Case 429: Narrative

Case Vehicle (A): 2002 Chevrolet	Vehicle (B): 1997 Chevrolet
Type: Venture, 4-door minivan	Type: S10, 4x2, 2-door pickup
Driver: 79-year-old male	Driver: 18-year-old male
CDC: 12-FYEW-3	CDC: 99-0000-0

SITUATION

1 2 3 4 It was daylight, the sky was clear, and the asphalt road surface was dry and free of defects as case vehicle (A) was traveling west at an unknown speed in the westbound lane of a two-lane east-west road with a posted speed limit of 55 mph (89 kph). 5 6 7 Vehicle (B) was traveling south at an unknown speed in the southbound lane of a two-lane north-south road and had stopped at a stop sign at a T-type intersection with the east-west roadway. 8 The driver of vehicle (B) did not see case vehicle (A) and accelerated into the westbound lane in front of case vehicle (A), while turning left to travel east on the east-west road. The driver of case vehicle (A) braked but was unable to stop and the left front of case vehicle (A) struck the left side of vehicle (B). Both vehicles were towed from the scene due to damage.

The police accident report (PAR) indicates A-level injuries for the driver of case vehicle (A) and C-level injuries for the driver of vehicle (B). The driver of case vehicle (A) was transported to a local hospital and was admitted for treatment. The driver of vehicle (B) declined treatment at the scene.

GENERAL VEHICLE DAMAGE AND ESTIMATED CRASH SEVERITIES

<u>9 10</u> Direct damage from the offset-frontal impact was to the left front of case vehicle (A). Damage began at the left-front bumper corner and extended 77-cm across the front resulting in 51% vehicle overlap (%VOL). <u>11</u> The maximum rearward crush at bumper level was 47 cm and it occurred at the left-front bumper corner.

Vehicle (B) was not available for inspection.

Using the missing-vehicle algorithm of the WinSMASH crash-reconstruction program and 11 12 13 14 15 crush profiles for case vehicle (A), the following impact severities were estimated:

		Estimated Velocity Change - kph (mph)		
Vehicle	Variable	Total	Longitudinal	Latitudinal
Case Vehicle (A)	delta V	52 (32)	-51 (-32)	-9 (-6)
Case Vehicle (B)	delta V	65 (41)	-11 (-7)	64 (40)

DESCRIPTION OF DAMAGE TO CASE VEHICLE (A)

Exterior

16 In the front, the left section of the bumper was crushed rearward, 17 the bumper cover was cracked, there were scrape marks and paint transfer marks on the left corner, and the bumper cover was completely separated from its attachments. The left corner of the bumper support structure was crushed rearward into the radiator and it was pulled forward at the right corner. The left headlight assembly was crushed rearward and completely damaged but there was no damage to the right headlight assembly. 18 The left front of the hood was crushed rearward and down and the back of the hood was displaced up but it did not contact the windshield. The hood latch was damaged but not jammed, 19 the left hood hinge was severely bent, and 20 the right hinge was slightly bent. 21 22 The windshield was cracked and punctured with 22 cm of bond separation in the lower-left corner due to contact by the cowl, which was displaced rearward.

23 24 On the left side, the fender and left-front wheel were crushed rearward, resulting in a 9-cm decrease in the left wheelbase, but the wheel was not damaged. 25 26 The upper section of the left Apillar was displaced rearward, the roof siderail was bent up, and the roof was buckled. 24 The lower section of the left A-pillar and the driver door were also displaced rearward, the driver door was jammed shut and buckled, and the 27 left-rear door was displaced rearward but it was operational. There was no other damage to the left side of the vehicle.

28 There was no damage to the rear of case vehicle (A). 29 30 31 On the right side there was no damage and there was no significant change in the right wheelbase.

Interior

32 This vehicle was equipped with steering-wheel and dash-mounted frontal-impact airbags and both deployed during the frontal impact. The front-row seats were also equipped with seatback-mounted side-impact airbags, which did not deploy. In the driver area, there were no contact marks on, or damage to, 33 the steering-wheel airbag or 34 the airbag-module cover. 34 35 36 There was no damage to the steering-wheel spokes, hub, or rim, and there was no rotation of the steering column. The A-pillar was displaced rearward and 37 there were diagonal cracks emanating from the base of the windshield due to cowl deformation, which resulted in 22 cm of bond separation at the lower-left corner. 38 39 There was a small crack in the knee-bolster cover under the steering wheel and the cover was slightly displaced rearward. 40 The brake release pedal was pushed forward and the toepan was displaced rearward. 41 42 43 44 45 There was no other damage in the driver area.

In the center-front area, <u>46</u> there were diagonal cracks in the windshield due to contact by the cowl but <u>45 46 47</u> there was no other damage. <u>47</u> The center seat console of this vehicle had been replaced with an electronic module with a flat plastic cover that contains the control and power modules for an aftermarket mechanism that allows the right-front passenger seat to rotate and move out of the vehicle to facilitate ingress and egress for people with limited mobility.

In the right-front seating area, <u>48</u> there was no damage to the dash-mounted airbag or <u>49</u> to the airbag module cover. <u>50</u> There were diagonal cracks in the windshield due to cowl deformation but <u>45 51 52</u> there was no other damage in the right-front seating area. <u>53 54 55 56 57 58</u> The right-front seat was mounted to the vehicle by an electrically powered mechanism that allows the seat to rotate and move out of the vehicle to facilitate ingress and egress, but there was no damage to the seat or to the mechanism.

59 60 In the second row, the right-side seatback was folded down and jammed but 59 60 61 62 63 64 there was no other damage in the rear seating area of the vehicle.

The following intrusions were noted and measured:

Location	Component	Distance (cm)	Direction
	A-pillar		to rear
left front	instrument panel	7	to rear
	toepan	9	to rear

OCCUPANT KINEMATICS AND INJURIES

65 The 173-cm, 104-kg (5-ft 8-in, 230-lb) 79-year-old male driver was using the three-point-belt with pretensioner, and the pretensioner and steering-wheel airbag deployed. There were webbing loading marks 66 on the D-ring and 67 68 on the continuous loop, confirming belt use at the time of the crash. During the offset-frontal impact, the driver moved forward and slightly to the right relative to the interior of the vehicle, into the three-point belt and the steering-wheel airbag. He sustained a contusion to the superior aspect of the scalp on the left side of the head from contact with an unknown source, and he sustained cervical strain due to impact forces and/or due to the head contact that caused the contusion. He sustained four unspecified rib fractures, probably from loading by the shoulder belt, and he sustained contusions across the abdomen due to loading by the lap belt. He sustained an unspecified left pelvic fracture, possibly from knee contact with the knee bolster.

The following table and <u>69</u> attached drawing summarize the injuries sustained by the belted driver of case vehicle (A).

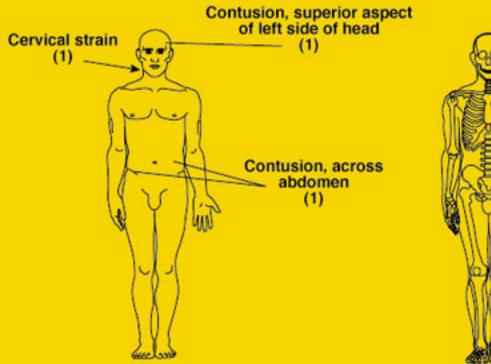
Occupant: Driver	Age: 79 y	years	Gende	er: Male	
Restraints: 3-point belt with pretensioner; Stature: 173 cr steering-wheel airbag		173 cm (5 ft,	8 Mass:	104 kg (2	230 lb)
Injury Description		A.I.S.	In	jury Sour	ce
_			Definite	Probable	Possible
Fracture, unspecified left pelvis		2			Knee bolster
Fractures, four unspecified ribs		3		Shoulder belt	
Cervical strain		1	_	_	Impact forces; head contact with unknown source
Contusion, superior aspect on the left side of the l	nead	1	Unknown		
Contusions, across the abdomen		1	Lap belt		
Maximum A.I.S. Level		3			
Injury Severity Score		14			

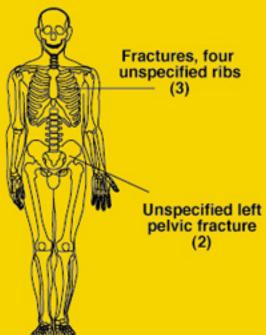
CASE NO.: 429 OCCUPANT: (Driver) 79-year-old male

CASE VEHICLE: 2002 Chevrolet STATURE: 173 cm (5 ft, 8 in) MASS: 104 kg (230 lb)

TYPE: Venture, 4-door minivan RESTRAINTS: 3-point belt with pretensioner; steering-wheel airbag

SEVERITY: MAIS - 3 ISS - 4





Case No.: 429

Case Vehicle (A): 2002 Chevrolet Type: Venture, 4-door minivan

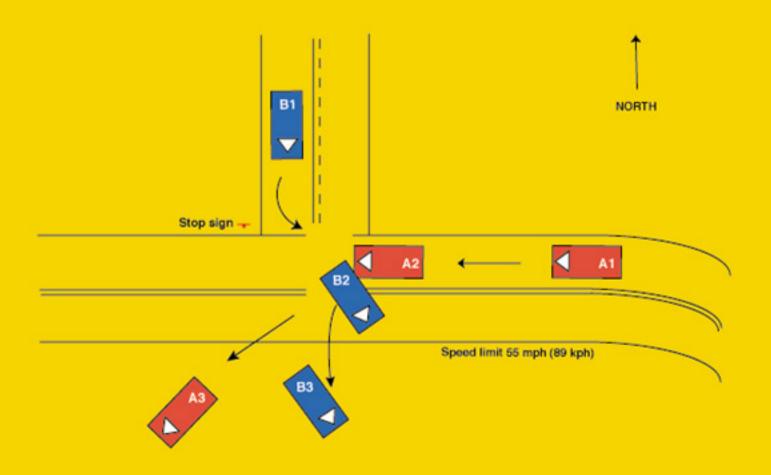
Driver: 79-year-old male

Vehicle (B): 1997 Chevrolet S10, 4x2, 2-door pickup

Light Conditions: Daylight

Weather: Clear Road Surface: Dry

Road Construction: Asphalt



Vehicle Report

Click on Section Name to jump directly to that Section —

- General Conditions
- Other Vehicle
- Case Vehicle General
- Case Vehicle Damage Description
- Crash Severity
- Case Vehicle Tires & Rims
- Case Vehicle Fuel, Tank, Fire
- Case Vehicle Exterior
- Case Vehicle Steering Column/Rim
- Case Vehicle Intrusion
- Case Vehicle Airbag(s)
- Case Vehicle Interior
- Case Vehicle Seats

General Conditions

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Variable Number and Name	Code Value	Code Description	Other Options
V206 — Urban/Rural Area	2	Rural	more
V207 — Limited Access Highway	0	No	<u>more</u>
V208 — Road Total Lanes	2	2 lanes	<u>more</u>
V209 — Intersecting Road Total Lanes	2	2 lanes	more
V210 — Road Surface Type	1	Asphalt	more
V211 — Road Defects	0	No	<u>more</u>
V212 — Construction Zone	0	No	more
V213 — Road Alignment Vertical Plane	1	Level	more
V214 — Road Alignment Horizontal Plane	1	Straight	<u>more</u>
V215 — Surface Covering	10	Dry	<u>more</u>
V216 — Visibility Limitation	0	None	more
V217 — Visibility Obstruction	0	None	<u>more</u>
V218 — Speed Limit	6	86-90 km/h 55 mph	<u>more</u>
V219 — Precipitation Type	0	None	more
V220 — Precipitation Rate	8	Not applicable	<u>more</u>
V221 — Temperature	9	Unknown	<u>more</u>

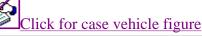
V222 — Crosswind	9	Unknown	more
V223 — Light Conditions	1	Daylight	more
V224 — Mechanical Malfunction Mention	0	No	more
V225 — Case Vehicle and Object	0	No	more
V226 — Case Vehicle Rollover	0	No	more
V227 — Case Vehicle Ran Off Roadway	0	No	<u>more</u>
V228 — Moving Case Vehicle/Contacted Moving Vehicle	1	Yes	more
V229 — Case Vehicle/Contacted Stopped Vehicle	0	No	more
V230 — Stopped Case Vehicle/Contactd Vehicle	0	No	more
V231 — Total Vehicles Hit By Case Vehicle	1	1 vehicle	more
V232 — Any Fire in Crash	0	No	more
V233 — Max Police Severity-PAR	3	A - Incapacitating Injury	<u>more</u>
V234 — Driver Alcohol Involvement	0	Had not been drinking	<u>more</u>
V235 — Driver Alcohol BAC	80	Not tested	more
V236 — Driver Impairment Mention	0	No	more
V237 — Driven/Towed From Scene	2	Towed Due to Damage	<u>more</u>

Other Vehicle Back to Top

Variable Number and Name	Code Value	Code Description	Other Options
V301 — Other Vehicle VIN	1GCCS1445V81	_	
V302 — Other Vehicle Manufacturer/Body Code	11312	_	_
V303 — Other Vehicle Manufacturer	113	Chevrolet	<u>more</u>
V304 — Other Vehicle Body Code	12	Pickup truck (no canopy or shell)	<u>more</u>
V305 — Other Vehicle Make/Model	2920	S-10/T-10 Pickup	<u>more</u>
V306 — Other Vehicle Model Year	1997	_	_
V307 — Other Vehicle Mass	001475 kg	_	_
V308 — Other Vehicle Number	0	No separate report	<u>more</u>
V309 — Other Vehicle Number of Occupants	01	_	_
V310 — Other Vehicle Traveling Speed	999	Unknown	more

V311 — Highest Police Injury Severity	1	C - Possible Injury	more
V312 — Other Vehicle Type	12	Pickup truck	<u>more</u>
V313 — Other Vehicle Wheelbase (cm)	275 cm	_	_
V314 — Average Track Width	139 cm	_	
V315 — Overall Length	479 cm	_	
V316 — Overall Width (OAW)	173 cm	_	
V317 — Front Overhang (FOH)	090 cm	_	
V318 — Rear Overhang (ROH)	115 cm	_	
V319 — Undeformed End Width (UEW)	148 cm	_	_
V320 — Engine Displacement	2.2 <i>l</i>	_	
V321 — Engine: Number of Cylinders	04	_	_
V322 — Direct Damage Length (DDL)	999	Unknown	<u>more</u>
V323 — Front-End Overlap % (FEO)	99	Missing or Not applicable	<u>more</u>
V324 — Vehicle Overlap % (VOL)	99	Missing or Not applicable	<u>more</u>

Case Vehicle General



Variable Number and Name	Code Value	Code Description	Other Options
V401 — VIN	1GCCS1445V81	_	
V402 — Manufacturer/Body Code	11311	_	
V403 — Vehicle Manufacturer	113	Chevrolet	<u>more</u>
V404 — Vehicle Body Code	11	_	
V405 — Make/Model Code	2940	_	
V406 — Model Year	2002	_	
V407 — Vehicle Mass	001761 kg	_	
V408 — Odometer Reading	888888	_	
V409 — Number of Occupants	01	_	
V410 — Traveling Speed	999	Unknown	<u>more</u>
V411 — Body Type	24	Van (small)	<u>more</u>
V412 — Stolen Vehicle	8	Not currently collected	<u>more</u>
V413 — Body Structure	2	Unitized	<u>more</u>
V414 — Transmission Type	1	Automatic	<u>more</u>
	3		

V415 — Transmission Lever Location		Column	more
V416 — Steering	1	Power	more
V417 — Brakes	1	Power	more
V418 — Brake Type	2	Disc - front wheels	more
V419 — Brake Anti-lock Device	2	Four-wheel	more
V420 — Air Conditioning in Vehicle	8	Not currently collected	<u>more</u>
V421 — Drive Type	2	Front wheel	<u>more</u>
V422 — Dual Rear Wheels	0	No	<u>more</u>
V423 — Original Restraint System Type	3	Airbag	more
V424 — Equipped With Roll Bar	0	No	more
V425 — Roof Type	1	Solid	more
V426 — Wheelbase	305 cm	<u> </u>	
V427 — Anti-lacerative Glass	0	None	more
V428 — Average Track Width	159 cm	<u> </u>	
V429 — Overall Length	510 cm	_	
V430 — Overall Width (OAW)	183 cm	<u> </u>	
V431 — Front Overhang	094 cm	_	
V432 — Rear Overhang	111 cm	_	_
V433 — Undeformed End Width (UEW)	150 cm	_	_
V434 — Engine Displacement	3.4 <i>l</i>	_	
V435 — Engine: Number of Cylinders	06	_	_
V436 — Direct Damage Length (DDL)	077 cm		
V437 — Front End Overlap % (FEO)	51		
V438 — Vehicle Overlap % (VOL)	51	_	

Case Vehicle Damage Description

Variable Number and Name	Code Value	Code Description	Other Options
V501 — Maximum Crush - Front	047 cm	_	
V502 — Maximum Crush - Right Side	000 cm	No crush (or less than 1 cm.)	<u>more</u>
V503 — Maximum Crush - Rear	000 cm	No crush (or less than 1 cm.)	<u>more</u>
V504 — Maximum Crush - Left Side	000 cm	No crush (or less than 1 cm.)	<u>more</u>

V505 — Maximum Crush - Roof	000 cm	No crush (or less than 1 cm.)	more
V506 — Maximum Crush - Other	000 cm	No crush (or less than 1 cm.)	more
V507 — Are Events In Chronological Order	1	Yes	more
V508 — Event 1 Impact Location	1	On Roadway	<u>more</u>
V509 — Event 1 Impact Configuration	13	FRONT of case veh - SIDE of contacted Vehicle	more
V510 — Event 1 Object/Vehicle Contacted	12	Pickup truck	<u>more</u>
V511 — Event 2 Impact Location	8	No 2nd event	<u>more</u>
V512 — Event 2 Impact Configuration	88	No 2nd event	more
V513 — Event 2 Object/Vehicle Contacted	00	No object/vehicle contacted	<u>more</u>
V514 — Event 3 Impact Location	8	No 3rd event	<u>more</u>
V515 — Event 3 Impact Configuration	88	No 3rd event	<u>more</u>
V516 — Event 3 Object/Vehicle Contacted	00	No object/vehicle contacted	<u>more</u>
V517 — Event 4 Impact Location	8	No 4th event	more
V518 — Event 4 Impact Configuration	88	No 4th event	more
V519 — Event 4 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V520 — Event 5 Impact Location	8	No 5th event	<u>more</u>
V521 — Event 5 Impact Configuration	88	No 5th event	more
V522 — Event 5 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V523 — Event 6 Impact Location	8	No 6th event	<u>more</u>
V524 — Event 6 Impact Configuration	88	No 6th event	more
V525 — Event 6 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V526 — Event 7 Impact On Road	8	No 7th event	more
V527 — Event 7 Impact Configuration	88	No 7th event	more
V528 — Event 7 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V529 — Primary CDC Case Vehicle -event Number	1	Event 1	more
V530 — Primary CDC Case Vehicle	999		

- impact speed		Unknown	<u>more</u>
V531 — Primary CDC Case Vehicle - Estimated By	1	Investigator	more
V532 — Primary CDC Case Vehicle -crush	047	_	_
V533 — Primary CDC Case Vehicle -clock #1	12	12 o'clock	more
V534 — Primary CDC Case Vehicle letter 1 #1	06	F - Front	more
V535 — Primary CDC Case Vehicle letter 2 #1	25	Y - Side or end $(F + P \text{ or } L + C)$	more
V536 — Primary CDC Case Vehicle letter 3 #1	05	E - Everything below belt line	more
V537 — Primary CDC Case Vehicle letter 4 #1	23	W - Wide impact area	<u>more</u>
V538 — Primary CDC Case Vehicle Extent #1	03	Extent 3	more
V539 — Primary CDC Case Vehicle -CDC #1	12FYEW3	_	
V541 — Primary CDC Case Vehicle letter 1 #2	00	Missing Data/Not applicable	<u>more</u>
V542 — Primary CDC Case Vehicle letter 2 #2	00	Missing Data/Not applicable	more
V543 — Primary CDC Case Vehicle letter 3 #2	00	Missing Data/Not applicable	more
V544 — Primary CDC Case Vehicle letter 4 #2	00	Missing Data/Not applicable	more
V545 — Primary CDC Case Vehicle Extent #2	00	Missing Data/Not applicable	more
V546 — Primary CDC Case Vehicle -CDC #2	9800000	_	_
V547 — Primary CDC Contacted Vehicle - Impact Speed	999	Unknown	more
V548 — Primary CDC Contacted Vehicle - Estimated By	1	Investigator	more
V549 — Primary CDC Contacted Vehicle -crush	999	Unknown	more
V550 — Primary CDC Contacted Vehicle -clock #1	99	Unknown or no damage	more
V551 — Primary CDC Contacted Vehicle letter 1 #1	00	Missing Data/Not applicable	more
V552 — Primary CDC Contacted Vehicle letter 2 #1	00	Missing Data/Not applicable	more

V553 — Primary CDC Contacted Vehicle letter 3 #1	00	Missing Data/Not applicable	<u>more</u>
V554 — Primary CDC Contacted Vehicle letter 4 #1	00	Missing Data/Not applicable	more
V555 — Primary CDC Contacted Vehicle Extent #1	00	Missing Data/Not applicable	more
V556 — Primary CDC Contacted Vehicle -CDC #1	9900000	_	_
V558 — Primary CDC Contacted Vehicle letter 1 #2	00	Missing Data/Not applicable	<u>more</u>
V559 — Primary CDC Contacted Vehicle letter 2 #2	00	Missing Data/Not applicable	more
V560 — Primary CDC Contacted Vehicle letter 3 #2	00	Missing Data/Not applicable	more
V561 — Primary CDC Contacted Vehicle letter 4 #2	00	Missing Data/Not applicable	more
V562 — Primary CDC Contacted Vehicle Extent #2	00	Missing Data/Not applicable	more
V563 — Primary CDC Contacted Vehicle -CDC #2	9800000	_	_
V564 — Secondary CDC Case Vehicle - Event No	8	Not applicable	more
V565 — Secondary CDC Case Vehicle - Impact Speed	998	Not Applicable	more
V566 — Secondary CDC Case Vehicle - Estimated By	8	Not applicable (no vehicle/no impact)	more
V567 — Secondary CDC Case Vehicle -crush	998	Not Applicable	more
V568 — Secondary CDC Case Vehicle -clock #1	98	Not Applicable	more
V569 — Secondary CDC Case Vehicle letter 1 #1	00	Missing Data/Not applicable	more
V570 — Secondary CDC Case Vehicle letter 2 #1	00	Missing Data/Not applicable	more
V571 — Secondary CDC Case Vehicle letter 3 #1	00	Missing Data/Not applicable	more
V572 — Secondary CDC Case Vehicle letter 4 #1	00	Missing Data/Not applicable	more
V573 — Secondary CDC Case Vehicle Extent #1	00	Missing Data/Not applicable	more
V574 — Secondary CDC Case Vehicle -CDC #1	9800000	_	_
V576 — Secondary CDC Case	00	Missing Data/Not applicable	more

Vehicle letter 1 #2			
V577 — Secondary CDC Case Vehicle letter 2 #2	00	Missing Data/Not applicable	more
V578 — Secondary CDC Case Vehicle letter 3 #2	00	Missing Data/Not applicable	more
V579 — Secondary CDC Case Vehicle letter 4 #2	00	Missing Data/Not applicable	more
V580 — Secondary CDC Case Vehicle Extent #2	00	Missing Data/Not applicable	more
V581 — Secondary CDC Case Vehicle -CDC #2	9800000	_	
V582 — Secondary CDC Contacted Vehicle - Impact Speed	998	Not Applicable	more
V583 — Secondary CDC Contacted Vehicle - Estimated By	8	Not applicable (no vehicle/no impact)	more
V584 — Secondary CDC Contacted Vehicle -crush	998	Not Applicable	more
V585 — Secondary CDC Contacted Vehicle -clock #1	98	Not Applicable	more
V586 — Secondary CDC Contacted Vehicle letter 1 #1	00	Missing Data/Not applicable	more
V587 — Secondary CDC Contacted Vehicle letter 2 #1	00	Missing Data/Not applicable	more
V588 — Secondary CDC Contacted Vehicle letter 3 #1	00	Missing Data/Not applicable	more
V589 — Secondary CDC Contacted Vehicle letter 4 #1	00	Missing Data/Not applicable	more
V590 — Secondary CDC Contacted Vehicle Extent #1	00	Missing Data/Not applicable	more
V591 — Secondary CDC Contacted Vehicle -CDC #1	9800000	_	_
V593 — Secondary CDC Contacted Vehicle letter 1 #2	00	Missing Data/Not applicable	more
V594 — Secondary CDC Contacted Vehicle letter 2 #2	0.0	Missing Data/Not applicable	more
V595 — Secondary CDC Contacted Vehicle letter 3 #2	00	Missing Data/Not applicable	more
V596 — Secondary CDC Contacted Vehicle letter 4 #2	00	Missing Data/Not applicable	more
V597 — Secondary CDC Contacted Vehicle Extent #2	00	Missing Data/Not applicable	more
V598 — Secondary CDC Contacted Vehicle -CDC #2	9800000		

Crash Severity Back to Top

Variable Number and Name	Code Value	Code Description	Other Options
V601 — Case Vehicle Primary Impact Number	1	_	_
V602 — Primary Impact Total Delta-V	052 kph	_	_
V603 — Primary Case Vehicle Reconstructed Longitudinal Delta-V	-051 kph	_	_
V604 — Primary Case Vehicle Reconstructed Lateral Delta- V	-009 kph		_
V605 — Primary Case Vehicle Reconstructed Crush Energy	0132 kJ	_	_
V606 — Primary Impact Case Vehicle - reconstuction	22	Reconstructed, moderate confidence level	more
V607 — Primary Case Vehicle Reconstruction Mode	2	CDC & detailed damage	more
V608 — Primary Contacted Vehicle Reconstructed	065 kph	_	_

Total Delta-V			
V609 — Primary Contacted Vehicle Reconstructed Longitudinal Delta-V	-011 kph		
V610 — Primary Contacted Vehicle Reconstructed Lateral Delta- V	0064 kph	_	
V611 — Primary Contacted Vehicle Reconstructed Crush Energy	0357 kJ		
V612 — Case Vehicle Secondary Impact Number	8	_	_
V613 — Secondary Case Vehicle Reconstructed Total Delta-V	888	N/A	more
V614 — Secondary Case Vehicle Reconstructed Longitudinal Delta-V	8888		_
V615 — Secondary Case Vehicle Reconstructed Lateral Delta- V	8888		
V616 — Secondary Case Vehicle Reconstructed Crush Energy	8888	_	_

V617 — Secondary Case Vehicle Reconstruction Note	88		_
V618 — Secondary Case Vehicle Reconstruction Mode	8	Not applicable	<u>more</u>
V619 — Secondary Contacted Vehicle Reconstructed Total Delta-V	888	N/A	<u>more</u>
V620 — Secondary Contacted Vehicle Reconstructed Longitudinal Delta-V	8888		_
V621 — Secondary Contacted Vehicle Reconstructed Lateral Delta- V	8888		_
V622 — Secondary Contacted Vehicle Reconstructed Crush Energy	8888		_
V623 — Case Vehicle Primary Impact Number	1		_
V624 — Primary Case Vehicle Reconstructed Total EBS	052 kph		_
V625 — Primary Case	-051 kph		

Vehicle Reconstructed Longitudinal EBS		_	_
V626 — Primary Case Vehicle Reconstructed Lateral EBS	-009 kph		
V627 — Primary Case Vehicle Reconstructed Crush Energy	0132 kJ	_	_
V628 — Primary Case Vehicle Reconstruction Note		Reconstructed, moderate confidence level	more
V629 — Primary Case Vehicle Reconstruction Mode	2	CDC & detailed damage	<u>more</u>
V630 — Primary Contacted Vehicle Reconstruction Total EBS	065 kph		
V631 — Primary Contacted Vehicle Reconstruction Longitudinal EBS	-011 kph	_	_
V632 — Primary Contacted Vehicle Reconstruction Lateral EBS	0064 kph	_	_
V633 — Primary Contacted Vehicle Reconstruction	0357 kJ	_	_

Crush Energy			
V634 — Case Vehicle Secondary Impact Number	8	Not applicable	more
V635 — Secondary Case Vehicle Reconstruction Total EBS	888	N/A	more
V636 — Secondary Case Vehicle Reconstruction Longitudinal EBS	8888	_	_
V637 — Secondary Case Vehicle Reconstruction Lateral EBS	8888		
V638 — Secondary Case Vehicle Reconstruction Crush Energy	8888	_	_
V639 — Secondary Case Vehicle Reconstruction Note	88	_	_
V640 — Secondary Case Vehicle Reconstruction Mode	8	Not applicable	more
V641 — Secondary Contacted Vehicle Reconstruction Total EBS	888	N/A	more
V642 — Secondary Contacted Vehicle	8888	_	_

Reconstruction Longitudinal EBS			
V643 — Secondary Contacted Vehicle Reconstruction Lateral EBS	8888	_	_
V644 — Secondary Contacted Vehicle Reconstruction Crush Energy	8888	_	_
V645 — Case Vehicle Reconstructed Impact Number	1	_	_
V646 — Case Vehicle Impact 1 Plane	1	Bumper	<u>more</u>
V647 — Case Vehicle Impact 1 Direct Damage Length [DDL]	077 cm		_
V648 — Case Vehicle Impact 1 Max Crush	047 cm	_	_
V649 — Case Vehicle Impact 1 Field-L	113 cm		_
V650 — Case Vehicle Impact 1 C1	047 cm	_	_
V651 — Case Vehicle Impact 1 C2	046 cm		_
V652 — Case Vehicle Impact 1 C3	043 cm	_	
V653 — Case	042 cm		

Vehicle Impact 1 C4			_
V654 — Case	016 cm		
Vehicle		_	_
Impact 1 C5	000 cm	<u> </u>	
V655 — Case Vehicle	000 Cili	No Crush	<u>more</u>
Impact 1 C6		110 Clush	more
V656 — Case	-036 cm		
Vehicle		_	
Impact 1 +/- D			
V657 — Case Vehicle	2		
Reconstructed		_	
Impact			
Number			
V658 — Case	8		
Vehicle Impact 2 Plane		Not applicable	<u>more</u>
V659 — Case	998		
Vehicle	330		
Impact 2		Not applicable	more
Direct		Not applicable	<u>more</u>
Damage			
Length [DDL]	998		
V660 — Case Vehicle	750		
Impact 2 Max		Not applicable	<u>more</u>
Crush			
V661 — Case	998		
Vehicle		Not applicable	<u>more</u>
Impact 2 Field-L			
V662 — Case	998		
Vehicle		Not applicable	<u>more</u>
Impact 2 C1		11	
V663 — Case	998		
Vehicle		Not applicable	<u>more</u>
Impact 2 C2			
V664 — Case	998	Not applicable	****
Vehicle Impact 2 C3		Not applicable	<u>more</u>
V665 — Case	998		
Vehicle Vehicle		Not applicable	<u>more</u>
Impact 2 C4			
V666 — Case	998		

Vehicle Impact 2 C5		Not applicable	<u>more</u>
V667 — Case Vehicle Impact 2 C6	998	Not applicable	more
V668 — Case Vehicle Impact 2 +/- D	9998	_	_
V669 — Other Vehicle Reconstructed Impact Number	1	_	_
V670 — Other Vehicle Impact 1 Plane	9	Unknown	more
V671 — Other Vehicle Impact 1 Direct Damage Length [DDL]	999	Unknown	more
V672 — Other Vehicle Impact 1 Max Crush	999	Unknown	more
V673 — Other Vehicle Impact 1 Field-L	999	Unknown	more
V674 — Other Vehicle Impact 1 C1	999	Unknown	more
V675 — Other Vehicle Impact 1 C2		Unknown	more
V676 — Other Vehicle Impact 1 C3	999	Unknown	more
V677 — Other Vehicle Impact 1 C4	999	Unknown	more
V678 — Other Vehicle Impact 1 C5	999	Unknown	more
V679 — Other	999		

Vehicle		Unknown	more
Impact 1 C6		Chriown	more
V680 — Other Vehicle Impact 1 +/- D	0999 cm	_	_
V681 — Other	2	7	
Vehicle Reconstructed Impact	_		_
Number			
V682 — Other Vehicle Impact 2 Plane	8	Not applicable	more
V683 — Other Vehicle Impact 2 Direct Damage Length [DDL]	998	Not applicable	more
V684 — Other Vehicle Impact 2 Max Crush	998	Not applicable	more
V685 — Other Vehicle Impact 2 Field-L	998	Not applicable	more
V686 — Other Vehicle Impact 2 C1	998	Not applicable	more
V687 — Other Vehicle Impact 2 C2	998	Not applicable	more
V688 — Other Vehicle Impact 2 C3	998	Not applicable	<u>more</u>
V689 — Other Vehicle Impact 2 C4	998	Not applicable	<u>more</u>
V690 — Other Vehicle Impact 2 C5	998	Not applicable	more
V691 — Other Vehicle Impact 2 C6	998	Not applicable	more
V692 — Other	9998		

Vehicle		
Impact 2 +/- D	_	

Case Vehicle Tires & Rims

Back to Top

Variable Number and Name	Code Value	Code Description	Other Options
V701 — Left Front Wheel Damaged	0	No	more
V702 — Right Front Wheel Damaged	0	No	<u>more</u>
V703 — Right Rear Wheel Damaged	0	No	<u>more</u>
V704 — Left Rear Wheel Damaged	0	No	more
V705 — Left Front Tire Tread Type	4	All Weather	<u>more</u>
V706 — Right Front Tire Tread Type	4	All Weather	more
V707 — Right Rear Tire Tread Type	4	All Weather	more
V708 — Left Rear Tire Tread Type	4	All Weather	<u>more</u>
V709 — Left Front Carcass Construction	3	Radial	more
V710 — Right Front Carcass Construction	3	Radial	more
V711 — Right Rear Carcass Construction	3	Radial	more
V712 — Left Rear Carcass Construction	3	Radial	more
V717 — Left Front Tire Size	P215701R15	_	
V718 — Right Front Tire Size	P215701R15	_	_
V719 — Right Rear Tire Size	P215701R15	_	
V720 — Left Rear Tire Size	P215701R15	_	

Case Vehicle Fuel, Tank, Fire

Variable Number and Name	Code Value	Code Description	Other Options
V801 — Propulsive Fuel Type	1	Gasoline	<u>more</u>
V802 — Main Tank Location	322	Within frame/centered laterally -	more

		within vertically	
V803 — Main Filler Cap Location	213	Left of frame laterally - above vertically	more
V804 — Main Tank Material	1	Steel	more
V805 — Aux Tank Type	8	Not applicable (not equipped)	<u>more</u>
V806 — Aux Tank Location	888	Not applicable (not equipped)	more
V807 — Aux Filler Cap Location	888	Not applicable (not equipped)	<u>more</u>
V808 — Aux Tank Material	8	Not applicable	more
V901 — Fuel Leakage From Crash	0	No	more
V1001 — Fire In Or On Case Vehicle	0	No	more

Case Vehicle Exterior

Variable Number and Name	Code Value	Code Description	Other Options
V1101 — Hood Latch Released	0	No	<u>more</u>
V1102 — Hood Latch Damaged	1	Yes	<u>more</u>
V1103 — Hood Latch Jammed	0	No	<u>more</u>
V1104 — Left Hood Hinge Damaged	1	Yes	<u>more</u>
V1105 — Left Hood Hinge Separated	0	No	<u>more</u>
V1106 — Right Hood Hinge Damaged	1	Yes	<u>more</u>
V1107 — Right Hood Hinge Separated	0	No	<u>more</u>
V1108 — Hood Remained On Vehicle	1	Yes	<u>more</u>
V1109 — Rear Hood Edge Elevated	1	Yes	<u>more</u>
V1110 — Edge Contacted Windshield	0	No	<u>more</u>
V1111 — Edge Penetrated Windshield	8	Not applicable	<u>more</u>
V1112 — Hood Latch Location	1	Front of Vehicle	<u>more</u>
V1113 — Eng/Transmissn Mount Separation	0	No	more
V1114 — Steerng Column Flex Coupling	9	Unknown if equipped	more
V1115 — Steerng Column Coupling Damaged	9	Unknown	more
V1116 — Steerng Column Coupling Separated	9	Unknown	more
V1117 — Eng Comp Telescopng Unit	88	Not collected	<u>more</u>
V1118 — Comp Orig/Telescopd Diff	888	Not collected	<u>more</u>
V1119 — Left Side Body Mount	8		

Separation		Not applicable (unitized)	<u>more</u>
V1120 — Upper Left A-pillar Separation	4	No separation, but damaged	more
V1121 — Lower Left A-pillar Separation	4	No separation, but damaged	more
V1122 — Upper Left B-pillar Separation	0	No	more
V1123 — Lower Left B-pillar Separation	0	No	more
V1124 — Upper Left C-pillar Separation	0	No	more
V1125 — Lower Left C-pillar Separation	0	No	more
V1126 — Upper Left D-pillar Separation	0	No	more
V1127 — Lower Left D-pillar Separation	0	No	more
V1128 — Left Front Door Opening Cause	0	Door did not open	more
V1129 — Left Rear Door Opening Cause	0	Door did not open	more
V1130 — Left Front Door Jammed Closed	1	Yes	more
V1131 — Left Rear Door Jammed Closed	0	No	more
V1132 — Rear Door Type	2	One-way tailgate	more
V1133 — Rear Door Opening Cause	0	Door did not open	more
V1134 — Rear Door Jammed Closed	0	No	more
V1135 — Luggage Partition Damagd	8	Not applicable	more
V1136 — Spare Tire Status	8	Not collected	more
V1137 — Trailer Hitch Type	0	No hitch	more
V1138 — Trailer Type	0	No trailer	more
V1139 — Right Side Body Mount Separation	8	Not applicable (unitized)	more
V1140 — Upper Right A-pillar Separation	0	No	more
V1141 — Lower Right A-pillar Separation	0	No	more
V1142 — Upper Right B-pillar Separation	0	No	more
V1143 — Lower Right B-pillar Separation	0	No	more

V1144 — Upper Right C-pillar Separation	0	No	more
V1145 — Lower Right C-pillar Separation	0	No	more
V1146 — Upper Right D-pillar Separation	0	No	<u>more</u>
V1147 — Lower Right D-pillar Separation	0	No	<u>more</u>
V1148 — Right Front Door Opening Cause	00	Door did not open	<u>more</u>
V1149 — Right Rear Door Opening Cause	00	Door did not open	more
V1150 — Right Front Door Jammed Closed	0	No	more
V1151 — Right Rear Door Jammed Closed	0	No	more
V1152 — Van Rear Door Type	4	Track (sliding)-right & left side	<u>more</u>
V1153 — Windshield Cracked	Click for windshield damage figure	Yes	more
V1154 — Windshield Broken	1	Yes	<u>more</u>
V1155 — Windshield Cracked or Broken by Occupant	0	No	more
V1156 — Bond Separation Extent	1	1 - 20%	<u>more</u>
V1157 — Windshield Code	Click for windshield code figure	_	_
V1158 — Did Sun/T Roof Open	8	Not Applicable	more

Case Vehicle Steering Column/Rim

Variable Number and Name	Code Value	Code Description	Other Options
V1201 — Steering Wheel Rim Damage	0	None	more
V1202 — Number of Steering Wheel	2		

Spokes		2 spokes	<u>more</u>
V1203 — Steering Wheel Spoke Damage	0	None	<u>more</u>
V1204 — Column Tilt Feature	3	Middle	<u>more</u>
V1205 — Column Swing-away Feature	0	Not equipped	<u>more</u>
V1206 — Column Telescoping Feature	0	Not equipped	<u>more</u>
V1207 — Wheel Energy Absorb Device	8	Not collected	more
V1208 — Wheel Ea Orig/Damaged Diff	888	Not collected	more
V1209 — Column Energy Absorb Device	88	Not collected	more
V1210 — Column Ea Orig/Comprss Diff	888	Not collected	more
V1211 — Shear Capsule Separation	888	Not collected	<u>more</u>
V1212 — Column Vertical Rotation	0	No apparent rotation	<u>more</u>
V1213 — Column Lateral Rotation	0	No apparent rotation	<u>more</u>
V1214 — Steering Wheel Hub Damage	0	None	more

Case Vehicle Intrusion

Click for intrusion figures

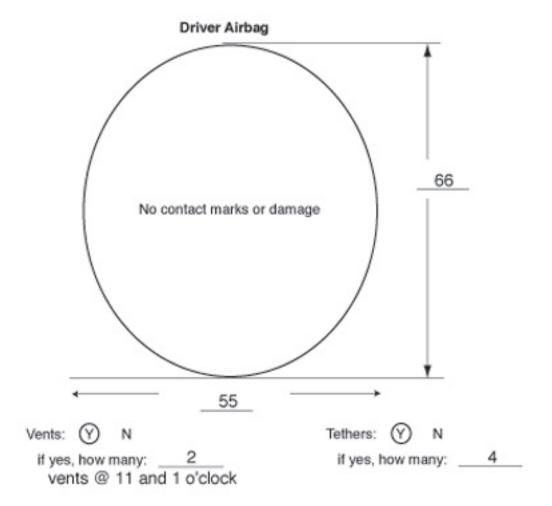
		_	
Variable Number and Name	Code Value	Code Description	Other Options
V1301 — Occupant Compartment Intrusion	1	Yes	more
V1302 — Was Intrusion Catastrophic	0	No	<u>more</u>
V1303 — Intrusion Number 01	01	Intrusion #1	<u>more</u>
V1304 — Intrusion 01 Occupant Space Number	11	First row, Left seat	more
V1305 — Intrusion 01 Intruding Object	08	A-pillar	more
V1306 — Intrusion 01 Assoc Event Number	1	Event #1	more
V1307 — Intrusion 01 Max Intrusion X-axis	03 cm	_	_
V1308 — Intrusion 01 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1309 — Intrusion 01 Max Intrusion	00 cm		

Z-axis		0 cm or No Intrusion	<u>more</u>
V1310 — Intrusion 01 Occupant Number	01	Occupant number 1, contact	more
V1311 — Intrusion 01 Injury Number	00	No injury or no intrusion	more
V1312 — Intrusion 01 Occupant Number	00	No contact or no intrusion	more
V1313 — Intrusion 01 Injury Number	00	No injury or no intrusion	more
V1314 — Intrusion Number 02	02	Intrusion #2	<u>more</u>
V1315 — Intrusion 02 Occupant Space Number	11	First row, Left seat	more
V1316 — Intrusion 02 Intruding Object	01	Instrument panel	more
V1317 — Intrusion 02 Assoc Event Number	1	Event #1	more
V1318 — Intrusion 02 Max Intrusion X-axis	07 cm		
V1319 — Intrusion 02 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1320 — Intrusion 02 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1321 — Intrusion 02 Occupant Number	01	Occupant number 1, contact	more
V1322 — Intrusion 02 Injury Number	00	No injury or no intrusion	more
V1323 — Intrusion 02 Occupant Number	00	No contact or no intrusion	more
V1324 — Intrusion 02 Injury Number	00	No injury or no intrusion	more
V1325 — Intrusion Number 03	03	Intrusion #3	<u>more</u>
V1326 — Intrusion 03 Occupant Space Number	11	First row, Left seat	more
V1327 — Intrusion 03 Intruding Object	03	Toe pan	more
V1328 — Intrusion 03 Assoc Event Number	1	Event #1	more
V1329 — Intrusion 03 Max Intrusion X-axis	09 cm		
V1330 — Intrusion 03 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1331 — Intrusion 03 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1332 — Intrusion 03 Occupant Number	01	Occupant number 1, contact	more
V1333 — Intrusion 03 Injury Number	00	No injury or no intrusion	more

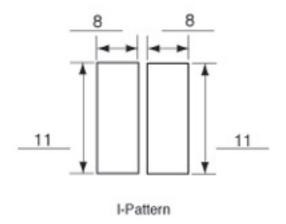
V1334 — Intrusion 03 Occupant Number	00	No contact or no intrusion	more
V1335 — Intrusion 03 Injury Number	00	No injury or no intrusion	<u>more</u>
V1336 — Intrusion Number 04	00	No Intrusion, None	<u>more</u>
V1337 — Intrusion 04 Occupant Space Number	00	No Intrusion, None	more
V1338 — Intrusion 04 Intruding Object	00	No Intrusion, None	more
V1339 — Intrusion 04 Assoc Event Number	0	No Intrusion, None	more
V1340 — Intrusion 04 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<u>more</u>
V1341 — Intrusion 04 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1342 — Intrusion 04 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1343 — Intrusion 04 Occupant Number	00	No contact or no intrusion	more
V1344 — Intrusion 04 Injury Number	00	No injury or no intrusion	<u>more</u>
V1345 — Intrusion 04 Occupant Number	00	No contact or no intrusion	more
V1346 — Intrusion 04 Injury Number	99	Contact, injury unknown or data not collected	more
V1347 — Intrusion Number 05	00	No Intrusion, None	<u>more</u>
V1348 — Intrusion 05 Occupant Space Number	00	No Intrusion, None	more
V1349 — Intrusion 05 Intruding Object	00	No Intrusion, None	more
V1350 — Intrusion 05 Assoc Event Number	0	No Intrusion, None	more
V1351 — Intrusion 05 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1352 — Intrusion 05 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1353 — Intrusion 05 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1354 — Intrusion 05 Occupant Number	00	No contact or no intrusion	more
V1355 — Intrusion 05 Injury Number	00	No injury or no intrusion	<u>more</u>
V1356 — Intrusion 05 Occupant Number	00	No contact or no intrusion	more
V1357 — Intrusion 05 Injury Number	99	Contact, injury unknown or data not collected	more

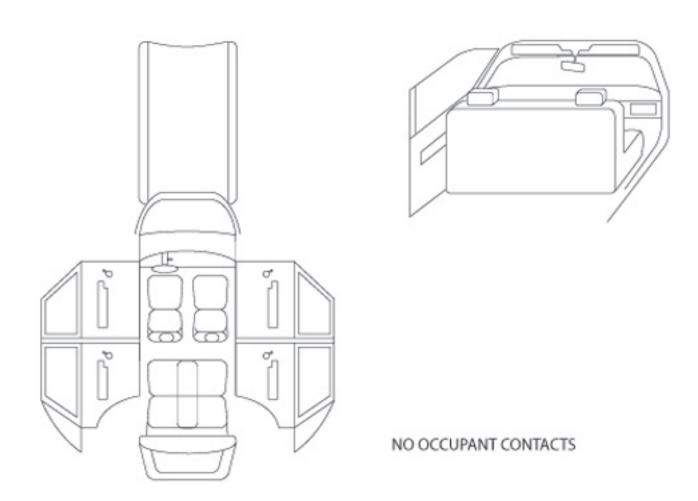
V1358 — Intrusion Number 06	00	No Intrusion, None	more
V1359 — Intrusion 06 Occupant Space Number	00	No Intrusion, None	more
V1360 — Intrusion 06 Intruding Object	00	No Intrusion, None	
V1361 — Intrusion 06 Assoc Event Number	0	No Intrusion, None	more
V1362 — Intrusion 06 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1363 — Intrusion 06 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1364 — Intrusion 06 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1365 — Intrusion 06 Occupant Number	00	No contact or no intrusion	more
V1366 — Intrusion 06 Injury Number	00	No injury or no intrusion	more
V1367 — Intrusion 06 Occupant Number	00	No contact or no intrusion	more
V1368 — Intrusion 06 Injury Number	99	Contact, injury unknown or data not collected	more
V1369 — Intrusion Number 07	00	No Intrusion, None	more
V1370 — Intrusion 07 Occupant Space Number	00	No Intrusion, None	more
V1371 — Intrusion 07 Intruding Object	00	No Intrusion, None	more
V1372 — Intrusion 07 Assoc Event Number	0	No Intrusion, None	more
V1373 — Intrusion 07 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1374 — Intrusion 07 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1375 — Intrusion 07 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1376 — Intrusion 07 Occupant Number	00	No contact or no intrusion	more
V1377 — Intrusion 07 Injury Number	00	No injury or no intrusion	more
V1378 — Intrusion 07 Occupant Number	00	No contact or no intrusion	more
V1379 — Intrusion 07 Injury Number	99	Contact, injury unknown or data not collected	more
V1380 — Intrusion Number 08	00	No Intrusion, None	more
V1381 — Intrusion 08 Occupant Space Number	00	No Intrusion, None	more

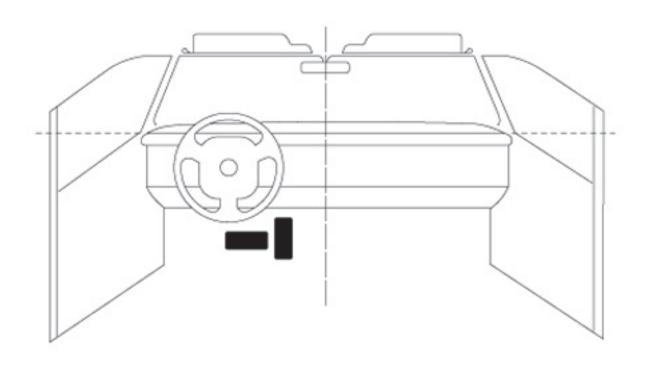
V1382 — Intrusion 08 Intruding Object	00	No Intrusion, None	<u>more</u>
V1383 — Intrusion 08 Assoc Event Number	0	No Intrusion, None	<u>more</u>
V1384 — Intrusion 08 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<u>more</u>
V1385 — Intrusion 08 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<u>more</u>
V1386 — Intrusion 08 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	<u>more</u>
V1387 — Intrusion 08 Occupant Number	00	No contact or no intrusion	more



Driver Airbag Doors







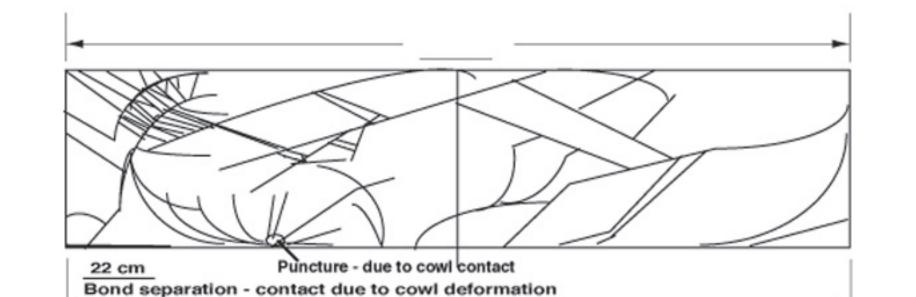
1 = Definitely 2 = Probably 3 = Possible

INTRUSION IT-1

		(All Measurements Are in Centimeters)				Dominant	
Location of Intrusion	Intruded Component	Comparison Value	_	Intruded Value	=	Intrusion	Crush Direction
11	A-pillar	61	_	58	=	3	Rear
11	Instrument panel	76	_	69	=	7	Rear
11	Toepan	64	_	55	=	9	Rear

OCCUPANT CONTACT WORKSHEET - NO OCCUPANT CONTACTS

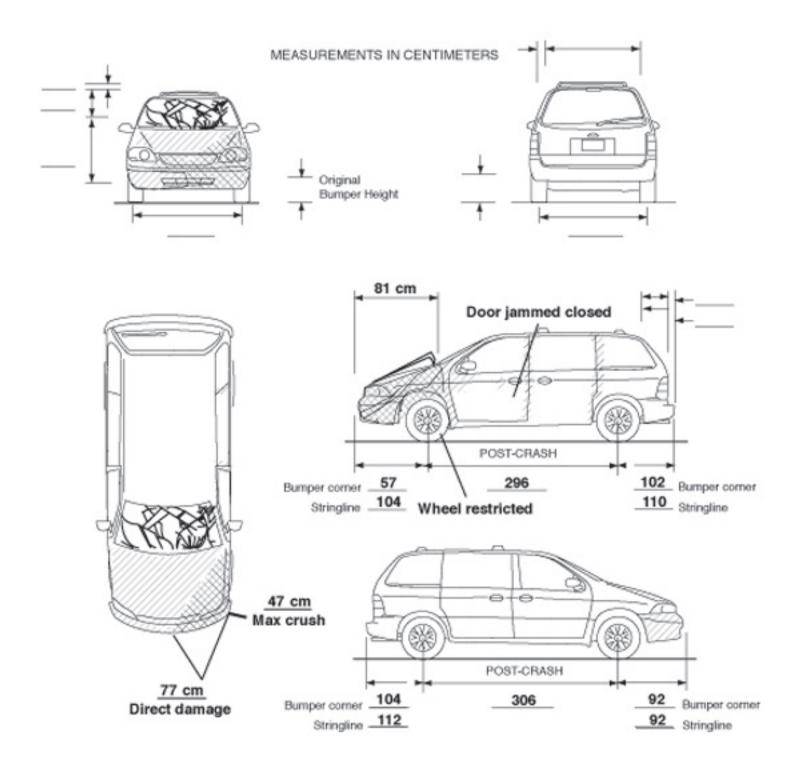
Contact	Interior Component	Occupant No. if	Body Region	Cupporting Dhysical Evidence	Confidence Level of Contact
Contact	Contacted	Known	if Known	Supporting Physical Evidence	Point
Α					
В					
С					
D					
Е					
F					
G					
Н					
I					
J					
K					



WINDSHIELD MARK ON CASE VEHICLE:

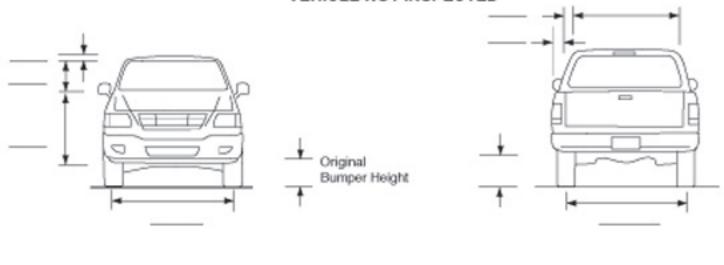
SHADED SOLAR RAY

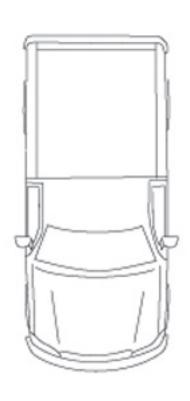
SAFETY FLO-LITE 1 2 2 LAMINATED 4 DOT 18 M405

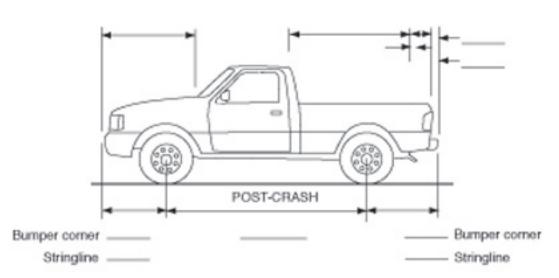


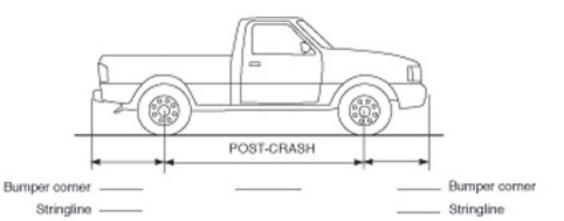
MEASUREMENTS IN CENTIMETERS

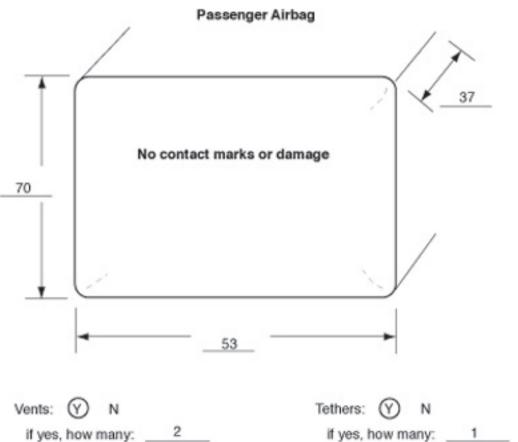
VEHICLE NOT INSPECTED





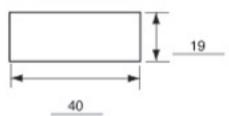






Passenger Airbag Door

Single Door



if yes, how many: ____2___ @ 2 and 10 o'clock

if yes, how many: ___1___





































































































































