CRASH DATA RESEARCH CENTER
Calspan Corporation
Buffalo, NY 14225

NOT-IN-TRAFFIC SURVEILLANCE
CALSPAN REMOTE FALLING VEHICLE INCIDENT INVESTIGATION
SCI CASE NO.: CA09010

VEHICLE: 2002 PONTIAC GRAND PRIX

LOCATION: TEXAS

INCIDENT DATE: FEBRUARY 2009

Contract No. DTNH22-07-C-00043

Prepared for:

U.S. Department of Transportation
National Highway Traffic Safety Administration
Washington, D.C. 20590

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The crash investigation process is an inexact science which requires that physical evidence such as skid marks, vehicular damage measurements, and occupant contact points are coupled with the investigator's expert knowledge and experience of vehicle dynamics and occupant kinematics in order to determine the pre-crash, crash, and post-crash movements of involved vehicles and occupants.

Because each crash is a unique sequence of events, generalized conclusions cannot be made concerning the crashworthiness performance of the involved vehicle(s) or their safety systems.

TECHNICAL REPORT STANDARD TITLE PAGE

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16. Abstract This remote investigation focused on the type of jack and the surface conditions that contributed to the death of a 47-year-old male victim of this falling vehicle incident. The victim was working under a 2002 Pontiac Grand Prix GT and was in the process of performing an oil change on the Pontiac when the vehicle fell off the jack, pinning the victim between the vehicle and the ground. He was discovered by his female companion approximately 45-60 minutes after she last conversed with him. The companion immediately called the emergency response system to report the incident and request emergency assistance. The local fire department arrived within 2-3 minutes of the call. The firefighters lifted the vehicle and pulled the victim from under the Pontiac. He was evaluated and pronounced deceased at the scene.			
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BACKGROUND

This remote investigation focused on the type of jack and the surface conditions that contributed to the death of a 47-year-old male victim of this falling vehicle incident. The victim was working under a 2002 Pontiac Grand Prix GT and was in the process of performing an oil change on the Pontiac when the vehicle fell off the jack, pinning the victim between the vehicle and the ground **(Figure 1)**. He was discovered by his female companion approximately 45-60 minutes after she last conversed with him. The companion immediately called the emergency response system to report the incident and request emergency assistance. The local fire department arrived within 2-3 minutes of the call. The firefighters lifted the vehicle and pulled the victim from under the Pontiac. He was evaluated and pronounced deceased at the scene.

Figure 1. On-scene view of the position of the Pontiac within the yard. (Image provided by the investigating police department.)

This incident was identified by the Calspan Special Crash Investigations (SCI) team through an Internet news search on February 23, 2009. The news article was forwarded to NHTSA's Crash Investigation Division and assigned for remote follow-up on the day of the notification. Cooperation was established with the investigating police agency and an interview was conducted with the investigating police officer. The case was classified by the police as a death investigation and was reported as an Informational Report. This case was not reported to the State crash database. The Informational Report and on-scene images of the incident site, the Pontiac, and the jack, in addition to the Medical Examiner's report were obtained by the SCI team and provided the basis for this report.

Figure 2. Overall view of the Pontiac on the lawn area. (Image provided by the investigating police department.)

SUMMARY

Incident Site

This falling vehicle incident occurred in the backyard area of the victim's residence **(Figure 2)**. The yard consisted of cut grass with a subtle cross slope of the yard, sloping downward from left to right across the heading of the Pontiac. The investigating officer

reported that the ground was soft. According to local weather forecasts, the conditions at the time of the incident were dry with a temperature of 10 degrees C (50 degrees F). The sky was clear and the wind speed was reported at 16 km/h (10 mph). A schematic of the incident is included as **Figure 15**.

Vehicle

The involved vehicle in this incident was a 2002 Pontiac Grand Prix GT, four-door sedan. The police Informational Report did not capture the Vehicle Identification Number (VIN). The Pontiac Grand Prix GT model was equipped with a transverse-mounted 3.8 liter, V-6 gasoline engine linked to a 4-speed automatic transmission with a console mounted transmission selector lever. This vehicle was front-wheel drive platform. The service brakes were power-assisted 4-wheel disc. The parking brake was pedal activated with the foot pedal located adjacent to the left lower kick panel. The cable actuated parking brake mechanically engaged the rear disc brake pads against the rotor. It is unknown if the parking brake was set on this vehicle at the on-set of the victim's attempted mechanical repairs.

Figure 3. View of the 2002 Pontiac Grand Prix. (Image provided by the investigating police department.)

The victim raised the Pontiac with the OEM jack that was stowed in the trunk of the vehicle. The on-scene police images of the incident suggested the victim removed several items from the trunk of the vehicle to retrieve the jack. These items included a Child Restraint System (CRS), spare tire, and a 12-volt car vacuum. The spare tire and the CRS were located directly behind the rear bumper of the Pontiac.

Exemplar Vehicle Jack/Owner's Manual

A 2001 Pontiac Grand Prix was used as an exemplar vehicle to document the OEM jack for this falling vehicle investigation. The exemplar OEM scissors jack was examined and the Vehicle Owner's Manual was reviewed for safety warnings. The exemplar jack was a scissors-style jack with a maximum extension height **(Figure 4)** of 34 cm (13.5 in). The H-configuration base

Figure 4. Maximum extension of the exemplar jack.

Figure 5. Base dimensions of the exemplar jack.

(Figure 5) of the jack was 15x13 cm (6x5 in). The saddle of the jack was channel-shaped **(Figures 6 and 7)** to fit the lip of the vehicle's sill. The saddle measured 7 cm (2.75 in) in length, 1 cm (0.375 in) in width and 1 cm (0.5 in) in depth.

Figure 6. Length of the saddle of the exemplar jack.

Figure 7. Width of the saddle of the exemplar jack.

The jack was stamped with a warning that read "Use Only On Vehicle Specified" **(Figure 8)**. A yellow and black warning label affixed to the jack **(Figure 9)** advised the following:

Caution/Attention:

To help avoid personal injury, follow
jacking instructions and use this jack only
for changing tires on this vehicle.

Figure 8. Stamped warning on the exemplar jack.

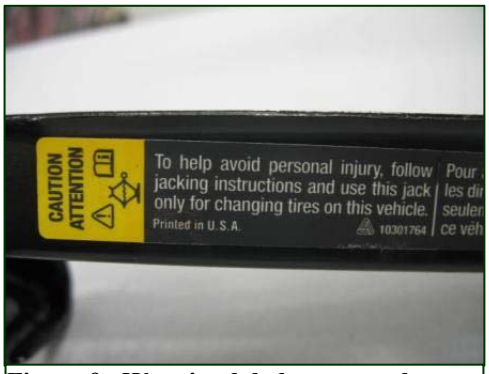
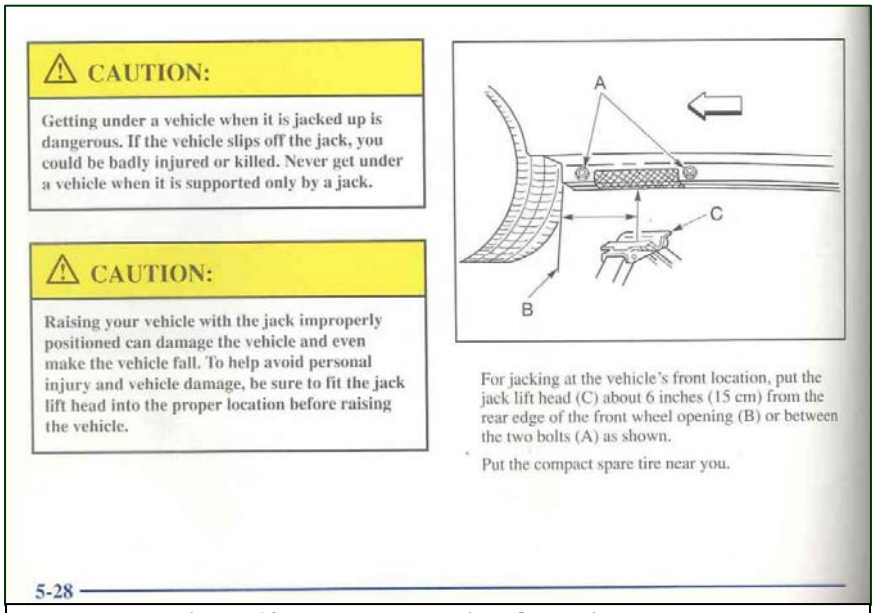


Figure 9. Warning label on exemplar jack.

The Vehicle Owner's Manual identified the proper jacking point for this exemplar vehicle as approximately 15 cm (6 in) aft of the forward edge of the sill. The Cautions noted in **Figure 10** warned of the risks associated with getting under the vehicle with the jack in place. Cautions were also noted regarding the improper placement of the jack with respect to vehicle damage and personal injury.



⚠ CAUTION:

Getting under a vehicle when it is jacked up is dangerous. If the vehicle slips off the jack, you could be badly injured or killed. Never get under a vehicle when it is supported only by a jack.

⚠ CAUTION:

Raising your vehicle with the jack improperly positioned can damage the vehicle and even make the vehicle fall. To help avoid personal injury and vehicle damage, be sure to fit the jack lift head into the proper location before raising the vehicle.

For jacking at the vehicle's front location, put the jack lift head (C) about 6 inches (15 cm) from the rear edge of the front wheel opening (B) or between the two bolts (A) as shown.

Put the compact spare tire near you.

5-28

Figure 10. Exemplar Vehicle Owner's Manual

Victim

The victim in this falling vehicle incident was a 47-year-old male with an autopsy reported height of 170 cm (67 in) and a weight of 72 kg (158 lb). He was dressed in gray sweat pants over blue denim jeans, a black and white pullover long-sleeve shirt, white socks and white and gray athletic shoes. The victim was in the process of changing the oil in his car when the incident occurred. He was alone in the yard to his residence; however, his companion was in the residence attending to two young children. The Medical Examiner reported cause of death was traumatic asphyxiation due to overlay by vehicle. The victim's injuries and the probable sources of those injuries are identified below.

Victim's Injuries

Injury	Injury Severity (AIS 90/Update 98)	Probable Injury Sources
Left rib fractures (2^{nd} thru 7^{th}) anterior-lateral aspect	Serious (450230.3,2)	Vehicle undercarriage
Right chest contusions 4 x 4.5 cm area right pectoral chest, extending onto deltoid; parallel contusions 0.7cm center to center, Individual contusions are linear and up to 4.5 x 0.2cm. A 2.5 x 0.8 cm contusion lies slightly below the larger injury	Minor (490402.1,1)	Compression against the ground

Injury	Injury Severity (AIS 90/Update 98)	Probable Injury Sources
Right upper arm contusion	Minor (790402.1,1)	Compression against the ground
Left posterior upper arm contusion (5 x 0.1 cm)	Minor (790402.1,2)	Vehicle undercarriage
Left back contusion	Minor (690402.1,2)	Vehicle undercarriage
Upper back abrasion (7 x 5 mm abrasion over the medial scapular border)	Minor (690202.1,7)	Vehicle undercarriage

Source: Autopsy report

Incident Sequence

Pre-Incident

The 47-year old male victim parked the 2002 Pontiac on the grass surfaced lawn area. In the area where he parked the vehicle, the lawn sloped slightly downward from left to right across the heading of the Pontiac. The investigating officer noted that the ground was soft. The victim opened the trunk of the Pontiac and removed the OEM spare tire from the tire well. The OEM scissors jack was stowed in the bottom of the spare tire well. The victim used the OEM jack to raise the vehicle to a sufficient height to remove the right front tire and wheel. The specific jacking point was not police reported; however, the recommended jacking point was on the sill immediately aft of the wheel opening. A small block of wood was noted under the right front axle position. This block was partially compressed into the soft ground. It was unknown if the victim placed a block under the base of the OEM scissors jack. The rear tires of the front wheel drive vehicle were not chocked and the parking brake was not set. The automatic transmission was in the "Park" position. **Figures 11 and 12** are images of the exemplar vehicle jacked with the OEM jack at the vehicle manufacturer recommended position.

Figure 11. Exemplar vehicle manufacturer's recommended position of the jack at the right front position.

Figure 12. Aft view of the recommended jack position of the exemplar vehicle.

The victim removed the right front tire and wheel from the Pontiac and placed the tire approximately 1 m (3 ft) to the right of the axle position. The removal of the tire was to provide the victim with greater access to the undercarriage of the vehicle. With the Pontiac supported on the OEM jack, the victim crawled under the right front aspect of the vehicle. He was positioned on his right side, facing the back of the Pontiac with his lower extremities extending outboard of the right side surface of the vehicle. The first responders reported that his body was parallel to the front bumper of the vehicle and was completely concealed by the undercarriage.

As the victim initiated his process to change the oil in the Pontiac, the vehicle either rolled rearward and fell off the scissors jack, or the base of the jack compressed into the soft soil, causing the Pontiac to roll rearward. It could not be determined if the wood block found under the right front brake rotor **(Figure 13)** was initially under the jack, and as the vehicle rolled rearward, the rotor came to rest on top of the block.

The Pontiac fell onto the victim and compressed him against the ground. He sustained left side rib fractures, soft tissue injuries of the upper extremities and the torso.

Figure 13. Wood block under the right front brake rotor. (Image provided by the investigating police department.)

Figure 14. Post-incident status of the OEM scissors jack and the removed right front tire. (Image provided by the investigating police department.)

Post-Incident

The victim's companion became concerned for his well being and walked to the yard where the Pontiac was parked. She observed the fallen position of the vehicle and the position of the victim under the vehicle. She immediately called the emergency response system and requested assistance. The local fire department was dispatched to the residence and arrived within 2-3 minutes of the call. The firefighters lifted the vehicle and pulled the victim from under the Pontiac. They conducted an initial assessment of his condition and determined that no further efforts to revive him were needed, as he was deceased. The cause of death was traumatic asphyxiation. The firefighter also pulled the jack out from under the Pontiac and placed it to the right side of the vehicle **(Figure 14)**. The firefighters could not recall the position of the jack at the time of their arrival. The victim's companion estimated the time duration between her last contact with him to the time of discovery at approximately 45-60 minutes.

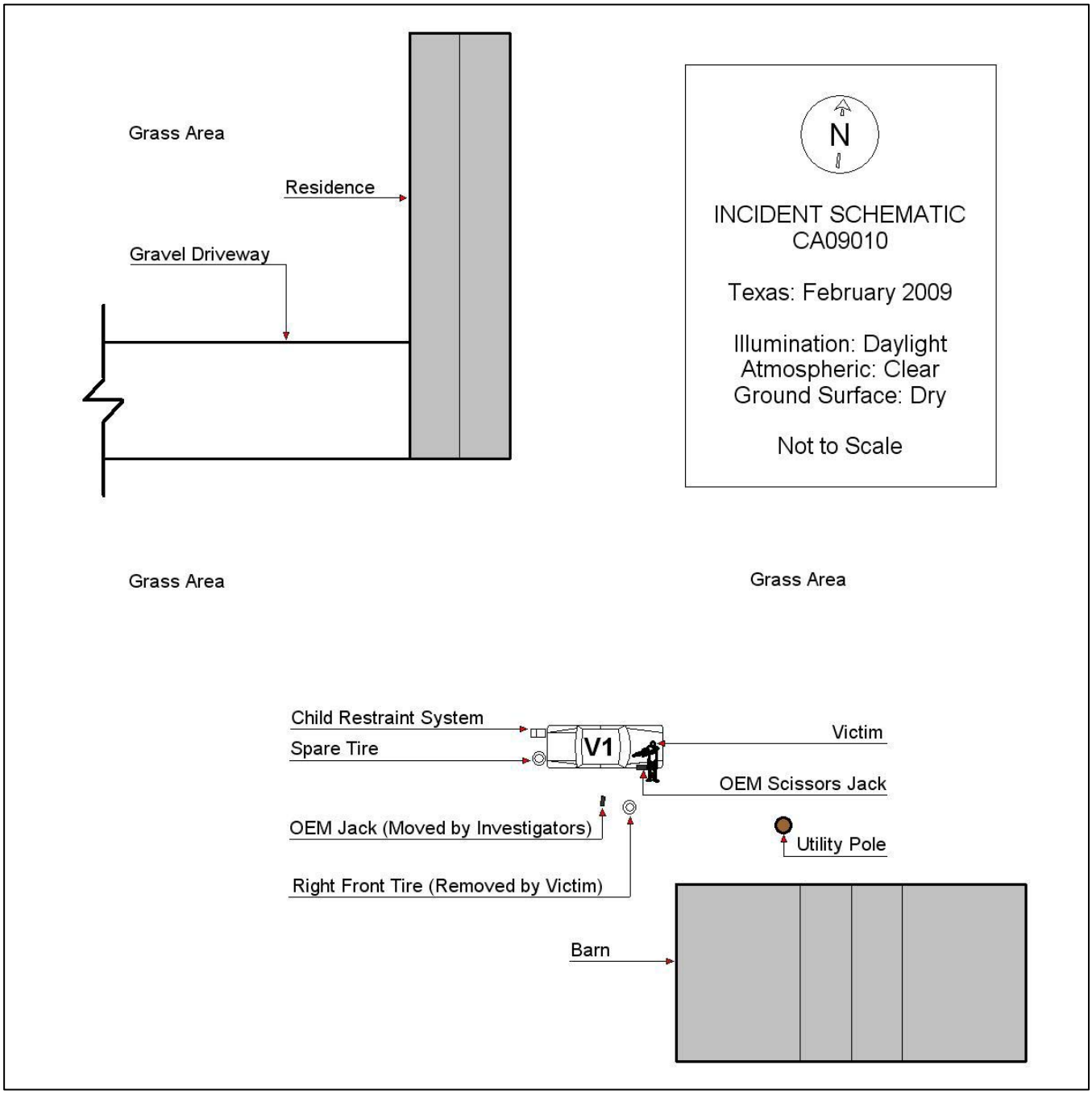


Figure 15. Incident Schematic

Not-In-Traffic Surveillance Forms

Not Applicable ☐

Reset Values | Print Forms

U.S. Department of Transportation
National Highway Traffic Safety Administration

SCENE FORM

Special Crash Investigations
Not In Traffic Surveillance

1. Case Number

C A 0 9 0 1 0

IDENTIFICATION

2. Date of Crash 0 2 / 0 2 / 0 9

3. Time of Crash 9 9 9 9

Code reported military time of crash.

NOTE: Midnight = 2400
Unknown = 9999

AMBIENT CONDITIONS

4. Light Conditions

- ☉ Daylight
- ☐ Dark
- ☐ Dark but lighted
- ☐ Dawn
- ☐ Dusk
- ☐ Unknown

5. Atmospheric Conditions
(*Select all that apply)*

- ☉ Clear-No adverse conditions
- ☐ Cloudy
- ☐ Rain
- ☐ Snow
- ☐ Fog, Smog, Smoke
- ☐ Sleet, Hail (freezing rain or drizzle)
- ☐ Blowing Snow
- ☐ Severe Crosswinds
- ☐ Blowing Sand, Soil, Dirt
- ☐ Other (specify):_____
- ☐ Unknown

6. Temperature

- ☐ Below 0 degrees Celsius (Below 32 F)
- ☉ 1-10 degrees Celsius (33-50 F)
- ☐ >10-24 degrees Celsius (51-75 F)
- ☐ Over 24 degrees Celsius (Over 75 F)
- ☐ Unknown

SCENE INFORMATION

7. Type of area in which crash occurred
(*Select all that apply)*

- ☉ Single family residential
- ☐ Row houses/townhouses
- ☐ Multi family housing
- ☐ Commercial
- ☐ Industrial
- ☐ Rural
- ☐ Unknown

8. Driver exterior sightline obstructions
(*Select all that apply)*

- ☉ None
- ☐ Other vehicles
- ☐ Building
- ☐ Trees
- ☐ Shrubbery
- ☐ Other (specify)_____
- ☐ Utility poles
- ☐ Signs
- ☐ Glare
- ☐ Unknown
- ☐ No driver present

9. Crash location

- ☐ Driveway
- ☐ Parking Lot
- ☐ Sidewalk
- ☐ Alley
- ☐ Intersection of driveway and sidewalk
- ☐ Road / street
- ☐ Roadside / shoulder
- ☉ Other (specify) Back Yard
- ☐ Unknown

10. Non motorist sightline obstructions
(*Select all that apply)*

- ☐ None
- ☐ Other vehicles
- ☐ Building
- ☐ Trees
- ☐ Shrubbery
- ☐ Utility poles
- ☐ Signs
- ☐ Glare
- ☉ Other (specify) N/A Jacking Incident
- ☐ Unknown

11. Grade at parked position + / - 9 9 9 %

12. Estimated distance from parked position to impact

9 9 9 . 9 m

13. Estimated speed at impact 0 0 0 kmph

14. Grade at impact +/ - 9 9 9 %

15. Estimated distance from impact to vehicle final rest

9 9 9 . 9 m

Unknown = 999 Reference Items 11,12, 13, 14, 15

Not Applicable ☐

Reset Values

U.S. Department of Transportation
National Highway Traffic Safety Administration

VEHICLE FORM

Special Crash Investigations
Not In Traffic Surveillance

1. Case Number C A 0 9 0 1 0

VEHICLE IDENTIFICATION

2. VIN 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9

3. Model Year 2 0 0 2

4. Vehicle Make (specify): Pontiac

5. Vehicle Model (specify): Grand Prix

GLAZING

Location	Presence (check)	Status (select)	Clarity (select)	Tint (check)	Glazing Obstructions (specify if present)
Windshield	☑	☑ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☑ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
LF	☑	☐ Fixed / ☑ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☑ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
RF	☑	☐ Fixed / ☑ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☑ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
2nd Left	☑	☐ Fixed / ☑ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☑ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
2nd Right	☑	☐ Fixed / ☑ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☑ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
3rd Left	☑	☑ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☑ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
3rd Right	☑	☑ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☑ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
Backlight	☐	☐ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☐ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
Left Backlight	☐	☐ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☐ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
Right Backlight	☐	☐ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☐ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
Roof	☐	☐ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☐ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	
Other (specify)	☐	☐ Fixed / ☐ Closed / ☐ Open / ☐ Partially Open / ☐ Unknown	☐ Clear / ☐ Hazy / ☐ Very Dirty / ☐ Unknown	☐	

TIRE DATA

6. Vehicle Manufacturer Recommended Tire Size P225/60R16

7. LF Tire Size Unknown

8. LR Tire Size Unknown

9. RF Tire Size Unknown

10. RR Tire Size Unknown

Seats / Head Restraint Data

Seat Position	Seat Type (Select from below)	Head Restraint (Check if available)	Head Restraint Adjustment (select)	NOTES:
Front Left	1	☑	☑ Full Down / ☐ Mid / ☐ Full Up	2nd row head restraints are integrated
Front Middle	0	☐	☐ Full Down / ☐ Mid / ☐ Full Up	
Front Right	1	☑	☑ Full Down / ☐ Mid / ☐ Full Up	
2nd Left	3	☑	☐ Full Down / ☐ Mid / ☐ Full Up	
2nd Middle	3	☐	☐ Full Down / ☐ Mid / ☐ Full Up	
2nd Right	3	☑	☐ Full Down / ☐ Mid / ☐ Full Up	
3rd Left		☐	☐ Full Down / ☐ Mid / ☐ Full Up	
3rd Middle		☐	☐ Full Down / ☐ Mid / ☐ Full Up	
3rd Right		☐	☐ Full Down / ☐ Mid / ☐ Full Up	

Seat Type codes:

0 = No seat or seat folded down
1 = Bucket
2 = Bucket w/ folding back
3 = Bench
4 = Bench with folding back cushions
5 = Bench w/ folding back
6 = Split bench w/ separate back cushions
7 = Split bench w/ separate folding back
8 = Pedestal (i.e. column supported)
9 = Box mounted (i.e. van type)
10= Other seat type (specify)
99= Unknown seat type

VEHICLE MEASUREMENTS

Clearance Heights		Measurements (all from ground, and in centimeters	NOTES
Beltline		n/a	
Top of trunk/tailgate		n/a	
Bottom of bumper		n/a	
Trailer hitch (if applicable)		n/a	
Undercarriage			
	Sway bar	n/a	
	Axle	n/a	
	Differential	n/a	
	Other (specify): _____	n/a	
Sensor Height (if equipped)		n/a	
Camera Height (if equipped)		n/a	

Not Applicable ☑

Undo Not Applicable

Reset Values

U.S. Department of Transportation
National Highway Traffic Safety Administration

Back Up / Parking Aid Form

Special Crash Investigations
Not In Traffic Surveillance

1. Case Number

C A 0 9 0 1 0

PARKING AID PRESENCE

2. Type of backing/parking aid present

- ☐ OEM camera
- ☐ OEM ultrasonic/radar sensor
- ☐ OEM combination camera-ultrasonic/radar sensor
- ☐ OEM Fresnel lens
- ☐ OEM interior mirrors
- ☐ Aftermarket camera
- ☐ Aftermarket ultrasonic/radar sensor
- ☐ Aftermarket combination camera-ultrasonic radar sensor
- ☐ Aftermarket Fresnel lens
- ☐ Aftermarket interior mirrors
- ☐ Other (specify): _____

CAMERA INFORMATION

Specify field of view measurements on diagram

3. System make/model

_____

4. Video monitor type

- ☐ None present
- ☐ LCD (color)
- ☐ CRT (black & white)
- ☐ Unknown

5. Video display size _____ cm
(Diagonal)

6. Camera location

- ☐ None present
- ☐ Bumper
- ☐ License plate
- ☐ Tailgate/Hatch/Trunk
- ☐ Other (specify): _____

7. Video image quality under scene lighting conditions

- ☐ None present
- ☐ Good
- ☐ Average
- ☐ Poor (specify): _____
- ☐ Unknown

8. Was the camera functioning properly

- ☐ None present
- ☐ Yes
- ☐ No, poor image quality due to glare
- ☐ No, poor image quality due to atmospheric conditions
- ☐ No, camera turned off
- ☐ No, camera inoperable
- ☐ Unknown

ULTRASONIC/RADAR SENSOR

Specify object detection range on diagram

9. System make/model

_____

10. Auditory warning illumination

- ☐ No sensor present
- ☐ Yes
- ☐ No
- ☐ Unknown

11. Number of sensors ____

12. Sensor locations
(Select all that apply)

- ☐ No sensor present
- ☐ Left bumper
- ☐ Center bumper
- ☐ Right bumper
- ☐ License plate area
- ☐ Tailgate/Hatch/Trunk

13. Was warning system functioning properly

- ☐ No sensor present
- ☐ Yes, system alerted driver
- ☐ No, system did not alert driver
- ☐ No, system turned off
- ☐ No, system inoperable
- ☐ Unknown

14. Did driver react to warning

- ☐ No sensor present
- ☐ Yes
- ☐ No
- ☐ Unknown
- ☐ Sensor present, did not sound

15. Did driver report common false warnings

- ☐ No sensor present
- ☐ Yes
- ☐ No
- ☐ Unknown

Not Applicable

No Driver Present ☐

Reset Values

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National Highway Traffic Safety Administration

DRIVER FORM

Special Crash Investigations
Not In Traffic Surveillance

1. Case Number

C A 0 9 0 1 0

DRIVER PROFILE

2. Driver's Age 4 7
99 = Unknown

3. Driver's Sex
- ☉ Male
- ☐ Female
- ☐ Unknown

4. Driver's Height 1 7 0 cm
999 = Unknown

5. Driver's Weight 0 7 2 kg
999 = Unknown

6. Driver eyewear worn
(Select all that apply)
- ☐ None
- ☐ Eyeglasses
- ☐ Sunglasses
- ☐ Contacts
- ☉ Unknown

7. Driver vision deficiency condition
(Select all that apply)
- ☐ None
- ☐ Near sighted
- ☐ Far sighted
- ☐ Astigmatism
- ☐ Other (specify) _____
- ☉ Unknown

8. Non motorist's relationship to driver
- ☐ No relationship
- ☐ Child
- ☐ Grandchild
- ☐ Sibling
- ☐ Neighbor
- ☐ Friend
- ☉ Other (specify): N/A Jacking Incident
- ☐ Unknown

DRIVER ACTIONS

9. Driver approach to vehicle for entry
- ☐ From left front
- ☐ From left
- ☐ From left rear
- ☐ From right rear
- ☐ From right front
- ☐ Circled vehicle
- ☐ Return trip (backing into driveway/lot)
- ☐ Other (specify): _____
- ☉ N/A
- ☐ Unknown

10. Driver entry interruption
(Select all that apply)
- ☐ Direct trip from building to vehicle
- ☐ Loaded items into vehicle
- ☐ Spoke with family
- ☐ Spoke with neighbors
- ☐ Spoke with contacted nonmotorist
- ☐ Return trip (backing into driveway/lot)
- ☐ Other (specify): _____
- ☉ N/A
- ☐ Unknown

11. Purpose of backing
- ☐ Leaving parking space in parking lot
- ☐ Backing onto roadway from driveway
- ☐ Entering parking space in parking lot
- ☐ Backing into driveway from roadway
- ☐ Other (specify): _____
- ☉ N/A
- ☐ Unknown

12. Where was driver going
Description:

N/A - Working under vehicle

13. Driver in a hurry
- ☐ Yes
- ☐ No
- ☉ N/A
- ☐ Unknown

14. How did driver check behind (rear area of vehicle) after vehicle entry
(Select all that apply)
- ☐ Did not look
- ☐ Checked mirrors
- ☐ Turned right and looked back
- ☐ Turned left and looked back
- ☐ Viewed Camera
- ☐ Listened for auditory/visual warning from system
- ☐ Other (specify): _____
- ☉ N/A
- ☐ Unknown

15. Estimated time between vehicle entry and start of backing
- ☐ 0-10 Seconds
- ☐ 11-30 Seconds
- ☐ 31-60 Seconds
- ☐ Over 60 Seconds
- ☉ N/A
- ☐ Unknown

16. What direction was the driver looking during backing maneuver
(Select all that apply)

- ☐ Straight ahead
- ☐ Right
- ☐ Left
- ☐ Rearward
- ☐ At object inside the car
- ☐ At mirrors
- ☐ Other (specify): _____
- ☉ N/A
- ☐ Unknown

17. Was the driver distracted during back up maneuver
(Select all that apply)

- ☐ No non-driving activities

External

- ☐ Looking at other vehicles
- ☐ Looking at other non motorist
- ☐ Looking at intended turn destination
- ☐ External focus, not specified
- ☐ Other external focus (specify): _____

Internal

- ☐ Looking at other occupant
- ☐ Talking to passenger
- ☐ Dialing phone
- ☐ Talking on phone
- ☐ Listening to radio/cd/portable playback device
- ☐ Adjusting radio/cd player
- ☐ Adjusting climate controls
- ☐ Using a device/controls integral to vehicle (specify): _____
- ☐ Reading/adjusting navigation system
- ☐ Eating or drinking
- ☐ Smoking related
- ☐ Retrieving fallen object (specify): _____
- ☐ Internal focus, not specified
- ☐ Focused on other internal object (specify): _____
- ☉ N/A
- ☐ Unknown

18. Driver avoidance actions prior to impact
(Select all that apply)

- ☐ None
- ☐ Braking
- ☐ Steering left
- ☐ Steering right
- ☐ Accelerating
- ☐ Other (specify): _____
- ☉ N/A
- ☐ Unknown

19. Did driver see struck non motorist prior to impact
(Select all that apply)

- ☐ No, never saw non motorist
- ☐ Saw non motorist prior to entering vehicle
- ☐ Saw non motorist after entering vehicle
- ☐ Other (specify): _____
- ☉ N/A ☐ Unknown

20. Est time between start of backing and impact

- ☐ <2 or = 1 second
- ☐ 2-5 seconds
- ☐ 6-10 seconds
- ☐ > 10 seconds
- ☉ N/A ☐ Unknown

21. Driver interior sightline obstructions
(Select all that apply)

- ☐ Pillar
- ☐ Headrest
- ☐ Cargo
- ☐ Other occupant
- ☐ Other (specify) _____
- ☐ Unknown
- ☉ None

22. Recent experience driving this vehicle

- ☐ More than 10 times the last three months
- ☐ 6-10 times the last three months
- ☐ 2-5 times the last three months
- ☐ Less than 2 times the last three months
- ☐ First time driving this vehicle
- ☉ N/A
- ☐ Unknown

23. Frequency of driving in this parking lot/driveway

- ☐ Daily
- ☐ Weekly
- ☐ Several times a month
- ☐ Monthly
- ☐ Rarely
- ☐ First time in lot/driveway
- ☉ N/A ☐ Unknown

24. Driver Impairment
(Select all that apply)

- ☐ No drugs or alcohol present
- ☐ Alcohol present (specify BAC): _____
- ☐ Drugs present (specify):_____
- ☉ Unknown

25. Source of alcohol/drug results

- ☐ Police reported
- ☐ Medical record
- ☐ Other (specify)_____
- ☐ Not Tested
- ☉ Unknown if tested

Not Applicable ☑
Undo Not Applicable

U.S. Department of Transportation
National Highway Traffic Safety Administration

Non Motorist Form

Reset Values

Special Crash Investigations
Not In Traffic Surveillance

1. Case Number
C A 0 9 0 1 0

NON-MOTORIST PROFILE

2. Non-motorist's Age ☐ Months ☐ Years
99 = Unknown

3. Non-motorist's Sex
☐ Male
☐ Female
☐ Unknown

4. Non-motorist's Height ____ ____ ____ cm
999 = Unknown

5. Non-motorist's Weight ____ ____ ____ kg
999 = Unknown

6. Medical outcome
☐ Not injured
☐ ER only
☐ Hospitalized 1-4 days
☐ Hospitalized 5 days or more
☐ Treatment later
☐ Fatal
☐ Unknown

7. Source of most severe injury
☐ Bumper
☐ Tire
☐ Undercarriage
☐ Other Specify: _____
☐ Ground
☐ N/A
☐ Unknown

8. Non-motorist impairment
(Select all that apply)
☐ No drugs or alcohol present
☐ Positive for alcohol (specify BAC): _____
☐ Positive for drugs (specify): _____
☐ Unknown

9. Source of alcohol/drug results
☐ Police reported
☐ Medical Report
☐ Other (specify) _____
☐ Not Tested
☐ Unknown if tested

NON-MOTORIST ACTIONS

10. Non-motorist attitude
☐ Standing
☐ Bending at waist
☐ Sitting
☐ Crouching
☐ Kneeling
☐ On skates/skateboard
☐ On bike/scooter
☐ Other (specify)_____
☐ Unknown

11. Non-motorist motion
☐ Not moving
☐ Walking slowly
☐ Walking rapidly
☐ Running or jogging
☐ Skipping/Hopping/Jumping
☐ Falling/Stumbling/Rising
☐ On skates/skateboard
☐ On bike/scooter
☐ Other (specify): _____
☐ Unknown

12. Non-motorist approach relative to rear of vehicle
☐ Stationary
☐ From left
☐ From right
☐ From behind
☐ Other (specify): _____
☐ Unknown

13. Non-motorist first avoidance action
☐ No avoidance actions
☐ Stopped
☐ Accelerated pace
☐ Ran away (along vehicle path)
☐ Jumped
☐ Turned away from vehicle
☐ Turned toward vehicle and braced
☐ Dove or fell away from vehicle
☐ Other (specify): _____
☐ Unknown

14. Non-motorist primary focus of attention
☐ Striking vehicle
☐ Play object
☐ Person
☐ Surrounding traffic
☐ Animal
☐ Handheld electronic (phone, MP3 player, etc.)
☐ Other Object (specify) _____
☐ Unknown

15. Were any other Non-motorists present?
(Select all that apply)
☐ Alone
☐ One adult present
☐ One other child present
☐ Multiple adults present
☐ Multiple children present
☐ Unknown

NON MOTORIST CLOTHING

NOTES:

- Specify Color, Fabric and Texture/Weight for outermost layer only
- Indicate "*NONE*" if applicable
- Available codes:

Colors		***Fabrics***	***Textures***	***Weights***
Black	Charcoal gray	Natural	Soft	Heavy
Lt gray/silver	Brown	Synthetic	Slick	Medium
Gold/tan	Purple	Blend	Coarse	Light
Dark blue	Light blue			
Dark green	Light green			
Maroon	Red			
Orange	Yellow			
White	Other (specify)			
Pink				

	Clothing	Color	Fabric	Texture	Weight
HEADWEAR	Hat				
	Helmet				
	Hood				
	Other (specify): _____				
	Unknown				
UPPER BODY	Short Sleeve				
	Long Sleeve				
	Light Jacket				
	Heavy Jacket				
	Other (Specify): _____				
	Unknown				
LOWER BODY	Shorts				
	Pants				
	Shoes				
	Other (specify): _____				
	Unknown				

Not Applicable