Case 431: Narrative

Case Vehicle (A): 2000 Ford	Vehicle (B): 2000 Dodge	
Type: Windstar LX, 4x2, 4-door minivan	Type: Intrepid, 4-door sedan	
Driver: 38-year-old female	Driver: 27-year-old female	
CDC: 12-FDEW-3, 00-TYDO-2	CDC: 10-LYAW-6, 00-TDDO-2	

This is a fatal crash. The unbelted driver of vehicle (B) died as a result of head and chest injuries sustained in a left-side T-type impact.

SITUATION

1 It was daylight, the sky was cloudy, and the asphalt surface at the intersection of the two-lane eastwest and north-south roads with posted speed limits of 55 mph (89 kph) was dry and in good condition.

2 Case vehicle (A) was traveling west at an unknown speed in the westbound lane of the east-west road

3 and vehicle (B) was traveling south at an unknown speed in the southbound lane. 4 Both vehicles entered the intersection at the same time with vehicle (B) just in front of case vehicle (A). The driver of case vehicle (A) applied the brakes and steered to the left, but the front of case vehicle (A) struck the left side of vehicle (B) in a T-type impact. After the collision, case vehicle (A) rotated counterclockwise about 90ø while moving to the southwest, 5 as evidenced by tire marks on the road surface, and went down a small embankment, 6 as evidenced by gouges in the soft dirt. The front wheels dug into the dirt and case vehicle (A) rolled two quarter turns with the right side leading, and 7 came to rest on its roof in a swamp at the southwest corner of the intersection. Vehicle (B) also moved to the southwest, rotating about 45ø counterclockwise, 5 as evidenced by tire marks on the road surface, and went down the same small embankment, 6 as evidenced by the gouges in the soft dirt. Vehicle (B) then rolled three quarter turns onto its left side and came to rest in the same swamp. Both vehicles were towed due to damage.

The police accident report indicates A-level injuries for the driver of case vehicle (A) and K-level injuries for the driver of vehicle (B). Both drivers were transported by ambulance to a hospital, where the driver of case vehicle (A) was treated and released. The driver of vehicle (B) was pronounced dead five hours after the crash.

GENERAL VEHICLE DAMAGE AND ESTIMATED CRASH SEVERITIES

- 8 Damage to case vehicle (A) was moderate. 9 Direct damage from the frontal impact began at the right-front bumper corner and extended 150-cm across the front to the left headlight assembly, resulting in a 94-percent vehicle overlap (% VOL). The maximum rearward crush was 48 cm and it occurred at the center of the bumper. 10 The maximum downward roof crush from the rollover was 5 cm and it occurred at the center-front area of the roof.
- 11 Damage to vehicle (B) was severe. 12 Direct damage from the left-side impact began at the left-front axle and extended 240-cm rearward to the left-rear axle. The maximum lateral crush was 77 cm and it occurred at the rear edge of the driver door. 13 The maximum crush from the rollover was 9 cm and it occurred at the center front of the roof. Rollover damage included indentations and scuffmarks on the

right fender, on both right-side doors, and on the left fender and left quarter panel. 14 The left wheelbase was reduced by 26 cm 15 and the right wheelbase was increased by 4 cm.

Using the WinSMASH crash-reconstruction program and 16 17 18 crush profiles measured for the front of case vehicle (A) at the level of the bumper and 19 20 21 above the door sill for the left side of vehicle (B), the following impact severities were estimated for the T-type impact:

		Estimated Velocity Change - kph (mph)			
Vehicle	Variable	Total	Latitudinal		
Case Vehicle (A)	delta V	43 (27)	-43 (-26)	-8 (-5)	
Vehicle (B)	delta V	49 (31)	-9 (-5)	48 (30)	

DESCRIPTION OF DAMAGE TO CASE VEHICLE (A)

Exterior

22 23 24 In the front, the bumper and the hood were crushed rearward. The hood was dented and the hood latch was damaged and jammed closed, but the hood had been pried open by emergency personnel. 25 26 Both hood hinges were damaged and 27 the rear edge of the hood was slightly elevated, but 28 it did not contact the windshield, which was cracked throughout due to body distortion. 10 The front section of the roof forward of the A-pillar and above the front-row passenger area was crushed down from the rollover.

On the right side, 29 the front section of the fender was crushed to the left and the fender and left-front wheel were crushed rearward, reducing the wheelbase by 6 cm. 30 The rear section of the right fender and the exterior panel of the right-front door were dented from contact with the ground during the rollover, as evidenced by sod in the handle of the sliding door. 31 Both right-side doors were closed and operational, and the right-side glazing was intact. There was no other damage to the right side of case vehicle (A).

- 32 There was no damage to the rear of the vehicle.
- 33 On the left side, the forward section of the fender was bowed out. 34 There was no other left-side damage, both left-side doors were closed and operational, all door glazing was intact, and there was no change in left wheelbase.

Interior

This vehicle was equipped with steering-wheel and dash-mounted frontal-impact airbags and 35 36 37 both deployed during the frontal impact. 38 In the driver area, there was no damage to the steering-wheel airbag or 39 to the module cover. 40 41 There was no damage to the steering-wheel rim or to the spokes but 42 the steering column was displaced up and to the right. 43 The windshield header, the roof headliner, and the roof in the driver area were buckled and the roof headliner was stained with mud and dirt from the boots of rescue personnel. 44 The mid section of the instrument panel was loose and 45 the junction of the right knee bolster, the mid section of the instrument panel, and the vertical console were scuffed and dented. 46 There was no other damage to the interior in the driver area.

47 In the center-front area, the windshield header and the roof were crushed down and 48 the rearview

mirror was cracked and off its mount. 49 The upper-right vent outlet was loose and the vertical console was slightly separated from the center stack. There was no other damage in the center-front area.

In the right-front seating area, <u>50 51</u> the dash-mounted airbag was deployed but it was not damaged. <u>52 53</u> There was no other damage in the right-front passenger area.

<u>54 55</u> In the rear seating areas, the headliner was stained with mud and dirt from the boots of rescue personnel and <u>56</u> the headrests of the second- and third-row seatbacks had been removed to extricate the driver through the rear door. <u>57 58 59 60 61</u> There was no other damage in the rear seating areas.

The following intrusions were noted and measured:

Location	Component	Distance (cm)	Direction
driver	roof	3	down
center front	roof	5	down
right front	roof	3	down

OCCUPANT KINEMATICS AND INJURIES

The 170-cm, 91-kg (5-ft 7-in, 200-lb) 38-year-old female driver was <u>not</u> using the three-point belt but 62 the steering-wheel airbag deployed. 63 There were no witness marks on the D-ring 64 or on the continuous loop of the sliding latch plate to indicate belt use at the time of the frontal collision with the left side of vehicle (B).

During the frontal impact, the female driver moved forward and slightly to the right relative to the vehicle interior, into the knee bolster and the airbag. She sustained an abrasion to the cornea of the right eye, probably from contact by the deploying airbag. She sustained sprains to the right hip and right ankle, probably from foot contact with the brake pedal while braking during the frontal impact.

The following table and attached drawing <u>65</u> summarize the injuries for the driver of case vehicle (A).

Occupant: Driver	Age: 38 years		Gender: Female		
Restraints: Steering-wheel airbag	Stature: 170 cm (5 ft, 7 in)		Mass: 91 kg (200 lb)		lb)
Injury Description		A.I.S.	Ir	Injury Source	
_		_	Definite	Probable	Possible
Abrasion, cornea of right eye		1		Airbag	
Sprain, right hip		1	_	Braking with foot on brake pedal	I — I
				Brake	

Sprain, right ankle	1	_	pedal (braking)	_
Maximum A.I.S. Level	1			
Injury Severity Score	2			

CASE NO.: 431

CASE VEHICLE: 2000 Ford

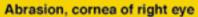
TYPE: Windstar LX, 4x2, 4-door minivan

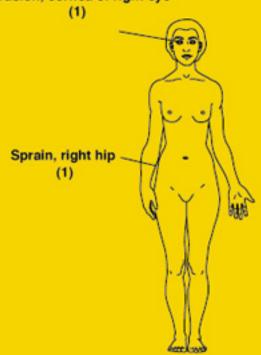
OCCUPANT: Driver: 38-year-old female

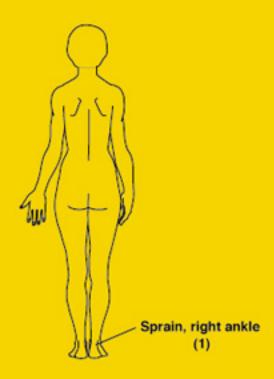
STATURE: 170 cm (5 ft, 7 in) MASS: 91 kg (200 lb)

RESTRAINTS: Steering-wheel airbag

SEVERITY: MAIS - 1: ISS - 2







Case No.: 431 Case Veh. (A): 2000 Ford

Type: Windstar LX, 4x2, 4-door minivan

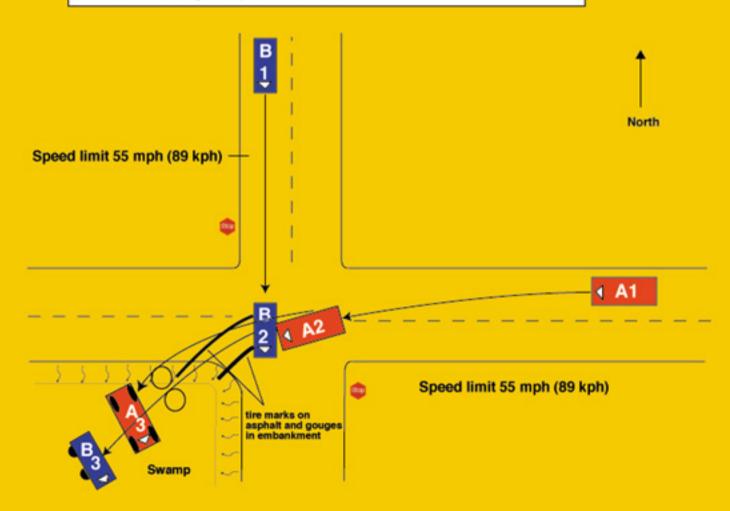
Driver: 38-year-old female

Veh. (B): 2000 Dodge Intrepid, 4-door sedan

Light Conditions: Daylight

Weather: Cloudy 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

Back to Top

Variable Number and Name	Code Value	Code Description	Other Options
V206 — Urban/Rural Area	2	Rural	more
V207 — Limited Access Highway	0	No	more
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	more
V212 — Construction Zone	0	No	more
V213 — Road Alignment Vertical Plane	1	Level	more
V214 — Road Alignment Horizontal Plane	1	Straight	more
V215 — Surface Covering	10	Dry	<u>more</u>
V216 — Visibility Limitation	0	None	<u>more</u>
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	9 Unknown	
V223 — Light Conditions	1	Daylight	<u>more</u>
V224 — Mechanical Malfunction Mention	0	No	more
V225 — Case Vehicle and Object	0	No	<u>more</u>
V226 — Case Vehicle Rollover	2	Yes, Subsequent Event	<u>more</u>
V227 — Case Vehicle Ran Off Roadway	0	No	more
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	0 No	
V231 — Total Vehicles Hit By Case Vehicle	1	1 vehicle	more
V232 — Any Fire in Crash	0	No	<u>more</u>
V233 — Max Police Severity-PAR	4	K - Fatal	<u>more</u>
V234 — Driver Alcohol Involvement	0	Had not been drinking	<u>more</u>
V235 — Driver Alcohol BAC	80	Not tested	<u>more</u>
V236 — Driver Impairment Mention	0	No	<u>more</u>
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	2B3HD46R2YH2	_	_
V302 — Other Vehicle Manufacturer/Body Code	23229	_	_
V303 — Other Vehicle Manufacturer	232	Dodge	<u>more</u>
V304 — Other Vehicle Body Code	29	Full 110-114.9 in. wb.	<u>more</u>
V305 — Other Vehicle Make/Model	0739	Intrepid	<u>more</u>
V306 — Other Vehicle Model Year	2000	_	
V307 — Other Vehicle Mass	001578 kg	_	
V308 — Other Vehicle Number	2	Vehicle #2	<u>more</u>
V309 — Other Vehicle Number of Occupants	01	_	_
V310 — Other Vehicle Traveling Speed	999	Unknown	more

V311 — Highest Police Injury Severity	4	K - Fatal	more
V312 — Other Vehicle Type	29	Full 110-114.9 in. wb.	<u>more</u>
V313 — Other Vehicle Wheelbase (cm)	287 cm	_	_
V314 — Average Track Width	158 cm	_	
V315 — Overall Length	518 cm	_	
V316 — Overall Width (OAW)	190 cm	_	
V317 — Front Overhang (FOH)	108 cm	_	
V318 — Rear Overhang (ROH)	123 cm	_	
V319 — Undeformed End Width (UEW)	148 cm	_	_
V320 — Engine Displacement	2.7 <i>l</i>	_	
V321 — Engine: Number of Cylinders	06	_	_
V322 — Direct Damage Length (DDL)	999	Unknown	more
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



General	CHER TOT C	<u> 10p</u>	
Variable Number and Name	Code Value	Code Description	Other Options
V401 — VIN	2FMZA5147YBA	_	
V402 — Manufacturer/Body Code	22111	_	
V403 — Vehicle Manufacturer	221	Ford/Canada	<u>more</u>
V404 — Vehicle Body Code	11	_	_
V405 — Make/Model Code	3133	Windstar	more
V406 — Model Year	2000	_	_
V407 — Vehicle Mass	001808 kg	_	
V408 — Odometer Reading	888888	_	
V409 — Number of Occupants	01	_	
V410 — Traveling Speed	999	Unknown	<u>more</u>
V411 — Body Type	24	Van (small)	more
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	<u>more</u>
V416 — Steering	1	Power	<u>more</u>
V417 — Brakes	1	Power	<u>more</u>
V418 — Brake Type	2	Disc - front wheels	<u>more</u>
V419 — Brake Anti-lock Device	2	Four-wheel	<u>more</u>
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	<u>more</u>
V425 — Roof Type	1	Solid	more
V426 — Wheelbase	307 cm	_	
V427 — Anti-lacerative Glass	0	None	<u>more</u>
V428 — Average Track Width	162 cm	_	
V429 — Overall Length	512 cm		
V430 — Overall Width (OAW)	192 cm	_	
V431 — Front Overhang	102 cm		
V432 — Rear Overhang	103 cm	_	
V433 — Undeformed End Width (UEW)	160 cm	_	
V434 — Engine Displacement	3.8 <i>l</i>	_	
V435 — Engine: Number of Cylinders	06	_	
V436 — Direct Damage Length (DDL)	150 cm		
V437 — Front End Overlap % (FEO)	94		
V438 — Vehicle Overlap % (VOL)	86		

Case Vehicle Damage Description

Variable Number and Name	Code Value	Code Description	Other Options
V501 — Maximum Crush - Front	048 cm		
V502 — Maximum Crush - Right Side	000 cm	No crush (or less than 1 cm.)	more
	000 cm	No crush (or	

V503 — Maximum Crush - Rear		less than 1 cm.)	more
V504 — Maximum Crush - Left Side	000 cm	No crush (or less than 1 cm.)	more
V505 — Maximum Crush - Roof	005 cm	_	_
V506 — Maximum Crush - Other	000 cm	No crush (or less than 1 cm.)	more
V507 — Are Events In Chronological Order	1	Yes	<u>more</u>
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	29	Full 110- 114.9 in. wb.	<u>more</u>
V511 — Event 2 Impact Location	3	On Roadside	more
V512 — Event 2 Impact Configuration	61	Case vehicle rollover - less than 360 degrees	more
V513 — Event 2 Object/Vehicle Contacted	79	Embankment, snowbank, RR tracks, RR crossing	more
V514 — Event 3 Impact Location	8	No 3rd event	more
V515 — Event 3 Impact Configuration	88	No 3rd event	<u>more</u>
V516 — Event 3 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V517 — Event 4 Impact Location	8	No 4th event	more
V518 — Event 4 Impact Configuration	88	No 4th event	<u>more</u>
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	<u>more</u>
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	<u>more</u>
V525 — Event 6 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V526 — Event 7 Impact On Road	8	No 7th event	<u>more</u>
V527 — Event 7 Impact Configuration	88	No 7th event	<u>more</u>
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 - impact speed	999	Unknown	more
V531 — Primary CDC Case Vehicle - Estimated By	1	Investigator	more
V532 — Primary CDC Case Vehicle -crush	048		_
V533 — Primary CDC Case Vehicle -clock #1	12	12 o'clock	more
V534 — Primary CDC Case Vehicle letter 1 #1	06	F - Front	<u>more</u>
V535 — Primary CDC Case Vehicle letter 2 #1	04	D - Distributed (Side or End)	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	<u>more</u>
V539 — Primary CDC Case Vehicle -CDC #1	12FDEW3		
V541 — Primary CDC Case Vehicle letter 1 #2	00	Missing Data/Not applicable	more
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

TITAL D: CDC C VIII CDC III	9800000		
V546 — Primary CDC Case Vehicle -CDC #2			<u> </u>
V547 — Primary CDC Contacted Vehicle - Impact Speed	999	Unknown	<u>more</u>
V548 — Primary CDC Contacted Vehicle - Estimated By	1	Investigator	<u>more</u>
V549 — Primary CDC Contacted Vehicle -crush	077		_
V550 — Primary CDC Contacted Vehicle -clock #1	10	10 o'clock	more
V551 — Primary CDC Contacted Vehicle letter 1 #1	12	L - Left Side	<u>more</u>
V552 — Primary CDC Contacted Vehicle letter 2 #1	25	Y - Side or end (F + P or L + C)	more
V553 — Primary CDC Contacted Vehicle letter 3 #1	01	A - All or Top of vehicle to bottom of vehicle exclusive of	<u>more</u>
V554 — Primary CDC Contacted Vehicle letter 4 #1	23	W - Wide impact area	<u>more</u>
V555 — Primary CDC Contacted Vehicle Extent #1	06	Extent 6	more
V556 — Primary CDC Contacted Vehicle -CDC #1	10LYAW6		_
V558 — Primary CDC Contacted Vehicle letter 1 #2	00	Missing Data/Not applicable	more
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	2	Event 1	<u>more</u>
V565 — Secondary CDC Case Vehicle - Impact Speed	999	Unknown	more

V566 — Secondary CDC Case Vehicle - Estimated By	1		_
V567 — Secondary CDC Case Vehicle -crush	005	_	_
V568 — Secondary CDC Case Vehicle -clock #1	00	Nonhorizontal force	more
V569 — Secondary CDC Case Vehicle letter 1 #1	20	T - Top	more
V570 — Secondary CDC Case Vehicle letter 2 #1	25	Y - Side or end (F + P or L + C)	more
V571 — Secondary CDC Case Vehicle letter 3 #1	04	D - Distributed	more
V572 — Secondary CDC Case Vehicle letter 4 #1	15	O - Rollover (includes rolling onto side)	more
V573 — Secondary CDC Case Vehicle Extent #1	02	Extent 2	<u>more</u>
V574 — Secondary CDC Case Vehicle -CDC #1	00TYDO2		_
V576 — Secondary CDC Case Vehicle letter 1 #2	00	Missing Data/Not applicable	<u>more</u>
V577 — Secondary CDC Case Vehicle letter 2 #2	00	Missing Data/Not applicable	<u>more</u>
V578 — Secondary CDC Case Vehicle letter 3 #2	00	Missing Data/Not applicable	<u>more</u>
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	<u>more</u>
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
	00	Missing	

V586 — Secondary CDC Contacted Vehicle letter 1 #1		Data/Not applicable	<u>more</u>
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	00	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	1		
Vehicle			
Primary		_	
Impact			
Number			
V602 —	043 kph		

Primary Impact Total Delta-V			_
V603 — Primary Case Vehicle Reconstructed Longitudinal Delta-V	-042 kph		_
V604 — Primary Case Vehicle Reconstructed Lateral Delta- V	-007 kph		_
V605 — Primary Case Vehicle Reconstructed Crush Energy	0106 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 Total Delta-V	050 kph	_	_
V609 — Primary Contacted Vehicle Reconstructed Longitudinal Delta-V	-009 kph		
V610 — Primary Contacted Vehicle Reconstructed	0049 kph	_	_

Lateral Delta- V			
V611 — Primary Contacted Vehicle Reconstructed Crush Energy	0191 kJ	_	_
V612 — Case Vehicle Secondary Impact Number	2		_
V613 — Secondary Case Vehicle Reconstructed Total Delta-V	999	Unknown	more
V614 — Secondary Case Vehicle Reconstructed Longitudinal Delta-V	9999	_	_
V615 — Secondary Case Vehicle Reconstructed Lateral Delta- V	9999	_	_
V616 — Secondary Case Vehicle Reconstructed Crush Energy	9999	_	_
V617 — Secondary Case Vehicle Reconstruction Note	04	Rollover	<u>more</u>
V618 — Secondary Case Vehicle Reconstruction Mode	5	Not reconstructed	more
V619 — Secondary	888		

Contacted Vehicle Reconstructed Total Delta-V		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	037 kph		_
V625 — Primary Case Vehicle Reconstructed Longitudinal EBS	-036 kph		_
V626 — Primary Case Vehicle Reconstructed Lateral EBS	-006 kph		_
V627 — Primary Case Vehicle	0106 kJ	_	_

Reconstructed Crush Energy			
V628 — Primary Case Vehicle Reconstruction Note	22	Reconstructed, moderate confidence level	more
V629 — Primary Case Vehicle Reconstruction Mode	2	CDC & detailed damage	more
V630 — Primary Contacted Vehicle Reconstruction Total EBS	055 kph		_
V631 — Primary Contacted Vehicle Reconstruction Longitudinal EBS	-010 kph	_	_
V632 — Primary Contacted Vehicle Reconstruction Lateral EBS	0054 kph	_	_
V633 — Primary Contacted Vehicle Reconstruction Crush Energy	0191 kJ	_	_
V634 — Case Vehicle Secondary Impact Number	2		
V635 — Secondary Case Vehicle Reconstruction Total EBS	999	Unknown	more

V636 — Secondary Case Vehicle Reconstruction Longitudinal EBS		_	_
V637 — Secondary Case Vehicle Reconstruction Lateral EBS	9999		—
V638 — Secondary Case Vehicle Reconstruction Crush Energy	9999		_
V639 — Secondary Case Vehicle Reconstruction Note		Rollover	more
V640 — Secondary Case Vehicle Reconstruction Mode	5	Not reconstructed	<u>more</u>
V641 — Secondary Contacted Vehicle Reconstruction Total EBS	888	N/A	more
V642 — Secondary Contacted Vehicle Reconstruction Longitudinal EBS	8888		
V643 — Secondary Contacted Vehicle Reconstruction Lateral EBS	8888	_	_
V644 — Secondary Contacted	8888		

Vehicle Reconstruction Crush Energy		_	_
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]	150 cm	_	_
V648 — Case Vehicle Impact 1 Max Crush	048 cm		_
V649 — Case Vehicle Impact 1 Field-L	131 cm		_
V650 — Case Vehicle Impact 1 C1	021 cm		_
V651 — Case Vehicle Impact 1 C2	017 cm	_	_
V652 — Case Vehicle Impact 1 C3	048 cm	_	
V653 — Case Vehicle Impact 1 C4	035 cm		_
V654 — Case Vehicle Impact 1 C5	026 cm		
V655 — Case Vehicle Impact 1 C6	015 cm	_	_
V656 — Case Vehicle Impact 1 +/- D	0005 cm	_	

V657 — Case Vehicle Reconstructed Impact Number	2	_	_
V658 — Case Vehicle Impact 2 Plane	5	Other	<u>more</u>
V659 — Case Vehicle Impact 2 Direct Damage Length [DDL]	998	Not applicable	more
V660 — Case Vehicle Impact 2 Max Crush	005 cm		_
V661 — Case Vehicle Impact 2 Field-L	998	Not applicable	more
V662 — Case Vehicle Impact 2 C1	998	Not applicable	more
V663 — Case Vehicle Impact 2 C2	998	Not applicable	more
V664 — Case Vehicle Impact 2 C3	998	Not applicable	more
V665 — Case Vehicle Impact 2 C4	998	Not applicable	more
V666 — Case Vehicle Impact 2 C5	998	Not applicable	more
V667 — Case Vehicle Impact 2 C6	998	Not applicable	more
V668 — Case Vehicle Impact 2 +/- D	0998 cm	_	_
V669 — Other Vehicle Reconstructed	1	_	_

Impact			
Number			
V670 — Other	4		
Vehicle		Above sill	<u>more</u>
Impact 1 Plane			
V671 — Other	240 cm		
Vehicle			
Impact 1 Direct		_	
Damage			
Length [DDL]			
V672 — Other	077 cm		
Vehicle			
Impact 1 Max			
Crush			
V673 — Other	257 cm		
Vehicle Impact 1		_	
Field-L			
V674 — Other	002 cm		
Vehicle		_	
Impact 1 C1			
V675 — Other	048 cm		
Vehicle		_	
Impact 1 C2			
V676 — Other	077 cm		
Vehicle		_	
Impact 1 C3	052 cm		
V677 — Other Vehicle	052 Cm		
Impact 1 C4		_	
V678 — Other	019 cm		
Vehicle	0.27 0	_	
Impact 1 C5			
V679 — Other	000 cm		
Vehicle		No Crush	<u>more</u>
Impact 1 C6			
V680 — Other	0010 cm		
Vehicle		_	-
Impact 1 +/- D			
V681 — Other	2		
Vehicle Reconstructed			
Impact		_	
Number			
V682 — Other	8		
	1	l l	

Vehicle Impact 2 Plane		Not applicable	more
V683 — Other Vehicle Impact 2 Direct Damage Length [DDL]	998	Not applicable	<u>more</u>
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	<u>more</u>
V687 — Other Vehicle Impact 2 C2	998	Not applicable	more
V688 — Other Vehicle Impact 2 C3	998	Not applicable	more
V689 — Other Vehicle Impact 2 C4	998	Not applicable	more
V690 — Other Vehicle Impact 2 C5	998	Not applicable	more
V691 — Other Vehicle Impact 2 C6	998	Not applicable	more
V692 — Other Vehicle Impact 2 +/- D	0998 cm		_

Case Vehicle Tires & Rims

Variable Number and Name	Code Value	Code Description	Other Options
V701 — Left Front Wheel Damaged	0	No	<u>more</u>
V702 — Right Front Wheel	0		

Damaged		No	<u>more</u>
V703 — Right Rear Wheel Damaged	0	No	<u>more</u>
V704 — Left Rear Wheel Damaged	0	No	<u>more</u>
V705 — Left Front Tire Tread Type	4	All Weather	<u>more</u>
V706 — Right Front Tire Tread Type	4	All Weather	<u>more</u>
V707 — Right Rear Tire Tread Type	4	All Weather	<u>more</u>
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	P21570R15	_	
V718 — Right Front Tire Size	P21570R15		
V719 — Right Rear Tire Size	P21570R15		
V720 — Left Rear Tire Size	P21570R15	_	_

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 - within vertically	<u>more</u>
V803 — Main Filler Cap Location	333	Right of frame laterally - above vertically	<u>more</u>
V804 — Main Tank Material	1	Steel	<u>more</u>
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	<u>more</u>
V901 — Fuel Leakage From Crash	0	No	more
V1001 — Fire In Or On Case Vehicle	0	No	more

Variable Number and Name	Code Value	Code Description	Other Options
V1101 — Hood Latch Released	0	No	more
V1102 — Hood Latch Damaged	1	Yes	more
V1103 — Hood Latch Jammed	1	Yes	more
V1104 — Left Hood Hinge Damaged	1	Yes	more
V1105 — Left Hood Hinge Separated	0	No	more
V1106 — Right Hood Hinge Damaged	1	Yes	more
V1107 — Right Hood Hinge Separated	0	No	more
V1108 — Hood Remained On Vehicle	1	Yes	more
V1109 — Rear Hood Edge Elevated	1	Yes	more
V1110 — Edge Contacted Windshield	0	No	<u>more</u>
V1111 — Edge Penetrated Windshield	8	Not applicable	more
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	more
V1118 — Comp Orig/Telescopd Diff	888	Not collected	more
V1119 — Left Side Body Mount Separation	8	Not applicable (unitized)	more
V1120 — Upper Left A-pillar Separation	0	No	more
V1121 — Lower Left A-pillar Separation	0	No	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	0	No	more

Separation			
V1126 — Upper Left D-pillar	0	No	more
Separation		110	more
V1127 — Lower Left D-pillar	0	No	more
Separation		110	more
V1128 — Left Front Door Opening	0	Door did not open	more
Cause		Boor did not open	more
V1129 — Left Rear Door Opening	0	Door did not open	<u>more</u>
Cause	0		
V1130 — Left Front Door Jammed Closed	U	No	<u>more</u>
V1131 — Left Rear Door Jammed	0		
Closed		No	<u>more</u>
V1132 — Rear Door Type	2	One-way tailgate	<u>more</u>
V1133 — Rear Door Opening Cause	0	Door did not open	<u>more</u>
V1134 — Rear Door Jammed Closed	0	No	<u>more</u>
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	8	Not applicable (unitiged)	****
Separation		Not applicable (unitized)	<u>more</u>
V1140 — Upper Right A-pillar	0	No	more
Separation		NO	more
V1141 — Lower Right A-pillar	0	No	more
Separation		110	more
V1142 — Upper Right B-pillar	0	No	more
Separation			
V1143 — Lower Right B-pillar	0	No	more
Separation	0		
V1144 — Upper Right C-pillar	0	No	more
Separation Pile G III	0		
V1145 — Lower Right C-pillar Separation	U	No	<u>more</u>
V1146 — Upper Right D-pillar	0		
Separation	j	No	<u>more</u>
V1147 — Lower Right D-pillar	0		
Separation		No	<u>more</u>
V1148 — Right Front Door Opening	00	Door did not open	more
Cause		Door did not open	more
V1149 — Right Rear Door Opening	00	Door did not open	more
Cause			

V1150 — Right Front Door Jammed Closed	0	No	<u>more</u>
V1151 — Right Rear Door Jammed Closed	0	No	<u>more</u>
V1152 — Van Rear Door Type	4	Track (sliding)-right & left side	<u>more</u>
V1153 — Windshield Cracked	Click for windshield damage figure	Yes	<u>more</u>
V1154 — Windshield Broken	0	No	<u>more</u>
V1155 — Windshield Cracked or Broken by Occupant	0	No	<u>more</u>
V1156 — Bond Separation Extent	0	None	<u>more</u>
V1157 — Windshield Code	Click for windshield code figure	_	_
V1158 — Did Sun/T Roof Open	8	Not Applicable	<u>more</u>

Case Vehicle Steering Column/Rim

Variable Number and Name	Code Value	Code Description	Other Options
V1201 — Steering Wheel Rim Damage	0	None	<u>more</u>
V1202 — Number of Steering Wheel Spokes	4	4 spokes	<u>more</u>
V1203 — Steering Wheel Spoke Damage	0	None	<u>more</u>
V1204 — Column Tilt Feature	2	Up	more
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
			l

V1209 — Column Energy Absorb Device	88	Not collected	more
V1210 — Column Ea Orig/Comprss Diff	888	Not collected	<u>more</u>
V1211 — Shear Capsule Separation	888	Not collected	<u>more</u>
V1212 — Column Vertical Rotation	1	Upward apparent rotation	more
V1213 — Column Lateral Rotation	2	Right apparent rotation	<u>more</u>
V1214 — Steering Wheel Hub Damage	0	None	more

Case Vehicle Intrusion

Click for intrusion figures

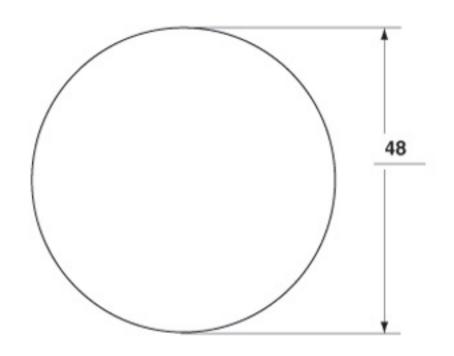
Variable Number and Name	Code Value	Code Description	Other Options
V1301 — Occupant Compartment Intrusion	1	Yes	more
V1302 — Was Intrusion Catastrophic	0	No	<u>more</u>
V1303 — Intrusion Number 01	01	Intrusion #1	<u>more</u>
V1304 — Intrusion 01 Occupant Space Number	11	First row, Left seat	more
V1305 — Intrusion 01 Intruding Object	15	Roof or convertible top	more
V1306 — Intrusion 01 Assoc Event Number	2	Event #2	more
V1307 — Intrusion 01 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	<u>more</u>
V1308 — Intrusion 01 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1309 — Intrusion 01 Max Intrusion Z-axis	03 cm	_	_
V1310 — Intrusion 01 Occupant Number	00	No contact or no intrusion	more
V1311 — Intrusion 01 Injury Number	00	No injury or no intrusion	<u>more</u>
V1312 — Intrusion 01 Occupant Number	00	No contact or no intrusion	more
V1313 — Intrusion 01 Injury Number	00	No injury or no intrusion	<u>more</u>
V1314 — Intrusion Number 02	02	Intrusion #2	<u>more</u>
V1315 — Intrusion 02 Occupant Space Number	12	First row, Center seat	more
V1316 — Intrusion 02 Intruding Object	15	Roof or convertible top	more

V1317 — Intrusion 02 Assoc Event Number	2	Event #2	more
V1318 — Intrusion 02 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1319 — Intrusion 02 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1320 — Intrusion 02 Max Intrusion Z-axis	05 cm	_	_
V1321 — Intrusion 02 Occupant Number	00	No contact or no intrusion	more
V1322 — Intrusion 02 Injury Number	00	No injury or no intrusion	<u>more</u>
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	more
V1326 — Intrusion 03 Occupant Space Number	13	First row, Right seat	more
V1327 — Intrusion 03 Intruding Object	15	Roof or convertible top	more
V1328 — Intrusion 03 Assoc Event Number	2	Event #2	more
V1329 — Intrusion 03 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1330 — Intrusion 03 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1331 — Intrusion 03 Max Intrusion Z-axis	03 cm	_	_
V1332 — Intrusion 03 Occupant Number	00	No contact or no intrusion	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	more
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	more

V1341 — Intrusion 04 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	<u>more</u>
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	<u>more</u>
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	<u>more</u>
V1346 — Intrusion 04 Injury Number	99	Contact, injury unknown or data not collected	<u>more</u>
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	more
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	<u>more</u>
V1359 — Intrusion 06 Occupant Space Number	00	No Intrusion, None	<u>more</u>
V1360 — Intrusion 06 Intruding Object	00	No Intrusion, None	more
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	00 cm		

Z-axis		0 cm or No Intrusion	<u>more</u>
V1365 — Intrusion 06 Occupant Number	00	No contact or no intrusion	<u>more</u>
V1366 — Intrusion 06 Injury Number	00	No injury or no intrusion	more
V1367 — Intrusion 06 Occupant Number	00	No contact or no intrusion	<u>more</u>
V1368 — Intrusion 06 Injury Number	99	Contact, injury unknown or data not collected	<u>more</u>
V1369 — Intrusion Number 07	00	No Intrusion, None	<u>more</u>
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	<u>more</u>
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

Driver Airbag

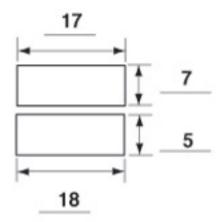


Vents: Y N
if yes, how many: 2

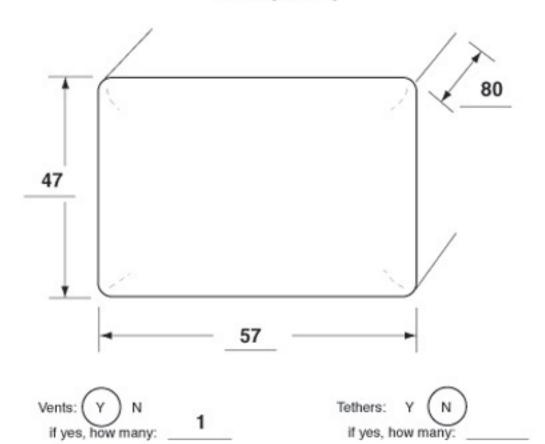
Tethers: Y N
if yes, how many: 2

@ 11 and 1 o'clock

Driver Airbag Doors

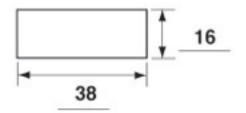


Passenger Airbag

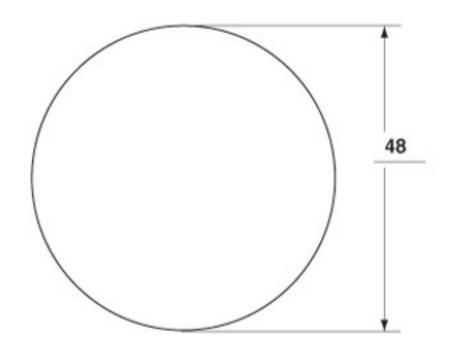


Passenger Airbag Doors

Single Door



Driver Airbag

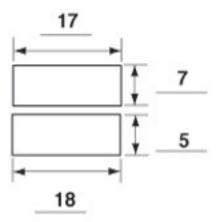


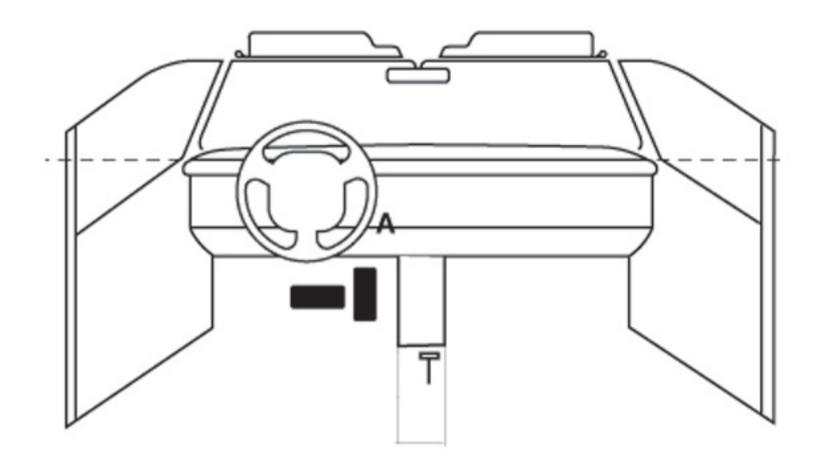
Vents: Y N
if yes, how many: 2

Tethers: Y N
if yes, how many: 2

@ 11 and 1 o'clock

Driver Airbag Doors





A = junction of knee bolster, mid instrument panel, and vertical console, scuffmark and indentation

1 = Definitely 2 = Probably 3 = Possible

INTRUSION IT-1

		(All Me	Dominant				
Location of Intrusion	Intruded Component	Comparison Value	_	Intruded Value	=	Intrusion	Dominant Crush Direction
11	Roof		_		=	3	down
12	Roof		_		=	5	down
13	Roof		_		=	3	down
			_		=		
			_		=		
			_		=		
			_		=		
			_		=		
			_		=		
			_		=		
			_		=		
			_		=		
			_		=		

OCCUPANT CONTACT WORKSHEET

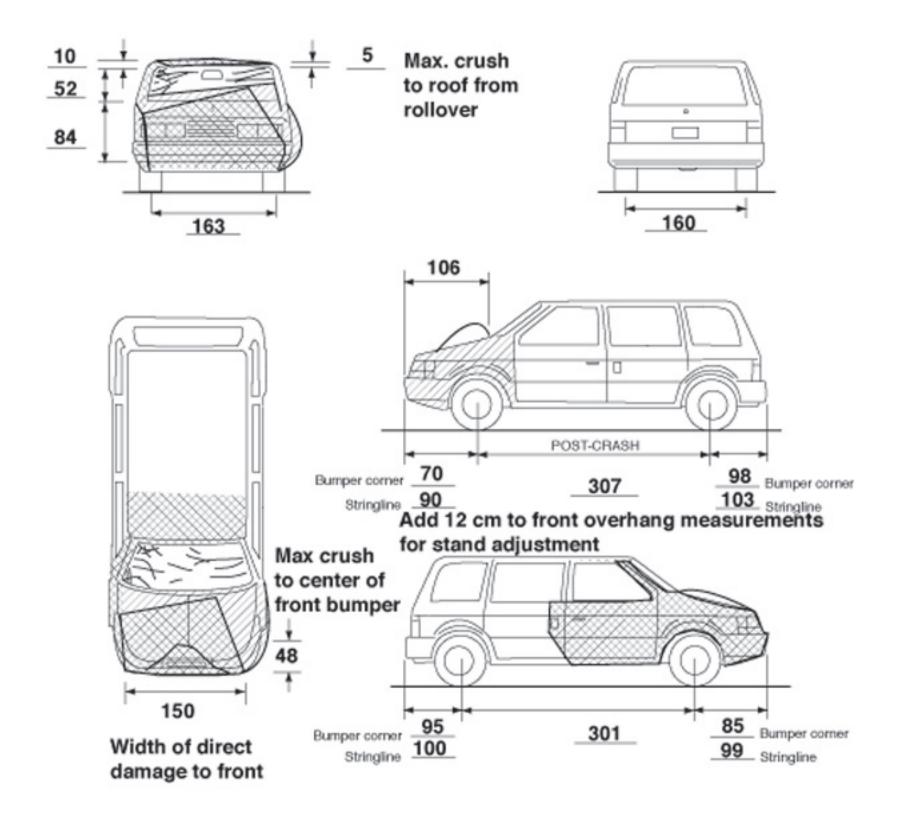
Contact	Interior Component Contacted	Occupant No. if Known	Body Region if Known	Supporting Physical Evidence	Confidence Level of Contact Point
	junction of knee bolster,	DR	Rt. LX	scuffmark and indentation	1
А	mid instrument panel and vertical console				
В					
С					
D					
Е					
F					
G					

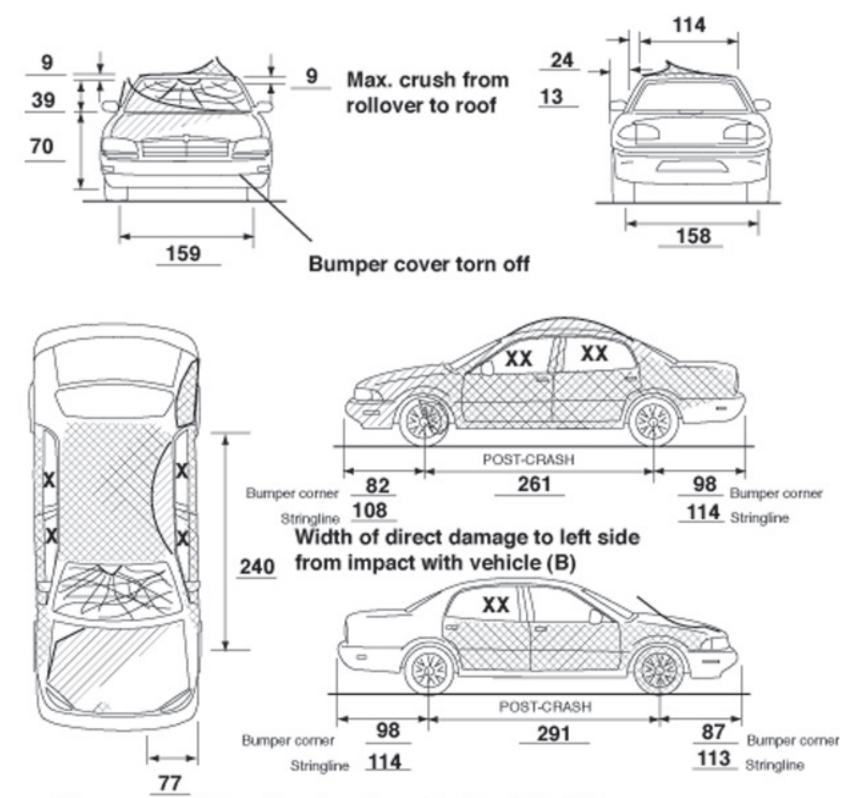


Windshield cracked due to a combination of impact forces and rollover damage

WINDSHIELD MARK ON CASE VEHICLE:

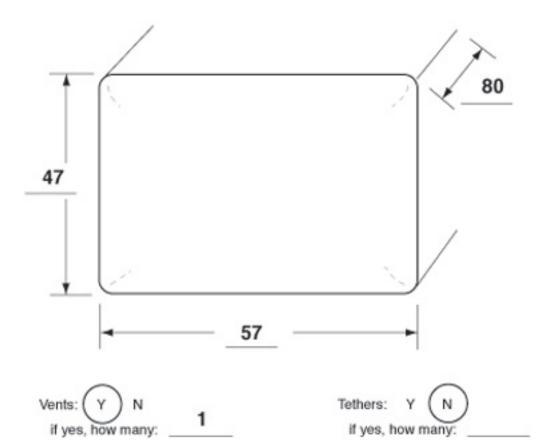






Max. crush to driver door from impact with vehicle (B)

Passenger Airbag



Passenger Airbag Doors

Single Door

