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## REMOTE NOT IN TRAFFIC SURVEILLANCE FALLING VEHICLE INVESTIGATION

CASE NUMBER - IN09013  
LOCATION - NEW MEXICO  
VEHICLE - 2000 CHRYSLER CONCORDE LX  
INCIDENT DATE - February 2009

Submitted:

May 29, 2009



Contract Number: DTNH22-07-C-00044

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National Highway Traffic Safety Administration  
National Center for Statistics and Analysis  
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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 be 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 Documentation Page**

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15. <i>Supplementary Notes</i> Remote Not In Traffic Surveillance Falling Vehicle Investigation involving a 2000 Chrysler Concorde LX.					
16. <i>Abstract</i> This report covers a Remote Not In Traffic Surveillance Falling Vehicle Investigation involving a 2000 Chrysler Concorde LX. The focus of this remote investigation was on the circumstances and equipment related to the hoisting of a 2000 Chrysler Concorde LX, which fell on a 52-year-old male as he worked underneath the vehicle. The incident occurred within a garage of a used automobile sales business. The victim was not a certified mechanic. He used a hydraulic floor jack to raise the front portion of the vehicle in order to perform mechanical work on the engine. There were no identifiers on the floor jack that indicated the manufacturer, model, or serial number. The victim used a mechanic's crawler to position himself under the front portion of the vehicle, near the right front wheel. He was found deceased by a co-worker with the vehicle resting on the upper portion of the victim's body. He was pronounced deceased at the scene and an autopsy was conducted. The official cause of death was given as traumatic asphyxiation.					
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The focus of this remote investigation was the circumstances and equipment related to the hoisting of a 2000 Chrysler Concorde LX, which fell on the victim as he worked underneath the vehicle. This incident was brought to National Highway Traffic Safety Administration's attention on March 3, 2009 by an on-line news article. This remote investigation was assigned on March 31, 2009. The incident involved a 52-year-old male employee of an automobile sales business who was fatally injured when the Chrysler fell on him (**Figure 1**). The incident occurred in February, 2009 at 1357 hours, in New Mexico, and was investigated by the applicable city police department. The police investigation was closed on March 16, 2009 and this contractor obtained a copy of the police incident report on March 30, 2009. The owner of the business where the incident occurred was interviewed on April 14, 2009. The investigating police detective was contacted on March 31, 2009 and the on-scene photographs were obtained on April 16. The detective was contacted again on April 23, 2009 and information regarding the floor jack used to raise the vehicle was requested. The floor jack had been sent to the state forensics laboratory and the detective replied to the request on May 20, 2009.

### INCIDENT CIRCUMSTANCES

**Incident Environment:** This incident occurred within a garage of a used automobile sales business. The establishment consisted of four buildings located on a commercial lot in the industrial section of a city with a population of 20,209. Please see the incident location diagram on page 4 of this report. The Chrysler was parked within a two-vehicle garage (**Figure 2**) that was located on the northeast corner of the property in back of the business' main building. The garage floor consisted of level concrete. There were no vehicle lifts located in the garage. A hydraulic floor jack (**Figures 3 and 4**) was used



**Figure 1:** Police on-scene photograph showing the Chrysler Concorde and deceased victim (sanitized) under the front of the vehicle



**Figure 2:** Police on-scene photograph of subject garage; arrow shows door to the bay where the Chrysler was located



**Figure 3:** The floor jack used by the victim to raise the front of the Chrysler; the make and model could not be determined

by the victim to raise the front portion of the vehicle. The investigating detective reported that there were no identifiers on the floor jack that indicated the manufacturer or the model and serial number. The owner of the business stated during the SCI interview that he had purchased the floor jack new approximately two years ago. He did not know the make or model of the floor jack. Four jack stands were located in the immediate vicinity of the vehicle (**Figure 5**). They were not used by the victim to support the vehicle once it was raised with the floor jack.

**Pre-Incident:** The victim was last seen by a co-worker between one to two hours prior to the incident when the victim was in the main office obtaining supplies. The victim walked from the main office to the garage where the Chrysler was parked and began working on the vehicle. He was working alone in the garage. The available information indicated that he had no contact with other workers after entering the garage. The floor jack was positioned under the vehicle's right frame member immediately behind the right front wheel (**Figure 6**). The vehicle's rear wheels were not chocked. It could not be determined if the vehicle's parking brake was set. The circular support plate that mounts on the jack arm was not used. It was found near the vehicle following the incident.

**Incident:** The victim used a mechanic's crawler to position himself under the front right area of the vehicle, near the right front wheel where he was performing mechanical work on the engine. The victim's activity and the length of time he was under the vehicle is unknown. The length of time the vehicle had been raised prior to the incident is also not known. Measurements were taken on an exemplar vehicle and the distance from the ground to the bottom of the front bumper fascia and the bottom of the right frame member, near the right front wheel were determined to be 18 cm (7.1 in) and 17 cm (6.7 in), respectively.

No one was aware that the incident had occurred until the victim was discovered under the vehicle. The victim was discovered by the same co-worker who saw the victim obtaining supplies earlier in the day. The co-worker went to the garage to check on the victim and discovered him



**Figure 4:** Another view of the floor jack



**Figure 5:** Arrows show three of the four jack stands that were in the immediate vicinity of the vehicle



**Figure 6:** The floor jack was positioned under the right frame member, behind the right front wheel

under the front of the vehicle. He called out to the victim but received no response. The co-worker nudged the victim with his foot and called out to him again. When the victim did not respond, the co-worker knelt down and realized the front of the vehicle was resting on the victim's head and chest. The co-worker pumped the floor jack handle several times to raise the vehicle enough to see that the victim was not breathing. The co-worker left the victim under the vehicle and notified authorities. The victim was laying on his back on the crawler with his head under the engine and his lower chest under the front bumper. His right arm was curled upward between the right front wheel and the engine. He had impressions on his face consistent with the bottom of the engine and impressions on his chest area and clothing consistent with the bottom of the bumper fascia.

**Post-Incident:** The police, emergency responders, and a medical investigator responded to the scene. The victim was pronounced deceased at 1705 hours. An autopsy was performed and the official cause of death was traumatic asphyxiation.

#### **CASE VEHICLE**

The 2000 Chrysler Concorde LX was a front wheel drive, 4-door, sedan (VIN: 2C3HD46R1YH-----) equipped with a 2.7L, 6-cylinder engine and an automatic transmission.

#### **VICTIM**

The victim was a 52-year-old, male [183 cm and 113 kg (72 in, 250 lbs)]. He had worked as a mechanic at the business for 16 years. He was not a certified mechanic. The business owner did not know the type of mechanical training the victim had received. The police detective interviewed the victim's family and reported that the victim had no history of illness or current medical issues, including thoughts of suicide, and was taking no medication.

