER ENGINEERING, INC.

EXPERTISE AREA:

- * Accident Investigation
- * Accident Reconstruction
- * Airbag Crash Data Retrieval
- * Semi & Auto Crashes
- * Driver Visibility
- * Wheel Loss
- * Three Point Climbing System for Effective Egress & Ingress
- * Accelerator & Brake Pedal Failures

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TECHNICAL BULLETIN: Auto/Truck Accident Reconstruction & Analysis

Accident Reconstruction & Analysis Services

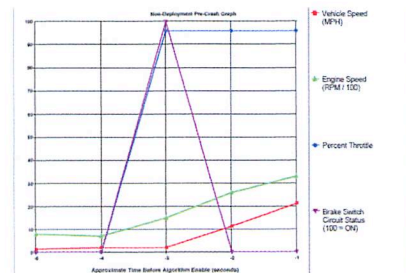
Miller Engineering has the experience and capability to provide the following services in accident reconstruction cases:

- * Accident Site Inspections, Surveys & Scene Reconstructions
- * Vehicle & Equipment Inspections
- * Failure Analysis
- * Full Litigation Services
- * Human/Machine Interaction Analysis
- * Human Performance Evaluation
- * Product Liability Assessment
- * Auto Safety Standards Assessment
- * Vehicle Components Testing
- * Vehicle Dynamics & Impact Severity Determinations
- * Vehicular Fire Investigation
- * Visibility Studies
- * ECM/Black Box Data Extraction & Interpretation
- * Accident Reconstruction & Animations
- * Insurance Investigations
- * Accident Sequence Reconstruction Visuals
- * Speed, Time, & Distance Calculations
- * Crush Damage Analysis
- * Pedestrian/Bicycle Accident Investigation
- * Expert Testimony



System Status At Non-Deployment

OFF Warning Lamp Status	OFF
Driver Seat Belt Circuit Status	UNBUCKLED
Passenger Seat Position Switch Circuit Status	REARWARD
Inertia System At Non-Deployment	100%
Inertia System At Investigation	100%
Maximum SEM Recorded Velocity Change (m/sec)	30.75
Algorithm Enable to Maximum SEM Recorded Velocity Change (m/sec)	65
Crash Record Locked	No
Event Recording Complete	Yes
Multiple Events Associated With This Record	No
One Or More Associated Events Not Recorded	No



Seconds Before AE	Vehicle Speed (MPH)	Engine Speed (RPM)	Percent Throttle	Brake Switch Circuit Status
-5	1	768	0	OFF
-4	2	768	0	OFF
-3	2	1536	0%	ON
-2	11	2674	25	OFF
-1	11	3324	50	OFF

Example CDR Non-Deployment Report for Sudden Acceleration Accident

Wheel Loss

Lug nut torque requirements are critical to keeping tires firmly attached to the vehicle. Miller Engineering has worked on numerous cases involving wheel loss for autos, commercial trucks, RVs, and towed vehicles.

The graph shown above illustrates the torque-time relationship when using a torque stick along with an impact wrench, rather than a torque wrench to install or replace a tire. Proper torque maintenance is important in preventing wheel loss.

The vehicle shown to the right was involved in a fatal accident resulting from a wheel loss.

