

## Case 420 : Narrative

Case Vehicle (A): 2000 Mercury	Vehicle (B): 2002 Volvo	Vehicle (C): 1997 Honda
Type: Grand Marquis LS, 4-door sedan	Type: V70 XC, 4-door station wagon	Type: Civic EX, 4-door sedan
Driver: 29-year-old male	Driver: 46-year-old female	Driver: 32-year-old female
CDC: 12-FYEW-3, 06-RDES-1	CDC: 12-FYEW-3	CDC: 99-0000-0

### SITUATION

[1](#) [2](#) It was near dawn on a clear morning, the asphalt road surface was dry, and the posted speed limit was 45 mph (72 kph). Case vehicle (A) was traveling east at an unknown speed in the inside eastbound lane of a four-lane, two-way, east-west road in an urban area. [3](#) [4](#) Vehicle (B) was traveling west at a driver-estimated speed of 45 mph (72 kph) in the inside westbound lane of the same four-lane road. Vehicle (C) was traveling east in front of case vehicle (A). As case vehicle (A) and vehicle (B) approached each other, the driver of case vehicle (A) began to make a left turn onto an intersecting road and case vehicle (A) entered the westbound lane in front of vehicle (B). The driver of vehicle (B) was not able to take any avoidance actions and the left front of vehicle (B) struck the left front of case vehicle (A). Following the offset-frontal impact, the right side of case vehicle (A) contacted and sideswiped the left side of vehicle (C). All three vehicles were towed from the scene.

The police accident report (PAR) indicates C-level injuries for the driver of case vehicle (A) but he did not seek medical treatment. The PAR indicates B-level injuries for the driver of vehicle (B), who was transported to a local trauma center where she was treated and released. The PAR did not indicate any information for the child passenger of vehicle (B) but an interview revealed that she did not sustain any injuries and was not treated. The PAR indicates O-level injuries for the driver and passenger of vehicle (C) and they did not seek any treatment.

### GENERAL VEHICLE DAMAGE AND ESTIMATED CRASH SEVERITIES

[5](#) Damage to the front of case vehicle (A) was severe. [6](#) Direct damage began at the left corner of the front bumper and extended 84-cm across the front of the vehicle, resulting in a 51-percent vehicle overlap (%VOL). The maximum frontal crush was 87 cm and it occurred at the left-front bumper corner. [7](#) [8](#) Damage from the sideswipe with vehicle (C) was minor. It began at the right-front fender and extended 538-cm along the entire right side of the vehicle, with a maximum crush of 1 cm at the right fender.

[9](#) Damage to the front of vehicle (B) was severe. [10](#) Direct damage began at the left corner of the front bumper and extended 77-cm across the front, resulting in a 50-percent vehicle overlap. The maximum frontal crush was 58 cm and it occurred at the left-front bumper corner. [11](#) The left and center sections of the front bumper and grille were damaged and pushed rearward into the engine compartment, and the front of the hood was crushed up and to the rear. [12](#) The left fender was crushed rearward into the front wheel and the left wheelbase was reduced by 14 cm. [13](#) The right fender was buckled and the right wheelbase was increased by 5 cm.

Vehicle (C) was not inspected.

[14](#) [15](#) [16](#) [17](#) [18](#) [19](#) [20](#) [21](#) [22](#) [23](#) Using the WinSMASH crash-reconstruction program and crush profiles for both vehicles, the following impact severities were estimated for the impact between case vehicle (A) and vehicle (B):

		Estimated Velocity Change - kph (mph)		
Vehicle	Variable	Total	Longitudinal	Latitudinal
Case Vehicle (A)	delta V	46 (29)	-46 (-28)	-8 (-5)
Vehicle (B)	delta V	51 (32)	-50 (-31)	9 (6)

## DESCRIPTION OF DAMAGE TO CASE VEHICLE (A)

### Exterior

[24](#) In the front, the left and center sections of the front bumper were crushed rearward, the right section was deflected forward, and the bumper cover was completely separated from its attachments. [6](#) The left and center sections of the radiator and the radiator supports were crushed rearward into the engine compartment. The left headlight assembly was damaged and the headlamp was shattered. [25](#) The right headlight assembly was dislodged slightly from its attachment but the headlamp was not broken. The front of the hood was crushed rearward and up on the left side and deflected up on the right side, and the hood latch was damaged and jammed. [26](#) [27](#) Both hood hinges were bent but they were not separated. [28](#) The left-rear edge of the hood contacted and cracked the lower-left corner of the windshield, resulting in cracks that radiated up along the left A-pillar. [29](#) There was also a dense pattern of circular cracks in the left section of the windshield from internal contacts. [30](#) The right-rear edge of the hood was elevated but it did not contact the right section of the windshield, which was not cracked. [31](#) The left side of the roof above the driver door was buckled.

[6](#) On the left side, the fender was crushed rearward into the left-front wheel [32](#), the left-front tire was flat, and the wheel was pushed rearward, reducing the left wheelbase by 23 cm. [33](#) The rear section of the left fender was pushed into the lower section of the A-pillar and the forward edge the driver door. The driver door was jammed closed, the lower section of the left A-pillar was damaged, and [34](#) the upper section of the A-pillar was buckled. [35](#) There was no damage to the left B- and C-pillars, the left-rear door was undamaged and operational, and the left-side glazing was intact. [36](#) There was no damage to the left-rear wheel or to the left quarter panel.

[37](#) On the right side, the fender was deformed and shifted to the left. Scratches extended along the right fender, both doors, and the right quarter panel from the sideswipe contact with vehicle (C), [7](#) [8](#) but both doors were operational, the right-side glazing was intact, and there was no damage to the right A-, B- or C-pillars. [38](#) [39](#) There was no damage to the right-side wheels but the right wheelbase was increased by 3 cm.

[40](#) There was no damage to the rear of case vehicle (A).

### Interior

[41](#) This vehicle was equipped with steering-wheel and dash-mounted frontal-impact airbags, which deployed during the offset-frontal impact. [42](#) In the driver seating area, there was no damage to the roof,

to the windshield header, to the sunvisor, or to the upper section of the left A-pillar. [26](#) There were vertical cracks in the lower-left portion of the windshield from external contact and there was a [43](#) dense pattern of circular-shaped cracks in the upper-left portion of the windshield from contact by the driver. [44](#) [45](#) There was no damage to the steering-wheel airbag or airbag flaps but there were bloodstains on the airbag fabric. [46](#) There was no damage to the steering-wheel rim and [47](#) there was no rotation of the steering column. [46](#) There was no damage to the upper or mid portions of the driver instrument panel. [48](#) [49](#) There were scuffmarks on the driver knee bolster to the left and right of the steering column and the [50](#) knee-bolster cover was separated from its left attachment. [51](#) The floor was displaced up and [52](#) the toepan was displaced to the rear. [53](#) There was no damage to the interior panel of the driver door [54](#) but there was a scuffmark on the armrest.

[55](#) [56](#) There was no damage in the center-front area. [57](#) In the right-front seating area, there was no damage to the roof, to the roof header, to the windshield, or to the right A-pillar. [58](#) There was no damage to the dash-mounted airbag [59](#) or module cover, but [60](#) the decorative dashboard trim was separated from its right attachment. [61](#) There was no damage to the glove box, to the floor, or to the interior of the right-front door.

[51](#) [52](#) The following intrusions were noted and measured:

Location	Component	Distance (cm)	Direction
left front	toepan	10	to rear
	floor	8	up

## OCCUPANT KINEMATICS AND INJURIES

[62](#) The 183-cm, 82-kg (6-ft, 180-lb) 29-year-old male driver was *not* using the three-point belt and the steering-wheel airbag deployed. [63](#) There was no evidence of belt use on the D-ring, on the continuous loop, or on the belt webbing. During the frontal impact, the unbelted driver moved forward relative to the vehicle interior into the airbag, knee bolster, and windshield. He sustained lacerations to the left side of the forehead with glass embedded in the wounds and cervical strain from head contact with the windshield, [29](#) [43](#) as evidenced by circular-shaped cracks in the upper-left corner of the windshield. He sustained an abrasion to the anterior aspect of the left forearm [44](#) from contact by the deploying airbag. He sustained contusions to the left and right knees from contact with the knee bolster, [48](#) [49](#) [50](#) as evidenced by scuffmarks on the bolster cover.

The following table [64](#) and attached drawing summarize the injuries for the driver.

Occupant: Driver	Age: 29 years	Gender: Male		
Restraints: Steering-wheel airbag	Stature: 183 cm (6 ft)	Mass: 82 kg (180 lb)		
Injury Description	A.I.S.	Injury Source		
		Definite	Probable	Possible
—	—			
Lacerations, left side of forehead with glass in wound	1	Windshield	—	—
		Head		

Cervical strain	1	impact with windshield	—	—
Abrasion, anterior aspect of left forearm	1	Airbag	—	—
Contusion, left knee	1	Knee bolster	—	—
Contusion, right knee	1	Knee bolster	—	—
Maximum A.I.S. Level	1	—	—	—
Injury Severity Score	2	—	—	—

CASE NO.: 420

CASE VEHICLE: 2000 Mercury

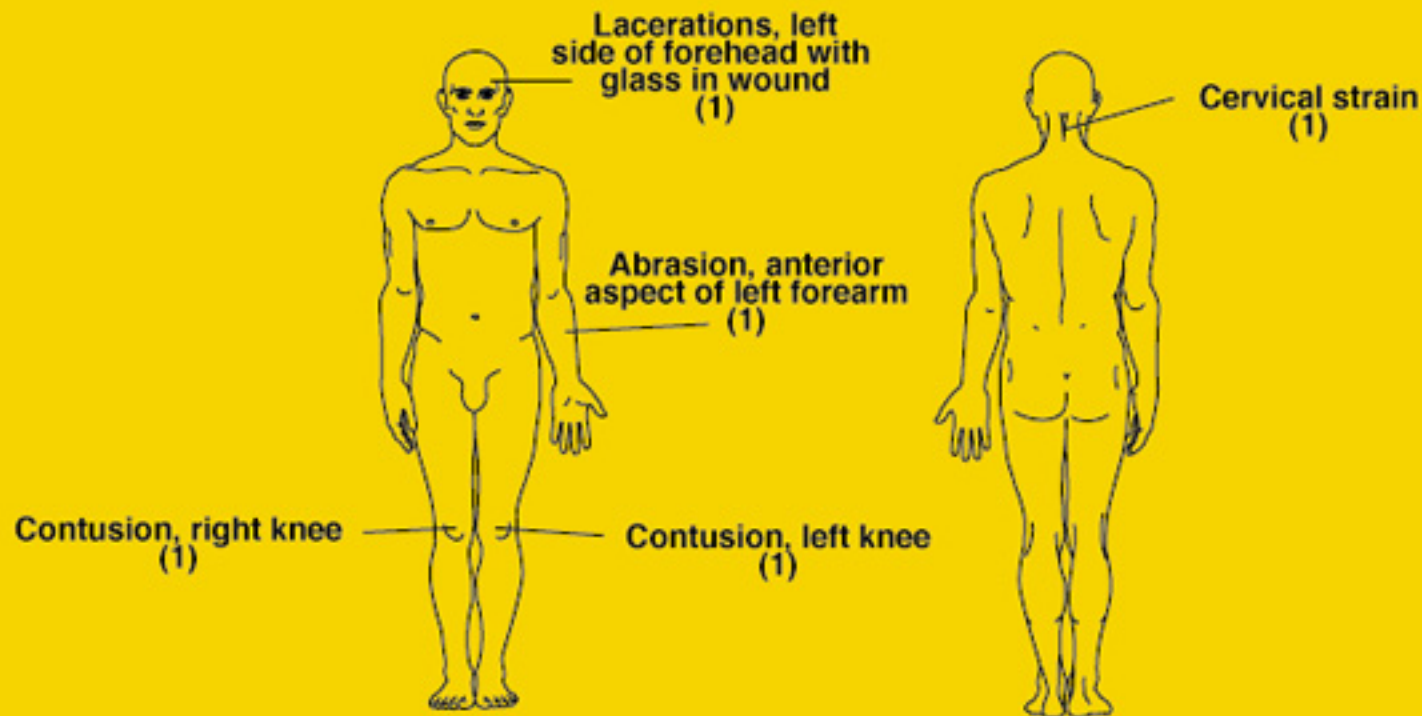
TYPE: Grand Marquis LS, 4-door sedan

OCCUPANT: (Driver) 29-year-old male

STATURE: 183 cm (6 ft) MASS: 82 kg (180 lb)

RESTRAINTS: Steering-wheel airbag

SEVERITY: MAIS - 1 ISS - 2



Case No. : 420

Case Veh. (A): 2000 Mercury

Type: **Grand Marquis LS, 4-door sedan**

Driver: **29-year-old male**

Vehicle (B): 2002 Volvo V70 XC, 4-door station wagon

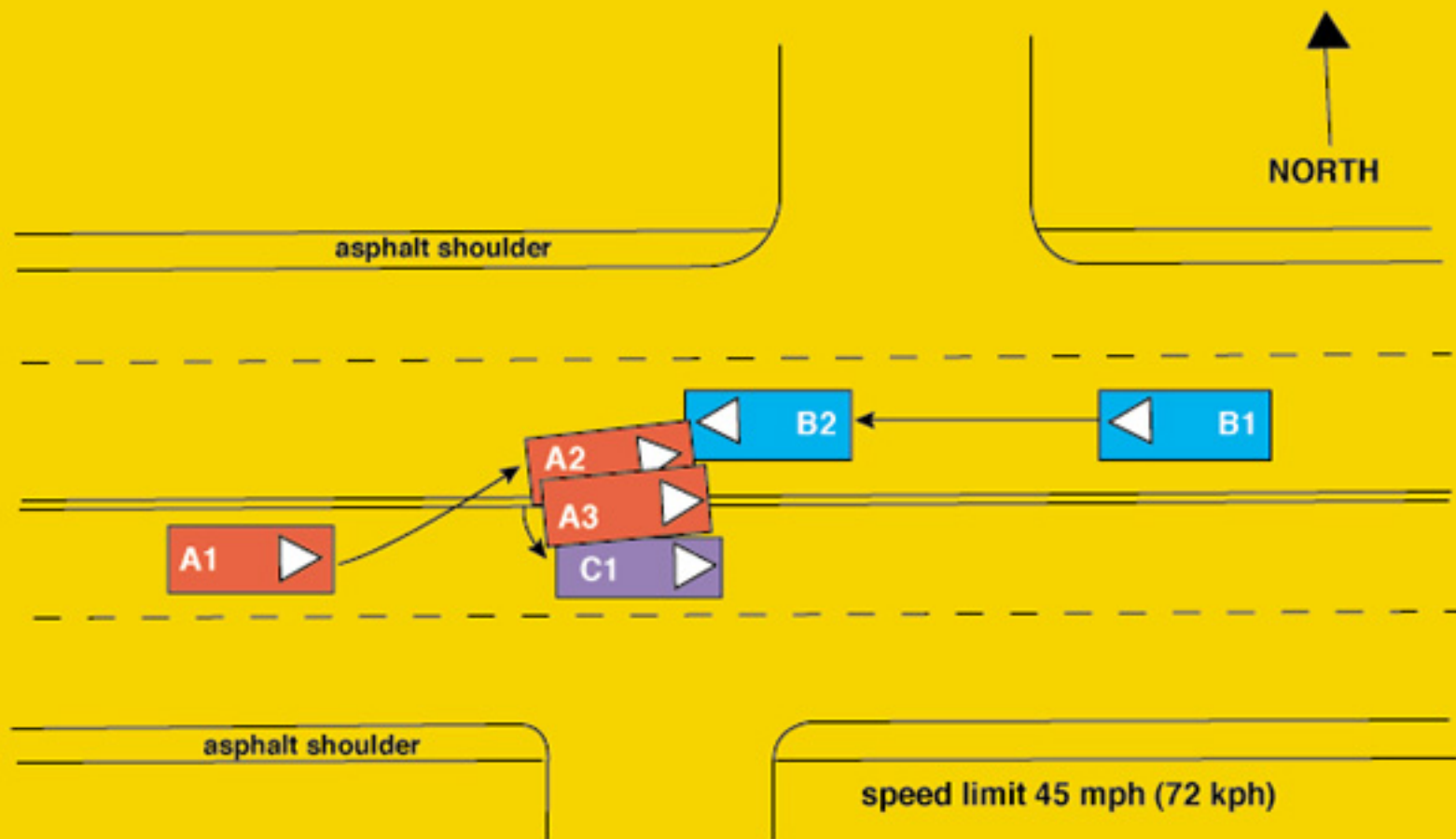
Vehicle (C): 1997 Honda Civic EX, 4-door sedan

Weather: **Clear**

Road Surface: **Dry**

Road Construction: **Asphalt**

Light Condition: **Dawn**



# Vehicle Report

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## General Conditions

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Variable Number and Name	Code Value	Code Description	Other Options
V206 — Urban/Rural Area	1	Urban	<a href="#">more</a>
V207 — Limited Access Highway	0	No	<a href="#">more</a>
V208 — Road Total Lanes	4	4 lanes or more	<a href="#">more</a>
V209 — Intersecting Road Total Lanes	2	2 lanes	<a href="#">more</a>
V210 — Road Surface Type	1	Asphalt	<a href="#">more</a>
V211 — Road Defects	0	No	<a href="#">more</a>
V212 — Construction Zone	0	No	<a href="#">more</a>
V213 — Road Alignment Vertical Plane	1	Level	<a href="#">more</a>
V214 — Road Alignment Horizontal Plane	1	Straight	<a href="#">more</a>
V215 — Surface Covering	10	Dry	<a href="#">more</a>
V216 — Visibility Limitation	0	None	<a href="#">more</a>
V217 — Visibility Obstruction	0	None	<a href="#">more</a>
V218 — Speed Limit	4	71-79 km/h .. 45 mph	<a href="#">more</a>
V219 — Precipitation Type	0	None	<a href="#">more</a>
V220 — Precipitation Rate	8	Not applicable	<a href="#">more</a>
V221 — Temperature	9	Unknown	<a href="#">more</a>

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

## Other Vehicle

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Variable Number and Name	Code Value	Code Description	Other Options
V301 — Other Vehicle VIN	YV1S258DX210	—	—
V302 — Other Vehicle Manufacturer/Body Code	95228	—	—
V303 — Other Vehicle Manufacturer	952	Volvo (Sweden)	<a href="#">more</a>
V304 — Other Vehicle Body Code	28	Intermediate 105-109.9 in. wb.	<a href="#">more</a>
V305 — Other Vehicle Make/Model	2070	—	—
V306 — Other Vehicle Model Year	2002	—	—
V307 — Other Vehicle Mass	001630 kg	—	—
V308 — Other Vehicle Number	1	Vehicle #1	<a href="#">more</a>
V309 — Other Vehicle Number of Occupants	02	—	—
V310 — Other Vehicle Traveling Speed	072 kph	—	—



V311 — Highest Police Injury Severity	2	B - Non-Incapacitating Injury	<a href="#">more</a>
V312 — Other Vehicle Type	15	Large utility (wheelbase >107", e.g. Suburban)	<a href="#">more</a>
V313 — Other Vehicle Wheelbase (cm)	276 cm	—	—
V314 — Average Track Width	163 cm	—	—
V315 — Overall Length	475 cm	—	—
V316 — Overall Width (OAW)	186 cm	—	—
V317 — Front Overhang (FOH)	095 cm	—	—
V318 — Rear Overhang (ROH)	104 cm	—	—
V319 — Undeformed End Width (UEW)	154 cm	—	—
V320 — Engine Displacement	2.5 l	—	—
V321 — Engine: Number of Cylinders	05	—	—
V322 — Direct Damage Length (DDL)	077 cm	—	—
V323 — Front-End Overlap % (FEO)	50	—	—
V324 — Vehicle Overlap % (VOL)	50	—	—

## Case Vehicle General



[Click for case vehicle figure](#)

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Variable Number and Name	Code Value	Code Description	Other Options
V401 — VIN	2MEFM75W8YX6	—	—
V402 — Manufacturer/Body Code	22229	—	—
V403 — Vehicle Manufacturer	222	Lincoln-Mercury	<a href="#">more</a>
V404 — Vehicle Body Code	29	—	—
V405 — Make/Model Code	0929	Grand Marquis	<a href="#">more</a>
V406 — Model Year	2000	—	—
V407 — Vehicle Mass	001777 kg	—	—
V408 — Odometer Reading	888888	—	—
V409 — Number of Occupants	01	—	—
V410 — Traveling Speed	999	Unknown	<a href="#">more</a>
V411 — Body Type	14	4-door sedan	<a href="#">more</a>
V412 — Stolen Vehicle	8	Not currently collected	<a href="#">more</a>
V413 — Body Structure	2	Unitized	<a href="#">more</a>
V414 — Transmission Type	1	Automatic	<a href="#">more</a>

V415 — Transmission Lever Location	3	Column	<a href="#">more</a>
V416 — Steering	1	Power	<a href="#">more</a>
V417 — Brakes	1	Power	<a href="#">more</a>
V418 — Brake Type	2	Disc - front wheels	<a href="#">more</a>
V419 — Brake Anti-lock Device	1	Two-wheel	<a href="#">more</a>
V420 — Air Conditioning in Vehicle	8	Not currently collected	<a href="#">more</a>
V421 — Drive Type	2	Front wheel	<a href="#">more</a>
V422 — Dual Rear Wheels	0	No	<a href="#">more</a>
V423 — Original Restraint System Type	3	Airbag	<a href="#">more</a>
V424 — Equipped With Roll Bar	0	No	<a href="#">more</a>
V425 — Roof Type	1	Solid	<a href="#">more</a>
V426 — Wheelbase	291 cm	—	—
V427 — Anti-lacerative Glass	0	None	<a href="#">more</a>
V428 — Average Track Width	164 cm	—	—
V429 — Overall Length	538 cm	—	—
V430 — Overall Width (OAW)	199 cm	—	—
V431 — Front Overhang	108 cm	—	—
V432 — Rear Overhang	139 cm	—	—
V433 — Undeformed End Width (UEW)	165 cm	—	—
V434 — Engine Displacement	4.6 l	—	—
V435 — Engine: Number of Cylinders	08	—	—
V436 — Direct Damage Length (DDL)	084 cm	—	—
V437 — Front End Overlap % (FEO)	51	—	—
V438 — Vehicle Overlap % (VOL)	51	—	—

## Case Vehicle

### Damage Description

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Variable Number and Name	Code Value	Code Description	Other Options
V501 — Maximum Crush - Front	087 cm	—	—
V502 — Maximum Crush - Right Side	001 cm	—	—
V503 — Maximum Crush - Rear	000 cm	No crush (or less than 1 cm.)	<a href="#">more</a>

V504 — Maximum Crush - Left Side	000 cm	No crush (or less than 1 cm.)	<a href="#">more</a>
V505 — Maximum Crush - Roof	000 cm	No crush (or less than 1 cm.)	<a href="#">more</a>
V506 — Maximum Crush - Other	000 cm	No crush (or less than 1 cm.)	<a href="#">more</a>
V507 — Are Events In Chronological Order	1	Yes	<a href="#">more</a>
V508 — Event 1 Impact Location	1	On Roadway	<a href="#">more</a>
V509 — Event 1 Impact Configuration	11	FRONT of case veh - FRONT of contacted Vehicle	<a href="#">more</a>
V510 — Event 1 Object/Vehicle Contacted	28	Intermediate 105-109.9 in. wb.	<a href="#">more</a>
V511 — Event 2 Impact Location	1	—	—
V512 — Event 2 Impact Configuration	46	RIGHT of case veh - SIDESWIPE by contacted Vehicle	<a href="#">more</a>
V513 — Event 2 Object/Vehicle Contacted	27	Compact 100- 104.9 in. wb.	<a href="#">more</a>
V514 — Event 3 Impact Location	8	No 3rd event	<a href="#">more</a>
V515 — Event 3 Impact Configuration	88	No 3rd event	<a href="#">more</a>
V516 — Event 3 Object/Vehicle Contacted	00	No object/vehicle contacted	<a href="#">more</a>
V517 — Event 4 Impact Location	8	No 4th event	<a href="#">more</a>
V518 — Event 4 Impact Configuration	88	No 4th event	<a href="#">more</a>
V519 — Event 4 Object/Vehicle Contacted	00	No object/vehicle contacted	<a href="#">more</a>
V520 — Event 5 Impact Location	8	No 5th event	<a href="#">more</a>
V521 — Event 5 Impact Configuration	88	No 5th event	<a href="#">more</a>
V522 — Event 5 Object/Vehicle Contacted	00	No object/vehicle contacted	<a href="#">more</a>
V523 — Event 6 Impact Location	8	No 6th event	<a href="#">more</a>
V524 — Event 6 Impact Configuration	88	No 6th event	<a href="#">more</a>

V525 — Event 6 Object/Vehicle Contacted	00	No object/vehicle contacted	<a href="#">more</a>
V526 — Event 7 Impact On Road	8	No 7th event	<a href="#">more</a>
V527 — Event 7 Impact Configuration	88	No 7th event	<a href="#">more</a>
V528 — Event 7 Object/Vehicle Contacted	00	No object/vehicle contacted	<a href="#">more</a>
V529 — Primary CDC Case Vehicle -event Number	1	Event 1	<a href="#">more</a>
V530 — Primary CDC Case Vehicle - impact speed	999	Unknown	<a href="#">more</a>
V531 — Primary CDC Case Vehicle - Estimated By	1	Investigator	<a href="#">more</a>
V532 — Primary CDC Case Vehicle -crush	087	—	—
V533 — Primary CDC Case Vehicle -clock #1	12	12 o'clock	<a href="#">more</a>
V534 — Primary CDC Case Vehicle letter 1 #1	06	F - Front	<a href="#">more</a>
V535 — Primary CDC Case Vehicle letter 2 #1	25	Y - Side or end (F + P or L + C)	<a href="#">more</a>
V536 — Primary CDC Case Vehicle letter 3 #1	05	E - Everything below belt line	<a href="#">more</a>
V537 — Primary CDC Case Vehicle letter 4 #1	23	W - Wide impact area	<a href="#">more</a>
V538 — Primary CDC Case Vehicle Extent #1	03	Extent 3	<a href="#">more</a>
V539 — Primary CDC Case Vehicle -CDC #1	12FYEW3	—	—
V541 — Primary CDC Case Vehicle letter 1 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V542 — Primary CDC Case Vehicle letter 2 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V543 — Primary CDC Case Vehicle letter 3 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V544 — Primary CDC Case Vehicle letter 4 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V545 — Primary CDC Case Vehicle Extent #2	00	Missing Data/Not applicable	<a href="#">more</a>
V546 — Primary CDC Case Vehicle -CDC #2	9800000	—	—
V547 — Primary CDC Contacted Vehicle - Impact	999	Unknown	<a href="#">more</a>

Speed			
V548 — Primary CDC Contacted Vehicle - Estimated By	1	Investigator	<a href="#">more</a>
V549 — Primary CDC Contacted Vehicle -crush	058	—	—
V550 — Primary CDC Contacted Vehicle -clock #1	12	12 o'clock	<a href="#">more</a>
V551 — Primary CDC Contacted Vehicle letter 1 #1	06	F - Front	<a href="#">more</a>
V552 — Primary CDC Contacted Vehicle letter 2 #1	25	Y - Side or end (F + P or L + C)	<a href="#">more</a>
V553 — Primary CDC Contacted Vehicle letter 3 #1	05	E - Everything below belt line	<a href="#">more</a>
V554 — Primary CDC Contacted Vehicle letter 4 #1	23	W - Wide impact area	<a href="#">more</a>
V555 — Primary CDC Contacted Vehicle Extent #1	03	Extent 3	<a href="#">more</a>
V556 — Primary CDC Contacted Vehicle -CDC #1	12FYEW3	—	—
V558 — Primary CDC Contacted Vehicle letter 1 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V559 — Primary CDC Contacted Vehicle letter 2 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V560 — Primary CDC Contacted Vehicle letter 3 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V561 — Primary CDC Contacted Vehicle letter 4 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V562 — Primary CDC Contacted Vehicle Extent #2	00	Missing Data/Not applicable	<a href="#">more</a>
V563 — Primary CDC Contacted Vehicle -CDC #2	9800000	—	—
V564 — Secondary CDC Case Vehicle - Event No	1	Event 1	<a href="#">more</a>
V565 — Secondary CDC Case Vehicle - Impact Speed	999	Unknown	<a href="#">more</a>
V566 — Secondary CDC Case Vehicle - Estimated By	1	—	—
V567 — Secondary CDC Case Vehicle -crush	001		<a href="#">more</a>
V568 — Secondary CDC Case Vehicle -clock #1	06	6 o'clock	<a href="#">more</a>

V569 — Secondary CDC Case Vehicle letter 1 #1	18	R - Right Side	<a href="#">more</a>
V570 — Secondary CDC Case Vehicle letter 2 #1	04	D - Distributed (Side or End)	<a href="#">more</a>
V571 — Secondary CDC Case Vehicle letter 3 #1	05	E - Everything below belt line	<a href="#">more</a>
V572 — Secondary CDC Case Vehicle letter 4 #1	19	S - Sideswipe	<a href="#">more</a>
V573 — Secondary CDC Case Vehicle Extent #1	01	Extent 1	<a href="#">more</a>
V574 — Secondary CDC Case Vehicle -CDC #1	06RDES1	—	—
V576 — Secondary CDC Case Vehicle letter 1 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V577 — Secondary CDC Case Vehicle letter 2 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V578 — Secondary CDC Case Vehicle letter 3 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V579 — Secondary CDC Case Vehicle letter 4 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V580 — Secondary CDC Case Vehicle Extent #2	00	Missing Data/Not applicable	<a href="#">more</a>
V581 — Secondary CDC Case Vehicle -CDC #2	9800000	—	—
V582 — Secondary CDC Contacted Vehicle - Impact Speed	999	Unknown	<a href="#">more</a>
V583 — Secondary CDC Contacted Vehicle - Estimated By	1	—	—
V584 — Secondary CDC Contacted Vehicle - crush	999	Unknown	<a href="#">more</a>
V585 — Secondary CDC Contacted Vehicle - clock #1	99	Unknown or no damage	<a href="#">more</a>
V586 — Secondary CDC Contacted Vehicle letter 1 #1	00	Missing Data/Not applicable	<a href="#">more</a>
V587 — Secondary CDC Contacted Vehicle letter 2 #1	00	Missing Data/Not applicable	<a href="#">more</a>
V588 — Secondary CDC Contacted Vehicle letter 3 #1	00	Missing Data/Not applicable	<a href="#">more</a>
V589 — Secondary CDC Contacted Vehicle letter	00	Missing Data/Not	<a href="#">more</a>

4 #1		applicable	
V590 — Secondary CDC Contacted Vehicle Extent #1	00	Missing Data/Not applicable	<a href="#">more</a>
V591 — Secondary CDC Contacted Vehicle -CDC #1	9900000	—	—
V593 — Secondary CDC Contacted Vehicle letter 1 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V594 — Secondary CDC Contacted Vehicle letter 2 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V595 — Secondary CDC Contacted Vehicle letter 3 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V596 — Secondary CDC Contacted Vehicle letter 4 #2	00	Missing Data/Not applicable	<a href="#">more</a>
V597 — Secondary CDC Contacted Vehicle Extent #2	00	Missing Data/Not applicable	<a href="#">more</a>
V598 — Secondary CDC Contacted Vehicle -CDC #2	9900000	—	—

## Crash Severity

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Variable Number and Name	Code Value	Code Description	Other Options
V601 — Case Vehicle Primary Impact Number	1	—	—
V602 — Primary Impact Total Delta-V	046 kph	—	—
V603 — Primary Case Vehicle Reconstructed Longitudinal Delta-V	-046 kph	—	—
V604 —	-008 kph		

Primary Case Vehicle Reconstructed Lateral Delta-V		—	—
V605 — Primary Case Vehicle Reconstructed Crush Energy	0290 kJ	—	—
V606 — Primary Impact Case Vehicle - reconstruction	22	Reconstructed, moderate confidence level	<a href="#">more</a>
V607 — Primary Case Vehicle Reconstruction Mode	2	CDC & detailed damage	<a href="#">more</a>
V608 — Primary Contacted Vehicle Reconstructed Total Delta-V	051 kph	—	—
V609 — Primary Contacted Vehicle Reconstructed Longitudinal Delta-V	-050 kph	—	—
V610 — Primary Contacted Vehicle Reconstructed Lateral Delta-V	0009 kph	—	—
V611 — Primary Contacted Vehicle Reconstructed Crush Energy	0075 kJ	—	—
V612 — Case Vehicle	8		



Secondary Impact Number		—	—
V613 — Secondary Case Vehicle Reconstructed Total Delta-V	888	N/A	<a href="#">more</a>
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	<a href="#">more</a>
V619 — Secondary Contacted Vehicle Reconstructed Total Delta-V	888	N/A	<a href="#">more</a>
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	046 kph	—	—
V625 — Primary Case Vehicle Reconstructed Longitudinal EBS	-046 kph	—	—
V626 — Primary Case Vehicle Reconstructed Lateral EBS	-008 kph	—	—
V627 — Primary Case Vehicle Reconstructed Crush Energy	0290 kJ	—	—
V628 — Primary Case Vehicle Reconstruction Note	22	Reconstructed, moderate confidence level	<a href="#">more</a>
V629 — Primary Case Vehicle Reconstruction	2	CDC & detailed damage	<a href="#">more</a>

Mode			
V630 — Primary Contacted Vehicle Reconstruction Total EBS	051 kph	—	—
V631 — Primary Contacted Vehicle Reconstruction Longitudinal EBS	-050 kph	—	—
V632 — Primary Contacted Vehicle Reconstruction Lateral EBS	0009 kph	—	—
V633 — Primary Contacted Vehicle Reconstruction Crush Energy	0075 kJ	—	—
V634 — Case Vehicle Secondary Impact Number	8	Not applicable	<a href="#">more</a>
V635 — Secondary Case Vehicle Reconstruction Total EBS	888	N/A	<a href="#">more</a>
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	<a href="#">more</a>
V641 — Secondary Contacted Vehicle Reconstruction Total EBS	888	N/A	<a href="#">more</a>
V642 — Secondary Contacted Vehicle Reconstruction Longitudinal EBS	8888	—	—
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	<a href="#">more</a>

V647 — Case Vehicle Impact 1 Direct Damage Length [DDL]	084 cm	—	—
V648 — Case Vehicle Impact 1 Max Crush	087 cm	—	—
V649 — Case Vehicle Impact 1 Field-L	095 cm	—	—
V650 — Case Vehicle Impact 1 C1	087 cm	—	—
V651 — Case Vehicle Impact 1 C2	086 cm	—	—
V652 — Case Vehicle Impact 1 C3	077 cm	—	—
V653 — Case Vehicle Impact 1 C4	072 cm	—	—
V654 — Case Vehicle Impact 1 C5	039 cm	—	—
V655 — Case Vehicle Impact 1 C6	004 cm	—	—
V656 — Case Vehicle Impact 1 +/- D	-048 cm	—	—
V657 — Case Vehicle Reconstructed Impact Number	2	—	—
V658 — Case Vehicle Impact 2 Plane	4	Above sill	<a href="#">more</a>
V659 — Case Vehicle Impact 2	538 cm	—	—

Direct Damage Length [DDL]			
V660 — Case Vehicle Impact 2 Max Crush	001 cm	—	—
V661 — Case Vehicle Impact 2 Field-L	998	Not applicable	<a href="#">more</a>
V662 — Case Vehicle Impact 2 C1	998	Not applicable	<a href="#">more</a>
V663 — Case Vehicle Impact 2 C2	998	Not applicable	<a href="#">more</a>
V664 — Case Vehicle Impact 2 C3	998	Not applicable	<a href="#">more</a>
V665 — Case Vehicle Impact 2 C4	998	Not applicable	<a href="#">more</a>
V666 — Case Vehicle Impact 2 C5	998	Not applicable	<a href="#">more</a>
V667 — Case Vehicle Impact 2 C6	998	Not applicable	<a href="#">more</a>
V668 — Case Vehicle Impact 2 +/- D	0999 cm	—	—
V669 — Other Vehicle Reconstructed Impact Number	1	—	—
V670 — Other Vehicle Impact 1 Plane	1	Bumper	<a href="#">more</a>
V671 — Other Vehicle Impact 1 Direct Damage Length [DDL]	077 cm	—	—

V672 — Other Vehicle Impact 1 Max Crush	058 cm	—	—
V673 — Other Vehicle Impact 1 Field-L	118 cm	—	—
V674 — Other Vehicle Impact 1 C1	058 cm	—	—
V675 — Other Vehicle Impact 1 C2	040 cm	—	—
V676 — Other Vehicle Impact 1 C3	030 cm	—	—
V677 — Other Vehicle Impact 1 C4	020 cm	—	—
V678 — Other Vehicle Impact 1 C5	010 cm	—	—
V679 — Other Vehicle Impact 1 C6	006 cm	—	—
V680 — Other Vehicle Impact 1 +/- D	-042 cm	—	—
V681 — Other Vehicle Reconstructed Impact Number	2	—	—
V682 — Other Vehicle Impact 2 Plane	8	Not applicable	<a href="#">more</a>
V683 — Other Vehicle Impact 2 Direct Damage Length [DDL]	998	Not applicable	<a href="#">more</a>
V684 — Other Vehicle Impact 2 Max	998	Not applicable	<a href="#">more</a>

Crush			
V685 — Other Vehicle Impact 2 Field-L	998	Not applicable	<a href="#">more</a>
V686 — Other Vehicle Impact 2 C1	998	Not applicable	<a href="#">more</a>
V687 — Other Vehicle Impact 2 C2	998	Not applicable	<a href="#">more</a>
V688 — Other Vehicle Impact 2 C3	998	Not applicable	<a href="#">more</a>
V689 — Other Vehicle Impact 2 C4	998	Not applicable	<a href="#">more</a>
V690 — Other Vehicle Impact 2 C5	998	Not applicable	<a href="#">more</a>
V691 — Other Vehicle Impact 2 C6	998	Not applicable	<a href="#">more</a>
V692 — Other Vehicle Impact 2 +/- D	9998	—	—

## Case Vehicle Tires & Rims

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Variable Number and Name	Code Value	Code Description	Other Options
V701 — Left Front Wheel Damaged	1	Yes	<a href="#">more</a>
V702 — Right Front Wheel Damaged	0	No	<a href="#">more</a>
V703 — Right Rear Wheel Damaged	0	No	<a href="#">more</a>
V704 — Left Rear Wheel Damaged	0	No	<a href="#">more</a>
V705 — Left Front Tire Tread Type	4	All Weather	<a href="#">more</a>
V706 — Right Front Tire Tread Type	4	All Weather	<a href="#">more</a>
V707 — Right Rear Tire Tread Type	4	All Weather	<a href="#">more</a>
V708 — Left Rear Tire Tread Type	4	All Weather	<a href="#">more</a>



V709 — Left Front Carcass Construction	3	Radial	<a href="#">more</a>
V710 — Right Front Carcass Construction	3	Radial	<a href="#">more</a>
V711 — Right Rear Carcass Construction	3	Radial	<a href="#">more</a>
V712 — Left Rear Carcass Construction	3	Radial	<a href="#">more</a>
V717 — Left Front Tire Size	P22560R16	—	—
V718 — Right Front Tire Size	P22560R16	—	—
V719 — Right Rear Tire Size	P22560R16	—	—
V720 — Left Rear Tire Size	P22560R16	—	—

### Case Vehicle Fuel, Tank, Fire

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Variable Number and Name	Code Value	Code Description	Other Options
V801 — Propulsive Fuel Type	1	Gasoline	<a href="#">more</a>
V802 — Main Tank Location	322	Within frame/centered laterally - within vertically	<a href="#">more</a>
V803 — Main Filler Cap Location	113	Left of frame laterally - above vertically	<a href="#">more</a>
V804 — Main Tank Material	9	Unknown	<a href="#">more</a>
V805 — Aux Tank Type	8	Not applicable (not equipped)	<a href="#">more</a>
V806 — Aux Tank Location	888	Not applicable (not equipped)	<a href="#">more</a>
V807 — Aux Filler Cap Location	888	Not applicable (not equipped)	<a href="#">more</a>
V808 — Aux Tank Material	8	Not applicable	<a href="#">more</a>
V901 — Fuel Leakage From Crash	0	No	<a href="#">more</a>
V1001 — Fire In Or On Case Vehicle	0	No	<a href="#">more</a>


### Case Vehicle Exterior

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Variable Number and Name	Code Value	Code Description	Other Options
V1101 — Hood Latch Released	0	No	<a href="#">more</a>
V1102 — Hood Latch Damaged	1	Yes	<a href="#">more</a>
V1103 — Hood Latch Jammed	1	Yes	<a href="#">more</a>
	1		

V1104 — Left Hood Hinge Damaged		Yes	<a href="#">more</a>
V1105 — Left Hood Hinge Separated	0	No	<a href="#">more</a>
V1106 — Right Hood Hinge Damaged	1	Yes	<a href="#">more</a>
V1107 — Right Hood Hinge Separated	0	No	<a href="#">more</a>
V1108 — Hood Remained On Vehicle	1	Yes	<a href="#">more</a>
V1109 — Rear Hood Edge Elevated	1	Yes	<a href="#">more</a>
V1110 — Edge Contacted Windshield	1	Yes	<a href="#">more</a>
V1111 — Edge Penetrated Windshield	0	No	<a href="#">more</a>
V1112 — Hood Latch Location	1	Front of Vehicle	<a href="#">more</a>
V1113 — Eng/Transmissn Mount Separation	0	No	<a href="#">more</a>
V1114 — Steerng Column Flex Coupling	9	Unknown if equipped	<a href="#">more</a>
V1115 — Steerng Column Coupling Damaged	9	Unknown	<a href="#">more</a>
V1116 — Steerng Column Coupling Separated	9	Unknown	<a href="#">more</a>
V1117 — Eng Comp Telescopng Unit	88	Not collected	<a href="#">more</a>
V1118 — Comp Orig/Telescopd Diff	888	Not collected	<a href="#">more</a>
V1119 — Left Side Body Mount Separation	8	Not applicable (unitized)	<a href="#">more</a>
V1120 — Upper Left A-pillar Separation	4	No separation, but damaged	<a href="#">more</a>
V1121 — Lower Left A-pillar Separation	4	No separation, but damaged	<a href="#">more</a>
V1122 — Upper Left B-pillar Separation	0	No	<a href="#">more</a>
V1123 — Lower Left B-pillar Separation	0	No	<a href="#">more</a>
V1124 — Upper Left C-pillar Separation	0	No	<a href="#">more</a>
V1125 — Lower Left C-pillar Separation	0	No	<a href="#">more</a>
V1126 — Upper Left D-pillar Separation	8	Not applicable (not equipped)	<a href="#">more</a>
V1127 — Lower Left D-pillar Separation	8	Not applicable (not equipped)	<a href="#">more</a>
V1128 — Left Front Door Opening Cause	0	Door did not open	<a href="#">more</a>
V1129 — Left Rear Door Opening Cause	0	Door did not open	<a href="#">more</a>
V1130 — Left Front Door Jammed	1		

Closed		Yes	<a href="#">more</a>
V1131 — Left Rear Door Jammed Closed	0	No	<a href="#">more</a>
V1132 — Rear Door Type	0	No door (includes pickups)	<a href="#">more</a>
V1133 — Rear Door Opening Cause	8	Not applicable (no rear door)	<a href="#">more</a>
V1134 — Rear Door Jammed Closed	8	Not applicable (no rear door)	<a href="#">more</a>
V1135 — Luggage Partition Damagd	0	No	<a href="#">more</a>
V1136 — Spare Tire Status	8	Not collected	<a href="#">more</a>
V1137 — Trailer Hitch Type	0	No hitch	<a href="#">more</a>
V1138 — Trailer Type	0	No trailer	<a href="#">more</a>
V1139 — Right Side Body Mount Separation	8	Not applicable (unitized)	<a href="#">more</a>
V1140 — Upper Right A-pillar Separation	0	No	<a href="#">more</a>
V1141 — Lower Right A-pillar Separation	0	No	<a href="#">more</a>
V1142 — Upper Right B-pillar Separation	0	No	<a href="#">more</a>
V1143 — Lower Right B-pillar Separation	0	No	<a href="#">more</a>
V1144 — Upper Right C-pillar Separation	0	No	<a href="#">more</a>
V1145 — Lower Right C-pillar Separation	0	No	<a href="#">more</a>
V1146 — Upper Right D-pillar Separation	8	Not applicable (not equipped)	<a href="#">more</a>
V1147 — Lower Right D-pillar Separation	8	Not applicable (not equipped)	<a href="#">more</a>
V1148 — Right Front Door Opening Cause	00	Door did not open	<a href="#">more</a>
V1149 — Right Rear Door Opening Cause	00	Door did not open	<a href="#">more</a>
V1150 — Right Front Door Jammed Closed	0	No	<a href="#">more</a>
V1151 — Right Rear Door Jammed Closed	0	No	<a href="#">more</a>
V1152 — Van Rear Door Type	8	Not applicable (not a van)	<a href="#">more</a>
V1153 — Windshield Cracked	 <a href="#">Click for windshield damage</a>	Yes	<a href="#">more</a>

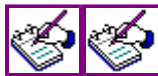
	<a href="#">figure</a>		
V1154 — Windshield Broken	0	No	<a href="#">more</a>
V1155 — Windshield Cracked or Broken by Occupant	1	Yes	<a href="#">more</a>
V1156 — Bond Separation Extent	0	None	<a href="#">more</a>
V1157 — Windshield Code	 <a href="#">Click for windshield code figure</a>	—	—
V1158 — Did Sun/T Roof Open	8	Not Applicable	<a href="#">more</a>

**Case Vehicle  
Steering  
Column/Rim**

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<b>Variable Number and Name</b>	<b>Code Value</b>	<b>Code Description</b>	<b>Other Options</b>
V1201 — Steering Wheel Rim Damage	0	None	<a href="#">more</a>
V1202 — Number of Steering Wheel Spokes	2	2 spokes	<a href="#">more</a>
V1203 — Steering Wheel Spoke Damage	0	None	<a href="#">more</a>
V1204 — Column Tilt Feature	3	Middle	<a href="#">more</a>
V1205 — Column Swing-away Feature	0	Not equipped	<a href="#">more</a>
V1206 — Column Telescoping Feature	0	Not equipped	<a href="#">more</a>
V1207 — Wheel Energy Absorb Device	8	Not collected	<a href="#">more</a>
V1208 — Wheel Ea Orig/Damaged Diff	888	Not collected	<a href="#">more</a>
V1209 — Column Energy Absorb Device	88	Not collected	<a href="#">more</a>
V1210 — Column Ea Orig/Comprss Diff	888	Not collected	<a href="#">more</a>
V1211 — Shear Capsule Separation	888	Not collected	<a href="#">more</a>
V1212 — Column Vertical Rotation	0	No apparent rotation	<a href="#">more</a>
V1213 — Column Lateral Rotation	0	No apparent rotation	<a href="#">more</a>
V1214 — Steering Wheel Hub Damage	0	None	<a href="#">more</a>

**Case Vehicle  
Intrusion**



Click for intrusion figures

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<b>Variable Number and Name</b>	<b>Code Value</b>	<b>Code Description</b>	<b>Other Options</b>
V1301 — Occupant Compartment Intrusion	1	Yes	<a href="#">more</a>
V1302 — Was Intrusion Catastrophic	0	No	<a href="#">more</a>
V1303 — Intrusion Number 01	01	Intrusion #1	<a href="#">more</a>
V1304 — Intrusion 01 Occupant Space Number	11	First row, Left seat	<a href="#">more</a>
V1305 — Intrusion 01 Intruding Object	03	Toe pan	<a href="#">more</a>
V1306 — Intrusion 01 Assoc Event Number	1	Event #1	<a href="#">more</a>
V1307 — Intrusion 01 Max Intrusion X-axis	10 cm	—	—
V1308 — Intrusion 01 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1309 — Intrusion 01 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1310 — Intrusion 01 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1311 — Intrusion 01 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1312 — Intrusion 01 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1313 — Intrusion 01 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1314 — Intrusion Number 02	02	Intrusion #2	<a href="#">more</a>
V1315 — Intrusion 02 Occupant Space Number	11	First row, Left seat	<a href="#">more</a>
V1316 — Intrusion 02 Intruding Object	04	Floor pan	<a href="#">more</a>
V1317 — Intrusion 02 Assoc Event Number	1	Event #1	<a href="#">more</a>
V1318 — Intrusion 02 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1319 — Intrusion 02 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1320 — Intrusion 02 Max Intrusion Z-axis	08 cm	—	—
V1321 — Intrusion 02 Occupant	00	No contact or no intrusion	<a href="#">more</a>

Number			
V1322 — Intrusion 02 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1323 — Intrusion 02 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1324 — Intrusion 02 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1325 — Intrusion Number 03	00	No Intrusion, None	<a href="#">more</a>
V1326 — Intrusion 03 Occupant Space Number	00	No Intrusion, None	<a href="#">more</a>
V1327 — Intrusion 03 Intruding Object	00	No Intrusion, None	<a href="#">more</a>
V1328 — Intrusion 03 Assoc Event Number	0	No Intrusion, None	<a href="#">more</a>
V1329 — Intrusion 03 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1330 — Intrusion 03 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1331 — Intrusion 03 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1332 — Intrusion 03 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1333 — Intrusion 03 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1334 — Intrusion 03 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1335 — Intrusion 03 Injury Number	99	Contact, injury unknown or data not collected	<a href="#">more</a>
V1336 — Intrusion Number 04	00	No Intrusion, None	<a href="#">more</a>
V1337 — Intrusion 04 Occupant Space Number	00	No Intrusion, None	<a href="#">more</a>
V1338 — Intrusion 04 Intruding Object	00	No Intrusion, None	<a href="#">more</a>
V1339 — Intrusion 04 Assoc Event Number	0	No Intrusion, None	<a href="#">more</a>
V1340 — Intrusion 04 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1341 — Intrusion 04 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1342 — Intrusion 04 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1343 — Intrusion 04 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1344 — Intrusion 04 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1345 — Intrusion 04 Occupant	00	No contact or no intrusion	<a href="#">more</a>

Number			
V1346 — Intrusion 04 Injury Number	99	Contact, injury unknown or data not collected	<a href="#">more</a>
V1347 — Intrusion Number 05	00	No Intrusion, None	<a href="#">more</a>
V1348 — Intrusion 05 Occupant Space Number	00	No Intrusion, None	<a href="#">more</a>
V1349 — Intrusion 05 Intruding Object	00	No Intrusion, None	<a href="#">more</a>
V1350 — Intrusion 05 Assoc Event Number	0	No Intrusion, None	<a href="#">more</a>
V1351 — Intrusion 05 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1352 — Intrusion 05 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1353 — Intrusion 05 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1354 — Intrusion 05 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1355 — Intrusion 05 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1356 — Intrusion 05 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1357 — Intrusion 05 Injury Number	99	Contact, injury unknown or data not collected	<a href="#">more</a>
V1358 — Intrusion Number 06	00	No Intrusion, None	<a href="#">more</a>
V1359 — Intrusion 06 Occupant Space Number	00	No Intrusion, None	<a href="#">more</a>
V1360 — Intrusion 06 Intruding Object	00	No Intrusion, None	<a href="#">more</a>
V1361 — Intrusion 06 Assoc Event Number	0	No Intrusion, None	<a href="#">more</a>
V1362 — Intrusion 06 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1363 — Intrusion 06 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1364 — Intrusion 06 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1365 — Intrusion 06 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1366 — Intrusion 06 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1367 — Intrusion 06 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1368 — Intrusion 06 Injury Number	99	Contact, injury unknown or data not collected	<a href="#">more</a>

V1369 — Intrusion Number 07	00	No Intrusion, None	<a href="#">more</a>
V1370 — Intrusion 07 Occupant Space Number	00	No Intrusion, None	<a href="#">more</a>
V1371 — Intrusion 07 Intruding Object	00	No Intrusion, None	<a href="#">more</a>
V1372 — Intrusion 07 Assoc Event Number	0	No Intrusion, None	<a href="#">more</a>
V1373 — Intrusion 07 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1374 — Intrusion 07 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1375 — Intrusion 07 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1376 — Intrusion 07 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1377 — Intrusion 07 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1378 — Intrusion 07 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1379 — Intrusion 07 Injury Number	99	Contact, injury unknown or data not collected	<a href="#">more</a>
V1380 — Intrusion Number 08	00	No Intrusion, None	<a href="#">more</a>
V1381 — Intrusion 08 Occupant Space Number	00	No Intrusion, None	<a href="#">more</a>
V1382 — Intrusion 08 Intruding Object	00	No Intrusion, None	<a href="#">more</a>
V1383 — Intrusion 08 Assoc Event Number	0	No Intrusion, None	<a href="#">more</a>
V1384 — Intrusion 08 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1385 — Intrusion 08 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1386 — Intrusion 08 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1387 — Intrusion 08 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1388 — Intrusion 08 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1389 — Intrusion 08 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1390 — Intrusion 08 Injury Number	99	Contact, injury unknown or data not collected	<a href="#">more</a>
V1391 — Intrusion Number 09	00	No Intrusion, None	<a href="#">more</a>
V1392 — Intrusion 09 Occupant Space Number	00	No Intrusion, None	<a href="#">more</a>



V1393 — Intrusion 09 Intruding Object	00	No Intrusion, None	<a href="#">more</a>
V1394 — Intrusion 09 Assoc Event Number	0	No Intrusion, None	<a href="#">more</a>
V1395 — Intrusion 09 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1396 — Intrusion 09 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1397 — Intrusion 09 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1398 — Intrusion 09 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1399 — Intrusion 09 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1400 — Intrusion 09 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1401 — Intrusion 09 Injury Number	99	Contact, injury unknown or data not collected	<a href="#">more</a>
V1402 — Intrusion Number 10	00	No Intrusion, None	<a href="#">more</a>
V1403 — Intrusion 10 Occupant Space Number	00	No Intrusion, None	<a href="#">more</a>
V1404 — Intrusion 10 Intruding Object	00	No Intrusion, None	<a href="#">more</a>
V1405 — Intrusion 10 Assoc Event Number	0	No Intrusion, None	<a href="#">more</a>
V1406 — Intrusion 10 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1407 — Intrusion 10 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1408 — Intrusion 10 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	<a href="#">more</a>
V1409 — Intrusion 10 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1410 — Intrusion 10 Injury Number	00	No injury or no intrusion	<a href="#">more</a>
V1411 — Intrusion 10 Occupant Number	00	No contact or no intrusion	<a href="#">more</a>
V1412 — Intrusion 10 Injury Number	99	Contact, injury unknown or data not collected	<a href="#">more</a>
V1413 — Door Intrusion Number 01	88	Not Applicable	<a href="#">more</a>
V1414 — Door Intrusion Number 01 Cause	8	Not applicable	<a href="#">more</a>
V1415 — Door Intrusion Number 02	88	Not Applicable	<a href="#">more</a>
V1416 — Door Intrusion Number 02 Cause	8	Not applicable	<a href="#">more</a>

V1417 — Door Intrusion Number 03	88	Not Applicable	<a href="#">more</a>
V1418 — Door Intrusion Number 03 Cause	8	Not applicable	<a href="#">more</a>
V1419 — Door Intrusion 01 Component	88	Not Applicable	<a href="#">more</a>
V1420 — Door Intrusion 01 Component Damaged 1	8	Not Applicable	<a href="#">more</a>
V1421 — Door Intrusion 01 Component Damaged 2	8	Not Applicable	<a href="#">more</a>
V1422 — Door Intrusion 02 Component	88	Not Applicable	<a href="#">more</a>
V1423 — Door Intrusion 02 Component Damaged 1	8	Not Applicable	<a href="#">more</a>
V1424 — Door Intrusion 02 Component Damaged 2	8	Not Applicable	<a href="#">more</a>
V1425 — Door Intrusion 03 Component	88	Not Applicable	<a href="#">more</a>
V1426 — Door Intrusion 03 Component Damaged 1	8	Not Applicable	<a href="#">more</a>
V1427 — Door Intrusion 03 Component Damaged 2	8	Not Applicable	<a href="#">more</a>
V1428 — Door Intrusion 04 Component	88	Not Applicable	<a href="#">more</a>
V1429 — Door Intrusion 04 Component Damaged 1	8	Not Applicable	<a href="#">more</a>
V1430 — Door Intrusion 04 Component Damaged 2	8	Not Applicable	<a href="#">more</a>

**Case Vehicle  
Airbag(s)**



[Click for Driver airbag figure](#)



[Click for Passenger airbag figure](#)

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<b>Variable Number and Name</b>	<b>Code Value</b>	<b>Code Description</b>	<b>Other Options</b>
V1501 — Driver Airbag Equipped	1	Yes	<a href="#">more</a>
V1502 — Driver Airbag Deployed	1	Yes	<a href="#">more</a>
V1503 — Driver Airbag Condition	0	No Damage	<a href="#">more</a>
V1504 — Passenger Airbag Equip	1	Yes	<a href="#">more</a>
V1505 — Passenger Airbag Deployed	1	Yes	<a href="#">more</a>
V1506 — Passenger Airbag Condition	0	No Damage	<a href="#">more</a>

V1507 — Steering Wheel Airbag Tether	1	Yes	<a href="#">more</a>
V1508 — Driver Airbag Marked By Contact	1	Yes	<a href="#">more</a>
V1509 — Passenger Airbag Tether	0	No	<a href="#">more</a>
V1510 — Passenger Airbag Marked By Contact	0	No	<a href="#">more</a>

**Case Vehicle Interior**

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<b>Variable Number and Name</b>	<b>Code Value</b>	<b>Code Description</b>	<b>Other Options</b>
V1601 — Left Front Door Damaged	0	No	<a href="#">more</a>
V1602 — Right Front Door Damaged	0	No	<a href="#">more</a>
V1603 — Left Front Hardware Damaged	0	No	<a href="#">more</a>
V1604 — Right Front Hardware Damaged	0	No	<a href="#">more</a>
V1605 — Left Front Armrest Damaged	3	No, occupant contact	<a href="#">more</a>
V1606 — Right Front Armrest Damaged	0	No	<a href="#">more</a>
V1607 — Left Front Glass Damaged	0	No	<a href="#">more</a>
V1608 — Right Front Glass Damaged	0	No	<a href="#">more</a>
V1609 — Left Rear Door Area Damaged	0	No	<a href="#">more</a>
V1610 — Right Rear Door Area Damaged	0	No	<a href="#">more</a>
V1611 — Left Rear Hardware Damaged	0	No	<a href="#">more</a>
V1612 — Right Rear Hardware Damaged	0	No	<a href="#">more</a>
V1613 — Left Rear Armrest Damaged	0	No	<a href="#">more</a>
V1614 — Right Rear Armrest Damaged	0	No	<a href="#">more</a>
V1615 — Left Rear Glass Damaged	0	No	<a href="#">more</a>
V1616 — Right Rear Glass Damaged	0	No	<a href="#">more</a>
V1617 — Left Roof Side Rail Damaged	0	No	<a href="#">more</a>
V1618 — Right Roof Side Rail	0		

Damaged		No	<a href="#">more</a>
V1619 — Left B-pillar Damaged	0	No	<a href="#">more</a>
V1620 — Right B-pillar Damaged	0	No	<a href="#">more</a>
V1621 — Left C-pillar Damaged	0	No	<a href="#">more</a>
V1622 — Right C-pillar Damaged	0	No	<a href="#">more</a>
V1623 — Left D-pillar Damaged	8	Not applicable	<a href="#">more</a>
V1624 — Right D-pillar Damaged	8	Not applicable	<a href="#">more</a>
V1625 — Left Headlining Damaged	0	No	<a href="#">more</a>
V1626 — Right Headlining Damaged	0	No	<a href="#">more</a>
V1627 — Left Roof Structure Damaged	0	No	<a href="#">more</a>
V1628 — Right Roof Structure Damaged	0	No	<a href="#">more</a>
V1629 — Left T/Sun Roof Damaged	8	Not applicable	<a href="#">more</a>
V1630 — Right T/Sun Roof Damaged	8	Not applicable	<a href="#">more</a>
V1631 — Other Left Side Item Damaged	8	Not applicable	<a href="#">more</a>
V1632 — Other Right Side Item Damaged	8	Not applicable	<a href="#">more</a>
V1633 — Foot Controls Damaged	0	No	<a href="#">more</a>
V1634 — Ignition Key Damaged	0	No	<a href="#">more</a>
V1635 — Rear View Mirror Damaged	0	No	<a href="#">more</a>
V1636 — Sunvisor/Fitting Damaged	0	No	<a href="#">more</a>
V1637 — Windshield Molding Damaged	0	No	<a href="#">more</a>
V1638 — Left A-pillar Damaged	0	No	<a href="#">more</a>
V1639 — Right A-pillar Damaged	0	No	<a href="#">more</a>
V1640 — Center Console Damaged	0	No	<a href="#">more</a>
V1641 — Transmission Lever Damaged	0	No	<a href="#">more</a>
V1642 — Horn/Spoke Shroud Damaged	0	No	<a href="#">more</a>
V1643 — Upper Panel Damaged	0	No	<a href="#">more</a>
V1644 — Mid Panel Damaged	1	Yes	<a href="#">more</a>
V1645 — Lower Panel Damaged	4	Yes, occupant contact	<a href="#">more</a>
V1646 — Ashtray Damaged	0	No	<a href="#">more</a>
V1647 — Control Knob/Lever Damaged	0	No	<a href="#">more</a>
V1648 — Glove Compartment Area Damaged	0	No	<a href="#">more</a>

V1649 — Instruments Damaged	0	No	<a href="#">more</a>
V1650 — Park Brake Release Damaged	0	No	<a href="#">more</a>
V1651 — Park Brake Pedal Damaged	0	No	<a href="#">more</a>
V1652 — A/C Or Upper Vent Damaged	0	No	<a href="#">more</a>
V1653 — Heater Or A/C Duct Damaged	0	No	<a href="#">more</a>
V1654 — Radio Damaged	0	No	<a href="#">more</a>
V1655 — Other Item Damaged	8	Not applicable	<a href="#">more</a>
V1656 — Rear Window Damaged	0	No	<a href="#">more</a>
V1657 — Rear Window Header Damaged	0	No	<a href="#">more</a>
V1658 — Vertical Console Damaged	0	No	<a href="#">more</a>
V1659 — Roof Console Damaged	8	Not applicable	<a href="#">more</a>

## Case Vehicle Seats

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<b>Variable Number and Name</b>	<b>Code Value</b>	<b>Code Description</b>	<b>Other Options</b>
V1701 — Driver Front Seat Type	05	Bucket	<a href="#">more</a>
V1702 — Passenger Front Seat Type	05	Bucket	<a href="#">more</a>
V1703 — Driver Seat Mount Type	1	Standard	<a href="#">more</a>
V1704 — Passenger Seat Mount Type	1	Standard	<a href="#">more</a>
V1705 — Driver Swivel Mechanism Equipped	0	No	<a href="#">more</a>
V1706 — Passenger Swivel Mechanism Equipped	0	No	<a href="#">more</a>
V1707 — Driver Seat Original Equipment	1	Yes	<a href="#">more</a>
V1708 — Passenger Seat Original Equipment	1	Yes	<a href="#">more</a>
V1709 — Driver Seat/Rear Occupant Contact	8	Not applicable	<a href="#">more</a>
V1710 — Passenger Seat/Rear Occupant Contact	8	Not applicable	<a href="#">more</a>
V1711 — Driver Seat Damage	0	None	<a href="#">more</a>
V1712 — Passenger Seat Damage	0	None	<a href="#">more</a>
V1713 — Center Front Armrest	0	No	<a href="#">more</a>

Damaged			
V1714 — Driver Seat Rotation	0	None apparent	<a href="#">more</a>
V1715 — Passenger Seat Rotation	0	None apparent	<a href="#">more</a>
V1716 — Driver Seat-back Type	3	Reclining	<a href="#">more</a>
V1717 — Passenger Seat-back Type	3	Reclining	<a href="#">more</a>
V1718 — Driver Seat-back Lock Type	1	Manual	<a href="#">more</a>
V1719 — Passenger Seat-back Lock Type	1	Manual	<a href="#">more</a>
V1720 — Driver Seat-back Lock Held	1	Yes	<a href="#">more</a>
V1721 — Passenger Seat-back Lock Held	1	Yes	<a href="#">more</a>
V1722 — Driver Recliner Mechanism Held	1	Yes	<a href="#">more</a>
V1723 — Passenger Recliner Mechanism Held	1	Yes	<a href="#">more</a>
V1724 — Driver Head Restraint Type	1	Adjustable	<a href="#">more</a>
V1725 — Passenger Head Restraint Type	1	Adjustable	<a href="#">more</a>
V1726 — Driver Head Rest Removed	0	No	<a href="#">more</a>
V1727 — Passenger Head Rest Removed	0	No	<a href="#">more</a>
V1728 — Driver Head Rest Adjustment	2	Down	<a href="#">more</a>
V1729 — Passenger Head Rest Adjustment	2	Down	<a href="#">more</a>
V1730 — Driver Head Rest Damage	0	None	<a href="#">more</a>
V1731 — Passenger Head Rest Damage	0	None	<a href="#">more</a>
V1732 — Driver Seat Adjustment Type	2	Power	<a href="#">more</a>
V1733 — Passenger Seat Adjustment Type	2	Power	<a href="#">more</a>
V1734 — Driver Seat Adjustment Provided	3	6-way	<a href="#">more</a>
V1735 — Passenger Seat Adjustment Provided	3	6-way	<a href="#">more</a>
V1736 — Driver Seat Adjuster Damage	0	None	<a href="#">more</a>

V1737 — Passenger Seat Adjuster Damage	0	None	<a href="#">more</a>
V1738 — Driver Seat Adjuster Separation	8	Not applicable	<a href="#">more</a>
V1739 — Passenger Seat Adjuster Separation	8	Not applicable	<a href="#">more</a>
V1740 — Driver Seat Pre-crash Position	2	Middle	<a href="#">more</a>
V1741 — Passenger Seat Pre-crash Position	3	Rearward	<a href="#">more</a>
V1742 — Left Rear Seat Type	1	Non-folding	<a href="#">more</a>
V1743 — Right Rear Seat Type	1	Non-folding	<a href="#">more</a>
V1744 — Left Rear Seat Damaged	0	None	<a href="#">more</a>
V1745 — Right Rear Seat Damaged	0	None	<a href="#">more</a>
V1746 — Center Rear Armrest Damaged	0	No	<a href="#">more</a>
V1747 — Left Rear Seat-back Left Lock Equipped	8	Not applicable	<a href="#">more</a>
V1748 — Right Rear Seat-back Left Lock Equipped	8	Not applicable	<a href="#">more</a>
V1749 — Left Rear Seat-back Left Lock Held	8	Not applicable	<a href="#">more</a>
V1750 — Right Rear Seat-back Left Lock Held	8	Not applicable	<a href="#">more</a>
V1751 — Left Rear Seat-back Right Lock Equipped	8	Not applicable	<a href="#">more</a>
V1752 — Right Rear Seat-back Right Lock Equipped	8	Not applicable	<a href="#">more</a>
V1753 — Left Rear Seat-back Right Lock Held	8	Not applicable	<a href="#">more</a>
V1754 — Right Rear Seat-back Right Lock Held	8	Not applicable	<a href="#">more</a>
V1755 — Left 3rd Seat Equipped	0	No	<a href="#">more</a>
V1756 — Right 3rd Seat Equipped	0	No	<a href="#">more</a>
V1757 — Left 3rd Seat Backrest Damaged	8	Not applicable	<a href="#">more</a>
V1758 — Right 3rd Seat Backrest Damaged	8	Not applicable	<a href="#">more</a>
V1759 — Left 3rd Seat Cushion Damaged	8	Not applicable	<a href="#">more</a>
V1760 — Right 3rd Seat Cushion Damaged	8	Not applicable	<a href="#">more</a>

V1761 — Rear Head Restraints

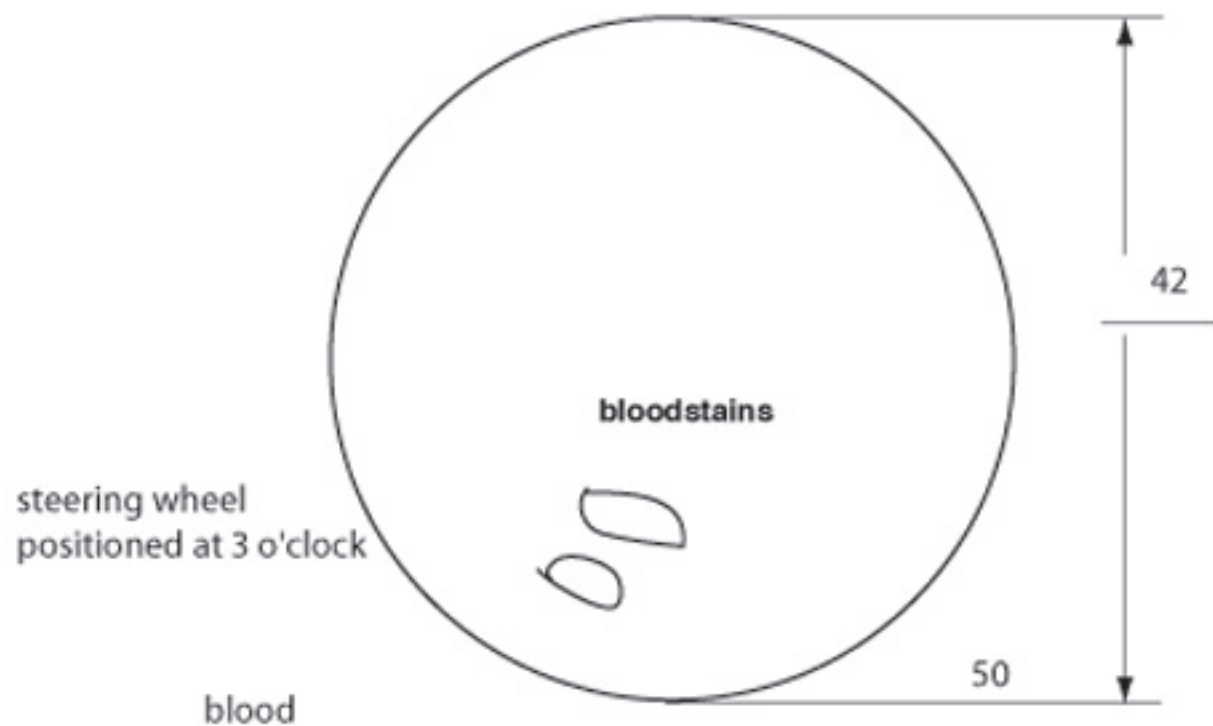
0

Not Equipped (or removed)

[more](#)



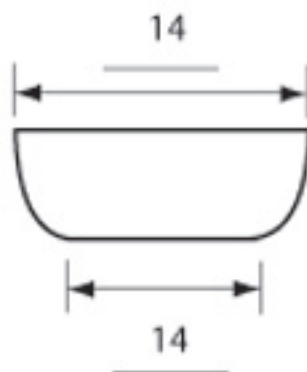
### Driver Airbag



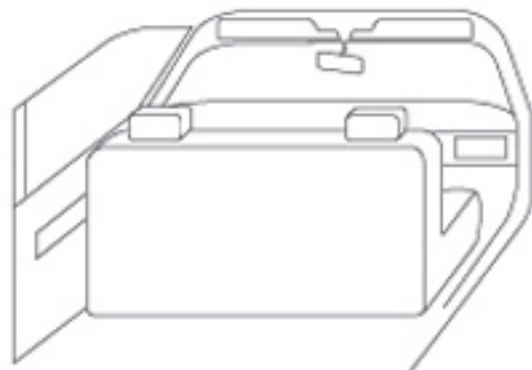
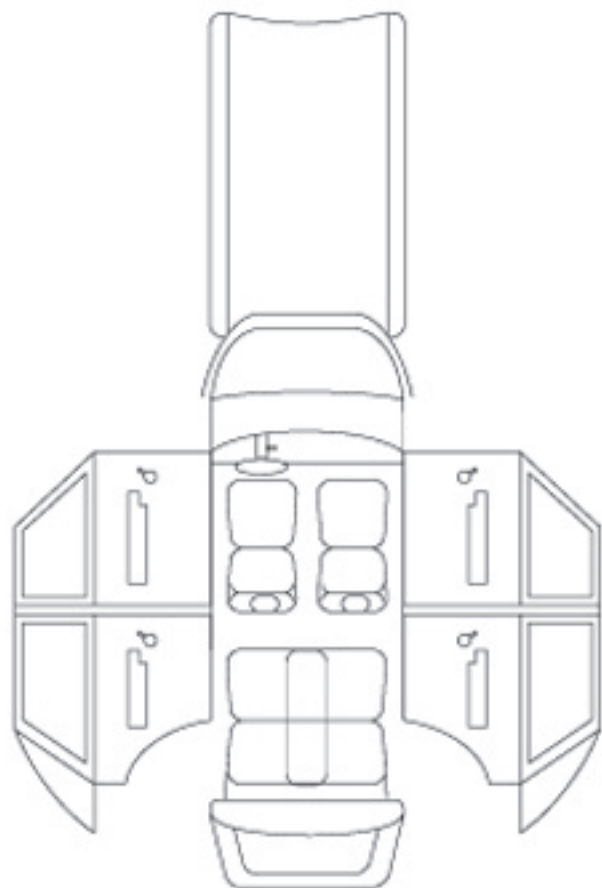
Vents:  Y  N  
if yes, how many: 2  
vents at 11 and 1 o'clock

Tethers:  Y  N  
if yes, how many: 2

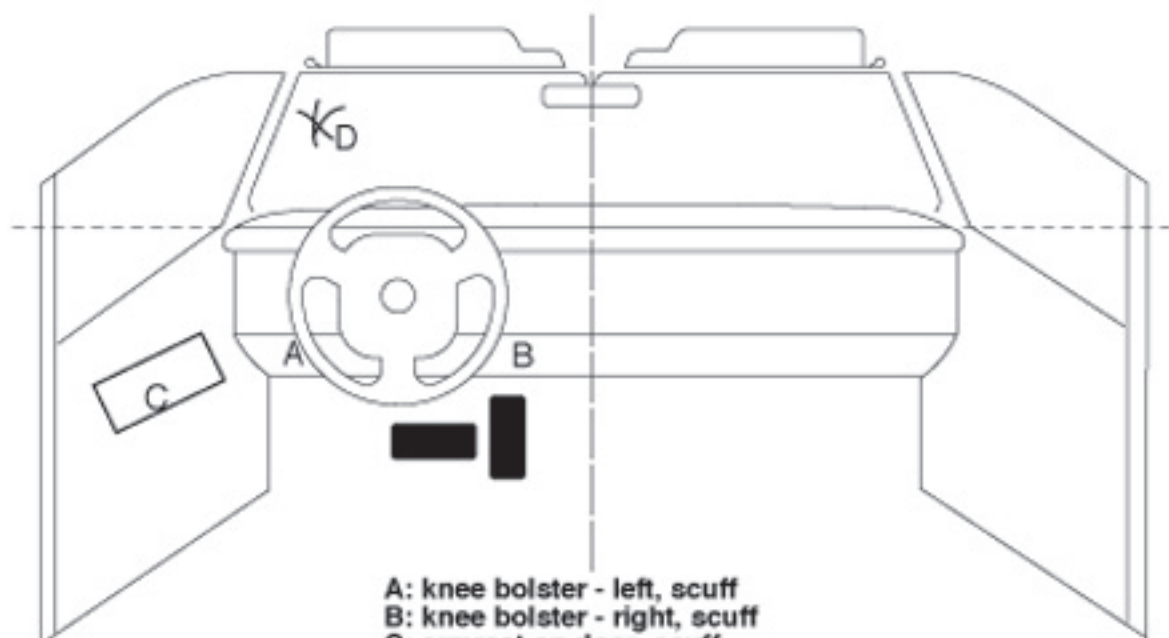
### Driver Airbag Doors



Single Door



**no evidence of belt use**



**A: knee bolster - left, scuff**  
**B: knee bolster - right, scuff**  
**C: armrest on door, scuff**  
**D: windshield, cracked and pushed out**

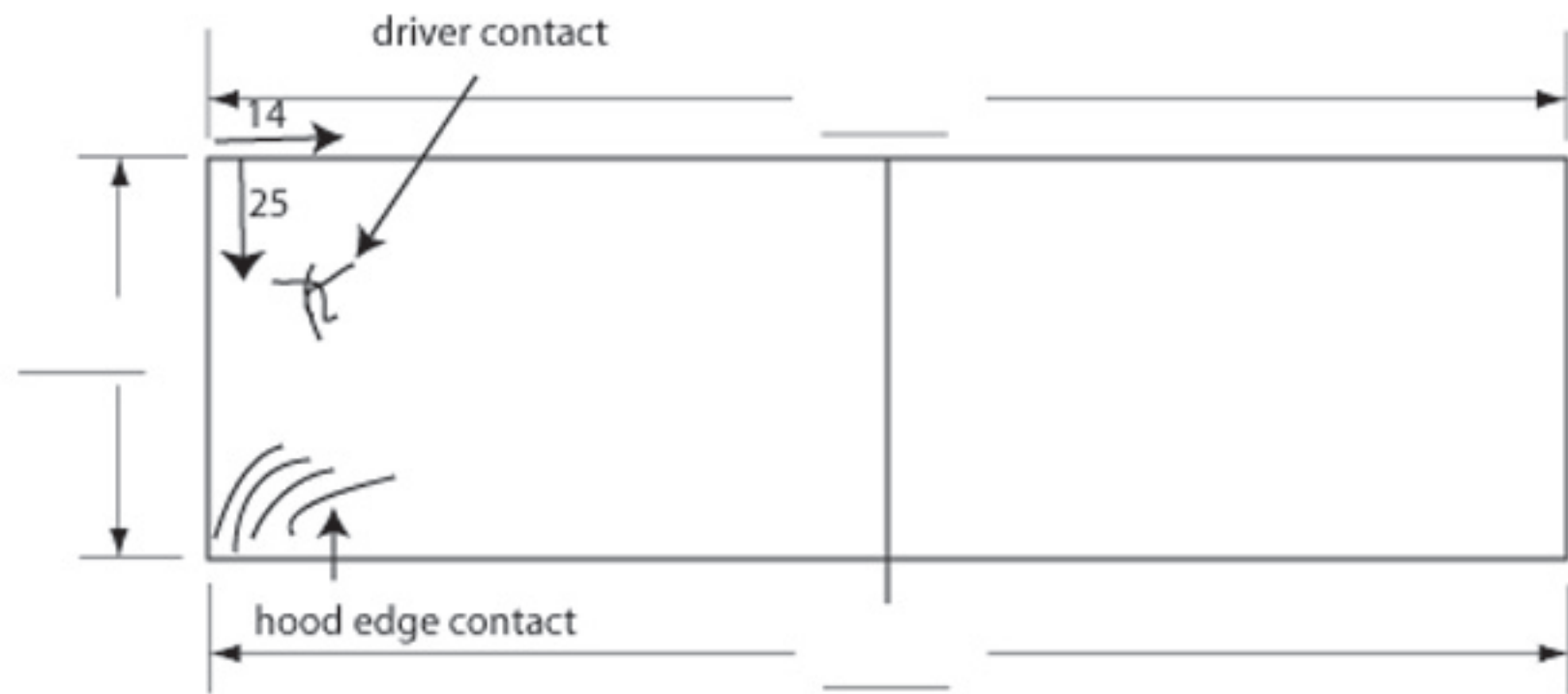
1 = Definitely 2 = Probably 3 = Possible

INTRUSION IT-1

Location of Intrusion	Intruded Component	(All Measurements Are in Centimeters)					Dominant Crush Direction
		Comparison Value	–	Intruded Value	=	Intrusion	
11	Toe/pan	83	–	73	=	10	to rear
11	Floor		–		=	8	up
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		
			–		=		

OCCUPANT CONTACT WORKSHEET

Contact	Interior Component Contacted	Occupant No. if Known	Body Region if Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	Left knee bolster	1	Knee	Scuff	1
B	Right knee bolster	1	Knee	Scuff	1
C	Armrest	1	Arm/side	Scuff	2
D	Windshield	1	Head	Cracked, pushed out	1
E					
F					
G					
H					



WINDSHIELD MARK ON CASE VEHICLE:

FORD  
V CARLITE R

SOLARTINT

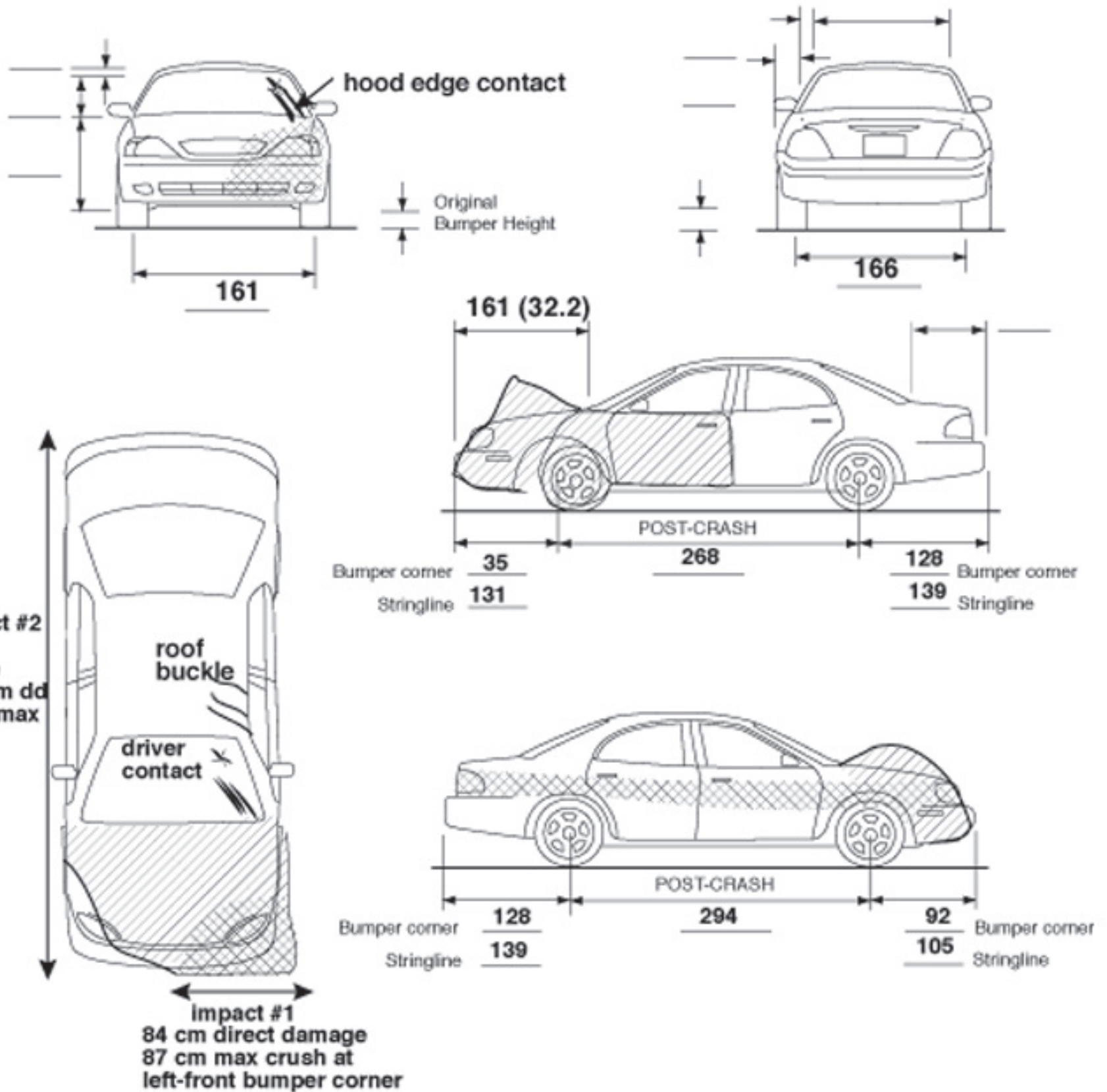
LAMINATED AS1

DOT-287 VF-M557

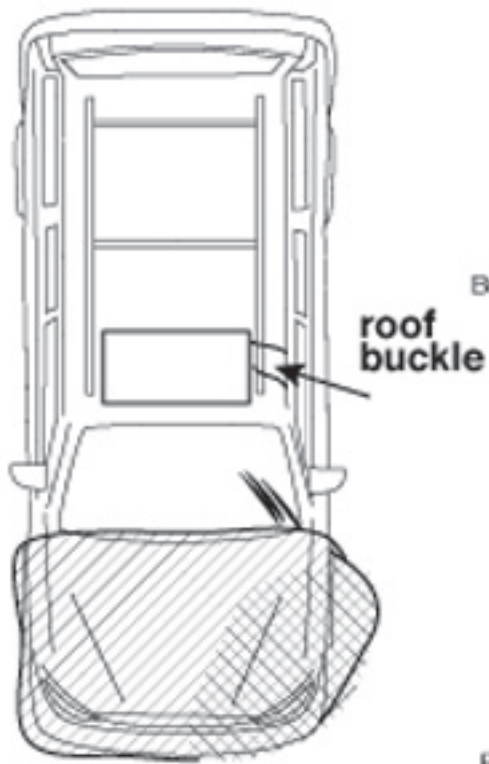
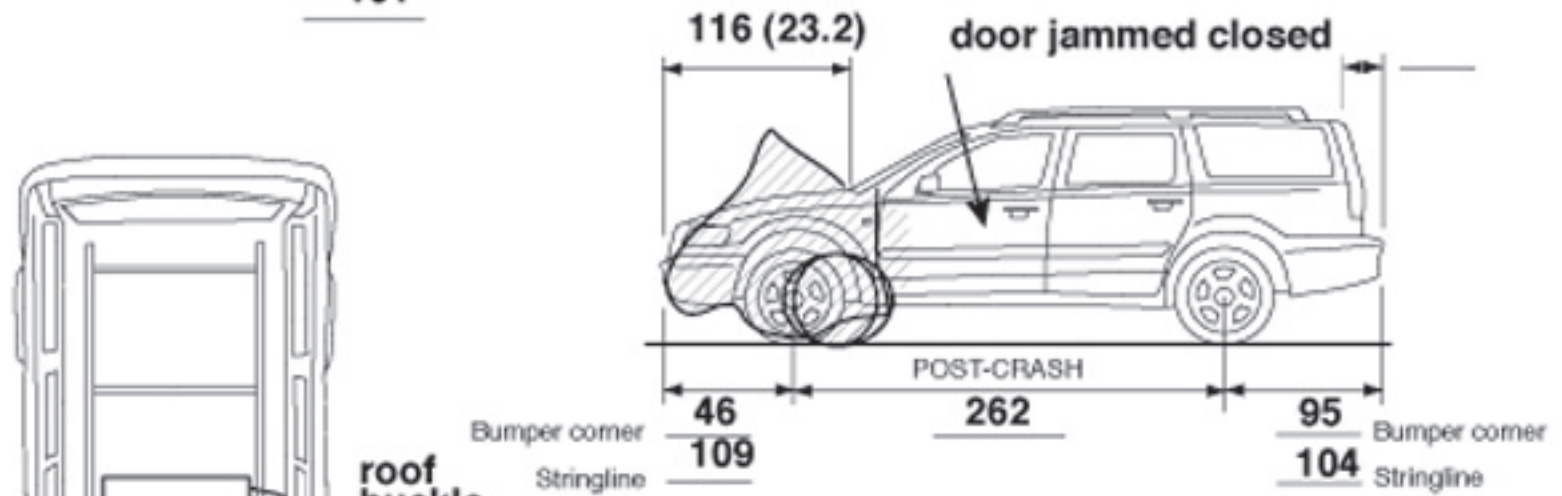
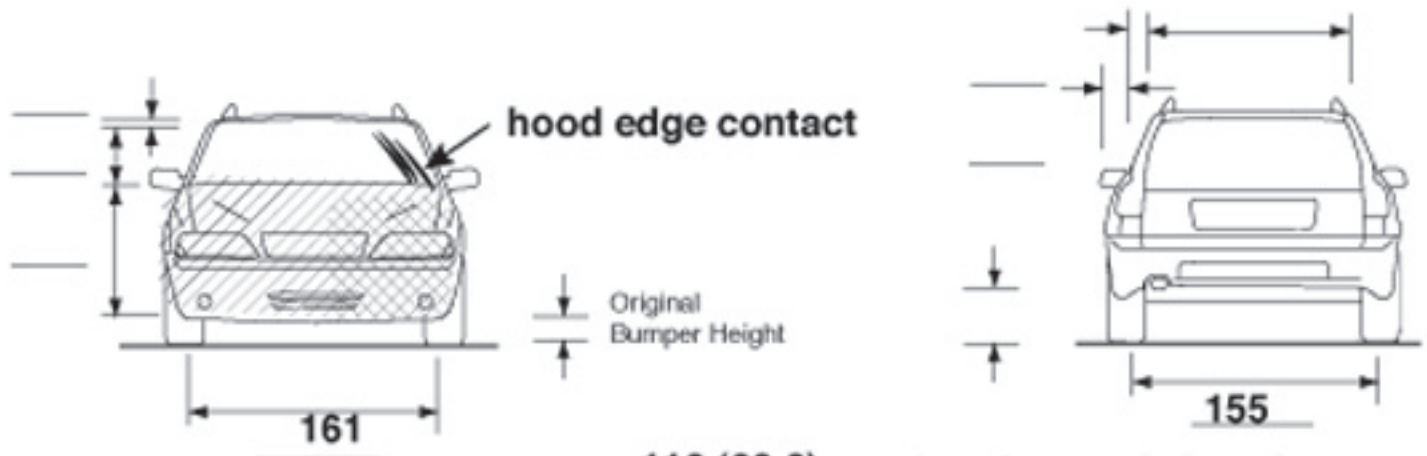
O A C

DW1327

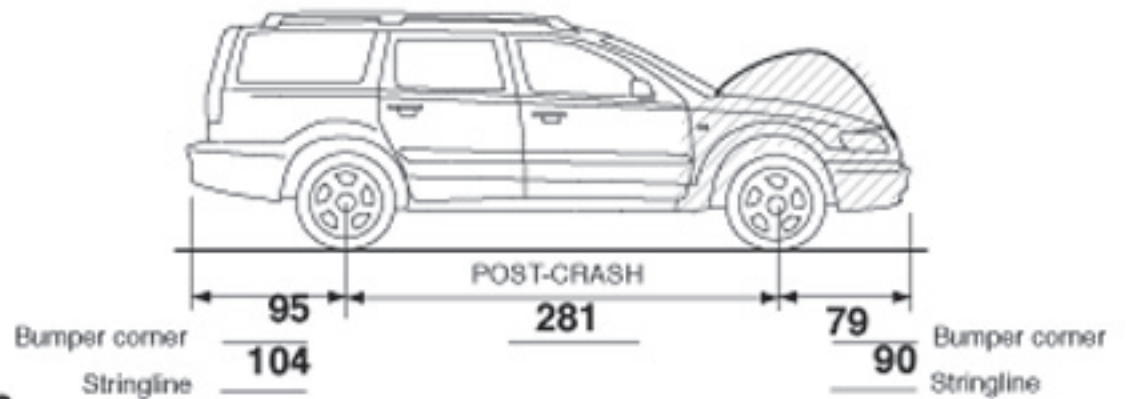
MEASUREMENTS IN CENTIMETERS



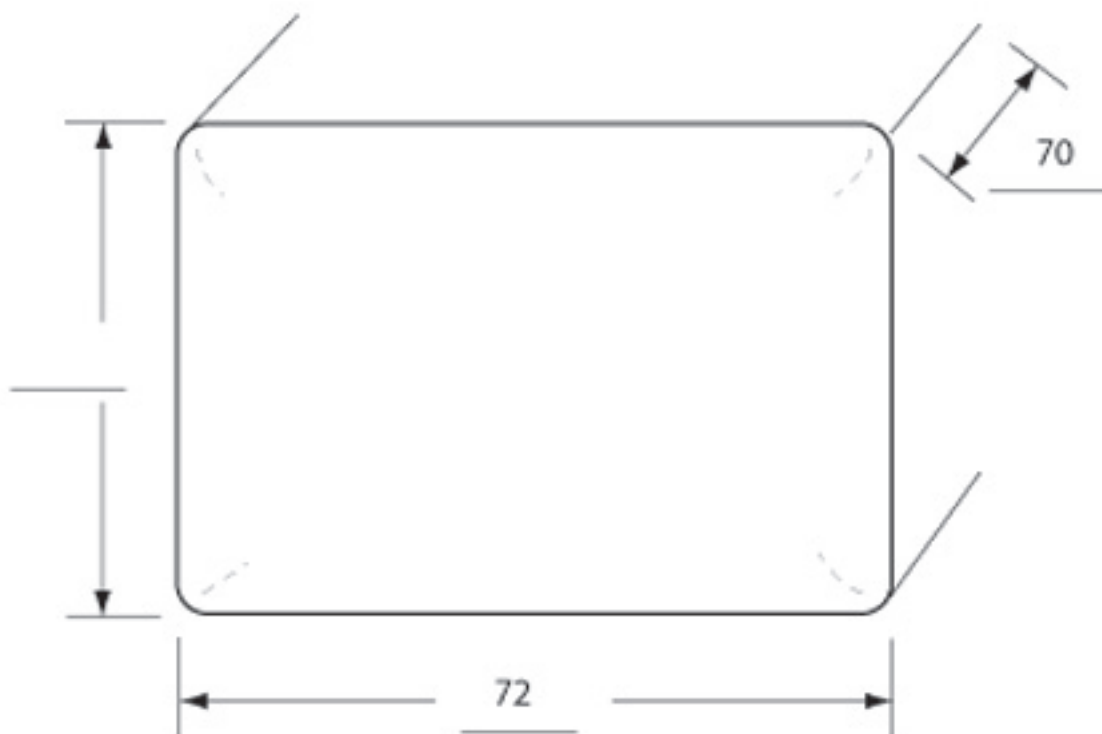
MEASUREMENTS IN CENTIMETERS



77 cm direct damage  
58 cm max crush at  
left-front bumper corner



### Passenger Airbag

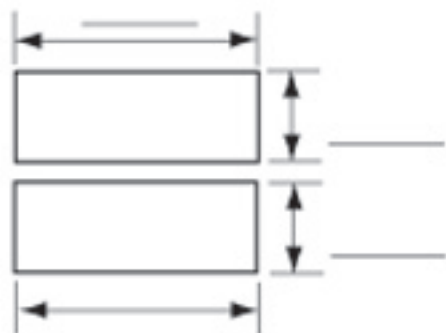


Vents:  Y  N  
if yes, how many: 1  
vent at 9 o'clock

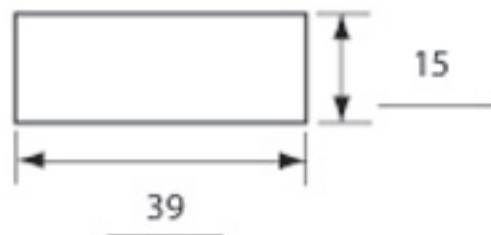
Tethers: Y  N  
if yes, how many: \_\_\_\_\_

### Passenger Airbag Doors

H-Pattern



Single Door











2007 Chevrolet

Document or receipt on the floor



GRAND MARQUE  
PARTICULAR



































**A WARNING**  
DO NOT ATTEMPT TO REPAIR  
THIS WINDOW GLASS WITH  
ANY GLASS REPAIR PRODUCTS  
OR POLISHES. ANY ATTEMPT  
TO DO SO MAY VOID YOUR  
WARRANTY AND AFFECT THE  
STRUCTURAL INTEGRITY OF  
THE GLASS.













































































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238835  
AAE ✓



















