# Insurance Institute for Highway Safety
# Crashworthiness Evaluation

## Crash Test Report
## 2000 Ford Taurus (CF00010)

**Vehicle identification number:** 1FAFP55U1YG148178
**Body style:** Large 4-door sedan
**Engine/transmission:** Transverse 3.0-liter V6, 4-speed automatic, front-wheel drive

**Standard crashworthiness features:**

Driver and right front passenger two-stage front airbags with variable inflator output depending on belt use, seat adjustment, and crash severity
Dual-locking shoulder belts (front outboard and all rear seating positions)
Shoulder belt upper anchorage height adjusters (front outboard seating positions only)
Seat belt crash tensioners (pyrotechnic, front outboard seating positions only)
Seat belt force-limiting mechanisms (front outboard seating positions only)
Center rear lap/shoulder belt
Right front and all rear shoulder belt retractors are convertible from emergency to automatic locking for ease of child restraint use

**Optional safety features:**

Driver and right front passenger seat-mounted side airbags (designed to protect head and torso)
Adjustable brake and accelerator pedals
Four-wheel antilock brakes
Daytime running lamps (fleet vehicles only)

**Vehicle specifications (provided by manufacturer):**

| | |
|---|---|
| Wheelbase: | 276 cm |
| Overall length: | 502 cm |
| Overall width: | 185 cm |
| Curb weight: | 1,521 kg |

**Vehicle specifications (measured):**

| | |
|---|---|
| Front bumper to firewall: | 127 cm |
| Curb weight: | 1,512 kg |
| Test weight: | 1,622 kg (61% front, 39% rear) |
| Overall width: | 184 cm |

**Nominal test parameters:**

40.0 mi/h (64.4 km/h), 40% overlap, deformable barrier face with slotted bumper

**Crash test date:**

March 14, 2000

**Figure 1**
**Precrash and Postcrash Side Views — 2000 Ford Taurus**

## Summary

A 2000 Ford Taurus was crash tested on March 14, 2000 into a fixed deformable barrier at 39.9 mi/h (64.3 km/h) and a 41 percent overlap on the driver side. A Hybrid III 50th percentile male dummy was positioned in the driver seat with the lap/shoulder belt fastened.

Measures of intrusion taken after the crash indicated the lower instrument panel in front of the dummy moved rearward 1-2 cm. Resultant intrusion in the driver footwell measured 8 cm at the footrest and 12-14 cm at other places on the toepan. All doors remained closed during the crash. After the crash, the driver door and left rear door required additional effort but no tools to open, and the right front and right rear doors opened with ease.

The driver dummy was restrained by a three-point lap/shoulder belt and an airbag. During the crash, the belt crash tensioner on the buckle end of the belt activated and shortened the buckle by 4 cm. A total amount of 13 cm of webbing spooled off the retractor, and the force limiter apparently contributed all 13 cm of webbing. The airbag contacted the dummy's face during deployment. After the dummy loaded the airbag, its head contacted the steering wheel twice through the deflating airbag. The dummy's head contacted the head restraint twice during rebound from the airbag/steering wheel. After the crash, the upper end of the steering column had moved upward 6 cm and rearward 1 cm.

None of the injury measures exceeded the published threshold values. The peak resultant head acceleration from the steering wheel contact through the airbag was 41 g.

## Test Conditions

This test was conducted according to the procedures specified in the IIHS Offset Barrier Crash Test Protocol (Version VII). The Hybrid III dummy positioned in the driver seat was equipped with instrumented lower legs that included feet modified to include two accelerometers and to have a 45 degree dorsiflexion range with soft stops at all extremes of foot-ankle motion. All dummy seating parameters were set according to the procedures specified for Federal Motor Vehicle Safety Standard 208 compliance testing (49 *CFR* Part 571.208 § 11). The dummy's left foot was placed on the footrest.

Seat back, shoulder belt upper anchorage, and steering column adjustments were set according to the manufacturer's specifications for government crash testing. Other adjustments were set according to the procedure specified for Federal Motor Vehicle Safety Standard 208 compliance testing (49 *CFR* Part 571.208 § 7 and 8). After final positioning of the dummy, measurements from various parts of the dummy to a number of vehicle interior points were made. These measurements and the seat back, shoulder belt upper anchorage, and steering column adjustments are described in the Appendix, Dummy Clearance Measurements.

Vehicle acceleration measurements were made by a triaxial arrangement of accelerometers mounted on the vehicle's longitudinal centerline and 67 cm behind its center of gravity (175 cm behind the front axle). The vehicle speed recorded just prior to impact was 39.9 mi/h (64.3 km/h), and the actual overlap was 41 percent.

## Structural Performance

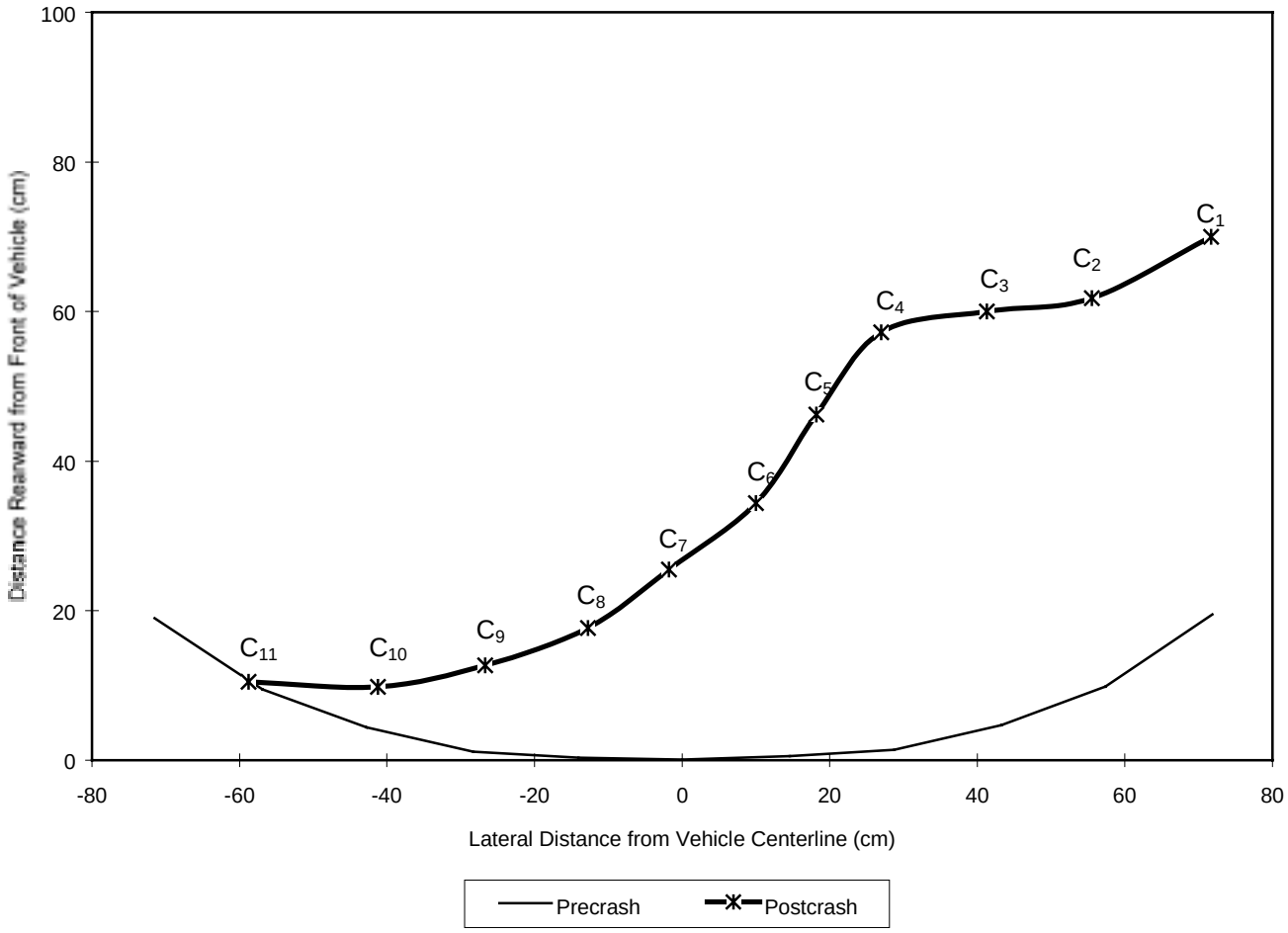
All doors remained closed during the crash. After the crash, the driver door and left rear door required additional effort but no tools to open, and the right front and right rear doors opened with ease. The driver door aperture shortened 3 cm, as measured at the lower edge of the window.

No fuel system leaks were observed after the crash. In addition, no fuel system leaks were observed when the vehicle was rotated onto its right side to allow postcrash photography.

Figure 2 shows the overhead view of the crash deformation. Figure 3 illustrates the precrash and postcrash contour measures of the front bumper cover profile and the resulting permanent crush. Figure 4 shows the precrash and postcrash views from below. Figure 5 illustrates the deformation of the side rails, floor rails, and engine cradle, which are visible in Figure 4.

**Figure 2**
**Overhead View of Crash Deformation — 2000 Ford Taurus**

**Figure 3**
**Front Bumper Cover Crush Contour — 2000 Ford Taurus**

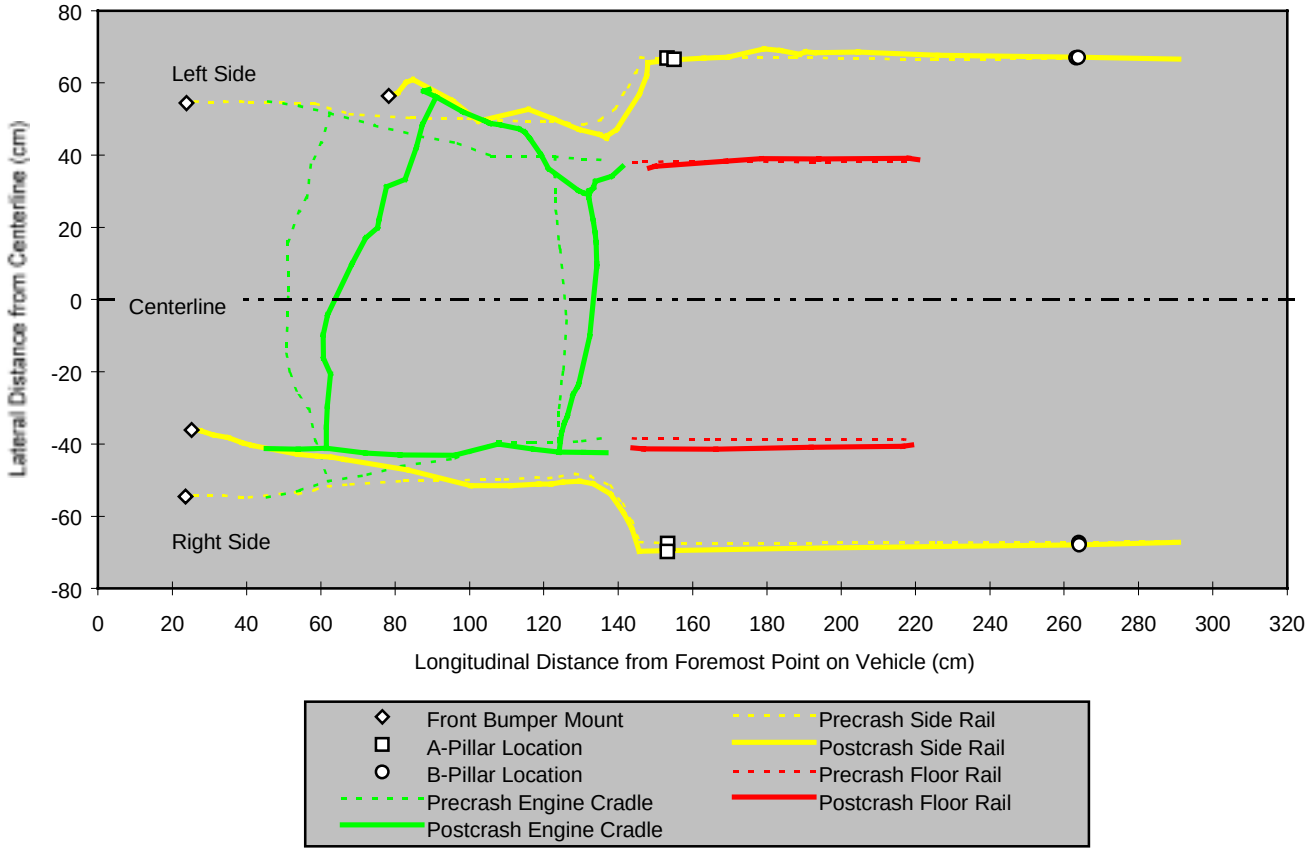


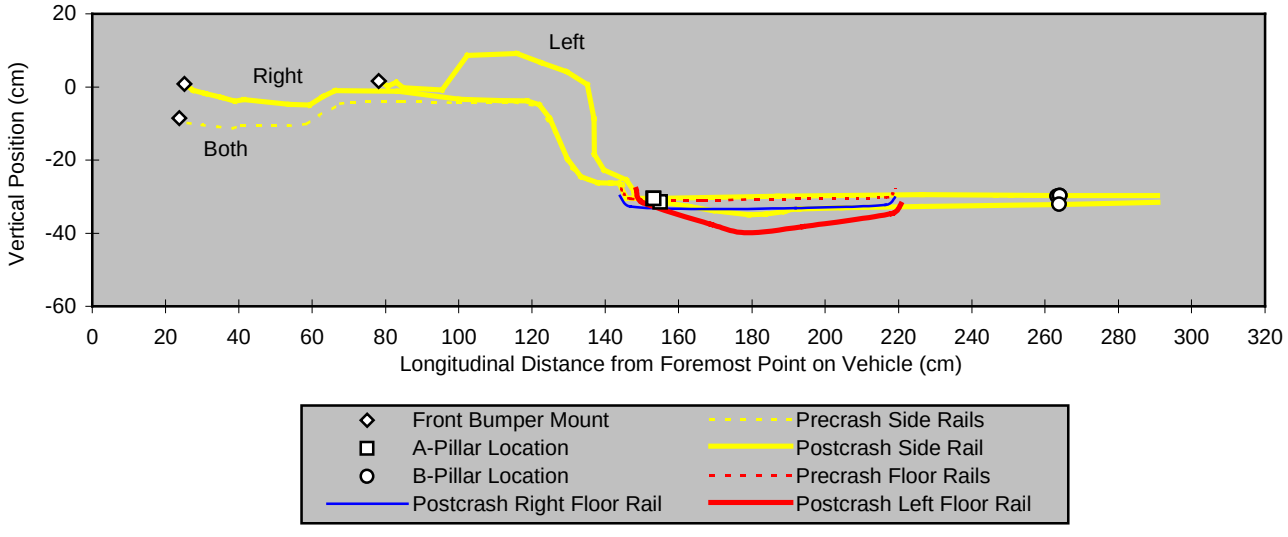

| | $C_1$ | $C_2$ | $C_3$ | $C_4$ | $C_5$ | $C_6$ | $C_7$ | $C_8$ | $C_9$ | $C_{10}$ | $C_{11}$ |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Postcrash Contour (cm)** | 70 | 62 | 60 | 57 | 46 | 34 | 26 | 18 | 13 | 10 | 10 |
| **Precrash Contour (cm)** | 20 | 10 | 5 | 1 | 1 | 0 | 0 | 1 | 4 | 9 | 19 |
| **Resulting Crush (cm)** | 50 | 52 | 55 | 56 | 45 | 34 | 26 | 17 | 9 | 1 | –9 |

The bumper cover was torn almost completely off the vehicle during the crash. The postcrash contour represents the best attempt to fit the cover back onto the vehicle**.** The length of the reference line was 143 cm precrash and 130 cm postcrash.

**Figure 4**
**Precrash and Postcrash Views from Below — 2000 Ford Taurus**

**Figure 5**
**Structural Deformation, Views from Below and Side — 2000 Ford Taurus**



Various measures of intrusion were made after the crash. These residual measures of intrusion typically are less than the maximum deformation that occurs during the crash. The coordinate reference system for these measures is described in the IIHS Offset Barrier Crash Test Protocol (Version VII). The measures of deformation shown in Table 1 have been adjusted to better reflect the displacement of the various target locations relative to the driver, based on the locations of the four driver seat-attachment bolts. The average displacement of the seat-attachment bolts relative to the reference system also is shown in Table 1.

**Table 1**
**Residual Measurements of Intrusion Relative to Driver Seat — 2000 Ford Taurus**

| Selected Locations* | Longitudinal | Lateral | Vertical | Resultant |
|---|---|---|---|---|
| Steering column (cm) | –1 | –1 | 6 | 6 |
| Left lower instrument panel (cm) | –2 | –2 | 3 | 4 |
| Right lower instrument panel (cm) | –1 | –2 | 3 | 4 |
| Brake pedal (cm) | –13 | 1 | 5 | 14 |
| Left toepan (cm) | –11 | –3 | 4 | 12 |
| Center toepan (cm) | –12 | –4 | 5 | 14 |
| Right toepan (cm) | –12 | –3 | 4 | 13 |
| Footrest (cm) | –7 | –2 | 3 | 8 |
| Average displacement of the four seat-attachment bolts relative to reference system (cm) | –1 | 1 | –3 | n/a |

* All measurements taken on driver side. From the driver's position, positive is forward, left, and up.

## Restraint System Performance

### Airbags

***Driver:*** The uninflated driver airbag is approximately 57 cm in diameter, and the excursion of its center when inflated is limited by two tethers. The airbag is vented by two holes located at positions corresponding to 10 and 2 o'clock on the forward-facing surface of the airbag. Analysis of the high-speed film taken from camera position E indicated the airbag deployed at 60 ms into the crash and appeared to be fully inflated at 84 ms. The seat-mounted side airbag did not deploy during the crash.

***Passenger:*** The top-mounted passenger airbag deployed at an angle and is untethered. The cylinder-shaped airbag is vented by two holes located at the lateral ends. The airbag did not contribute to windshield damage during deployment. The seat-mounted side airbag did not deploy during the crash.

### Seat Belts

This vehicle is equipped with dual-locking lap/shoulder belts with sliding latch plates at all seating positions (except the center front position) and adjustable upper anchorage points at the driver and right front seating positions. The center front position has only a lap belt. The driver and right front belts also are equipped with pyrotechnic crash tensioners on the buckle ends and mechanical force-limiting mechanisms in the retractors. The front inboard lower anchorage points for the driver and right front passenger belts are attached to and move with the seats. The front outboard lower anchorage points are bolted to the sills at the base of the B-pillars. After the crash, the buckle on the driver side had been shortened by 4 cm, compared with the length of the buckle in an uncrashed Taurus. A pull-string mounted between the retractor housing and the webbing beyond the retractor indicated that 13 cm of webbing was pulled through the D-ring. Postcrash investigation of the force-limiting torsion bar within the retractor spool indicated it was twisted about 315 degrees from its precrash orientation. This measure, combined with the estimated diameter of the retractor spool and stowed webbing (51 mm), suggested the force limiter accounted for all of the webbing pulled from the retractor through the D-ring.

### Seat

Postcrash examination of the driver seat rails indicated no discernible movement of the seat in its tracks during the crash. Deformation of the floor under the driver seat caused the seat to pitch forward slightly. The high-speed film showed that the seat back flexed forward considerably during the crash.

### Steering Column

The upper end of the steering column moved upward 6 cm and rearward 1 cm relative to the driver seat.

## Dummy Kinematics

### Head, Neck, and Torso

Analysis of the high-speed film taken from camera position E indicated the driver seat belt crash tensioner fired at 28 ms into the crash, but the driver airbag did not deploy until 60 ms. The deploying airbag contacted the dummy's face at 66 ms into the crash. The face remained in contact with the airbag as it inflated; full inflation occurred by 84 ms. Paint transferred from the dummy's face indicated the nose loaded the airbag 9 cm above and 8 cm to the left of its center. Although the airbag fabric obscured the dummy's face and then the steering wheel, the dummy's face appeared to approach the steering wheel through the deflating airbag at about 120 ms. Sudden increases in the rearward, lateral, and vertical accelerations of the dummy's head, as well as the neck shear force occurring at the same time and later (118 ms and 132 ms), were consistent with two contacts between the dummy's head and steering wheel. As the head moved into the airbag and began to rebound, it moved slightly outward and downward. The head then moved back upward, and the center rear of the head contacted the upper center of the head restraint twice, at 232 ms and 288 ms, as determined from the head acceleration data. After the crash, a small

paint transfer mark from the left side of the dummy' head was found on the top front corner of the B-pillar plastic trim, which had pulled away from the B-pillar at the top. However, the high-speed film did not reveal any obvious contact with the trim. Table 2 provides the timing of these events.

**Table 2**
**Restraint System Performance and Dummy Kinematics — 2000 Ford Taurus**

| Event | Time (ms) |
|---|---|
| Driver belt crash tensioner fires | 28 |
| Deployment of airbag | 60 |
| Airbag contacts face during deployment | 66 |
| Airbag fully inflated | 84 |
| Face contacts steering wheel through airbag | 118 |
| Face again contacts steering wheel through airbag | 132 |
| Rear of head contacts head restraint | 232 |
| Rear of head again contacts head restraint | 288 |

**Figure 6**
**Dummy and Vehicle Interior, Postcrash — 2000 Ford Taurus**

### Legs and Feet

***Left leg and foot:*** Paint transferred from the dummy's left knee indicated the knee contacted the knee bolster to the left of the steering column, 4 cm above and 3 cm to the right of the left instrument panel intrusion reference point. Paint transferred from the dummy's left shin indicated the top of the shin contacted the bolster directly below the knee impact location. The left foot was found slightly dorsiflexed and fully everted, with the medial back of the heel against the floormat/carpeting on the floorpan. The lateral edge of the forefoot's sole was resting on the inboard edge of the raised carpeted area on the toepan for the footrest.

***Right leg and foot:*** Paint transferred from the dummy's right knee indicated the knee contacted the knee bolster to the right of the steering column, about 2 cm above and 2 cm to the left of the right instrument panel intrusion reference point. Paint transferred from the dummy's right shin indicated the shin contacted the bolster directly below the knee impact location. The right foot was found slightly dorsiflexed and fully everted, with the back of the heel pressed against the floormat/carpeting on the floorpan. The medial sole at the forefoot and heel was pressed against the intruded toepan, and the lateral sole at the forefoot was on the outboard edge of the fully depressed accelerator pedal.

## Dummy Injury Measures

### Head

The maximum vector resultant head accelerations were recorded and the HICs were calculated during an interval that corresponds with the dummy's head excursion into the airbag. The peak vector resultant head acceleration from the steering wheel contact through the airbag was 41 g at 120 ms. Table 3 provides a summary of the maximum head injury measurements recorded during the crash.

**Table 3**
**Head Injury Measurements — 2000 Ford Taurus**

| Measure | Published Tolerance Threshold | Result | Time (ms) |
|---|---|---|---|
| Vector resultant acceleration (g) | 80 | 43 | 107 |
| Vector resultant acceleration — 3 ms clip (g) | 80 | 42 | 100-103 |
| Head Injury Criterion (HIC) | 1000 | 346 | 89-125 |
| Head Injury Criterion — 15 ms interval (HIC-15)* | 700 | 170 | 98-112 |

* Canadian Motor Vehicle Safety Regulations (Standard 208) allow the resultant head acceleration to exceed 80 g in airbag-equipped vehicles if HIC-15 is less than 700 (Transport Canada, 1998).

## Neck

Table 4 provides a summary of the maximum neck injury measurements recorded during the crash. None of the recorded neck force measures exceeded the magnitude-duration injury criteria (Figures A-13 to A-16).

**Table 4**
**Neck Injury Measurements — 2000 Ford Taurus**

| Measure | Published Tolerance Threshold | Result | Time (ms) |
|---|---|---|---|
| A-P shear force (kN) | ±3.1 | –0.4 | 86 |
| Axial compression force (kN) | 4.0 | 0.1 | 165 |
| Axial tension force (kN) | 3.3 | 1.4 | 107 |
| Flexion bending moment (Nm) | 310 | 34 | 129 |
| Extension bending moment (Nm) | 122 | 13 | 264 |

## Chest

Table 5 provides a summary of the maximum chest injury measurements recorded during the crash.

**Table 5**
**Chest Injury Measurements — 2000 Ford Taurus**

| Measure | Published Tolerance Threshold | Result | Time (ms) |
|---|---|---|---|
| Vector resultant spine acceleration — 3 ms clip (g) | 60 | 43 | 117-120 |
| Rib compression (mm) | –50 | –28 | 101 |
| Sternum deflection rate (m/s) | –8.2 | –0.8 | 29 |

## Legs and Feet

Table 6 provides a summary of the maximum leg and foot injury measurements recorded during the crash.

**Table 6**
**Leg and Foot Injury Measurements — 2000 Ford Taurus**

| Measure | Published Tolerance Threshold | Left | | Right | |
|---|---|---|---|---|---|
| | | Result | Time (ms) | Result | Time (ms) |
| Femur axial force (kN) | –9.1* | –2.1 | 106 | –1.2 | 113 |
| Tibia-femur displacement (mm) | –15 | 0 | 105 | –3 | 116 |
| **Upper Tibia** | | | | | |
| L-M moment (Nm) | ±225 | –42 | 128 | –43 | 97 |
| A-P moment (Nm) | ±225 | –78 | 88 | –88 | 96 |
| Vector resultant moment (Nm) | 225 | 87 | 88 | 96 | 96 |
| Index | 1.00 | 0.41 | 88 | 0.49 | 96 |
| **Lower Tibia** | | | | | |
| L-M moment (Nm) | ±225** | 18 | 111 | –129 | 96 |
| A-P moment (Nm) | ±225** | 91 | 107 | 74 | 104 |
| Vector resultant moment (Nm) | 225** | 92 | 107 | 137 | 96 |
| Axial force (kN) | –8.0** | –1.0 | 91 | –2.4 | 95 |
| Index | 1.00 | 0.43 | 107 | 0.67 | 96 |
| **Foot** | | | | | |
| A-P acceleration (g) | ±150 | –33 | 84 | –44 | 94 |
| I-S acceleration (g) | ±150 | –44 | 86 | –36 | 85 |
| Vector resultant acceleration (g) | 150 | 51 | 85 | 50 | 94 |

* This critical value is for instantaneous loading. Femur loads are compared with magnitude-duration injury criteria in Figures A-24 and A-37.

** These published thresholds are for fractures of the tibia. Ankle and foot injuries have been associated with bending moments as low as 50-100 Nm, and heel fractures have been associated with axial forces as low as –6.0 kN.

## References

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Begeman, P.; Balakrishnan, P.; Levine, R.; and King, A. 1993. Dynamic human ankle response to inversion and eversion (SAE 933115). *Thirty-seventh Stapp Car Crash Conference Proceedings,* 83-93. Warrendale, PA: Society of Automotive Engineers.

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Parenteau, C.S. 1995. Foot-ankle injury: epidemiology and method to investigate joint biomechanics. Gothenburg, Sweden: Chalmers University of Technology.

Prasad, P. and Mertz, H.J. 1985. The position of the United States delegation to the ISO Working Group 6 on the use of HIC in the automotive environment (SAE 851246). *Biomechanics of Impact Injury and Injury Tolerances of the Head-Neck Complex*, 373-83. Warrendale, PA: Society of Automotive Engineers.

Transport Canada. 1998. Motor Vehicle Safety Regulations – Canadian Motor Vehicle Safety Standards, Schedule IV Part III Standard 208, Occupant Restraint Systems in Frontal Impact. Ottawa, Ontario.

Welbourne, E.R. 1994. Vehicle performance requirements for head injury protection: a comparison of the head injury criterion with an 80 g limit on resultant acceleration. Technical Memorandum. Ottawa, Ontario: Transport Canada, Vehicle System Division.

Zeidler, F. 1984. The significance of lower limb injuries of belted drivers. *Journal of Orthopedics* [German].

## Appendix

Dummy Clearance Measurements

Graph Index — index to graphs of time plots of dummy and vehicle data

Manufacturer’s window sticker

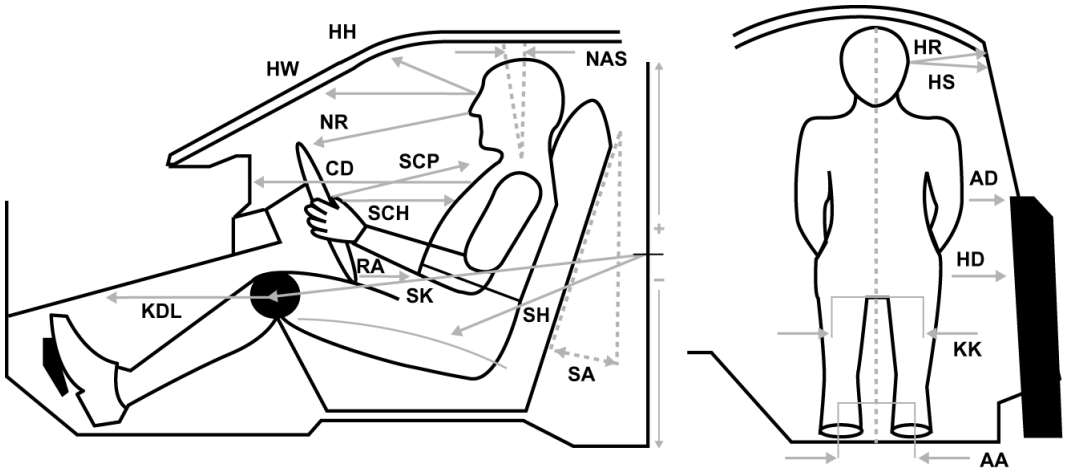
# Dummy Clearance Measurements

**Test Number:** CF00010
**Vehicle Make/Model:** Ford Taurus
**Vehicle Model Year:** 2000
**Seat Type**: Electrically adjusted split bench seat (fore/aft, height, and seat back angle)

**Manufacturer's Specifications**
**Seat Back Information:** Reclined to 27.2°, as measured on outboard rear frame of seat back
**Upper Belt Anchorage:** Set to midpoint of 5 positions
**Steering Column Adjustment:** Set to midpoint of 5 tilt positions
**Foot Pedal Adjustment:** Set to fully forward position of fore/aft range

| Location | Code | Measure | Location | Code | Measure |
|---|---|---|---|---|---|
| Head to header | HH | 302 | Neck angle, torso 90 | NAT90 | 20.7° |
| Head to windshield | HW | 620 | Neck angle, seated* | NAS | 6.3° |
| Nose to rim | NR | 362 | Torso angle (NAT90 – NAS) | TA | 14.4° |
| Chest to dash | CD | 671 | Striker to knee** | SK | 572 |
| Rim to abdomen | RA | 199 | Striker to knee angle** | SKA | 0.6° |
| Knee to dash, left | KDL | 199 | Striker to H-point, horizontal | SHH | 204 |
| Knee to dash, right | KDR | 129 | Striker to H-point, vertical | SHV | –131 |
| Steering wheel to chest, horizontal | SCH | 280 | Ankle to ankle | AA | 340 |
| Steering wheel to chest, perpendicular | SCP | 328 | Knee to knee | KK | 350 |
| Steering wheel to chest, reference | SCR | 316 | Arm to door | AD | 40 |
| Hub to chest, minimum | HCM | 228 | H-point to door | HD | 130 |
| Pelvic angle | PA | 24.3° | Head to A-pillar | HA | 497 |
| Seat back angle | SA | 27.0° | Head to roof | HR | 188 |
| | | | Head to side window | HS | 240 |

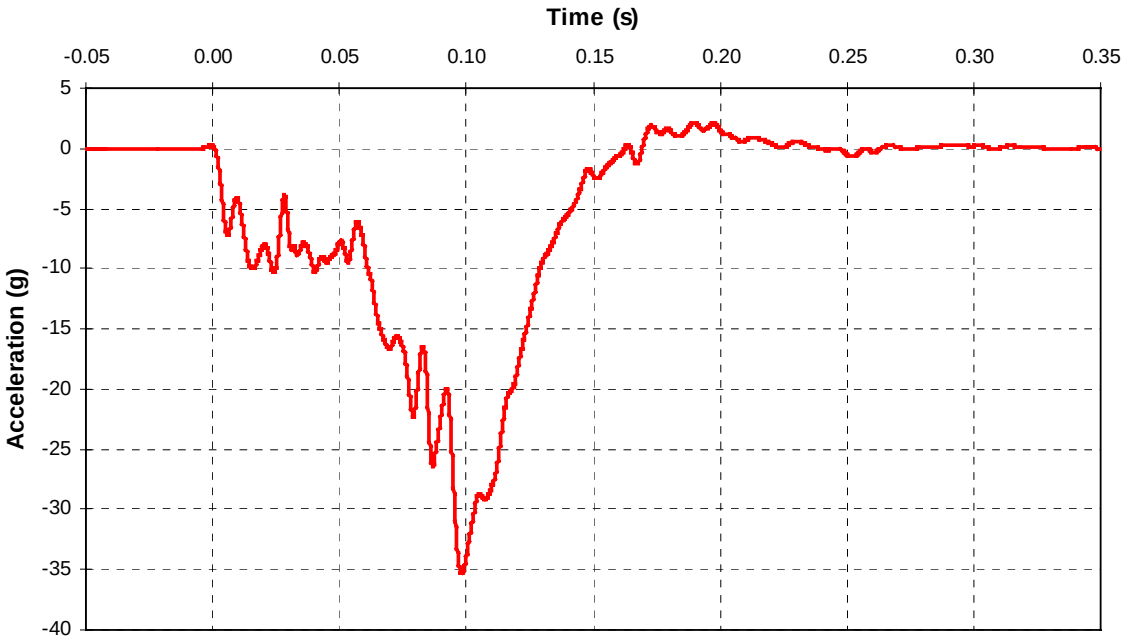
All distance measurements are in millimeters (mm).
* Dummy's neck bracket was adjusted to –3.5° to achieve a level instrumentation plane.
** These measurements were made in a vertical plane containing the striker and parallel to the driver door sill.



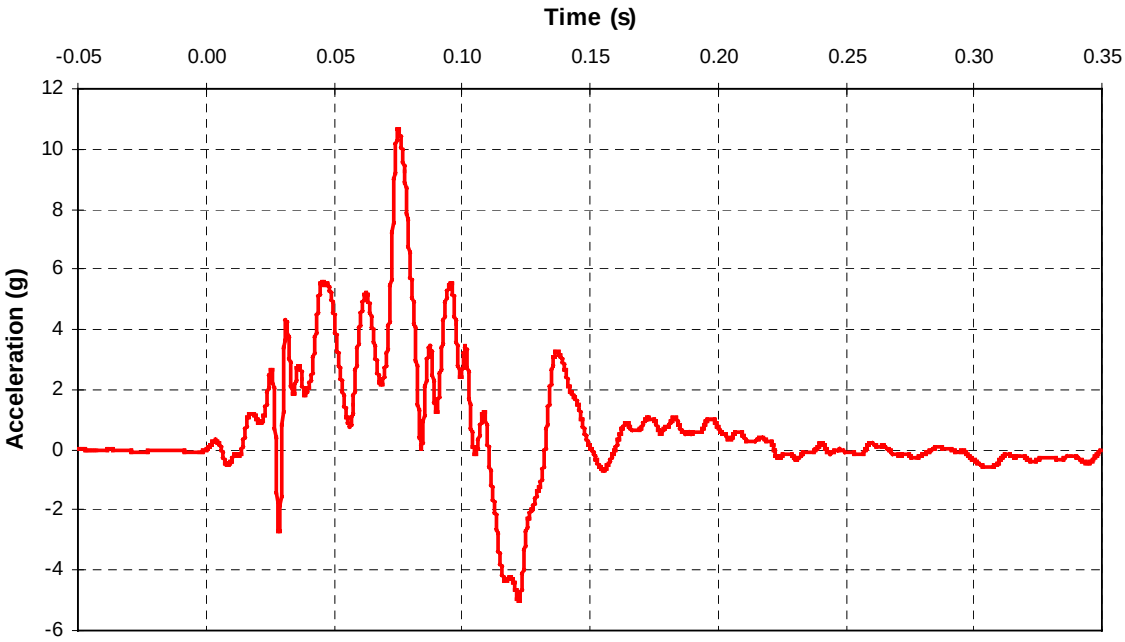
## Graph Index

A-47 Right foot A-P acceleration
A-48 Right foot I-S acceleration

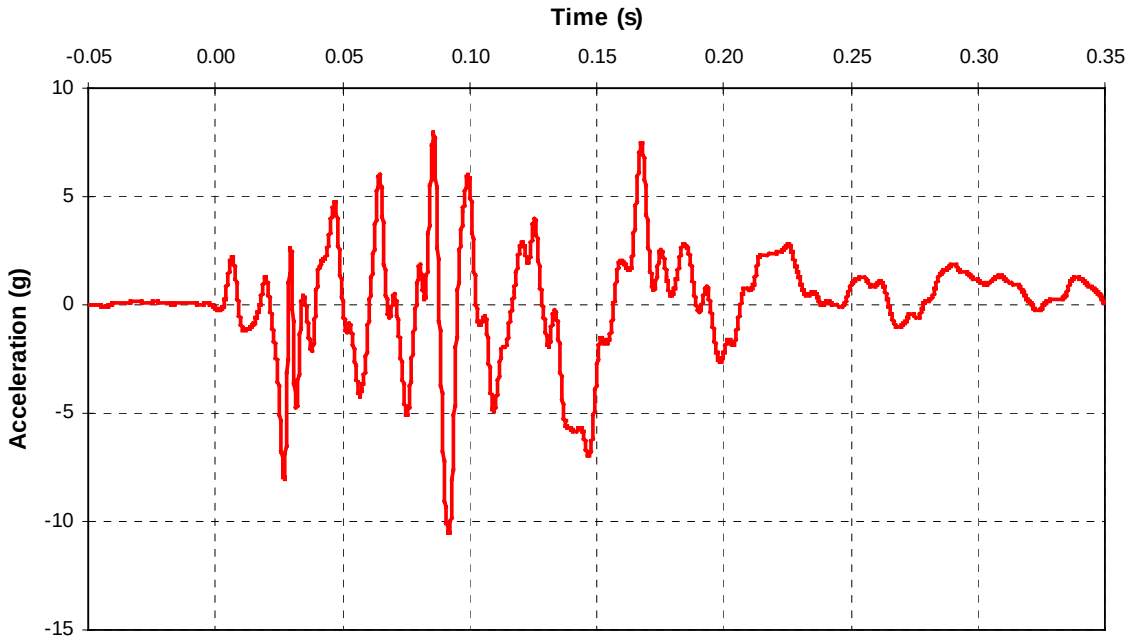
**A- 1 CF00010 2000 Ford Taurus Vehicle Longitudinal Acceleration**



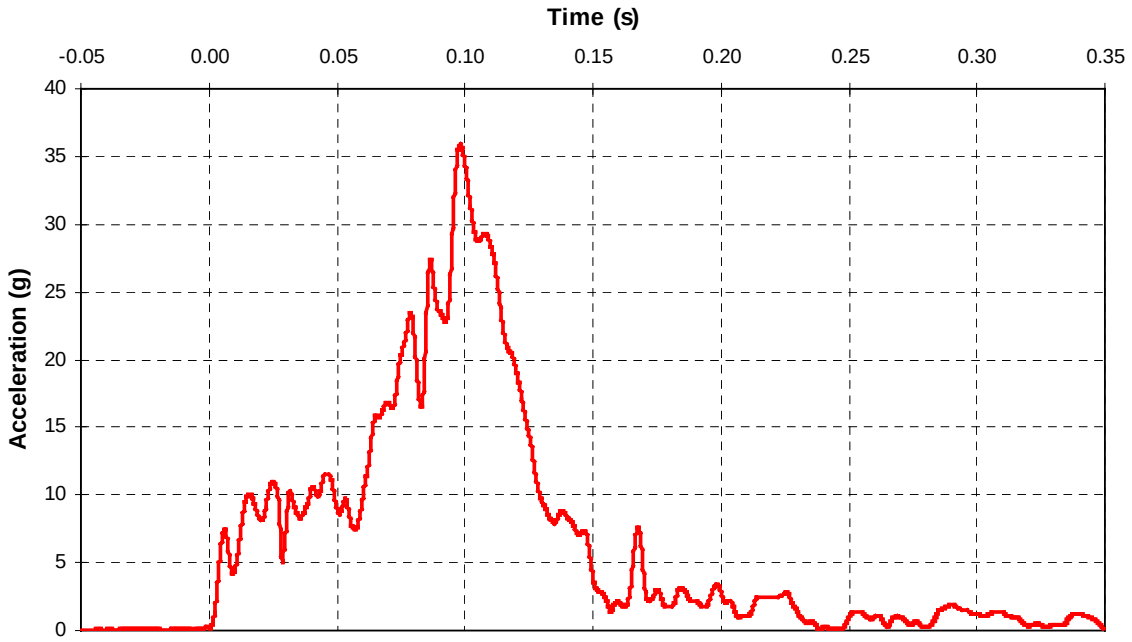

**A- 2 CF00010 2000 Ford Taurus Vehicle Lateral Acceleration**



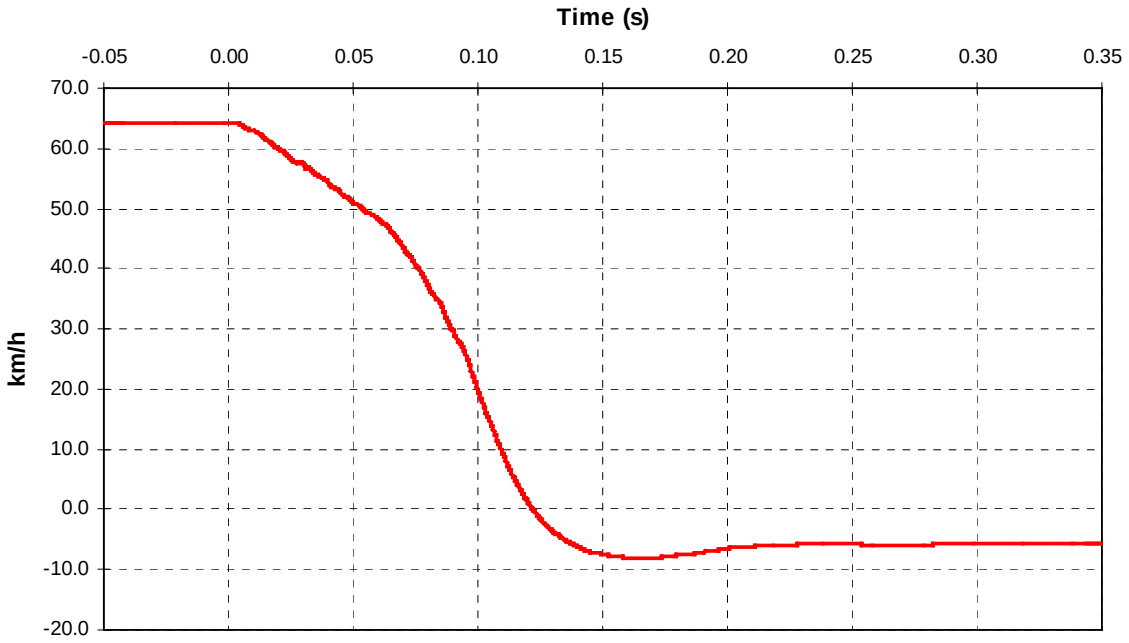
**A- 3 CF00010 2000 Ford Taurus Vehicle Vertical Acceleration**



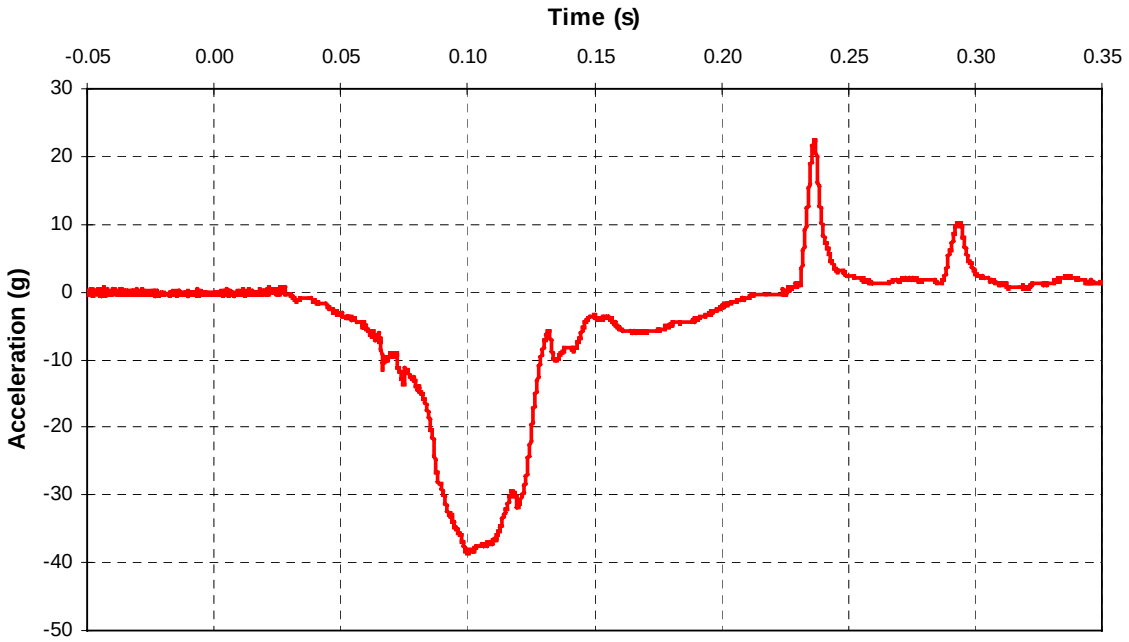

**A- 4 CF00010 2000 Ford Taurus Vehicle Vector Resultant Acceleration**



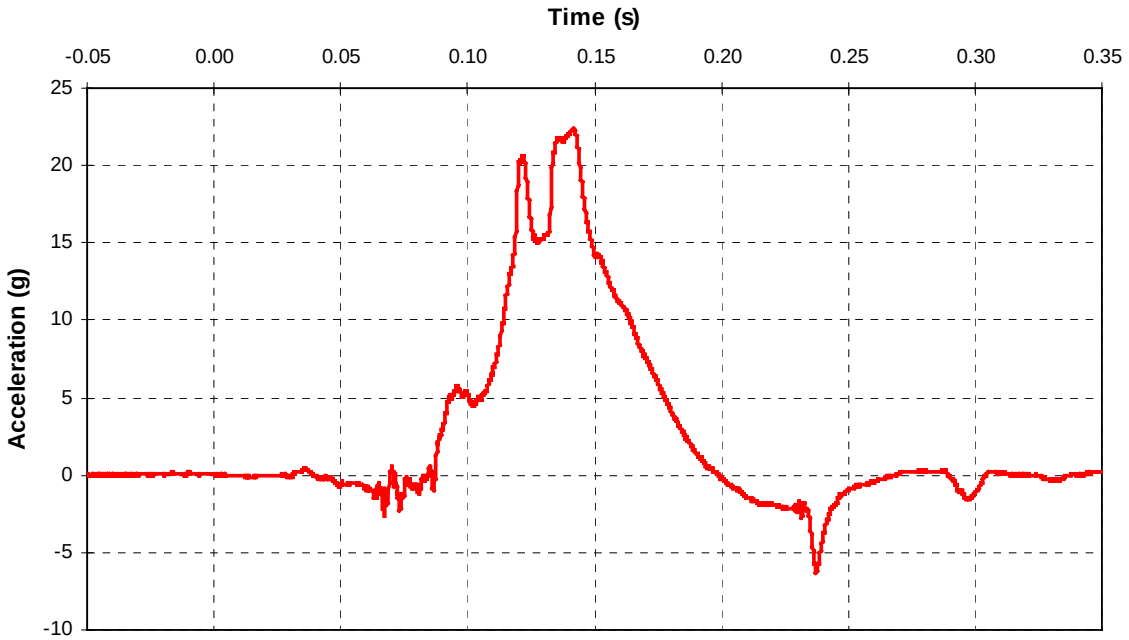
**A- 5 CF00010 2000 Ford Taurus Integration of Vehicle Longitudinal Acceleration**



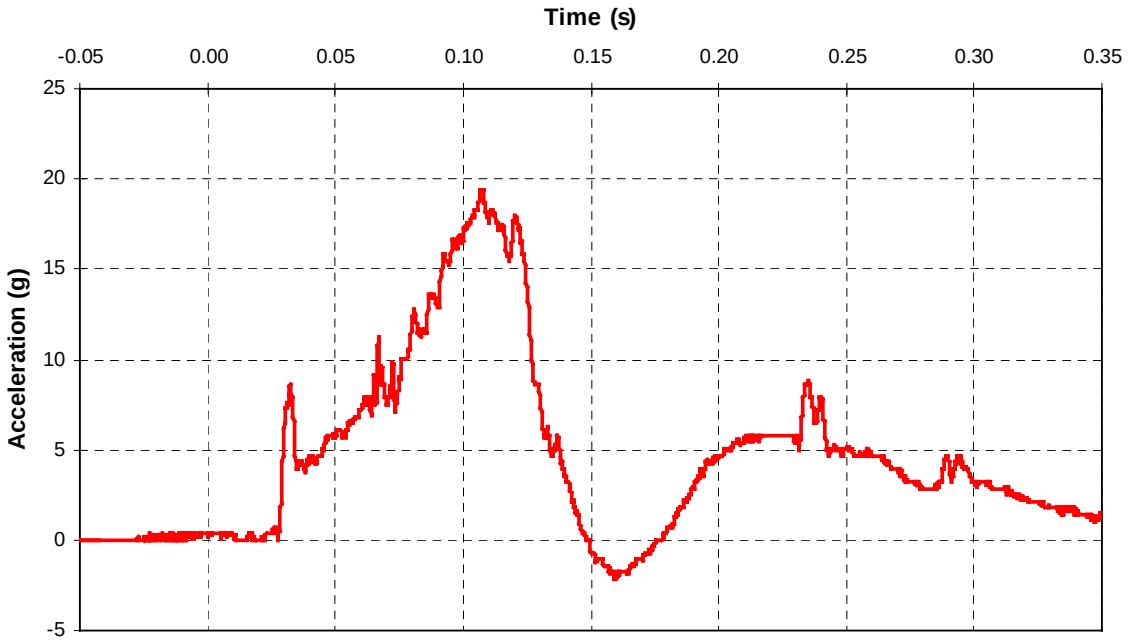

**A- 6 CF00010 2000 Ford Taurus Head A-P Acceleration**



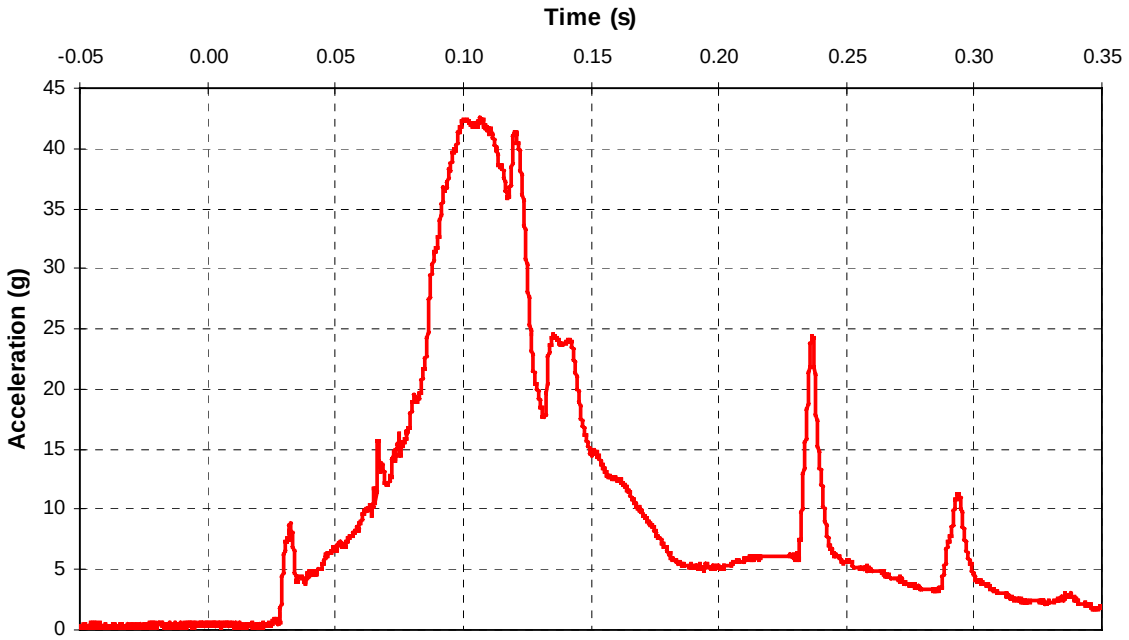
**A- 7 CF00010 2000 Ford Taurus Head L-M Acceleration**



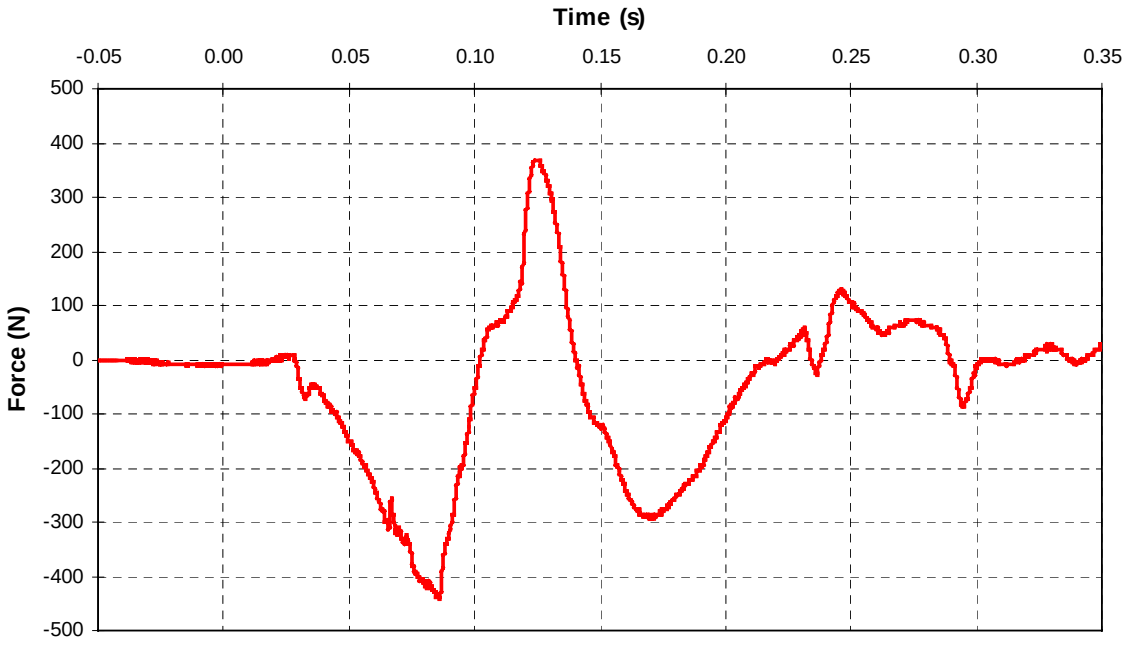

**A- 8 CF00010 2000 Ford Taurus Head I-S Acceleration**



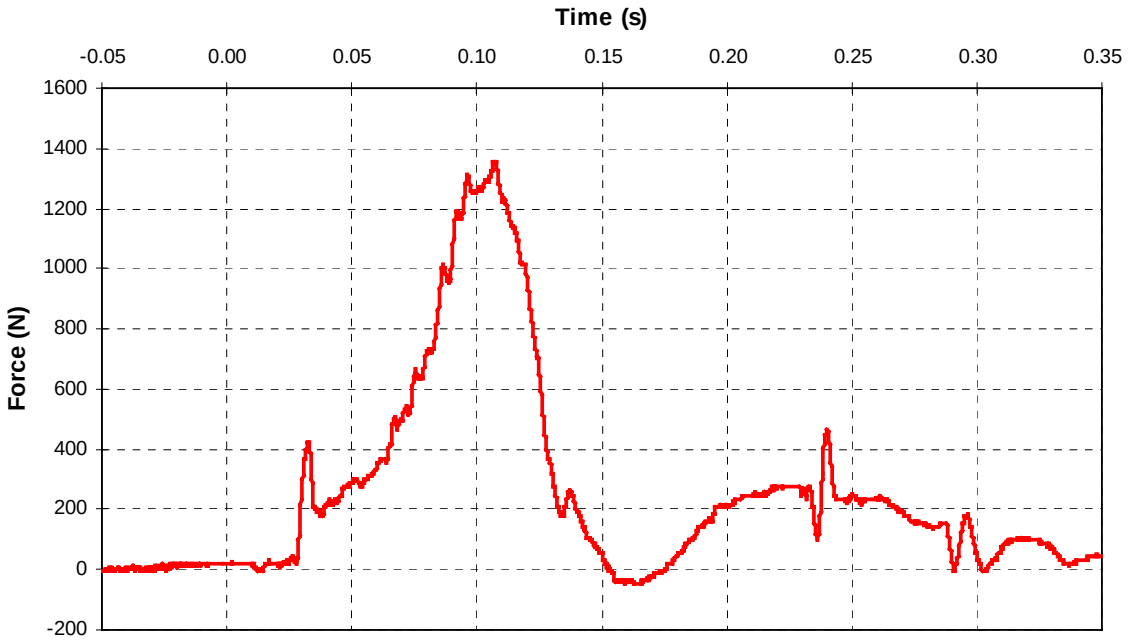
**A- 9 CF00010 2000 Ford Taurus Head Vector Resultant Acceleration**



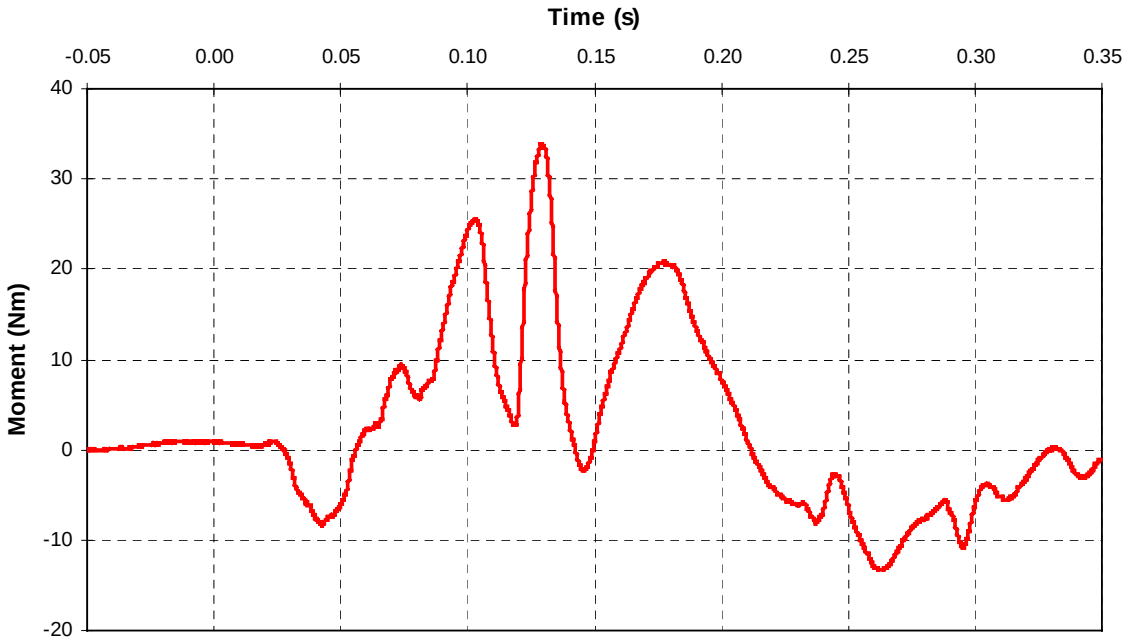

**A- 10 CF00010 2000 Ford Taurus Neck A-P Shear Force**



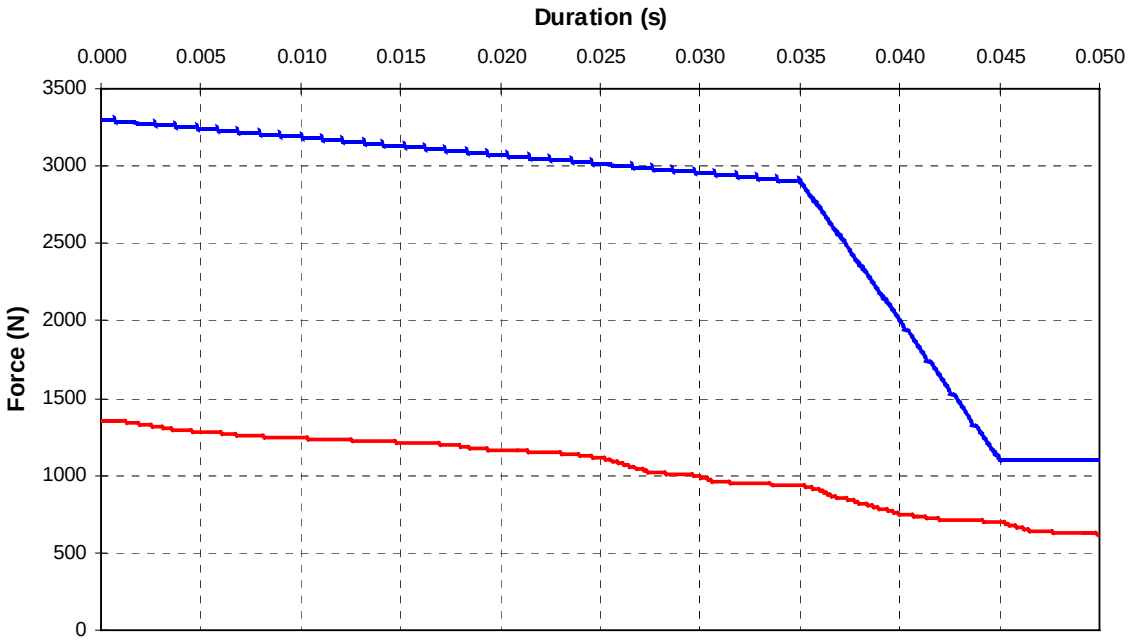
**A- 11 CF00010 2000 Ford Taurus Neck Axial Force**



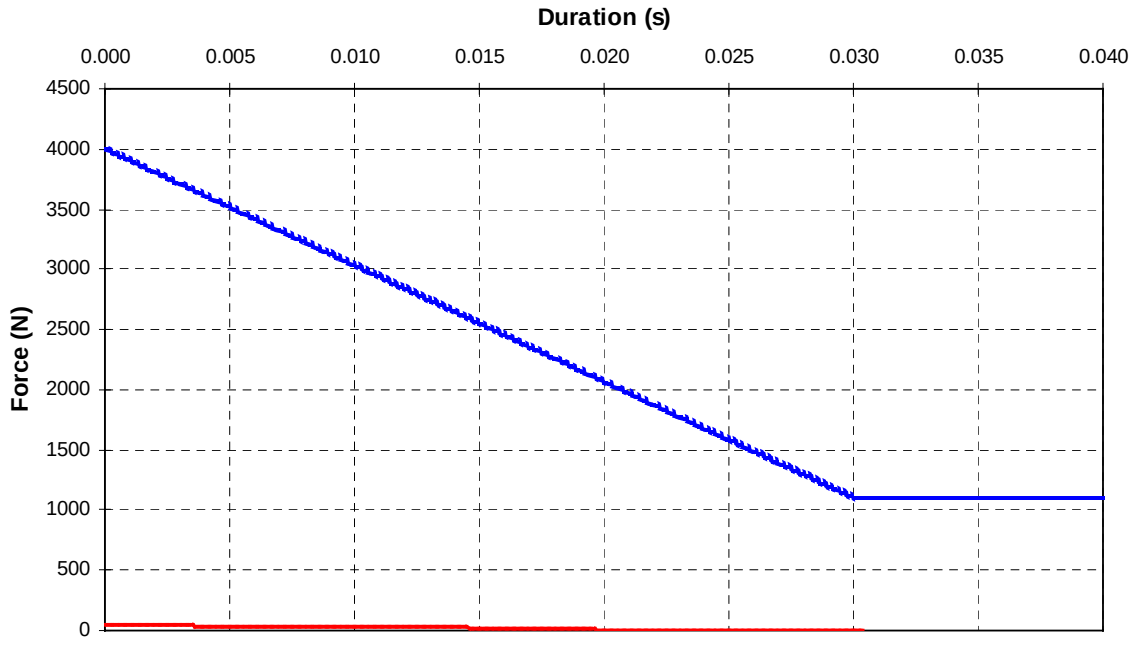

**A- 12 CF00010 2000 Ford Taurus Neck Occipital A-P Moment**



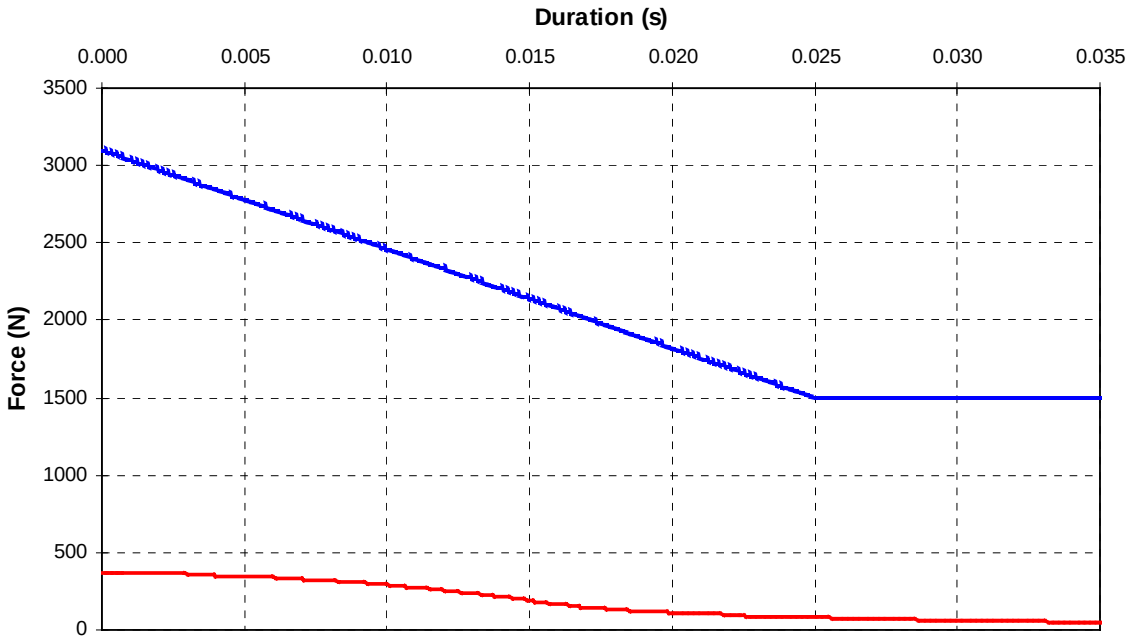
**A- 13 CF00010 2000 Ford Taurus Neck Tension Analysis**



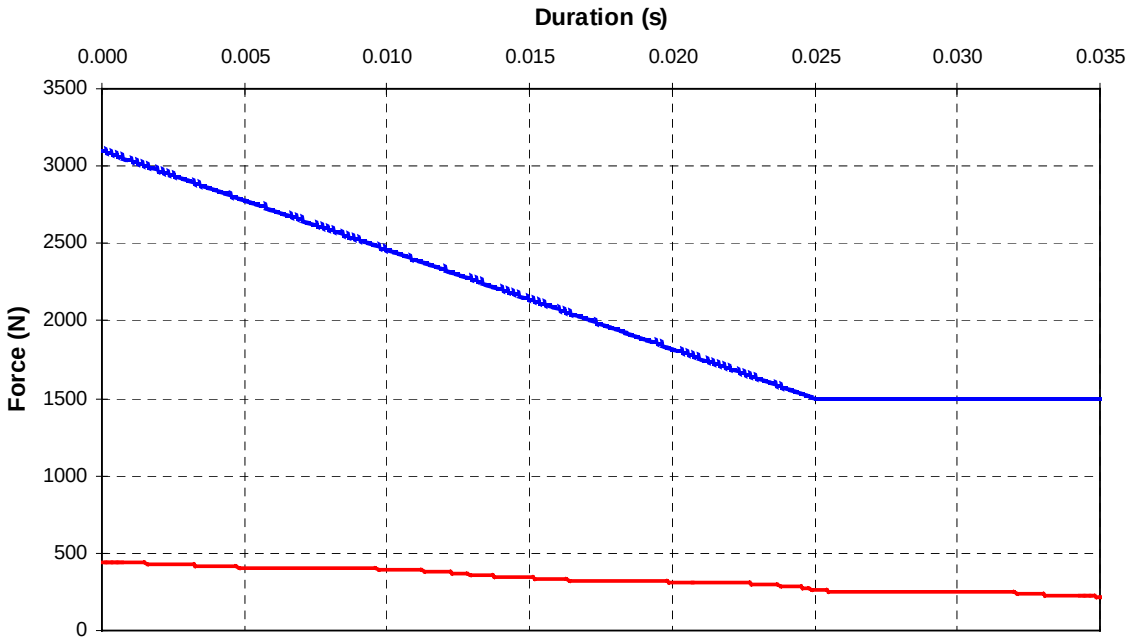

**A- 14 CF00010 2000 Ford Taurus Neck Compression Analysis**



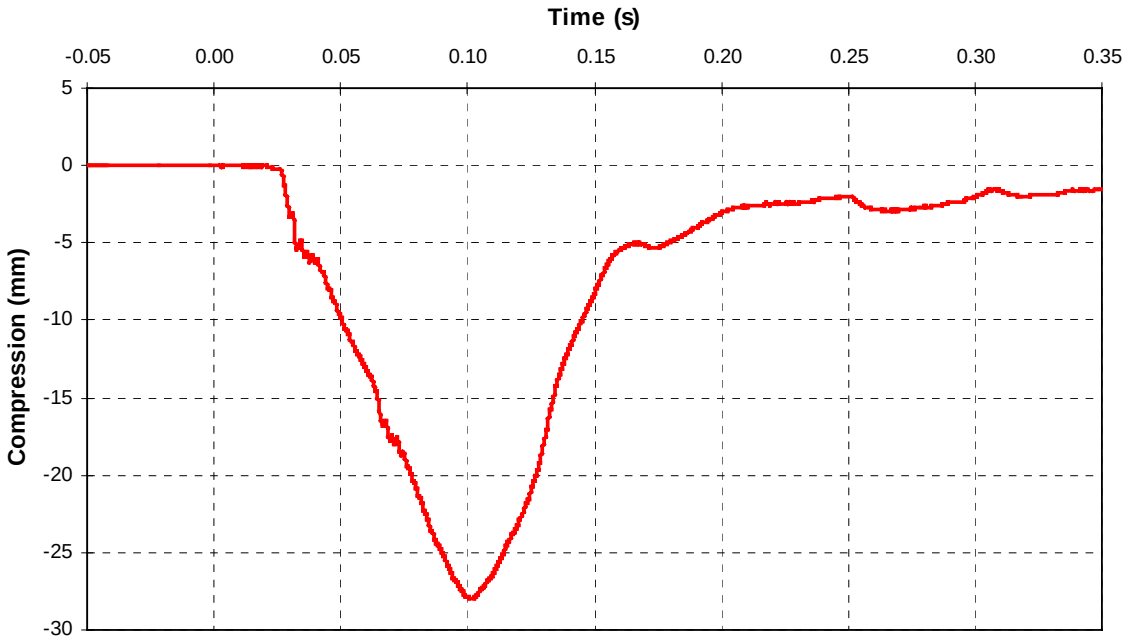
**A- 15 CF00010 2000 Ford Taurus Neck A-P Shear (Positive) Analysis**



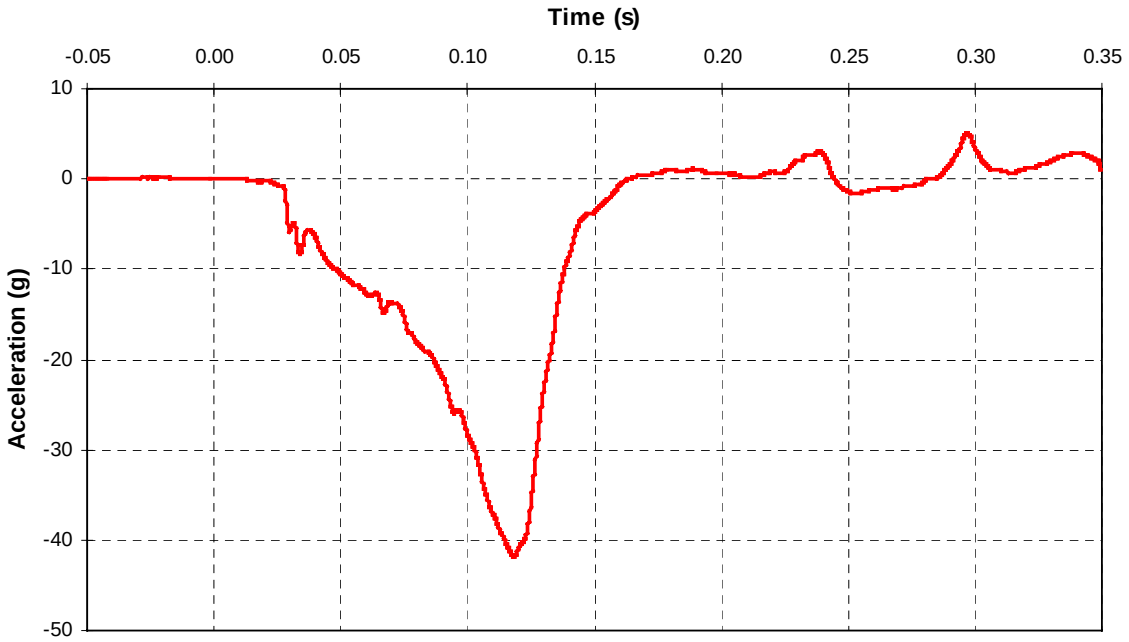

**A- 16 CF00010 2000 Ford Taurus Neck A-P Shear (Negative) Analysis**



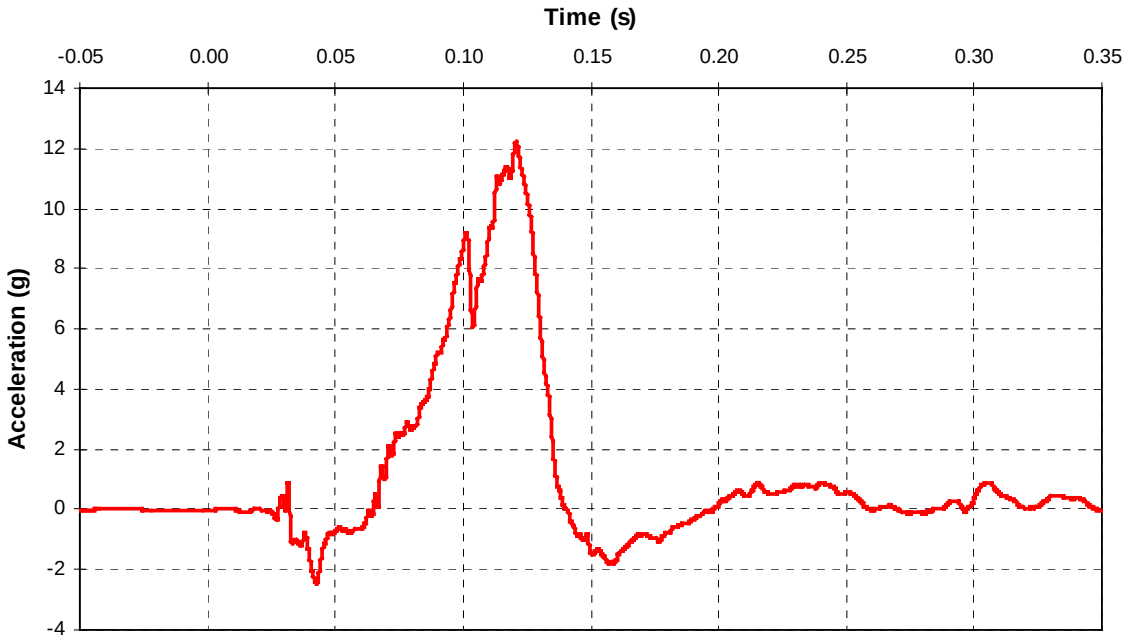
**A- 17 CF00010 2000 Ford Taurus Chest Compression**



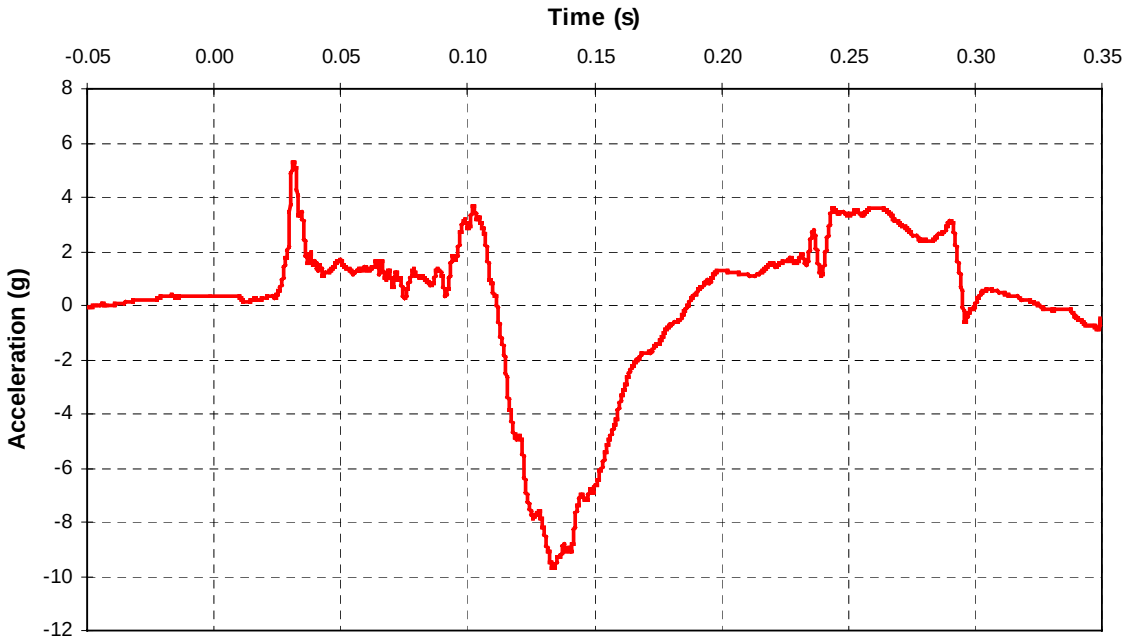

**A- 18 CF00010 2000 Ford Taurus Chest A-P Acceleration**



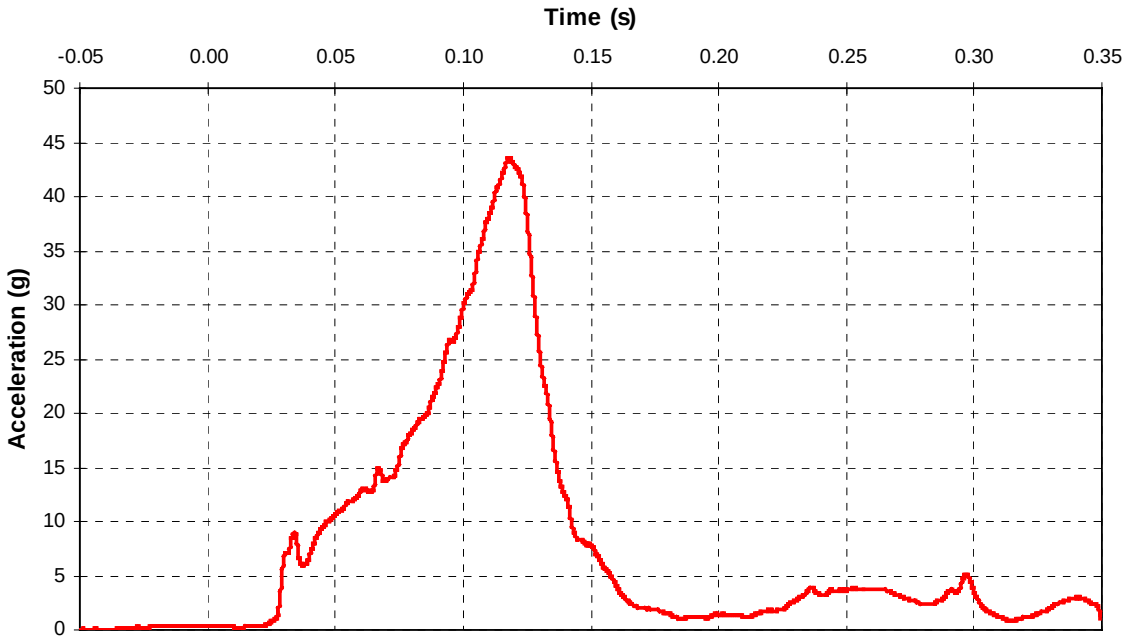
**A- 19 CF00010 2000 Ford Taurus Chest L-M Acceleration**



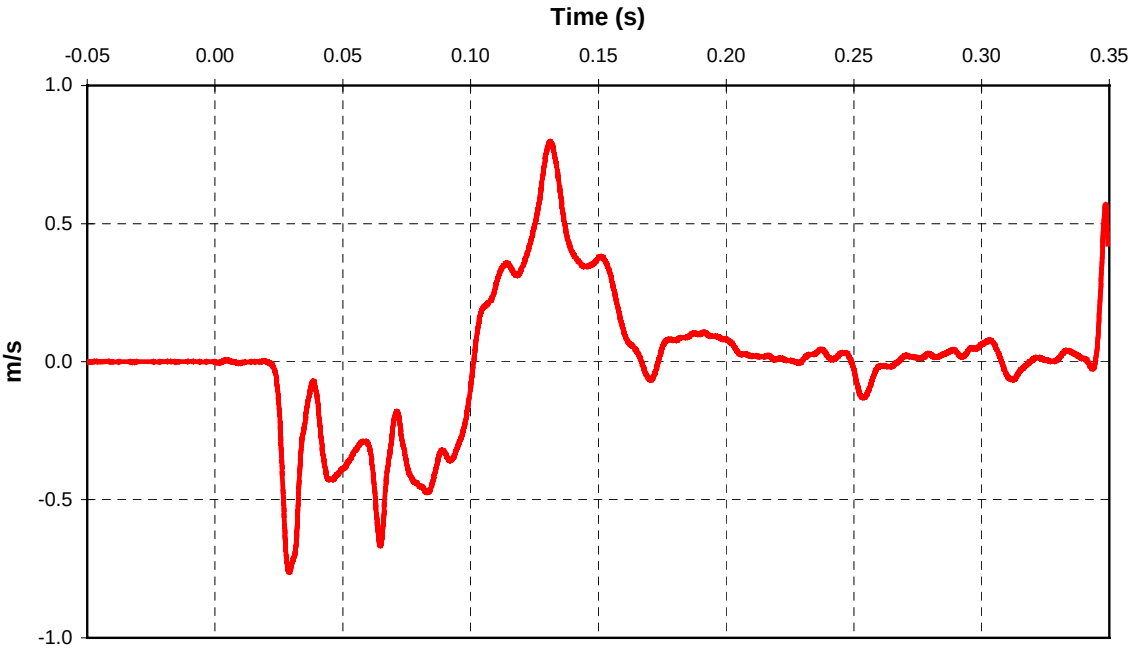

**A- 20 CF00010 2000 Ford Taurus Chest I-S Acceleration**



**A- 21 CF00010 2000 Ford Taurus Chest Vector Resultant Acceleration**

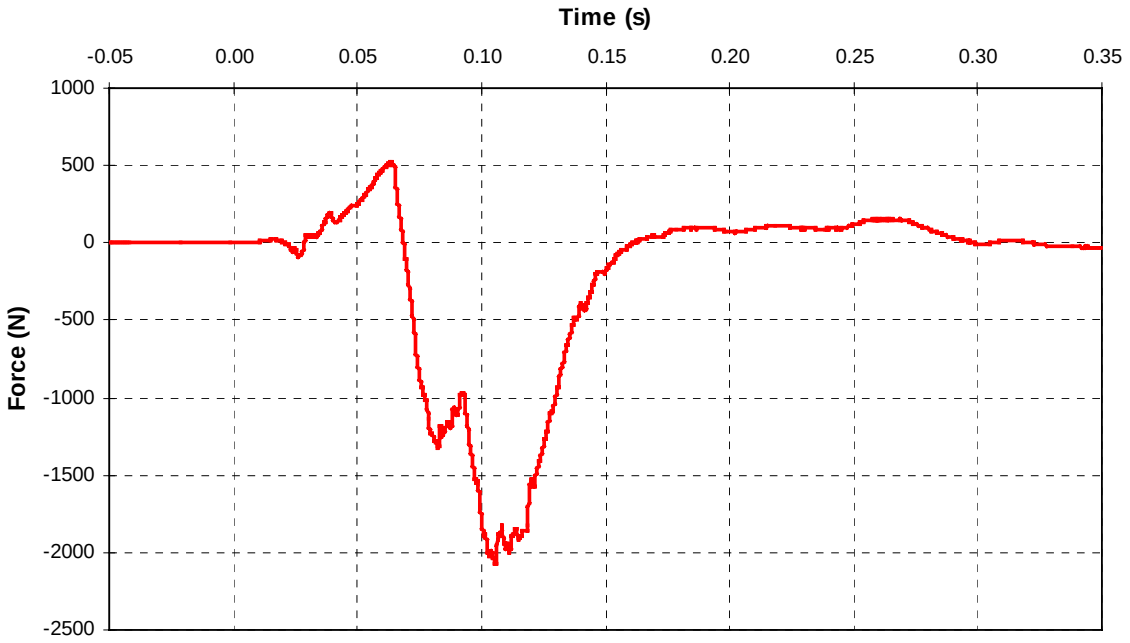



**A- 22 CF00010 2000 Ford Taurus Sternum Deflection Rate**

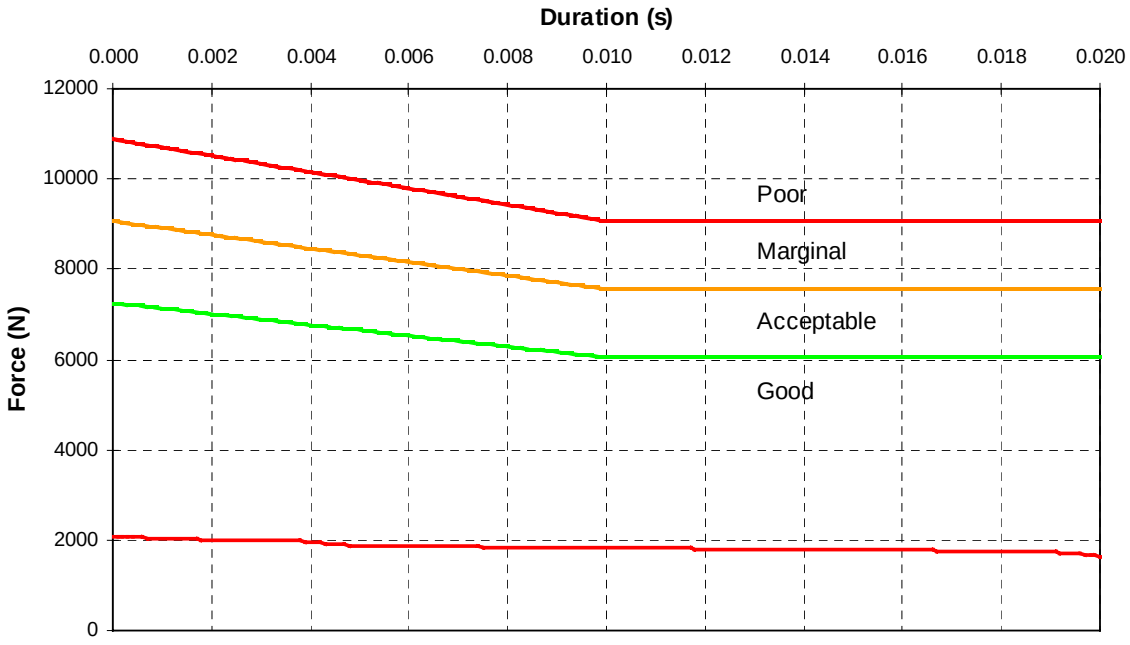



Sternum deflection rate is calculated from the sternum deflection filtered to CFC 60

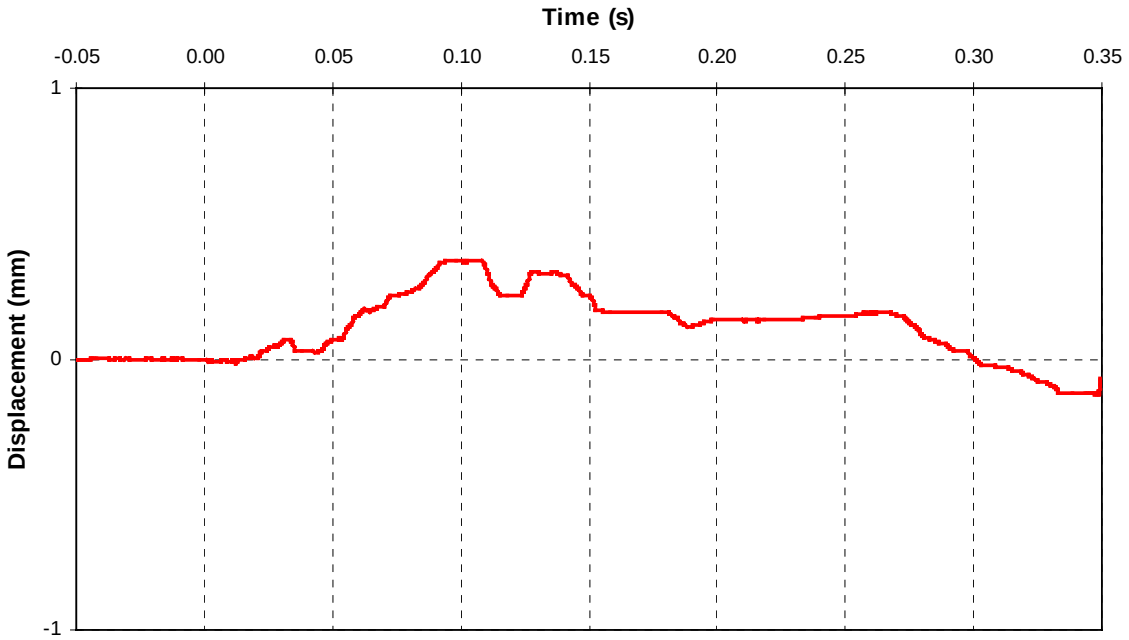
**A- 23 CF00010 2000 Ford Taurus Left Femur Axial Force**



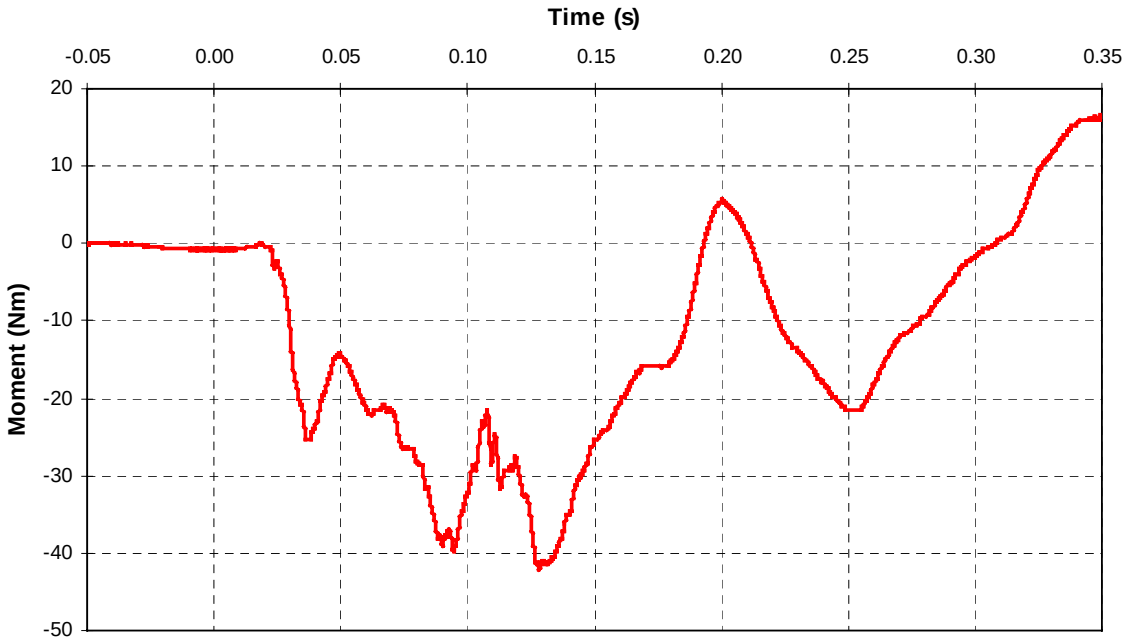

**A- 24 CF00010 2000 Ford Taurus Left Femur Axial Force Analysis**



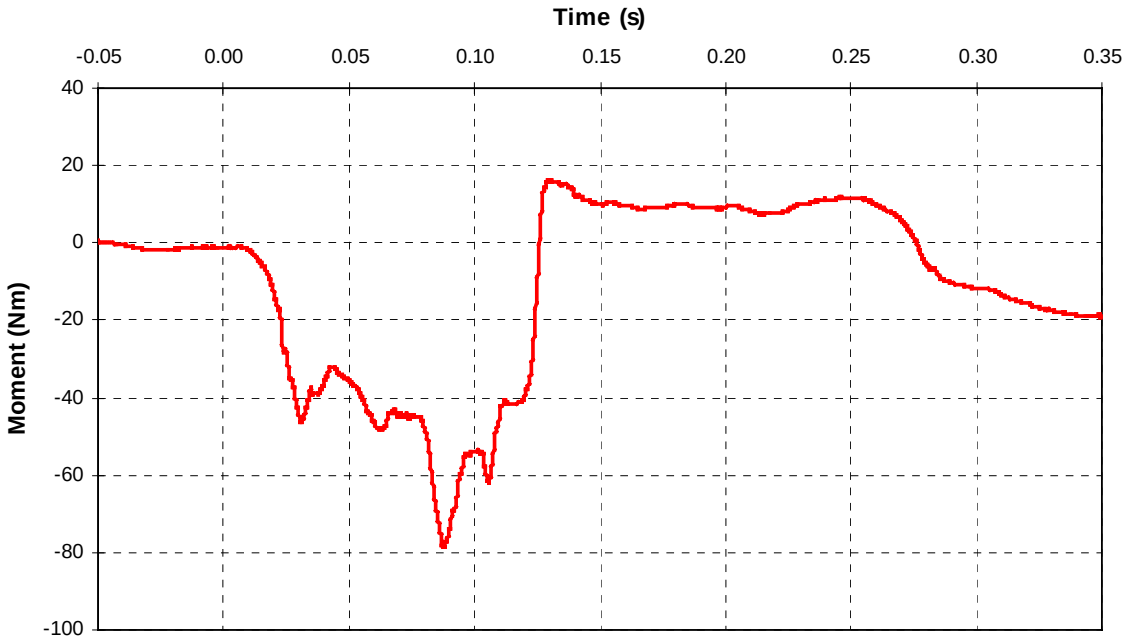
**A- 25 CF00010 2000 Ford Taurus Left Tibia-Femur Displacement**



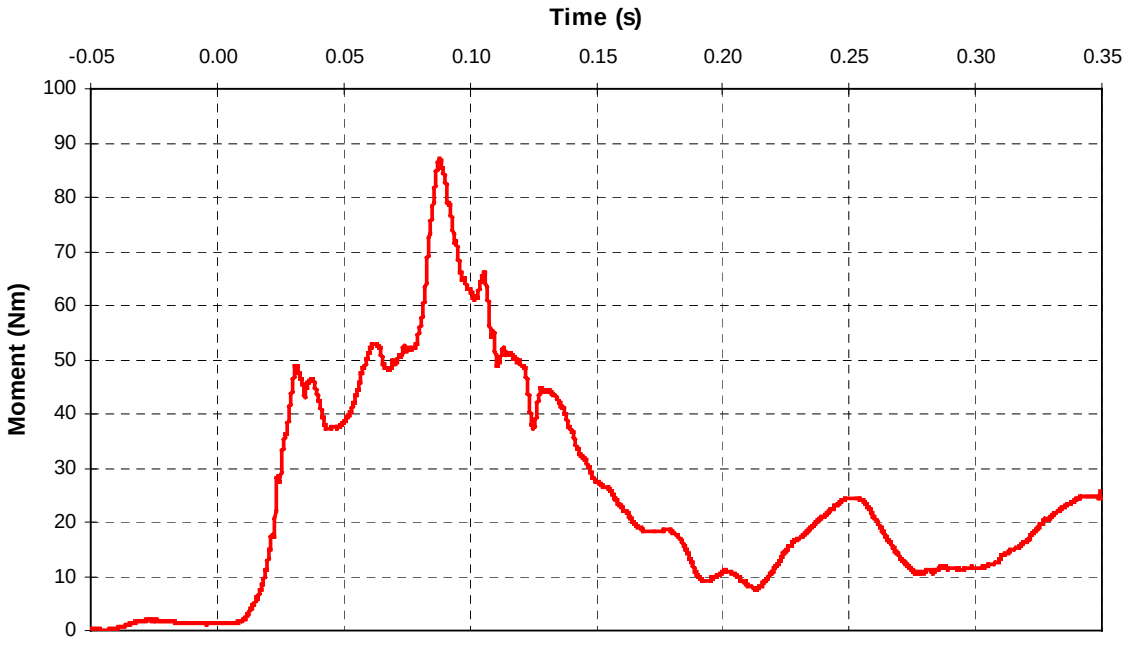

**A- 26 CF00010 2000 Ford Taurus Left Upper Tibia L-M Moment**



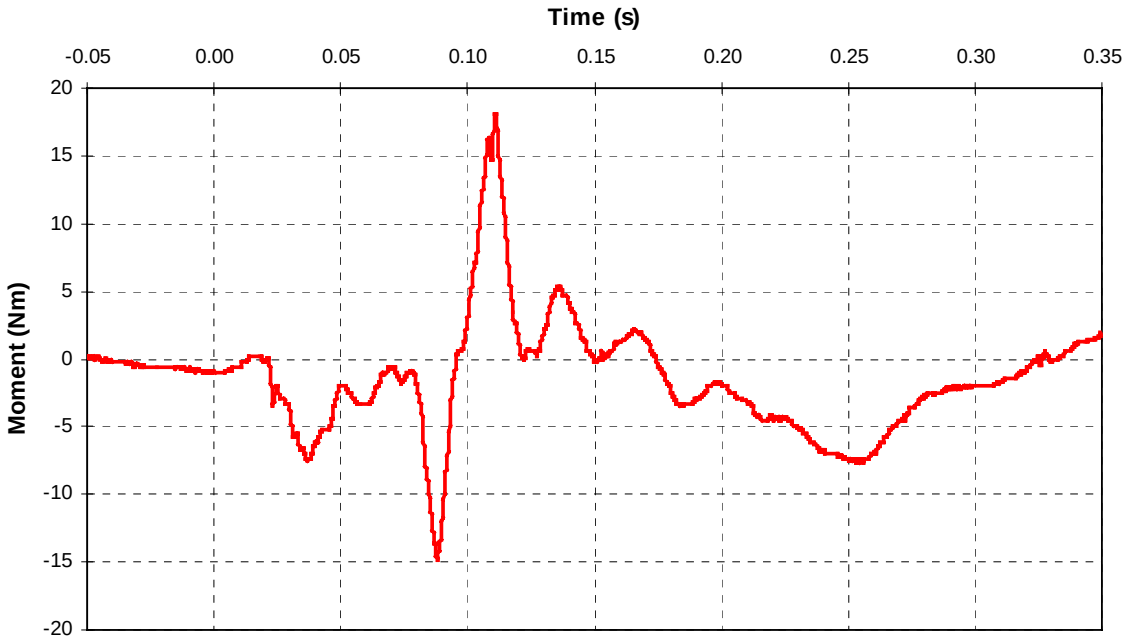
**A- 27 CF00010 2000 Ford Taurus Left Upper Tibia A-P Moment**



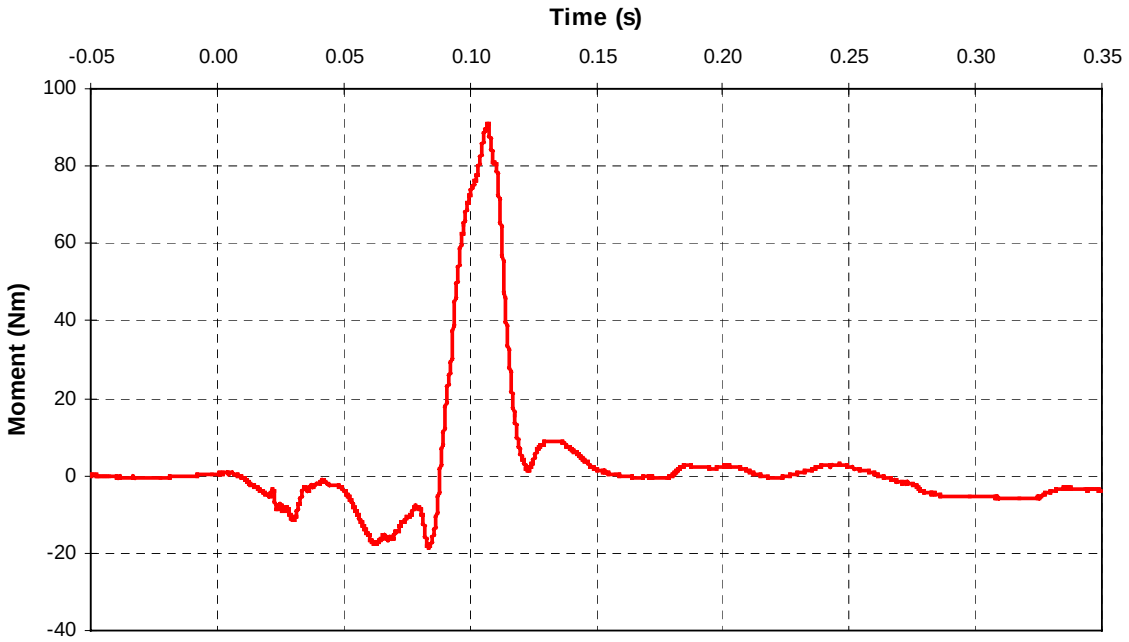

**A- 28 CF00010 2000 Ford Taurus Left Upper Tibia Vector Resultant Moment**



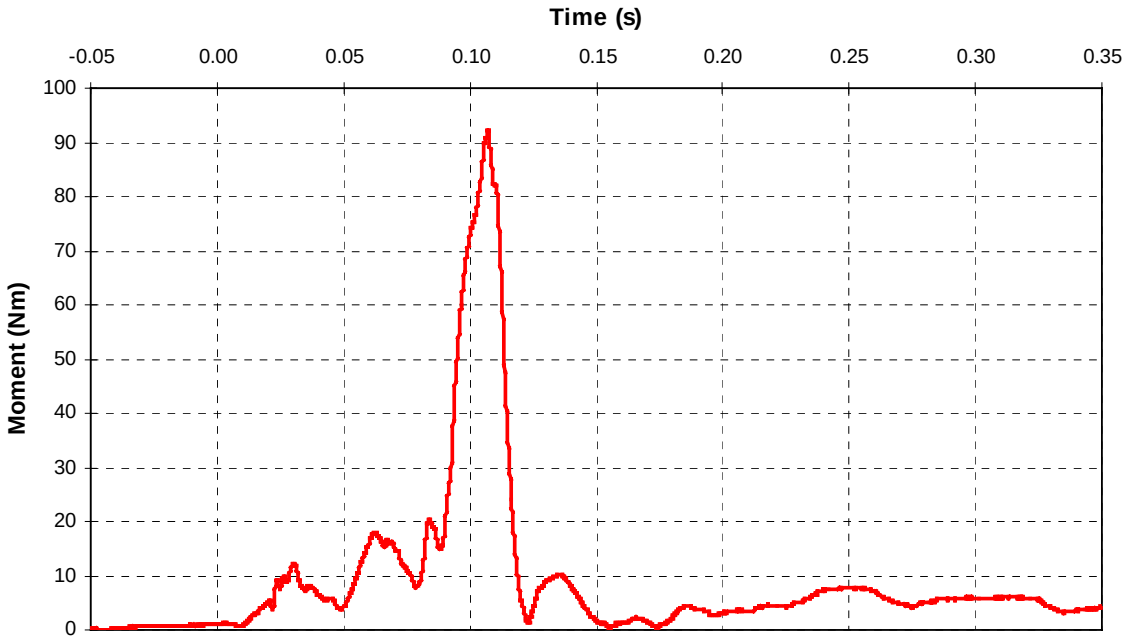
**A- 29 CF00010 2000 Ford Taurus Left Lower Tibia L-M Moment**



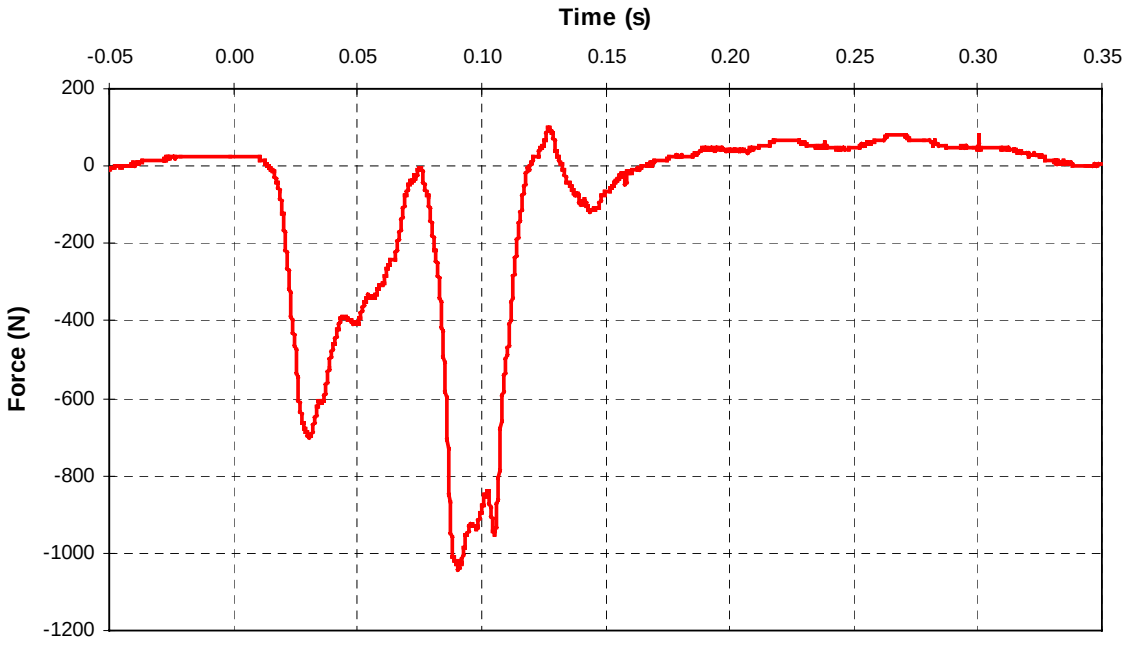

**A- 30 CF00010 2000 Ford Taurus Left Lower Tibia A-P Moment**



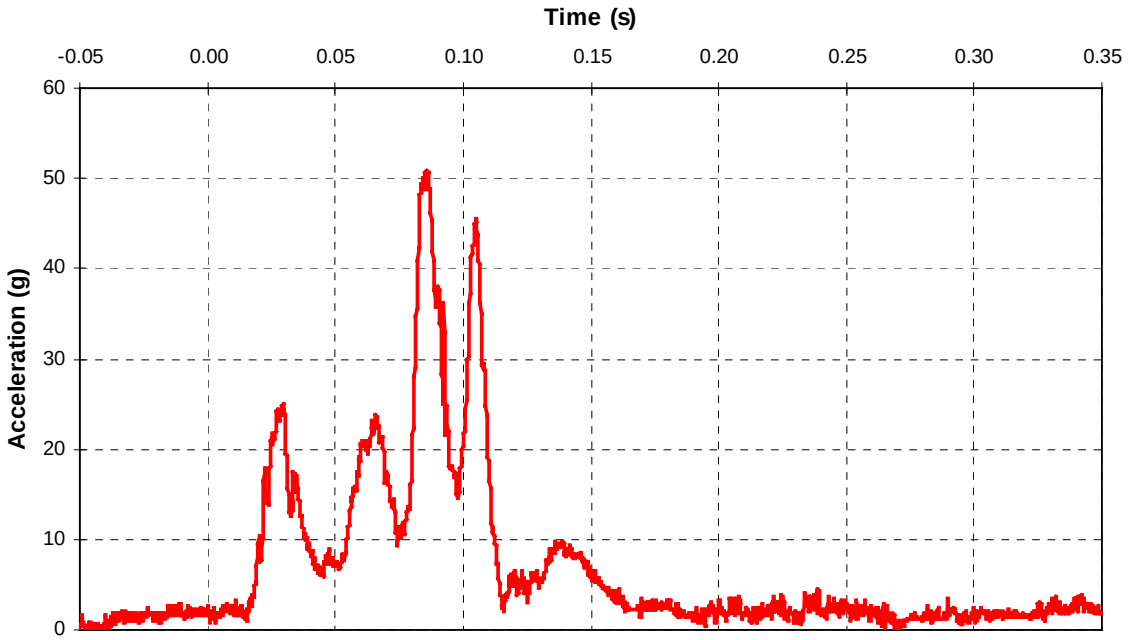
**A- 31 CF00010 2000 Ford Taurus Left Lower Tibia Vector Resultant Moment**



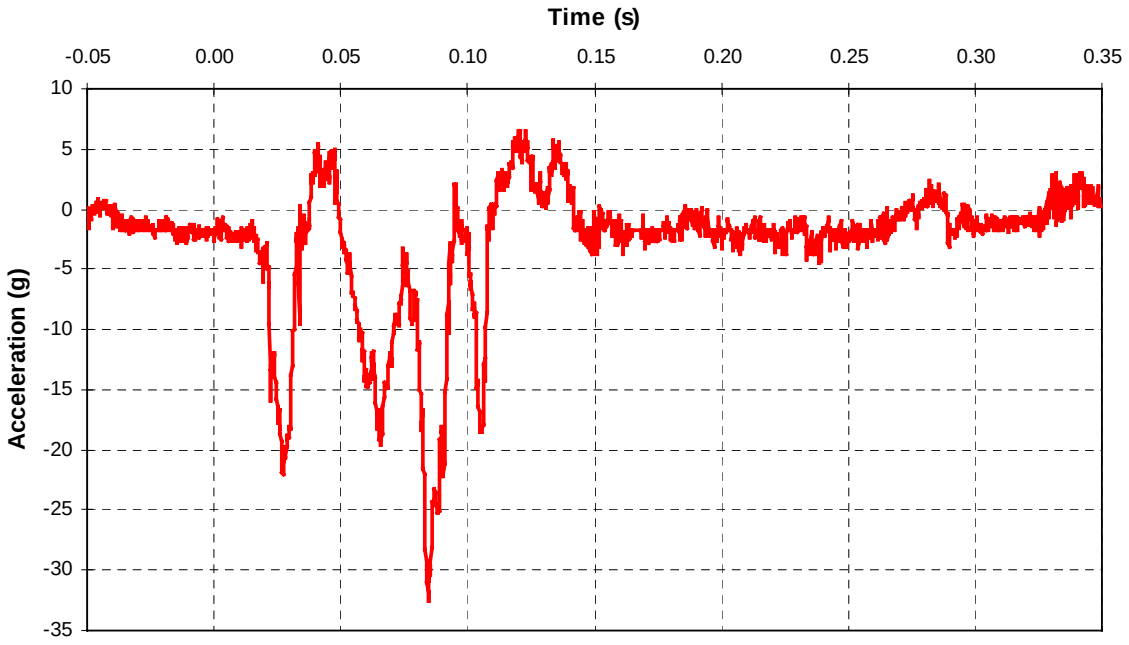

**A- 32 CF00010 2000 Ford Taurus Left Lower Tibia Axial Force**



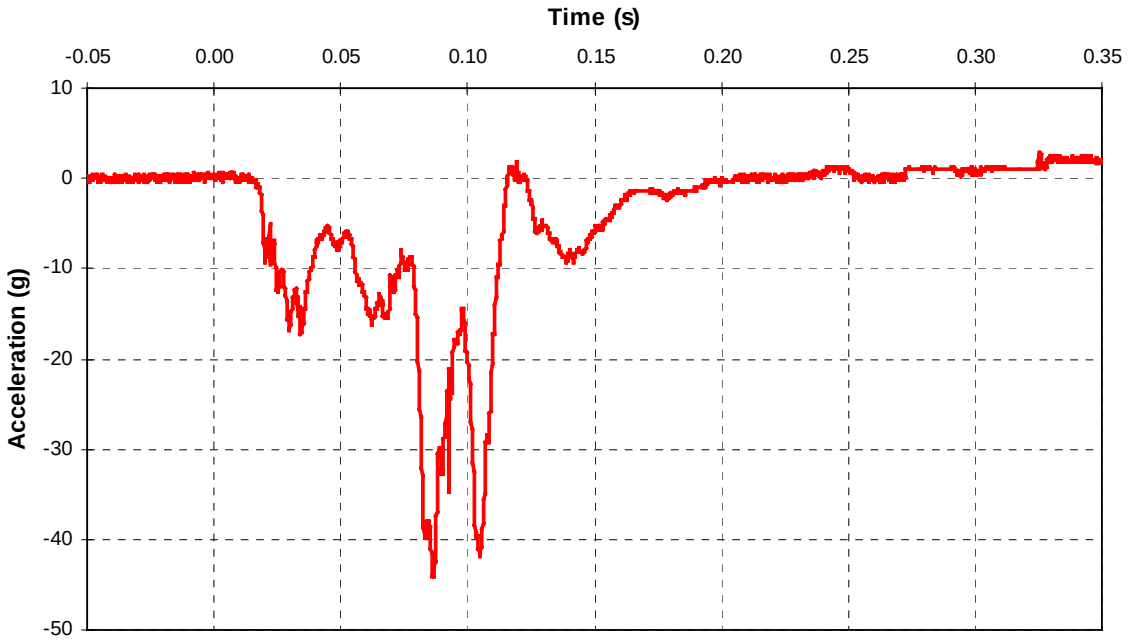
**A- 33 CF00010 2000 Ford Taurus Left Foot Vector Resultant Acceleration**



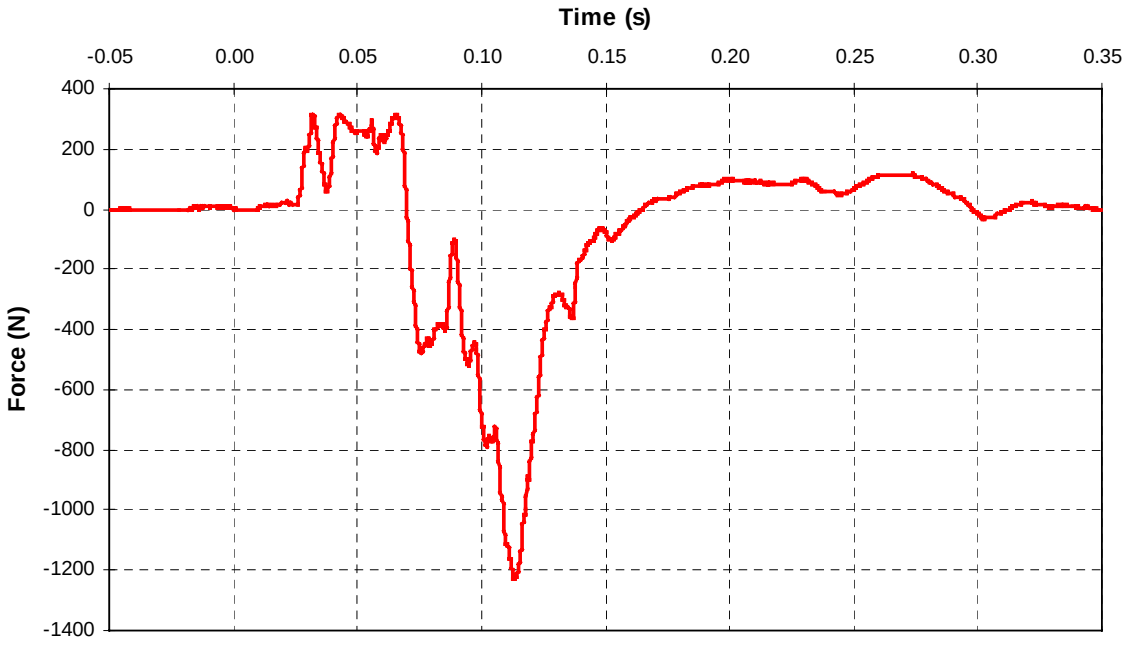

**A- 34 CF00010 2000 Ford Taurus Left Foot A-P Acceleration**



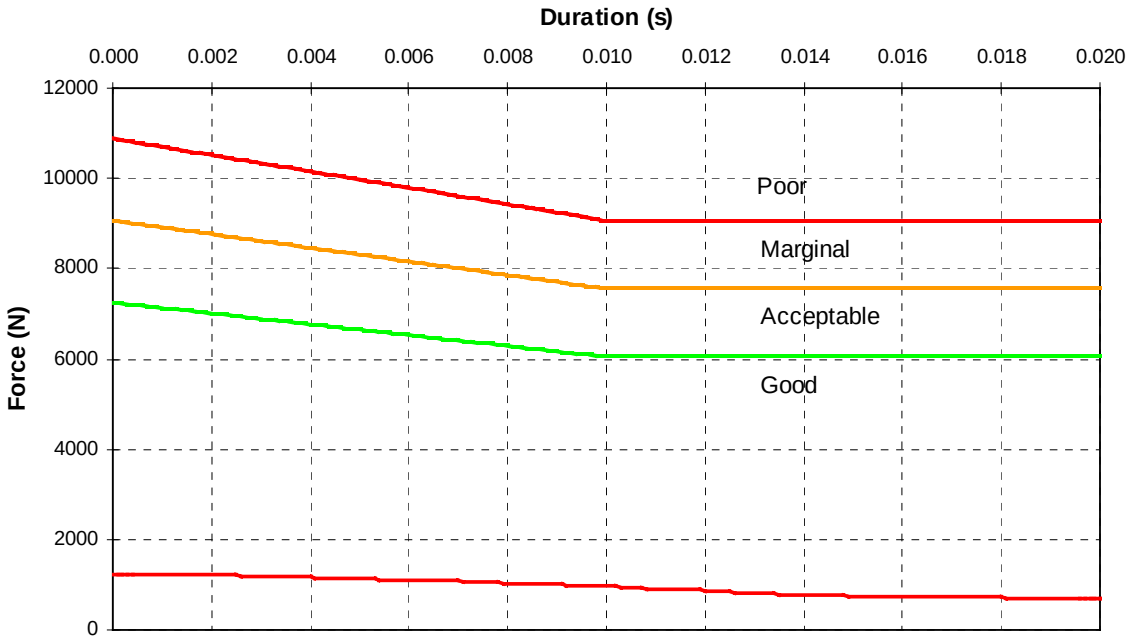
**A- 35 CF00010 2000 Ford Taurus Left Foot I-S Acceleration**



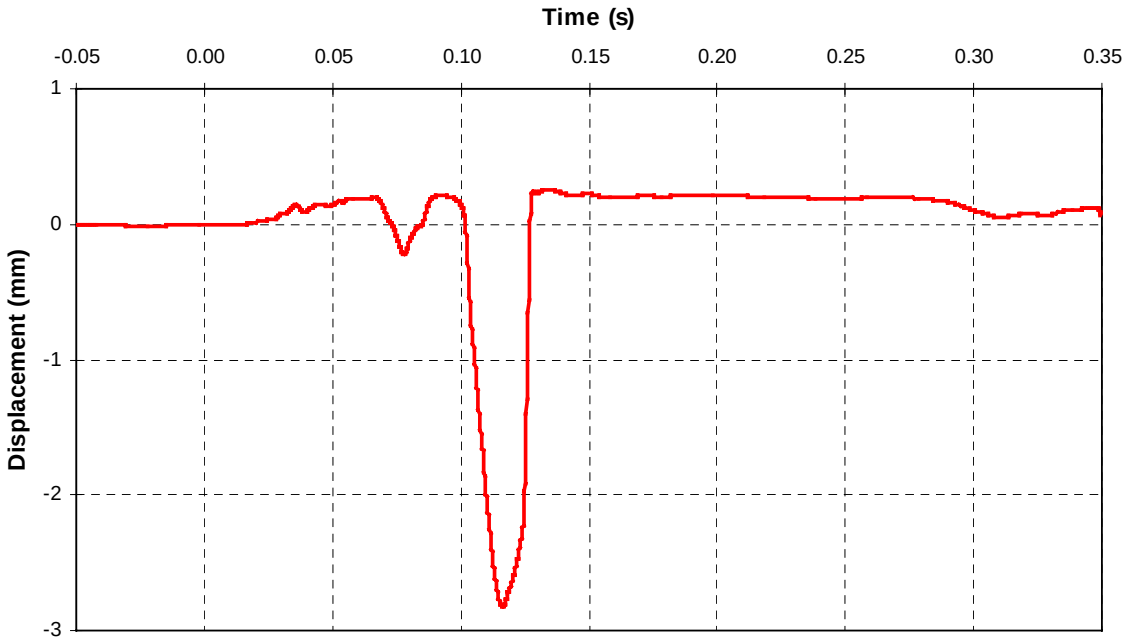

**A- 36 CF00010 2000 Ford Taurus Right Femur Axial Force**



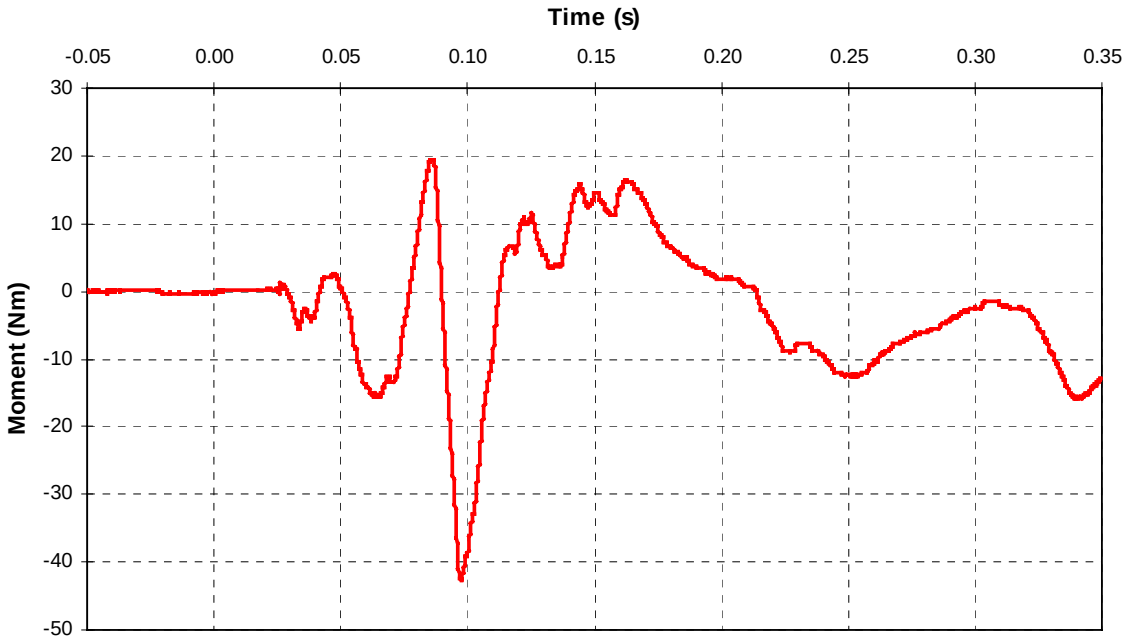
**A- 37 CF00010 2000 Ford Taurus Right Femur Axial Force Analysis**



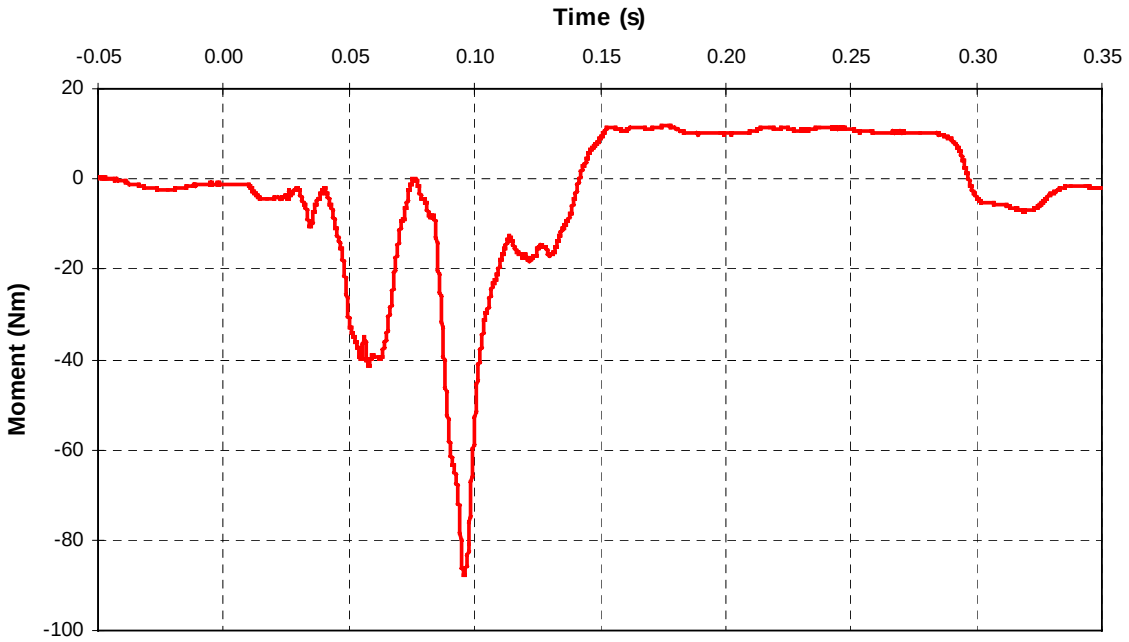

**A- 38 CF00010 2000 Ford Taurus Right Tibia-Femur Displacement**



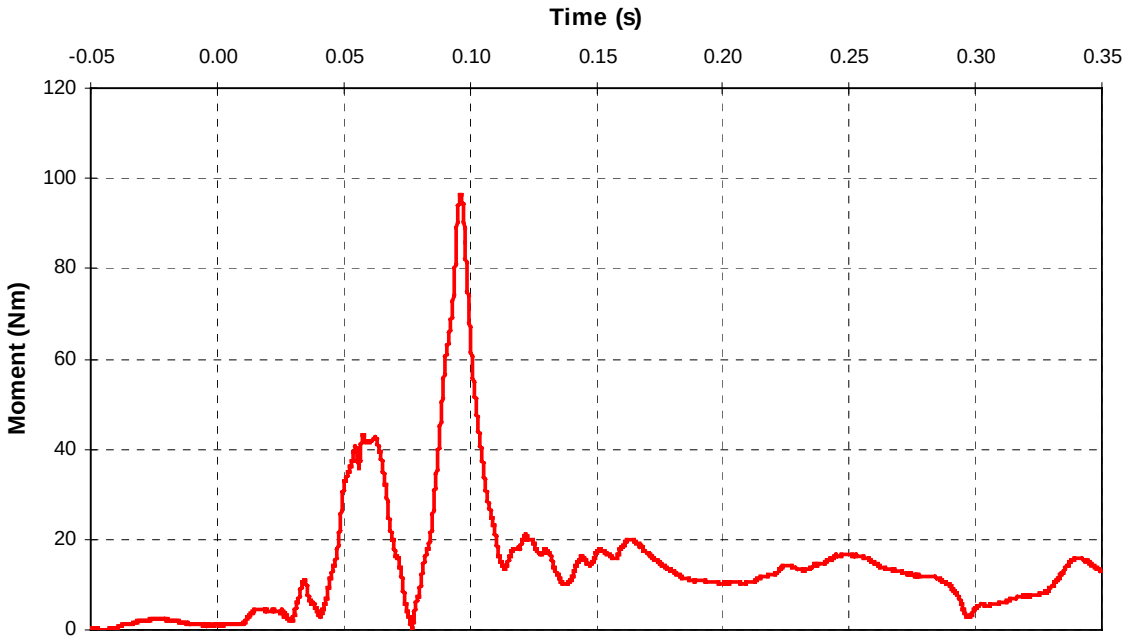
**A- 39 CF00010 2000 Ford Taurus Right Upper Tibia L-M Moment**



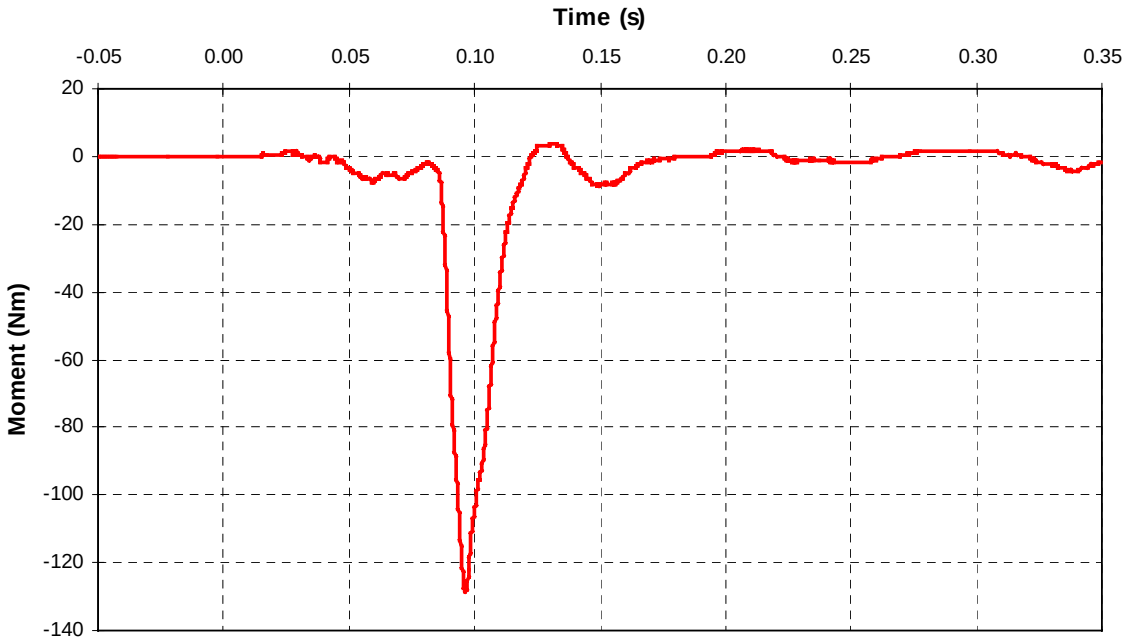

**A- 40 CF00010 2000 Ford Taurus Right Upper Tibia A-P Moment**



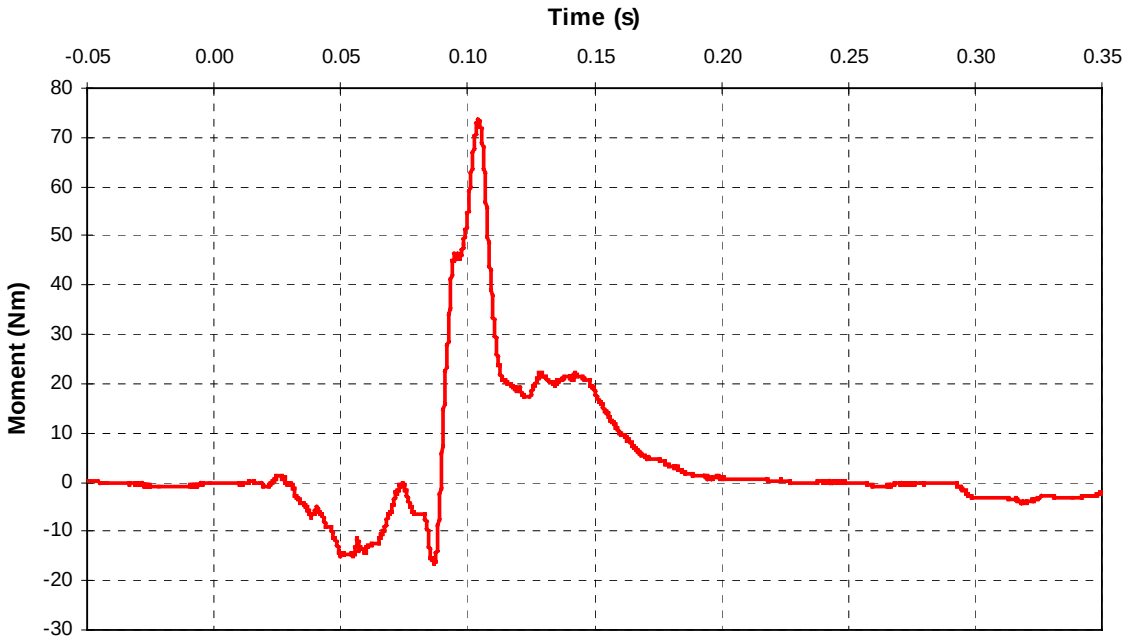
**A- 41 CF00010 2000 Ford Taurus Right Upper Tibia Vector Resultant Moment**



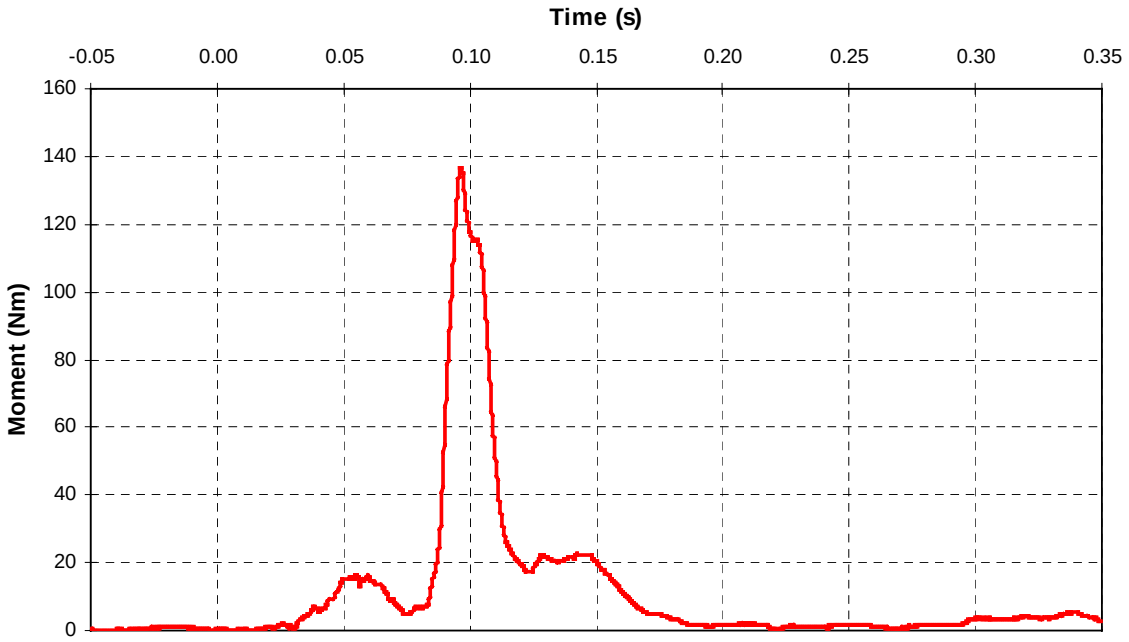

**A- 42 CF00010 2000 Ford Taurus Right Lower Tibia L-M Moment**



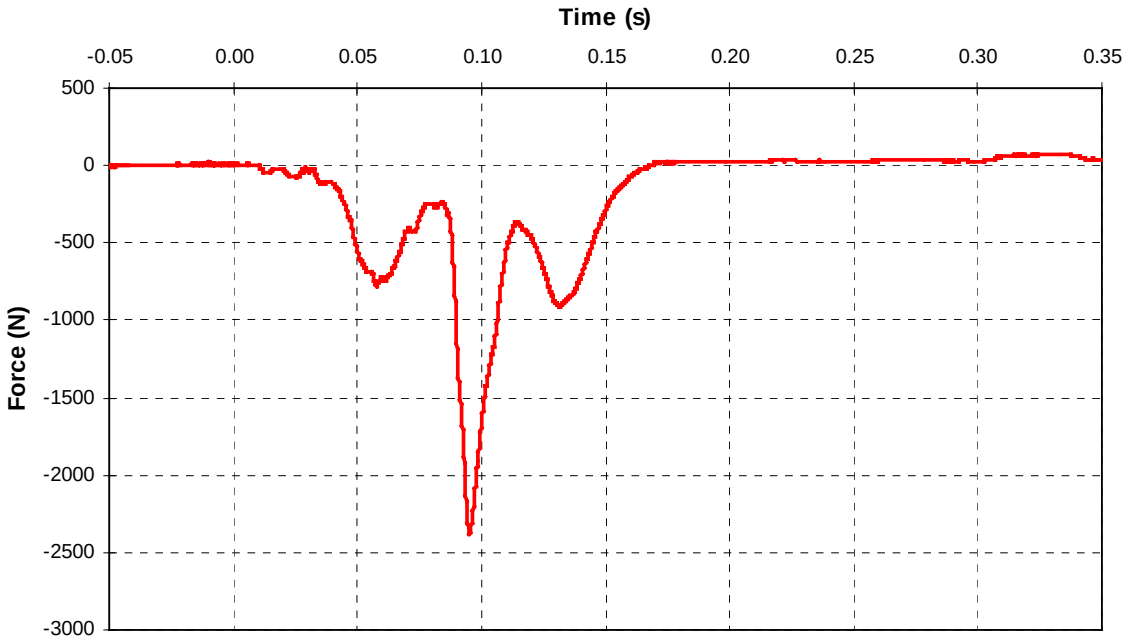
**A- 43 CF00010 2000 Ford Taurus Right Lower Tibia A-P Moment**



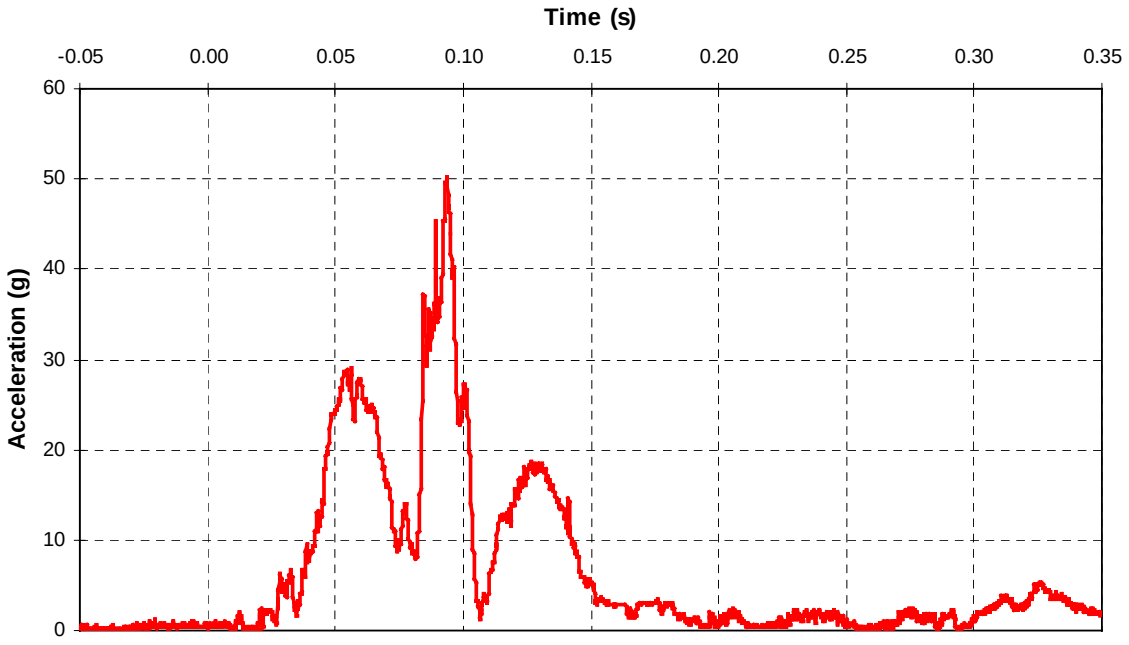

**A- 44 CF00010 2000 Ford Taurus Right Lower Tibia Vector Resultant Moment**



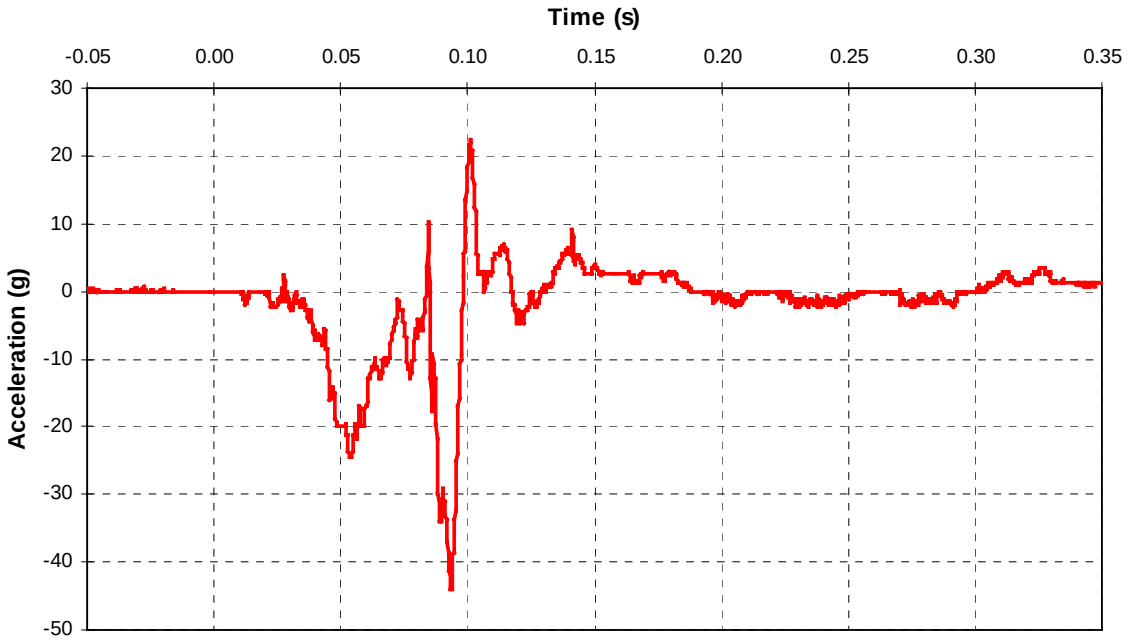
**A- 45 CF00010 2000 Ford Taurus Right Lower Tibia Axial Force**



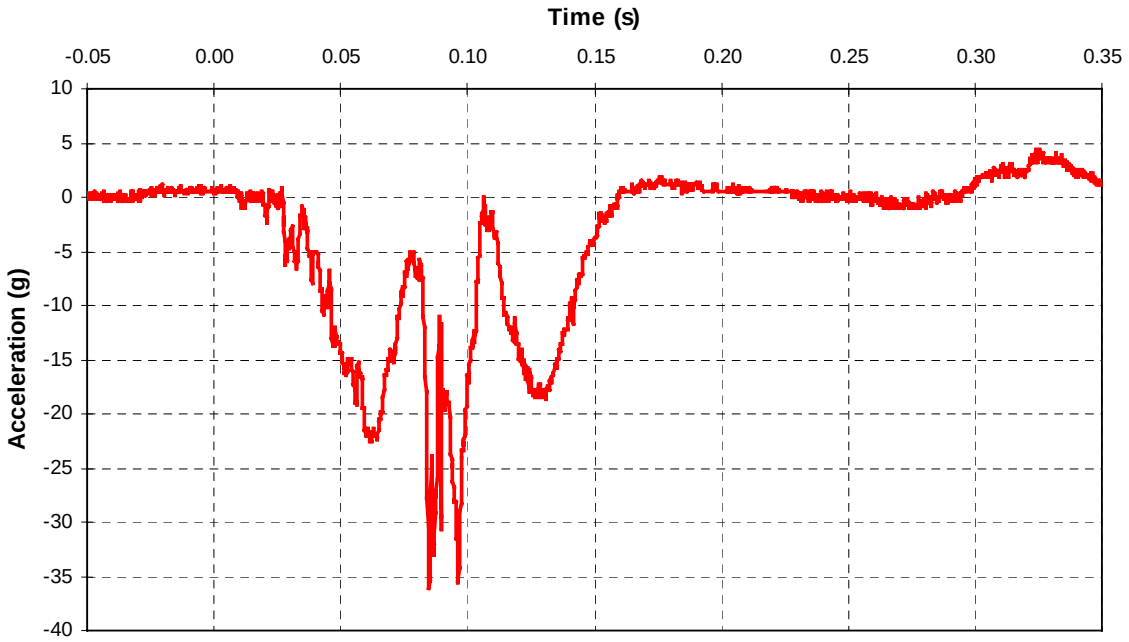

**A- 46 CF00010 2000 Ford Taurus Right Foot Vector Resultant Acceleration**



**A- 47 CF00010 2000 Ford Taurus Right Foot A-P Acceleration**




**A- 48 CF00010 2000 Ford Taurus Right Foot I-S Acceleration**



www.fordvehicles.com

**VEHICLE DESCRIPTION**

# TAURUS

VIN 1FAFP55U1YG **148178**

2000 SES 4-DOOR SEDAN
6-PASSENGER MID-SIZE
3.0L 2V 6-CYL ENGINE
AUTO OVERDRIVE TRANSMISSION

EXTERIOR
TOREADOR RED CLEARCOAT MET
INTERIOR
MED PARCHMENT LEATHER BUCKE

## STANDARD EQUIPMENT INCLUDED AT NO EXTRA CHARGE

**SAFETY/SECURITY**
- PSS: PERSONAL SAFETY SYST (DUAL STAGE AIRBAGS, CRASH SEVERITY SENSOR, SEATBELT USE SENSOR, DRV SEAT POS. SENSOR, SEATBELT PRETENSIONERS)
- SECURILOCK ANTI-THEFT SYS
- INTEG. CHILD SEAT TETHER
- BATTERY SAVER
- EMERGENCY TRUNK RELEASE
- 24-HR ROADSIDE ASSISTANCE

**EXTERIOR**
- 5MPH IMPACT ABSORP BUMPERS
- COLOR BODYSIDE MOLDINGS
- DUAL COLOR PWR MIRRORS
- P215/60RX16 ALL-SEAS TIRES
- 5-SPK PAINTED ALUM WHEELS

**FUNCTIONAL**
- 3.0L2V 6CYL AUTO O/D TRANS
- 4WHL ANTILOCK BRAKES (ABS)
- CFC-FREE AIR CONDITIONER
- REAR WINDOW DEFROSTER
- PWR R/P STEER W/VAR ASSIST
- REMOTE TRUNK RELEASE
- REMOTE KEYLESS ENTRY
- POWER WINDOWS/LOCKS
- SPEED CONTROL

**INTERIOR**
- 6-PASS CLOTH SEATING
- POWER DRIVER SEAT
- AM/FM STEREO CASSETTE
- ELECTRONIC DIGITAL CLOCK
- 60/40 SPLIT FOLD REAR SEAT
- FULLY TRIMMED LUGGAGE COMPARTMENT W/MINI SPARE
- DUAL BEAM MAP/DOME LAMP
- ILLUMINATED VISOR MIRRORS

**WARRANTY**
- 3YR/36,000MI BUMPER-BUMPER

## PRICE INFORMATION

Manufacturer's Suggested Retail Price

STANDARD VEHICLE PRICE **$19,620.00**

**OPTIONAL EQUIPMENT**

| | |
|---|---|
| NORTHEAST REGIONAL PACKAGE | |
| FLOOR MATS, FRONT | 30.00 |
| FLOOR MATS, REAR | 25.00 |
| 6-PASS SEATING W/FLIP-FOLD CON | |
| CALIFORNIA EMISSION SYSTEM | NO CHARGE |
| LEATH-WRAP STEERING WHL | NO CHARGE |
| HEATED POWER MIRRORS | 35.00 |
| ADJUSTABLE PEDALS | 120.00 |
| AIR BAGS, SIDE IMPACT | 390.00 |
| LEATHER BUCKETS | NO CHARGE |
| TOTAL VEHICLE & OPTIONS | 20,220.00 |
| DESTINATION & DELIVERY | 550.00 |

"RESIDENCY RESTRICTIONS APPLY TO DISCOUNTS/SAVINGS - SEE DEALER FOR DETAILS."

Compare this vehicle to others in the FREE FUEL ECONOMY GUIDE available at the dealer.

## Fuel Economy Information

DOE EPA

**CITY MPG** 19

**HIGHWAY MPG** 28

2000 TAURUS SEDAN,
3.0 LITER ENGINE, 12 VALVES (FEEDBACK FUEL SYSTEM),
6 CYLINDERS, FUEL INJECTION,
CATALYST, 4-SPEED AUTOMATIC TRANSMISSION

**Actual Mileage** will vary with options, driving conditions, driving habits and vehicle's condition. Results reported to EPA indicate that the majority of vehicles with these estimates will achieve between **16** and **22** mpg in the city and between **23** and **33** mpg on the highway.

**For Comparison Shopping** all vehicles classified as **LARGE** have been issued mileage ratings ranging from **13** to **21** mpg city and **20** to **32** mpg highway.

**Estimated Annual Fuel Cost: $783**

Built Ford to Last

**TOTAL MSRP** **$20,770.00**

1FAFP55U1YG148178

**EXTENDED SERVICE PLAN**

Ford Extended Service Plan is the ONLY service contract backed by Ford and honored by over 5,000 Ford and Lincoln Mercury Dealers. Ask your dealer for prices and additional details.

SOLD TO
Towson Ford Sales Inc
926 North York Road
Towson MD 21204

SHIP TO (IF OTHER THAN SOLD TO)

SHIP THROUGH **ITEM#: 27-B060 O/T 2**

| VEHICLE IDENTIFICATION NO. | DEALER NO. | FINAL ASSEMBLY POINT | METHOD OF TRANSP. | ONE | TWO |
|---|---|---|---|---|---|
| 1FAFP55U1YG148178 | 27C 038 | CHICAGO | CONVOY | CF03 | |

THIS LABEL IS AFFIXED PURSUANT TO FEDERAL AUTOMOBILE INFORMATION DISCLOSURE ACT. GASOLINE, LICENSE AND TITLE FEES, STATE AND LOCAL TAXES AND DEALER INSTALLED OPTIONS ARE NOT INCLUDED.

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