

Case 446 : Narrative

Case Vehicle (A): 2000 Pontiac	Vehicle (B): 2003 Mack
Type: Grand AM GT, 2-door coupe	Type: CX Series, tractor-trailer
Driver: 25-year-old female	Driver: 35-year-old male
CDC: 01-FDEW-2	CDC: 99-0000-0

SITUATION

[1](#) [2](#) [3](#) It was a clear day and the asphalt road surface was dry as case vehicle (A) was traveling south at an EDR-recorded speed of 20 mph in the southbound through-lane of a three-lane, two-way road, in an urban area. Case vehicle (A) was approaching a traffic-light-controlled four-way intersection with an east-west road. [4](#) Vehicle (B), a tractor-trailer rig with one trailer, was traveling east in the eastbound through-lane of the three-lane, east-west road. [5](#) Both vehicles entered the intersection at the same time without stopping and the female driver of case vehicle (A) applied the brakes but she was unable to prevent the front of her vehicle from striking the left side and left-front tire of the truck cab. [6](#) After the impact, case vehicle (A) rotated counterclockwise and exited the northeast edge of the intersection, where it came to rest facing northeast. Both vehicles were towed from the scene.

The police accident report (PAR) indicates A-level injuries for the driver of case vehicle (A) who was taken by ambulance to a local hospital where she was treated in the emergency department and released. The PAR indicates that the driver of vehicle (B) was not injured.

GENERAL VEHICLE DAMAGE AND ESTIMATED CRASH SEVERITIES

[7](#) Direct damage to the front of case vehicle (A) was moderate and extended 150-cm across the entire front. [8](#) The maximum rearward crush was 39 cm and it occurred 25-cm to the left of the right-front bumper corner.

Vehicle (B) was not available for inspection.

[9](#) [10](#) [11](#) [12](#) [13](#) Using the WinSMASH crash-reconstruction program and crush profiles measured for case vehicle (A), the following impact severity was estimated for the frontal impact to case vehicle (A):

		Estimated Velocity Change - kph (mph)		
Vehicle	Variable	Total	Longitudinal	Latitudinal
Case Vehicle (A)	EBS	33 (21)	-29 #(-18)	-17 (-10)

Case vehicle (A) was equipped with an Event Data Recorder (EDR) that recorded a maximum longitudinal velocity change of 20.6 mph at 150 ms into the event. The EDR data also indicate that the vehicle was traveling at 5 mph five seconds before the crash and it had accelerated to 20 mph at two seconds before the crash. The driver applied the brakes one second before the crash, which slowed the vehicle to 14 mph. The driver seatbelt was buckled and the right-front dash-mounted airbag was not

suppressed.

DESCRIPTION OF DAMAGE TO CASE VEHICLE (A)

Exterior

[14](#) In the front, the majority of the damage was to the right and center sections, but the damage extended into the left side, and the front end was shifted to the left. [15](#) The front bumper cover was damaged and separated from its attachments and the radiator support was crushed rearward into the engine compartment. [16](#) The grille was crushed, both headlight assemblies were broken, and the headlamps were shattered. [8](#) The hood latch was damaged and had released. The right-front and center-front sections of the hood were crushed and folded back and [10](#) there were tire transfer marks on the front of the hood from contact by the left-front tire of vehicle (B). [17](#) The left hood hinge was bent up and the [18](#) right hood hinge was bent and separated from its attachments, [19](#) which allowed the right-rear section of the hood to elevate. [20 21](#) There was no damage to the windshield, [22](#) to the roof, or to the sunroof, which was slightly open.

[23](#) On the right side, the fender was deformed and shifted to the left. [24 25](#) There was no damage to the right-side wheels but the right wheelbase was increased by 2 cm. [26](#) The right-side door was undamaged and operational, all the right-side glazing was intact, and there was no other damage to the right side of the vehicle.

[27](#) On the left side, the fender was deformed and shifted to the left. [28](#) There was no damage to the left-front wheel or tire, but the displaced fender restricted its rotation. [29](#) There was no damage to the left-rear wheel or tire but the left wheelbase was reduced by 3 cm. [30](#) The driver door was undamaged and operational and all the left-side glazing was intact. There was no other damage to the left side and [31](#) there was no damage to the rear of case vehicle (A).

Interior

[32](#) This vehicle was equipped with steering-wheel and dash-mounted frontal-impact airbags and both deployed during the frontal impact. In the driver seating area, [37](#) there was no damage to the steering-wheel airbag [38](#) but there was facial makeup on the right-center section of the fabric. There was no damage [40](#) to the driver knee bolster [41 42](#) but there was a scuffmark on the bolster cover to the right of the steering column. [33 34 35 36 39 43 44 45](#) There was no other damage in the driver seating area.

[46 47](#) There was no damage in the center-front or [48 49 50](#) right-front seating areas, and there were no intrusions into the occupant space.

OCCUPANT KINEMATICS AND INJURIES

[51](#) The 173-cm, 59-kg (5-ft 8-in, 130-lb) 25-year-old female driver was using the three-point belt and the [32](#) steering-wheel airbag deployed. Belt usage is indicated by [52 53 54 55](#) webbing loading marks on the D-ring and by [56 57](#) D-ring loading marks on the shoulder belt.

During the frontal impact, the driver moved forward and to the right relative to the vehicle interior, into the belt restraints, the airbag, and the knee bolster. She sustained lumbar strain from impact forces.

The following table [58](#) and attached drawing summarize the injuries for the belt-plus-airbag- restrained

driver.

Occupant: Driver	Age: 25 years	Gender: Female		
Restraints: 3-point belt; steering-wheel airbag	Stature: 173 cm (5 ft, 8 in)	Mass: 59 kg (130 lb)		
Injury Description	A.I.S.	Injury Source		
—	—	Definite	Probable	Possible
Lumbar strain	1	Impact forces	—	—
Maximum A.I.S. Level	1	—	—	—
Injury Severity Score	1	—	—	—

CASE NO.: 446

CASE VEHICLE: 2000 Pontiac

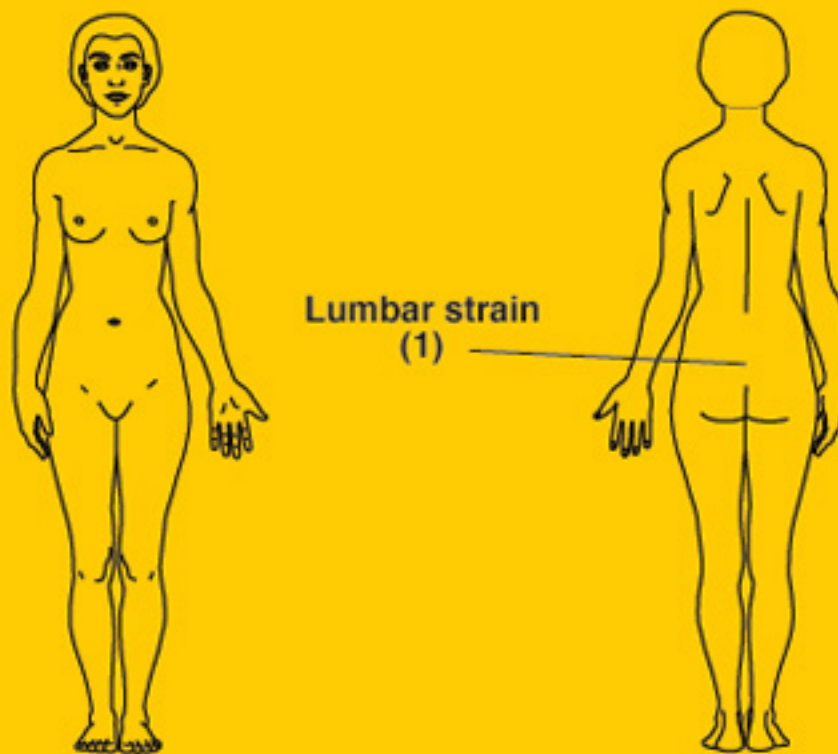
TYPE: Grand AM GT, 2-door coupe

OCCUPANT: (Driver) 25-year-old female

STATURE: 173 cm (5 ft, 8 in) MASS: 59 kg (130 lb)

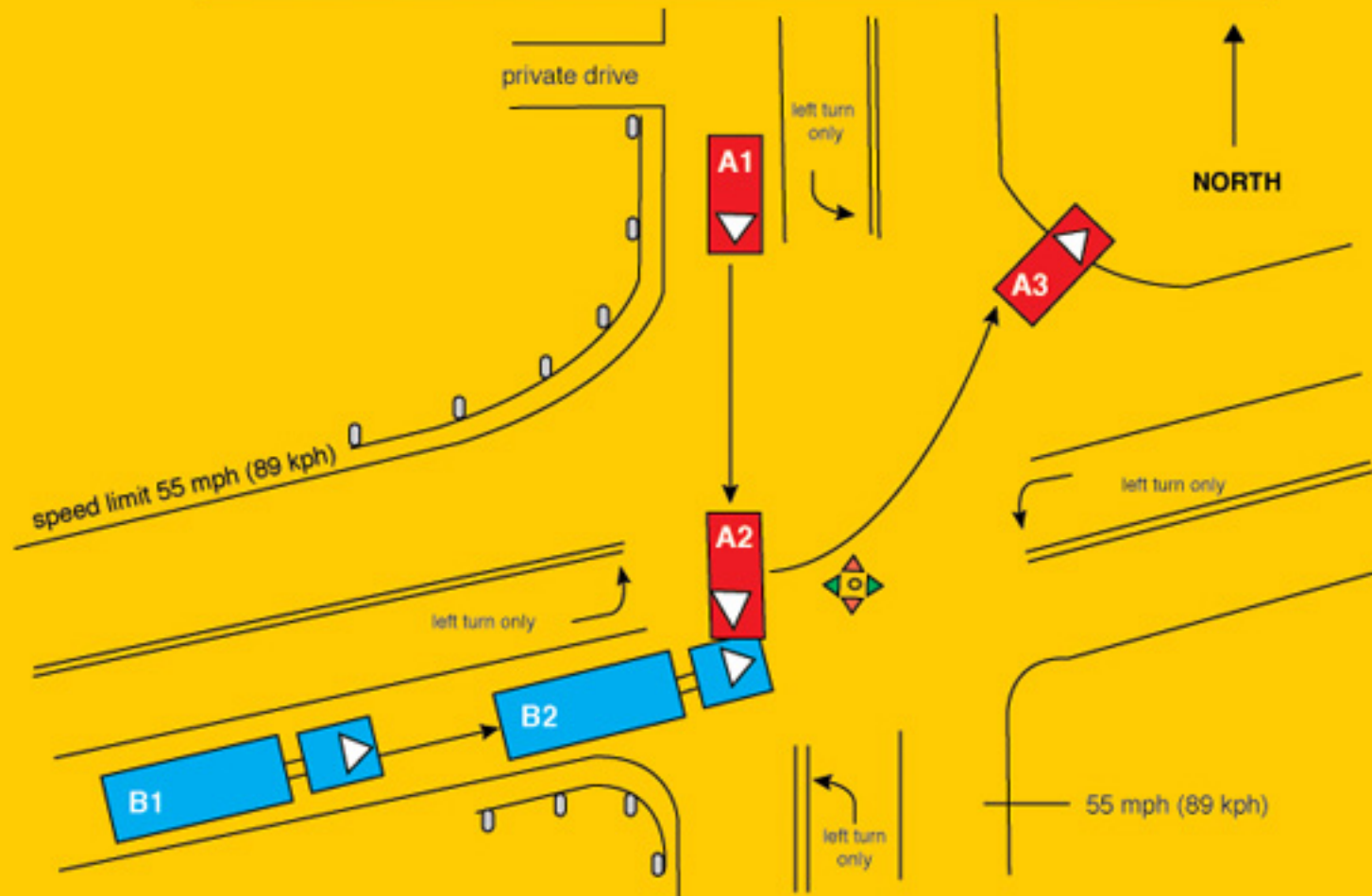
RESTRAINTS: 3-point belt; steering-wheel airbag

SEVERITY: MAIS - 1 ISS - 1



Case No.: 446
Case Veh. (A): 2000 Pontiac
Type: Grand AM GT, 2-door coupe
Driver: 25-year-old female
Vehicle (B): 2003 Mack CX Series, tractor-trailer

Weather: Clear
Road Surface: Dry
Road Construction: Asphalt
Light Condition: Daylight



UM-4259: Vehicle Report

Click on Section Name to jump directly to that Section —

- [General Information](#)
- [Other Vehicle](#)
- [Case Vehicle General](#)
- [Case Vehicle Damage Description](#)
- [Crash Reconstruction](#)
- [Case Vehicle Tires & Rims](#)
- [Case Vehicle Fuel Tank](#)
- [Case Vehicle Fuel Leakage](#)
- [Case Vehicle Fire](#)
- [Case Vehicle Exterior](#)
- [Case Vehicle Steering Column/Rim](#)
- [Case Vehicle Intrusion](#)
- [Case Vehicle Airbag\(s\)](#)
- [Case Vehicle Interior](#)
- [Case Vehicle Seats](#)
- [Case Vehicle Side Airbag\(s\)](#)
- [EDR -- Event Data Recorder](#)

General Information

[Back to Top](#)

Variable Number	Variable Name	Code Value	Code Description	Other Options
V0204	Collision Hour	0920	Time of day (24 hour clock)	more
V0205	State Fips Code	26	Michigan	more
V0206	Urban/rural Area	1	Urban	more
V0207	Limited Access Highway	0	No	more
V0208	Road Total Lanes	3	3 lanes	more
V0209	Intersect Road Total Lanes	3	3 lanes	more
V0210	Trafficway Flow	0	Not physically divided - two way traffic	more
V0211	Road Surface Type	1	Asphalt	more
V0212	Road Defects	0	No	more
V0213	Construction Zone	0	No	more
	Road Alignment Vertical			

V0214	Plane	1	Level	more
V0215	Road Alignment Horizontal Plane	1	Straight	more
V0216	Surface Covering	10	Dry	more
V0217	Visibility Limitation	0	None	more
V0218	Visibility Obstruction	0	None	more
V0219	Speed Limit	6	86-90 km/h .. 55 mph	more
V0220	Precipitation Type	0	None	more
V0221	Precipitation Rate	8	Not applicable	more
V0222	Temperature	9	Unknown	more
V0223	Crosswind	9	Unknown	more
V0224	Light Conditions	1	Daylight	more
V0225	Mechanical Malfunction Mention	0	No	more
V0226	Case Vehicle And Object	0	No	more
V0227	Case Vehicle Rollover	0	No	more
V0228	Rollover Location	0	No rollover	more
V0229	Roll Direction	0	No rollover	more
V0230	Rollover Initiation Type	0	No rollover	more
V0231	Rollover Number Of Turns	0	No rollover	more
V0232	Case Vehicle Preimpact Braking	1	Yes	more
V0233	Case Vehicle Preimpact Stability	1	Case vehicle tracking before impact	more
V0234	Case Vehicle Ran Off Roadway	0	No	more
V0235	Moving Case Vehicle Contacted Moving Vehicle	1	Yes	more
V0236	Case Vehicle Contacted Stopped Vehicle	0	No	more
V0237	Stopped Case Vehicle Contacted Vehicle	0	No	more
V0238	Total Vehicles Hit By Case Vehicle	1	1 vehicle	more
V0239	Any Fire In Crash?	0	No	more
V0240	Maximum Police Severity-acc	3	A - Incapacitating Injury	more
V0241	Driver Alcohol Involvmnt	0	Had not been drinking	more
V0242	Driver Alcohol BAC (Case Vehicle)	80	No test	more
V0243	Driver Impairment Mention	0	No	more

V0244	Driver Distraction	01	Attentive or not distracted	more
V0245	Driver Drug Involvement	0	None	more
V0246	Driver Drug Type	0	No drug use	more
V0247	Driven/towed From Scene	2	Towed Due to Damage	more

Other Vehicle

[Back to Top](#)

Variable Number	Variable Name	Code Value	Code Description	Other Options
V0301	Other Vehicle VIN	1M1AE06Y83XXXXXXX	Click for Contacted Vehicle figure	more
V0302	Other Vehicle Manufacturer/Body Code	16538	—	—
V0303	Other Vehicle Manufacturer	165	Mack	more
V0304	Other Vehicle Body Code	38	Truck-tractor with semi-trailer	more
V0305	Other Vehicle Make/model	8141	Mack Truck CD Series	more
V0306	Other Vehicle Model Year	2003	Year	more
V0307	Other Vehicle Mass	999999	Unknown	more
V0308	Other Vehicle Number	0	No separate report	more
V0309	Other Vehicle Number of Occupants	01	number of occupants	more
V0310	Other Vehicle Traveling Speed	999	Unknown	more
V0311	Highest Police Injury Severity	0	O - No Injury	more
V0312	Other Vehicle Type	38	Tractor and semi-trailer (semi)	more
V0313	Other Vehicle Wheelbase in Centimeters	999	Unknown wheelbase	more
V0314	Other Vehicle Average Track Width	999	Unknown	more
V0315	Other Vehicle Overall Length	999	Unknown	more
V0316	Other Vehicle Overall Width (OAW)	999	Unknown	more
V0317	Other Vehicle Front Overhang	999	Unknown	more

V0318	Other Vehicle Rear Overhang	999	Unknown	more
V0319	Other Vehicle Undeformed End Width (UEW)	999	Unknown	more
V0320	Other Vehicle Engine Displacement	9.9	Unknown	more
V0321	Other Vehicle Engine: Number of Cylinders	99	Unknown	more
V0322	Other Vehicle Direct Damage Length (DDL)	999	Unknown	more
V0323	Other Vehicle Front-End Overlap	99	Missing or Not applicable	more
V0324	Other Vehicle - Vehicle Overlap	99	Missing or Not applicable	more

Case Vehicle General

[Back to Top](#)

Variable Number	Variable Name	Code Value	Code Description	Other Options
V0401	VIN	1G2NW12E1YXXXXXXX	Click for Case Vehicle figure	more
V0402	Manufacturer/Body Code	11528	—	—
V0403	Vehicle Manufacturer	115	Pontiac	more
V0404	Vehicle Body Code	28	Intermediate 105-109.9 in. wb.	more
V0405	Make/model Code	0331	Grand Am	more
V0406	Model Year	2000	Model year	more
V0407	Vehicle Mass	001383 kg	Mass (Kg)	more
V0408	Odometer Reading	888888	—	—
V0409	Number of Occupants	01	1 occupant	more
V0410	Traveling Speed	032 kph	Speed (km/h)	more
V0411	Body Type	12	2-door sedan or coupe (any upper B-pillar)	more
V0412	Stolen Vehicle	8	Not currently collected	more
V0413	Body Structure	2	Unitized	more
V0414	Transmission Type	1	Automatic	more
V0415	Transmission Lever Location	2	Console	more
V0416	Steering	1	Power	more
V0417	Brakes	1	Power	more

V0418	Brake Type	2	Disc - front wheels	more
V0419	Adjustable Pedals?	0	No	more
V0420	Brake Anti-lock Device	2	Four-wheel	more
V0421	Air Conditioning in Vehicle	8	Not currently collected	more
V0422	Drive Type	2	Front wheel	more
V0423	Dual Rear Wheels	0	No	more
V0424	Original Restraint System Type	3	Air bag	more
V0425	Equipped With Roll Bar	0	No	more
V0426	Roof Type	5	Sun roof open	more
V0427	Case Vehicle Wheelbase in Centimeters	272 cm	Actual Wheelbase	more
V0428	Anti-lacerative Glass	8	Not Collected	more
V0429	Case Vehicle average track Width	150 cm	actual measurement (cm)	more
V0430	Case Vehicle Overall Length	475 cm	actual measurement (cm)	more
V0431	Case Vehicle Overall Width (OAW)	179	actual measurement (cm)	more
V0432	Case Vehicle Front Overhang	101 cm	actual measurement (cm)	more
V0433	Case Vehicle Rear Overhang	102 cm	actual measurement (cm)	more
V0434	Case Vehicle Undeformed End Width (UEW)	150 cm	actual measurement (cm)	more
V0435	Case Vehicle Engine Displacement	3.4 l	Liters	more
V0436	Case Vehicle Engine: Number of Cylinders	06	number of cylinders	more
V0437	Case Vehicle Direct Damage Length (DDL)	150 cm	actual measurement (cm)	more
V0438	Case Vehicle Front-end Overlap	98	98% or more	more
V0439	Case Vehicle - Vehicle Overlap	98	98% or more	more

Case Vehicle Damage Description

[Back to Top](#)

Variable Number	Variable Name	Code Value	Code Description	Other Options
V0501	Maximum Sheet Metal Crush - Front	039 cm	Depth of Crush (cm)	more
V0502	Maximum Sheet Metal Crush - Rear	000 cm	No Crush (or less than 1 cm.)	more
V0503	Maximum Sheet Metal Crush - Roof	000 cm	No Crush (or less than 1 cm.)	more
V0504	Maximum Sheet Metal Crush - Right Side	000 cm	No Crush (or less than 1 cm.)	more
V0505	Maximum Sheet Metal Crush - Left Side	000 cm	No Crush (or less than 1 cm.)	more
V0506	Maximum Sheet Metal Crush - Other	000 cm	No Crush (or less than 1 cm.)	more
V0507	Seq In Chronological Ord	1	Yes	more
V0508	Event 1 -impact Location	1	On Roadway	more
V0509	Event 1 -Impact Configuration	13	FRONT of case veh - SIDE of contacted veh	more
V0510	Event 1 -Object/Vehicle Contactd	38	Tractor and semi-trailer (semi)	more
V0511	Event 2 -impact Location	8	No 2nd event	more
V0512	Event 2 -Impact Configuration	88	No 2nd event	more
V0513	Event 2 -Object/Vehicle Contactd	00	No object/vehicle contacted	more
V0514	Event 3 -impact Location	8	No 3rd event	more
V0515	Event 3 -Impact Configuration	88	No 3rd event	more
V0516	Event 3 -Object/Vehicle Contactd	00	No object/vehicle contacted	more
V0517	Event 4 -impact Location	8	No 4th event	more
V0518	Event 4 -Impact Configuration	88	No 4th event	more
V0519	Event 4 -Object/Vehicle Contactd	00	No object/vehicle contacted	more
V0520	Event 5 -impact Location	8	No 5th event	more
V0521	Event 5 -Impact Configuration	88	No 5th event	more
V0522	Event 5 -Object/Vehicle Contactd	00	No object/vehicle contacted	more
V0523	Event 6 -impact Location	8	No 6th event	more
	Event 6 -Impact			

V0524	Configuration	88	No 6th event	more
V0525	Event 6 -Object/Vehicle Contactd	00	No object/vehicle contacted	more
V0526	Event 7 -impact Location	8	No 7th event	more
V0527	Event 7 -Impact Configuration	88	No 7th event	more
V0528	Event 7 -Object/Vehicle Contactd	00	No object/vehicle contacted	more
V0529	Primary CDC Case Vehicle - event Number	1	Event 1	more
V0530	Primary CDC Case Vehicle - Impact Speed (kph)	023	Impact speed (kph)	more
V0531	Primary CDC Case Vehicle- estimatr	6	EDR data	more
V0532	Primary CDC Case Vehicle - Crush (CM)	039	Crush measurements in cm	more
V0533	Primary CDC Case Vehicle- clock #1	01	1 o'clock	more
V0534	Primary CDC Case Vehicle- Letter 1 #1	06	F - Front	more
V0535	Primary CDC Case Vehicle- Letter 2 #1	04	D - Distributed (Side or End)	more
V0536	Primary CDC Case Vehicle- Letter 3 #1	05	E - Everything below belt line	more
V0537	Primary CDC Case Vehicle- Letter 4 #1	23	W - Wide impact area	more
V0538	Primary CDC Case Vehicle - Extent #1	2	—	—
V0539	Primary CDC - Contacted Vehicles Assoc CDC - CDC #1	01FDEW2	—	—
V0540	Primary CDC Case Vehicle- clock #2	98	Not Applicable	more
V0541	Primary CDC Case Vehicle- Letter 1 #2	00	Missing Data/Not applicable	more
V0542	Primary CDC Case Vehicle- Letter 2 #2	00	Missing Data/Not applicable	more
V0543	Primary CDC Case Vehicle- Letter 3 #2	00	Missing Data/Not applicable	more
V0544	Primary CDC Case Vehicle- Letter 4 #2	00	Missing Data/Not applicable	more
V0545	Primary CDC Case Vehicle - Extent #2	0	—	—

V0546	Primary CDC - Case Vehicle Assoc CDC - CDC #2	9800000	—	—
V0547	Primary CDC Contacted Vehicle - Impact Speed (kph)	999	Unknown	more
V0548	Primary CDC Contacted Vehicle-estimator	1	Investigator	more
V0549	Primary CDC Contacted Vehicle - Crush (CM)	999	Unknown	more
V0550	Primary CDC Contacted Vehicle-clock #1	99	Unknown or no damage	more
V0551	Primary CDC Contacted Vehicle-Letter 1 #1	00	Missing Data/Not applicable	more
V0552	Primary CDC Contacted Vehicle-Letter 2 #1	00	Missing Data/Not applicable	more
V0553	Primary CDC Contacted Vehicle-Letter 3 #1	00	Missing Data/Not applicable	more
V0554	Primary CDC Contacted Vehicle-Letter 4 #1	00	Missing Data/Not applicable	more
V0555	Primary CDC Contacted Vehicle - Extent #1	0	—	—
V0556	primary CDC - Contacted Vehicles Assoc CDC - CDC #1	9900000	—	—
V0557	Primary CDC Contacted Vehicle-clock #2	99	Unknown or no damage	more
V0558	Primary CDC Contacted Vehicle-Letter 1 #2	00	Missing Data/Not applicable	more
V0559	Primary CDC Contacted Vehicle-Letter 2 #2	00	Missing Data/Not applicable	more
V0560	Primary CDC Contacted Vehicle-Letter 3 #2	00	Missing Data/Not applicable	more
V0561	Primary CDC Contacted Vehicle-Letter 4 #2	00	Missing Data/Not applicable	more
V0562	Primary CDC Contacted Vehicle - Extent #2	0	—	—
V0563	Primary CDC - Contacted Vehicles Assoc CDC - CDC #2	9900000	—	—
V0564	Secondary CDC Case Vehicle-event No	8	Not applicable	more
V0565	Secondary CDC Case Vehicle - Impact Speed (kph)	998	Not Applicable	more

V0566	Secondary CDC Case Vehicle-estimator	8	Not applicable (no vehicle/no impact)	more
V0567	Secondary CDC Case Vehicle - Crush (CM)	998	Not Applicable	more
V0568	Secondary CDC Case Vehicle-clock #1	98	Not Applicable	more
V0569	Secondary CDC Case Vehicle-Letter 1 #1	00	Missing Data/Not applicable	more
V0570	Secondary CDC Case Vehicle-Letter 2 #1	00	Missing Data/Not applicable	more
V0571	Secondary CDC Case Vehicle-Letter 3 #1	00	Missing Data/Not applicable	more
V0572	Secondary CDC Case Vehicle-Letter 4 #1	00	Missing Data/Not applicable	more
V0573	SECONDARY CDC CASE VEHICLE - EXTENT #1	0	—	—
V0574	Secondary CDC - Case Vehicle Assoc CDC - CDC #1	9800000	—	—
V0575	Secondary CDC Case Vehicle-clock #2	98	Not Applicable	more
V0576	Secondary CDC Case Vehicle-Letter 1 #2	00	Missing Data/Not applicable	more
V0577	Secondary CDC Case Vehicle-Letter 2 #2	00	Missing Data/Not applicable	more
V0578	Secondary CDC Case Vehicle-Letter 3 #2	00	Missing Data/Not applicable	more
V0579	Secondary CDC Case Vehicle-Letter 4 #2	00	Missing Data/Not applicable	more
V0580	SECONDARY CDC CASE VEHICLE - EXTENT #2	0	—	—
V0581	Secondary CDC - Case Vehicle Assoc CDC - CDC #2	9800000	—	—
V0582	Secondary CDC Contacted Vehicle - Impact Speed (kph)	998	Not Applicable	more
V0583	Secondary CDC Contacted Vehicle-estimator	8	Not applicable (no vehicle/no impact)	more
V0584	Secondary CDC Contacted Vehicle - Crush (CM)	998	Not Applicable	more
V0585	Secondary CDC Contacted Vehicle-clock #1	98	Not Applicable	more
	Secondary CDC Contacted			

V0586	Vehicle-Letter 1 #1	00	Missing Data/Not applicable	more
V0587	Secondary CDC Contacted Vehicle-Letter 2 #1	00	Missing Data/Not applicable	more
V0588	Secondary CDC Contacted Vehicle-Letter 3 #1	00	Missing Data/Not applicable	more
V0589	Secondary CDC Contacted Vehicle-Letter 4 #1	00	Missing Data/Not applicable	more
V0590	Secondary CDC Contacted Vehicle - Extent #1	0	—	—
V0591	Secondary CDC - Contacted Vehicle Assoc CDC - CDC #1	9800000	—	—
V0592	Secondary CDC Contacted Vehicle-clock #2	98	Not Applicable	more
V0593	Secondary CDC Contacted Vehicle-Letter 1 #2	00	Missing Data/Not applicable	more
V0594	Secondary CDC Contacted Vehicle-Letter 2 #2	00	Missing Data/Not applicable	more
V0595	Secondary CDC Contacted Vehicle-Letter 3 #2	00	Missing Data/Not applicable	more
V0596	Secondary CDC Contacted Vehicle-Letter 4 #2	00	Missing Data/Not applicable	more
V0597	Secondary CDC Contacted Vehicle - Extent #2	0	—	—
V0598	Secondary CDC - Contacted Vehicle Assoc CDC - CDC #2	9800000	—	—

Crash Reconstruction

[Back to Top](#)

Variable Number	Variable Name	Code Value	Code Description	Other Options
V0601	Primary Delta-V Case Vehicle-event #	1	Event number 1	more
V0602	Primary Delta V Case Vehicle - Total Delta V	033 kph	kph	more
V0603	Primary delta-V Case Vehicle -LONGITUD	-029	—	—
V0604	Primary delta-V Case Vehicle-Lateral	-017	—	—
V0605	Primary Delta V Case Vehicle - Energy Dissipated	0979	—	—

	by Crush (k			
V0606	Primary Delta-V Case Vehicle-Reconstruction	22	Reconstructed, moderate confidence level	more
V0607	Primary Delta-V Case Vehicle- Mode	2	CDC & detailed damage	more
V0608	Primary Delta V Contacted Vehicle - Total Delta V	888	Not Applicable	more
V0609	Primary delta-V Contacted Vehicle-LONGITUD	8888	—	—
V0610	Primary delta-V Contacted Vehicle-Lateral	8888	—	—
V0611	Primary delta-V Contacted Vehicle - Energy Dissipated by Cru	8888	—	—
V0612	Secondary Delta-V Case Vehicle-event #	8	Not applicable	more
V0613	Secondary Delta V Case Vehicle - Total Delta V	888	Not applicable	more
V0614	Secondarydelta-V Case Vehicle -LONGITUD	8888	—	—
V0615	Secondary delta-V Case Vehicle-Lateral	8888	—	—
V0616	Secondary delta-V Case Vehicle - Energy Dissipated by Crush	8888	—	—
V0617	Secondary Delta-V Case Vehicle-Reconstruction	88	Not applicable	more
V0618	Secondary Delta-V Case Vehicle- Mode	8	Not applicable	more
V0619	Secondary Delta V Contacted Vehicle - Total Delta V	888	Not applicable	more
V0620	Secondary delta-V Contacted Vehicle-LONGITUD	8888	—	—
V0621	Secondary delta-V Contacted Vehicle-Lateral	8888	—	—
V0622	Secondary delta-V Contacted Vehicle - Energy Dissipated By C	8888	—	—
V0623	Primary EBS Case Vehicle-event #	1	Event number 1	more
	Primary EBS Case Vehicle -			

V0624	Total EBS	033 kph	kph	more
V0625	Primary EBS Case Vehicle - LONGITUD	-029	—	—
V0626	Primary EBS Case Vehicle-Lateral	-017	—	—
V0627	Primary EBS Case Vehicle - Energy Dissipated by Crush (kj)	0979	—	—
V0628	Primary EBS Case Vehicle-Reconstruction	22	Reconstructed, moderate confidence level	more
V0629	Primary EBS Case Vehicle-Mode	2	CDC & detailed damage	more
V0630	Primary EBS Contacted Vehicle - Total EBS	888	Not Applicable	more
V0631	Primary EBS Contacted Vehicle-LONGITUD	8888	—	—
V0632	Primary EBS Contacted Vehicle-Lateral	8888	—	—
V0633	Primary EBS Contact Vehicle - Energy Dissipated by Crush (kj)	8888	—	—
V0634	Secondary EBS Case Vehicle-event #	8	Not applicable	more
V0635	Secondary EBS Case Vehicle - Total EBS	888	Not Applicable	more
V0636	Secondary EBS Case Vehicle -LONGITUD	8888	—	—
V0637	Secondary EBS Case Vehicle-Lateral	8888	—	—
V0638	Secondary EBS Case Vehicle - Energy Dissipated by Crush (kj)	8888	—	—
V0639	Secondary EBS Case Vehicle-Reconstruction	88	Not applicable	more
V0640	Secondary EBS Case Vehicle- Mode	8	Not applicable	more
V0641	Secondary EBS Contacted Vehicle - Total EBS	888	Not Applicable	more
V0642	Secondary EBS Contacted Vehicle-LONGITUD	8888	—	—
V0643	Secondary EBS Contacted Vehicle-Lateral	8888	—	—

V0644	Secondary EBS Contact Vehicle - Energy Dissipated by Crush (8888	—	—
V0645	Specific Event # Case(1)	1	Event number 1	more
V0646	Plane of Impact Case Vehicle (1)	1	Bumper	more
V0647	Direct Damage Length (DDL) - Case Vehicle (1)	150 cm	cm	more
V0648	Direct Damage Maximum Crush - Case Vehicle (1)	039 cm	cm	more
V0649	Direct and Induced Damage Length in CM	123 cm	cm	more
V0650	Field C1 - Case Vehicle (1)	002 cm	cm	more
V0651	Field C2 - Case Vehicle (1)	018 cm	cm	more
V0652	Field C3 - Case Vehicle (1)	038 cm	cm	more
V0653	Field C4 - Case Vehicle (1)	033 cm	cm	more
V0654	Field C5 - Case Vehicle (1)	039 cm	cm	more
V0655	Field C6 - Case Vehicle (1)	020 cm	cm	more
V0656	Direct Damage D Value = The Center of Direct Damage Offset t	+000 cm	Offset (cm)	more
V0657	Specific Event # Case(2)	1	Event number 1	more
V0658	Plane of Impact Case Vehicle(2)	1	Bumper	more
V0659	Direct Damage Length (DDL) - Case Vehicle (2)	150 cm	cm	more
V0660	Direct Damage MaximumCrush - Case Vehicle (2)	039 cm	cm	more
V0661	Direct and Induced Damage Length in CM	123 cm	cm	more
V0662	Field C1 - Case Vehicle (2)	002 cm	cm	more
V0663	Field C2 - Case Vehicle (2)	018 cm	cm	more
V0664	Field C3 - Case Vehicle (2)	038 cm	cm	more
V0665	Field C4 - Case Vehicle (2)	033 cm	cm	more
V0666	Field C5 - Case Vehicle (2)	039 cm	cm	more
V0667	Field C6 - Case Vehicle (2)	020 cm	cm	more
V0668	Direct Damage D Value = The Center of Direct Damage Offset t	+000 cm	cm	more
V0669	Specific Event # Cont(1)	1	Event number 1	more

V0670	Plane of Impact Contacted Vehicle(1)	9	Unknown	more
V0671	Direct Damage Length (DDL) - Contacted Vehicle (1)	999	Unknown	more
V0672	Direct Damage Maximum Crush - Contacted Vehicle (1)	999	Unknown	more
V0673	Field L - Contacted Vehicle (1)	999	Unknown	more
V0674	Field C1 - Contacted Vehicle (1)	999	Unknown	more
V0675	Field C2 - Contacted Vehicle (1)	999	Unknown	more
V0676	Field C3 - Contacted Vehicle (1)	999	Unknown	more
V0677	Field C4 - Contacted Vehicle (1)	999	Unknown	more
V0678	Field C5 - Contacted Vehicle (1)	999	Unknown	more
V0679	Field C6 - Contacted Vehicle (1)	999	Unknown	more
V0680	Direct Damage D Value = The Center of Direct Damage Offset t	+999 cm	offset (cm)	more
V0681	Specific Event # Contacted Vehicle (2)	1	Event number	more
V0682	Plane of Impact Contacted Vehicle(2)	9	Unknown	more
V0683	Direct Damage Length (DDL) - Contacted Vehicle (2)	999	Unknown	more
V0684	Direct Damage Maximum Crush - Contacted Vehicle (2)	999	Unknown	more
V0685	Direct and Induced Damage Length in CM	999	Unknown	more
V0686	Field C1 - Contacted Vehicle (2)	999	Unknown	more
V0687	Field C2 - Contacted Vehicle (2)	999	Unknown	more
V0688	Field C3 - Contacted Vehicle (2)	999	Unknown	more
	Field C4 - Contacted Vehicle	999		

V0689	(2)		Unknown	more
V0690	Field C5 - Contacted Vehicle (2)	999	Unknown	more
V0691	Field C6 - Contacted Vehicle (2)	999	Unknown	more
V0692	Direct Damage D Value = The Center of Direct Damage Offset t	+999 cm	Offset (cm)	more

Case Vehicle Tires & Rims

[Back to Top](#)

Variable Number	Variable Name	Code Value	Code Description	Other Options
V0701	Left Front Wheel Damaged	0	No	more
V0702	Right Front Wheel Damaged	0	No	more
V0703	Right Rear Wheel Damaged	0	No	more
V0704	Left Rear Wheel Damaged	0	No	more
V0705	Left Front Tire Tread Type	4	All Weather	more
V0706	Right Front Tire Tread Type	4	All Weather	more
V0707	Right Rear Tire Tread Type	4	All Weather	more
V0708	Left Rear Tire Tread Type	4	All Weather	more
V0709	Left Front Carcass Construction	3	Radial	more
V0710	Right Front Carcass Construction	3	Radial	more
V0711	Right Rear Carcass Construction	3	Radial	more
V0712	Left Rear Carcass Construction	3	Radial	more
V0713	Left Front Tire Condition Precrash	0	Normal - no pre-crash problems	more
V0714	Right Front Tire Condition Precrash	0	Normal - no pre-crash problems	more
V0715	Right Rear Tire Condition Precrash	0	Normal - no pre-crash problems	more
V0716	Left Rear Tire Condition Precrash	0	Normal - no pre-crash problems	more
V0717	Left Front Tire Condition Postcrash	0	Normal - no damage to tire	more
	Right Front Tire Condition			

V0718	Postcrash	0	Normal - no damage to tire	more
V0719	Right Rear Tire Condition Postcrash	0	Normal - no damage to tire	more
V0720	Left Rear Tire Condition Postcrash	0	Normal - no damage to tire	more
V0721	Left Front Tire Involvement	0	No	more
V0722	Right Front Tire Involvement	0	No	more
V0723	Right Rear Tire Involvement	0	No	more
V0724	Left Rear Tire Involvement	0	No	more
V0725	Left Front Tire Size	P22550R16	—	—
V0726	Right Front Tire Size	P22550R16	—	—
V0727	Right Rear Tire Size	P22550R16	—	—
V0728	Left Rear Tire Size	P22550R16	—	—
V0729	Left Front Tire Pressure (recorded in psi)	34.0 psi	Actual tire pressure in psi	more
V0730	Right Front Tire Pressure (recorded in psi)	34.0 psi	Actual tire pressure in psi	more
V0731	Right Rear Tire Pressure (recorded in psi)	36.5 psi	Actual tire pressure in psi	more
V0732	Left Rear Tire Pressure (recorded in psi)	35.0 psi	Actual tire pressure in psi	more
V0733	Left Front Tread Depth	06	06/32"	more
V0734	Right Front Tread Depth	07	07/32"	more
V0735	Right Rear Tread Depth	07	07/32"	more
V0736	Left Rear Tread Depth	06	06/32"	more

Case Vehicle Fuel Tank

[Back to Top](#)

Variable Number	Variable Name	Code Value	Code Description	Other Options
V0801	Propulsive Fuel Type	1	Gasoline	more
V0802	Main Tank Location	322	Within frame/centered laterally - within vertical	more
V0803	Main Filler Cap Location	113	Left of frame laterally - above vertically	more
V0804	Main Tank Material	9	Unknown	more
V0805	Aux Tank Type	8	Not applicable (not equipped)	more
V0806	Aux Tank Location	888	Not applicable (not equipped)	more

V0807	Aux Filler Cap Location	888	Not applicable (not equipped)	more
V0808	Aux Tank Material	8	Not applicable	more

Case Vehicle Fuel Leakage

[Back to Top](#)

Variable Number	Variable Name	Code Value	Code Description	Other Options
V0901	Fuel Leakage From Crash	0	No	more

Case Vehicle Fire

[Back to Top](#)

Variable Number	Variable Name	Code Value	Code Description	Other Options
V1001	Fire In Or On Case Vehicle	0	No	more

Case Vehicle Exterior

[Back to Top](#)

Variable Number	Variable Name	Code Value	Code Description	Other Options
V1101	Hood Latch Released	1	Yes	more
V1102	Hood Latch Damaged	1	Yes	more
V1103	Hood Latch Jammed	0	No	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	1	Yes	more
V1108	Hood Remained On Vehicle	1	Yes	more
V1109	Rear Hood Edge Elevated	1	Yes	more
V1110	Edge Contacted Windshield	0	No	more
V1111	Edge Penetrated Windshield	8	Not applicable	more
V1112	Hood Latch Location	1	Front of Vehicle	more
V1113	Eng/transmissn Mount Separated	0	No	more
V1114	Steering Column Flex Couplng	9	Unknown if equipped	more
V1115	Steering Column Coupling Dam	9	Unknown	more
V1116	Steering Column Coupling Separated	9	Unknown	more

V1117	Eng Comp Telescopng Unit	88	Not currently collected	more
V1118	Compartment Unit's Original/telescoped Length Difference	888	Not currently collected	more
V1119	Left Side Body Mount Separated	8	Not applicable (unitized)	more
V1120	Upper Left A-pillar Sep	0	No	more
V1121	Lower Left A-pillar Sep	0	No	more
V1122	Upper Left B-pillar Sep	0	No	more
V1123	Lower Left B-pillar Sep	0	No	more
V1124	Upper Left C-pillar Sep	0	No	more
V1125	Lower Left C-pillar Sep	8	Not applicable (not equipped)	more
V1126	Upper Left D-pillar Sep	8	Not applicable (not equipped)	more
V1127	Lower Left D-pillar Sep	8	Not applicable (not equipped)	more
V1128	Left Front Door Opening Cause	00	Door did not open	more
V1129	Left Rear Door Opening Cause	98	Not applicable (no left rear door)	more
V1130	Left Front Door Jammed Closed	0	No	more
V1131	Left Rear Door Jammed Closed	8	Not applicable (no left rear door)	more
V1132	Van Left Rear Door Type	8	Not applicable (not a van)	more
V1133	Left Front Glazing Availability	2	Closed	more
V1134	Left Rear Glazing Availability	1	Fixed	more
V1135	Lr2 Glazing Availability	0	No glazing present	more
V1136	Left Front Glazing Damage	0	No damage	more
V1137	Left Rear Glazing Damage	0	No damage	more
V1138	Lr2 Glazing Damage	8	Not Applicable (No Door)	more
V1139	Rear Door Type	0	No door (includes pickups)	more
V1140	Rear Door Opening Cause	8	Not applicable (no rear door)	more
V1141	Rear Door Jammed Closed	8	Not applicable (no rear door)	more
V1142	Rear Glazng Availability	8	Not Applicable (No Door)	more
V1143	Rear Glazing Damage	8	Not Applicable (No Door)	more
V1144	Luggage Partition Damaged	0	No	more
V1145	Spare Tire Status	8	Not collected	more
V1146	Trailer Hitch Type	0	No hitch	more
V1147	Trailer Type	0	No trailer	more

V1148	Rght Side Body Mount Separated	8	Not applicable (unitized)	more
V1149	Upper Right A-pillar Separated	0	No	more
V1150	Lower Right A-pillar Separated	0	No	more
V1151	Upper Right B-pillar Separated	0	No	more
V1152	Lower Right B-pillar Separated	0	No	more
V1153	Upper Right C-pillar Separated	0	No	more
V1154	Lower Right C-pillar Separated	8	Not applicable (not equipped)	more
V1155	Upper Right D-pillar Separated	8	Not applicable (not equipped)	more
V1156	Lower Right D-pillar Separated	8	Not applicable (not equipped)	more
V1157	Right Front Door Opening Cause	00	Door did not open	more
V1158	Right Rear Door Opening Cause	98	Not applicable (no right rear door)	more
V1159	Right Front Door Jammed Closed	0	No	more
V1160	Right Rear Door Jammed Closed	8	Not applicable (no right rear door)	more
V1161	Van Right-rear Door Type	8	Not applicable (not a van)	more
V1162	Right Front Glazing Availability	2	Closed	more
V1163	Right Rear Glazing Availability	1	Fixed	more
V1164	Rr2 Glazing Availability	0	No glazing present	more
V1165	Right Front Glazing Damage	0	No damage	more
V1166	Right Rear Glazing Damage	0	No damage	more
V1167	Rr2 Glazing Damage	8	Not Applicable (No Door)	more
V1168	Windshield Cracked	0	No	more
V1169	Windshield Broken	8	Not applicable Click for Windshield Damage figure	more
V1170	Occupant Cracked/Broke Wndshld	8	Not applicable	more
V1171	Bond Separation Extent	0	None	more
V1172	Windshield Code	97	Click for Windshield Mark figure	more

V1173	Did Sun Roof/T-Roof Open	0	No	more
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Case Vehicle Steering Column/Rim

[Back to Top](#)

Variable Number	Variable Name	Code Value	Code Description	Other Options
V1201	Steering Wheel Rim Damage	0	None	more
V1202	Number of Steering Wheel Spokes	4	4 spokes	more
V1203	Steering Wheel Spoke Damage	0	None	more
V1204	Steering Wheel Hub Damage	0	None	more
V1205	Steering Wheel Location of Rim Damage	0	No damage	more
V1206	Aftermarket Add-on Device	0	None	more
V1207	Column Tilt Feature	3	Middle	more
V1208	Column Swing-away Feature	0	Not equipped	more
V1209	Column Telescoping Feature	0	Not equipped	more
V1210	Wheel Energy Absorb Device	8	Not currently collected	more
V1211	Wheel EA Device's original/damage Dimension Difference	888	Not collected	more
V1212	Column Energy Absorb Device	88	Not collected	more
V1213	Col EA Device's Orig/compressed (or Extruded) Length Diff	888	Not collected	more
V1214	Shear Capsule Separation	888	Not collected	more
V1215	Column Vertical Rotation	0	No apparent rotation	more
V1216	Column Lateral Rotation	0	No apparent rotation	more

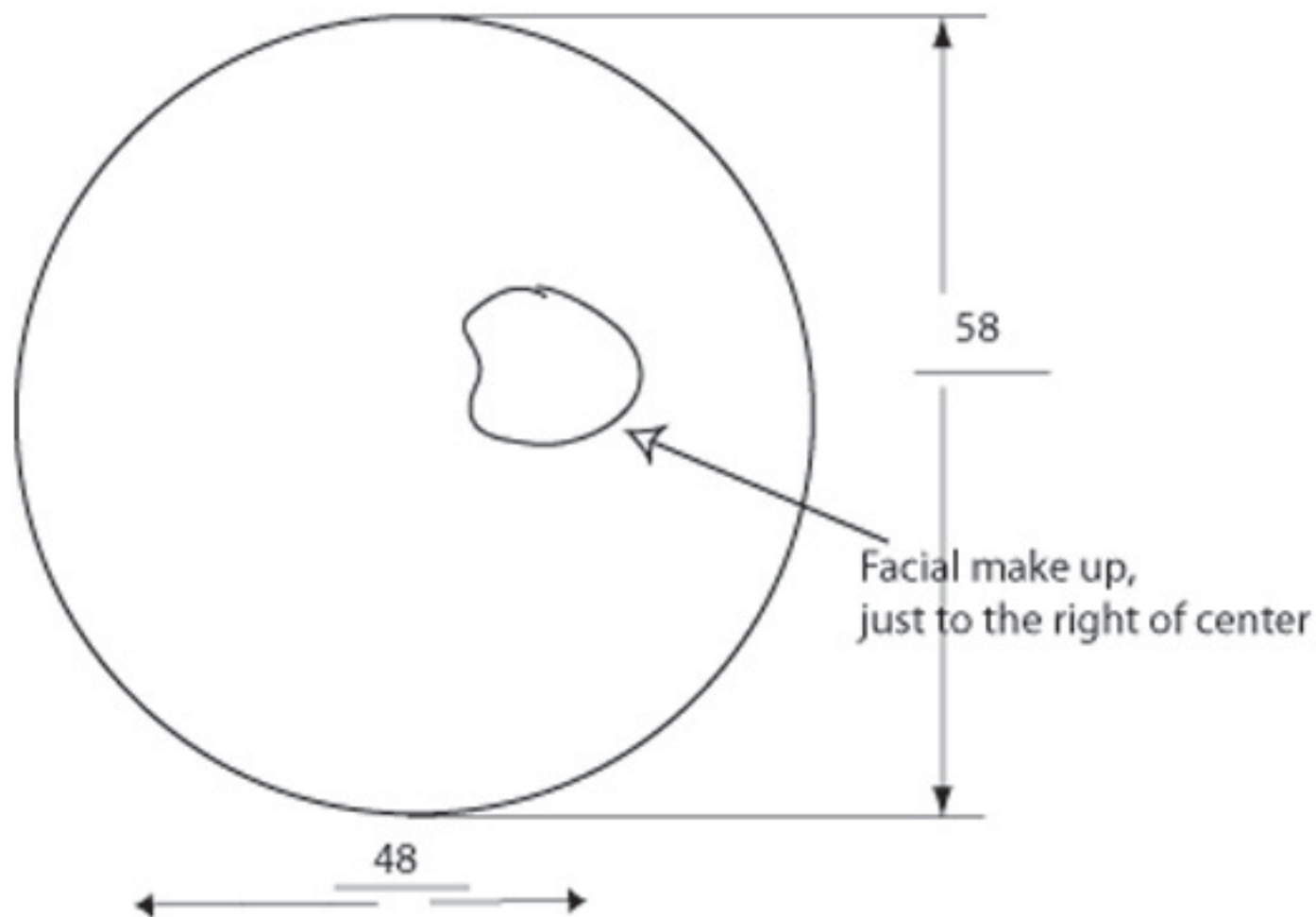
Case Vehicle Intrusion

[Back to Top](#)

Variable Number	Variable Name	Code Value	Code Description	Other Options
V1301	Was Occupant Compartment Intruded	0	No Click for Intrusion Worksheet figure Click for Intrusion figure	more
V1302	Was Intrusn Catastrophic	8	Not applicable	more
V1303	Intrusion Number #1	99	Unknown or data not collected	more
V1304	Occupant Space Number(1)	99	Unknown or data not collected	more

V1305	Intrud Component/obj (1)	99	Unknown or data not collected	more
V1306	Associate Event Numb (1)	9	Unknown or data not collected	more
V1307	Maximum Intrusion X Axis	99	Unknown or data not collected	more
V1308	Maximum Intrusion Y Axis	99	Unknown or data not collected	more
V1309	Maximum Intrusion Z Axis	99	Unknown or data not collected	more
V1310	Occupant Number #1 (1)	99	Unknown or data not collected	more
V1311	Injury Number #1 (1)	99	Contact, injury unknown or data not collected	more
V1312	Occupant Number #2 (1)	99	Unknown or data not collected	more
V1313	Injury Number #2 (1)	99	Contact, injury unknown or data not collected	more
V1314	Intrusion Number #2	99	Unknown or data not collected	more
V1315	Occupant Space Number(2)	99	Unknown or data not collected	more
V1316	Intrud Component/obj (2)	99	Unknown or data not collected	more
V1317	Associate Event Numb (2)	9	Unknown or data not collected	more
V1318	Maximum Intrusion X Axis	99	Unknown or data not collected	more
V1319	Maximum Intrusion Y Axis	99	Unknown or data not collected	more
V1320	Maximum Intrusion Z Axis	99	Unknown or data not collected	more
V1321	Occupant Number #1 (2)	99	Unknown or data not collected	more
V1322	Injury Number #1 (2)	99	Contact, injury unknown or data not collected	more
V1323	Occupant Number #2 (2)	99	Unknown or data not collected	more
V1324	Injury Number #2 (2)	99	Contact, injury unknown or data not collected	more
V1325	Intrusion Number #3	99	Unknown or data not collected	more
V1326	Occupant Space Number(3)	99	Unknown or data not collected	more
V1327	Intrud Compnent/obj (3)	99	Unknown or data not collected	more
V1328	Associate Event Numb (3)	9	Unknown or data not collected	more
V1329	Maximum Intrusion X Axis	99	Unknown or data not collected	more
V1330	Maximum Intrusion Y Axis	99	Unknown or data not collected	more
V1331	Maximum Intrusion Z Axis	99	Unknown or data not collected	more
V1332	Occupant Number #1 (3)	99	Unknown or data not collected	more
V1333	Injury Number #1 (3)	99	Contact, injury unknown or data not collected	more
V1334	Occupant Number #2 (3)	99	Unknown or data not collected	more
V1335	Injury Number #2 (3)	99	Contact, injury unknown or data not collected	more
V1336	Intrusion Number #4	99	Unknown or data not collected	more

Driver Airbag



Vents: Y N

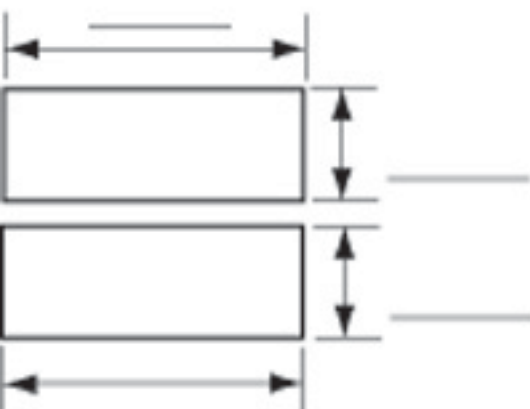
if yes, how many: 2

vents located at 11 and 1 o'clock

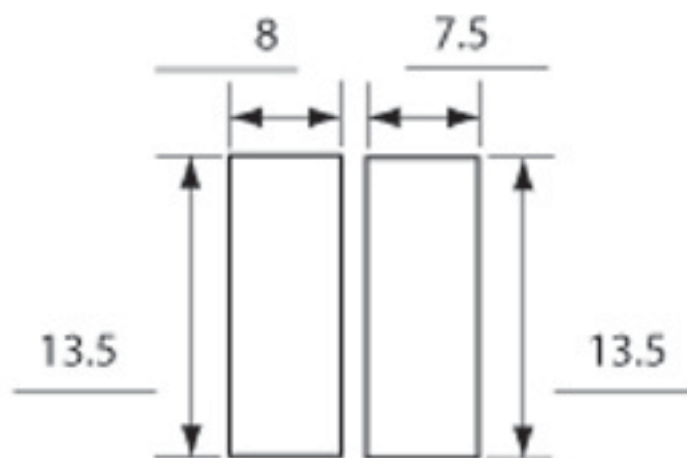
Tethers: Y N

if yes, how many: _____

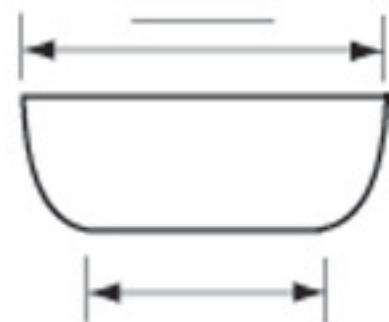
Driver Airbag Doors



H-Pattern



I-Pattern



Single Door

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	
	none				

OCCUPANT CONTACT WORKSHEET

Contact	Interior Component Contacted	Occupant No. if Known	Body Region if Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	Driver airbag	1	Face	Facial makeup	1
B	Knee bolster	1	Knee	Scuff	1
C					
D					
E					
F					
G					
H					
I					
J					
K					
L					
M					

no damage

L

F

R

WINDSHIELD MARK ON CASE VEHICLE:

SUNSHADE



SOLARGREEN

DUPLATE

LAMINATED

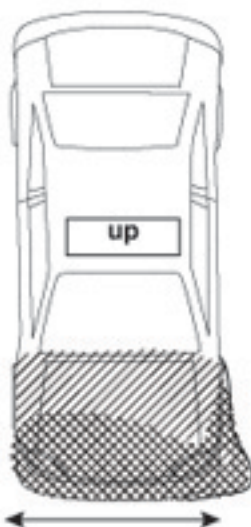
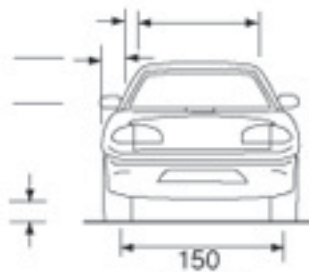
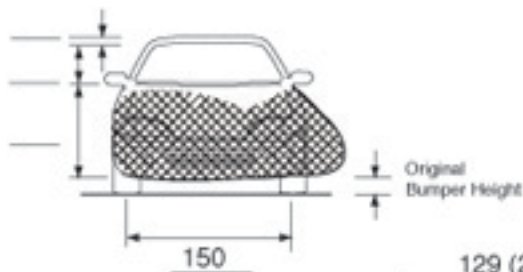
80 1

DOT 18 AS1M405

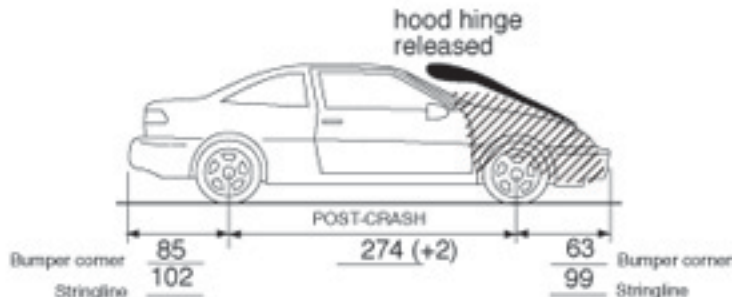
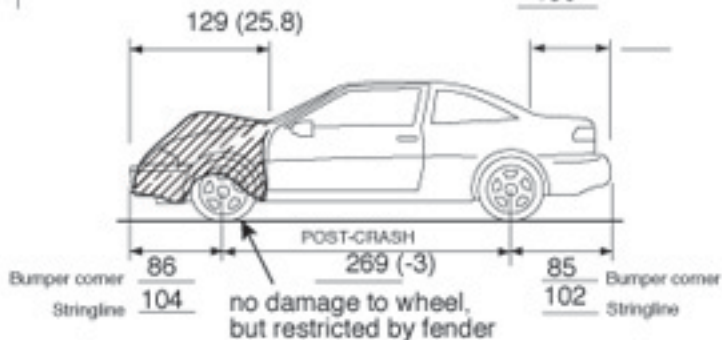
12 8

DW1370

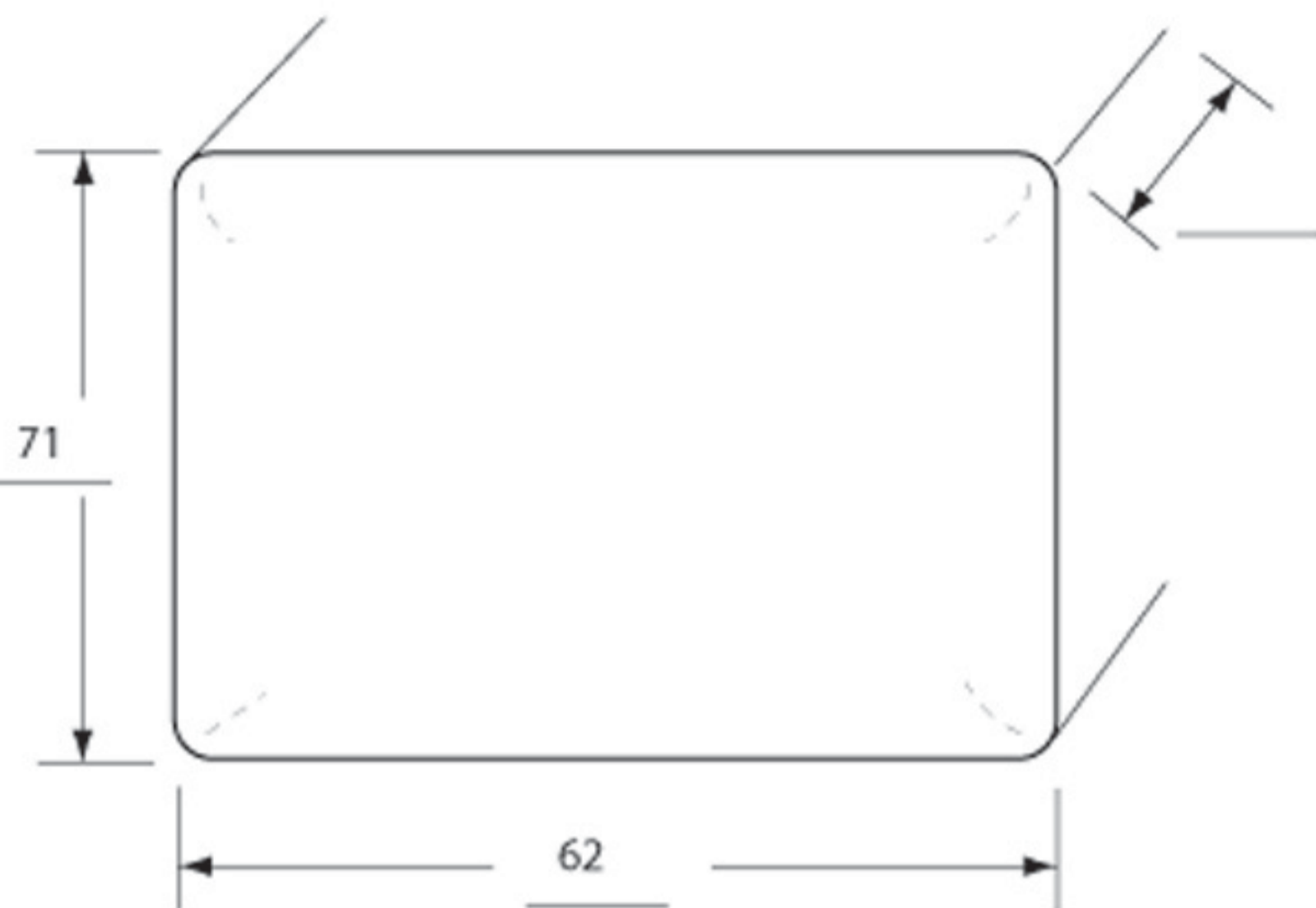
MEASUREMENTS IN CENTIMETERS



150-cm direct damage
max crush is 39-cm at C5



Passenger Airbag

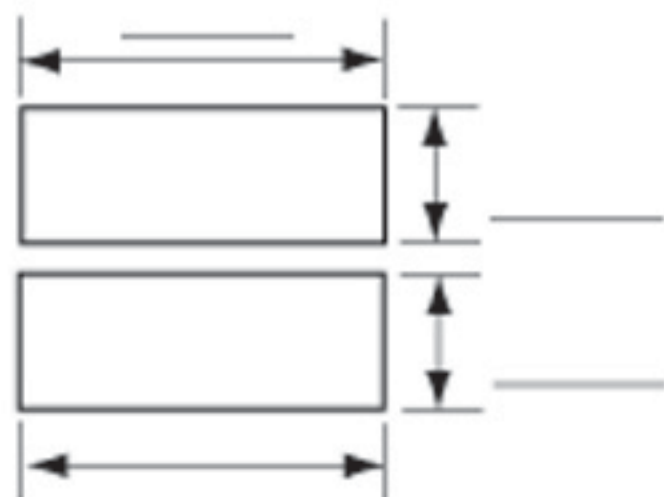


Vents: Y N
if yes, how many: _____

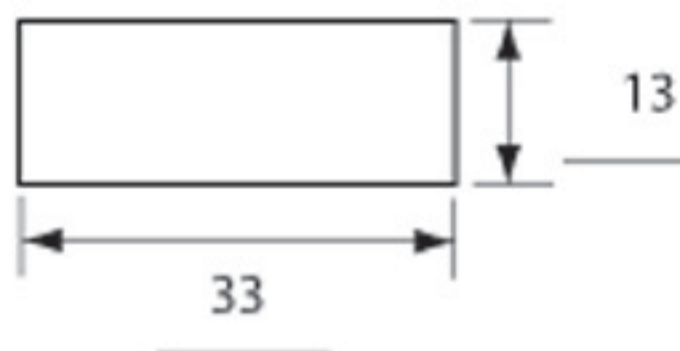
Tethers: Y N
if yes, how many: _____

Passenger Airbag Doors

H-Pattern



Single Door

































OFF ACC ON

1































Acc #116
127/15 Pro



TEMPO GL



GRAND AM GT

RAM AIR V6







RD

STANDARD GT

27985-4116
PTED



































ONLY







