

REPORT NUMBER: CAL-00-18

**NEW CAR ASSESSMENT PROGRAM (NCAP)
FRONTAL BARRIER IMPACT TEST**

**DAIMLERCHRYSLER CORPORATION
2001 CHRYSLER PT CRUISER
SPECIAL PURPOSE VEHICLE**

NHTSA NUMBER: MY0305

VERIDIAN TEST NUMBER: 8413-56

VERIDIAN ENGINEERING
TRANSPORTATION SCIENCES CENTER
P.O. BOX 400
BUFFALO, NEW YORK 14225



June 8, 2000

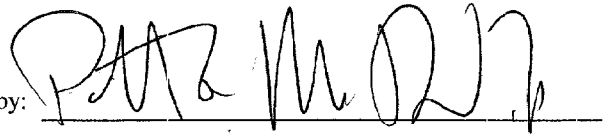
FINAL REPORT

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U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Safety Performance Standards
Office of Crashworthiness Standards
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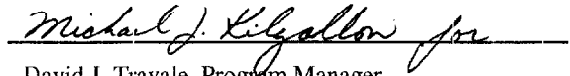
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Manager, New Car Assessment Program (NCAP)
NHTSA, Office of Crashworthiness Standards

Date of Report Acceptance

COTR, New Car Assessment Program (NCAP)
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15. <i>Supplementary Notes</i>					
16. <i>Abstract</i> A frontal load cell barrier test of a 2001 Chrysler PT Cruiser Special Purpose Vehicle was performed at Veridian Engineering crash test facility in Buffalo, New York, on June 8, 2000. The impact velocity was 56.49 kph and the temperature at the barrier face was 21 °C. The maximum post-test vehicle crush was 603 mm. The test vehicle was equipped with 3-point restraint systems with torso belt pre-tensioners, knee bolsters, and airbags at both the driver and right outboard passenger seating positions. With respect to FMVSS 208 "Occupant Crash Protection - Injury Criteria" the driver appeared to comply with chest and femur requirements while appearing to exceed the FMVSS 208 head requirement. The passenger appeared to comply with head, chest, and femur requirements.					
ATD Position	HIC	Clip (g's)	Chest Disp (mm)	Left Femur (N)	Right Femur (N)
Driver (245)	1079.5	58.2	41.3	2130.0	6997.1
Passenger (064)	466.8	49.3	28.8	8144.4	3695.2
17. <i>Key Words</i> 56 kph Frontal Barrier Impact test New Car Assessment Program (NCAP)				18. <i>Distribution Statement</i> <u>Copies of this report are available from:</u> NHTSA Technical Reference Division National Highway Traffic Safety Admin. 400 Seventh St., SW, Room 5108 Washington, DC 20590	
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SECTION 1

PURPOSE AND SUMMARY OF TEST MY0305

PURPOSE

This 56.49 kph frontal barrier impact test is part of the Vehicle Barrier Impact Testing Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-96-D-02010. The purpose of this test was to obtain vehicle crashworthiness and occupant restraint system performance data for an impact speed in excess of the current 48.3 kph requirements.

The 56.49 kph frontal barrier impact test was conducted in accordance with the Office of Crashworthiness Standards Laboratory Indicant Test procedure.

SUMMARY

A load cell barrier consisting of 36 load cells was impacted by a 2001 Chrysler PT Cruiser Special Purpose Vehicle at a velocity of 56.49 kph. The test was performed at Veridian Engineering on June 8, 2000. Pre- and post-test photographs of the vehicle and dummies can be found in Appendix A.

The frontal barrier impact event was documented by 1 real-time camera and 16 high-speed cameras. Camera locations and other pertinent camera information can be found in this report.

Two Part 572E, 50th percentile male anthropomorphic test devices (ATDs), were placed in the driver and right-front passenger seating positions according to dummy placement instructions specified in the Laboratory Indicant Test Procedure.

Both ATDs were fully instrumented with head, chest, and pelvis triaxial accelerometers, chest displacement potentiometers, upper neck transducers, right/left femur load cells, and lower leg instrumentation. Seat belt load cells were also on the driver's and passenger's lap and shoulder belts to measure dummy torso and pelvic section loading. The driver (position 1) ATD (Serial No. 245) was used in two tests (MY0206 and MY0204) previous to this test where it did not exceed FMVSS 208 head, chest and femur requirements. The right-front passenger (position 2) ATD (Serial No. 064) was calibrated previous to this test. Certification details, along with instrumentation calibration data, are found in Appendix C.

The 127 channels of data were recorded on an on-board data acquisition system. Appendix B contains the vehicle, load cell barrier and dummy response data traces.

The driver's HIC was 1079.5. The maximum chest deceleration over 3 milliseconds was 58.2 g's and maximum chest deflection was 41.3 mm. Compressive femur loads were 2130.0 Newtons on the left and 6997.1 Newtons on the right.

The right front passenger's HIC was 466.8. Maximum chest deceleration over 3 milliseconds was 49.3 g's and maximum chest deflection was 28.8 mm. Compressive femur loads were 8144.4 Newtons on the left and 3695.2 Newtons on the right.

SECTION 2

GENERAL TEST AND VEHICLE PARAMETER DATA

DATA SHEET NO. 1 CRASH TEST SUMMARY

Vehicle NHTSA No. : MY0305 Test Mode : 56.3 kph Frontal Barrier

Test Date : June 8, 2000 Time: 13:30 Temperature : 21 °C

Vehicle Make/Model/Body Style : 2001 Chrysler PT Cruiser Special Purpose Vehicle

Vehicle Test Weight : 1651.5 kg

Vehicle/Barrier Impact Angle : 0 °

Impact Velocity : 56.49 kph

Maximum Static Crush : 608 mm

Vehicle Rebound : 523.3 mm

DUMMIES:

DRIVER

PASSENGER

Type :

572E

572E

Restraint System :

Seatbelt, Airbag, Knee Bolster

Seatbelt, Airbag, Knee Bolster

Number of Data Channels : 127

Number of Cameras : 1 Real Time

16 High Speed

DOOR OPENING DATA :

Closed/Operable - Left Front

Closed/Operable - Right Front

Front Seat(s) Data :

DRIVER

PASSENGER

Seat Track Failure :(mm of shift)

0

0

Seat Back Failure :

None

None

VISIBLE DUMMY CONTACT POINTS :

DRIVER

PASSENGER

Head :

The face to the center of the
airbag; The back of the head to
the left of center of the headrest

The face to the top center of the
airbag; The top of the head to
the windshield header; The
right top side of the head to the
right side window header; The
back of the head to the center
of the headrest

Abdomen :

None

None

Chest

Airbag

Airbag

Knees

Knee Bolster

Knee Bolster/Glove Box Door

DATA SHEET NO. 2 GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE INFORMATION :

Year/Make/Model/Body Style : 2001 Chrysler PT Cruiser Special Purpose Vehicle
NHTSA No. : MY0305 ; VIN: 3C4FY4BB71T283350 ; Color : Silver
Engine Data: 4 cylinders; - CID; 2.4 Liters; - cc
Placement : - Longitudinal or In-Line; X Transverse or Lateral
Transmission Data : 4 speeds; - Manual; X Automatic; X Overdrive
Final Drive : - Rear Wheel Drive; X Front Wheel Drive; - Four Wheel Drive
Major Options : X A/C; X Pwr.Strg.; X Pwr. Brakes
X Pwr. Windows; - Pwr. Door Locks; X Tilt Wheel
Date Received : 5/19/2000 ; Odometer Reading 203 km
Selling Dealer : Delia Chrysler Plymouth Dodge Jeep
& Address: 741 Main Street East Aurora, NY 14052-1993

DATA FROM TIRE VEHICLE'S CERTIFICATION LABEL:

Vehicle Manufactured by : DaimlerChrysler Corporation
Date of Manufacture 4-00
GVWR : 1917 kg; GAWR: 998 kg FRONT; 919 kg REAR

DATA FROM TIRE PLACARD:

Tire Pressure with Maximum Capacity Vehicle Load : 300 kpa FRONT
300 kpa REAR
Recommended Tire Size : P195/65R15
* Recommended Cold Tire Pressure : 240 kpa FRONT; 240 kpa REAR
Size of Tires on Test Vehicle: P195/65R15 ; Manufacturer: Goodyear
Vehicle Capacity Data :
Type of Front Seats: - Bench; X Bucket; - Split Bench
Number of Occupants: 2 Front; 3 Rear; 5 Total
Vehicle Capacity Weight (VCW) = 392.0 kg
No. of Occupants x 68 kg = 340.2 kg
Rated Cargo/Luggage Weight (RCI.W) = 51.8 kg

*Tire pressure used for test

DATA SHEET NO. 2 GENERAL TEST AND VEHICLE PARAMETER DATA (cont.)

WEIGHT OF TEST VEHICLE AS RECEIVED FROM DEALER (with maximum fluids)= UDW:

Right Front	=	<u>440.5</u>	kg	Right Rear	=	<u>285.5</u>	kg
Left Front	=	<u>433.5</u>	kg	Left Rear	=	<u>294.0</u>	kg
TOTAL FRONT	=	<u>874.0</u>	kg	TOTAL REAR	=	<u>579.5</u>	kg
TOTAL DELIVERED WEIGHT = <u>1453.5</u> kg							
% of Total Front of Vehicle Weight = <u>60.1</u>				% of Total Rear Weight = <u>39.9</u> %			

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT :

Total Delivered Weight (UDW)	=	<u>1453.5</u>	kg
Rated Cargo/Luggage Weight (RCLW)	=	<u>51.3</u>	kg
Weight of 2 p.572 Dummies @ 76 each	=	<u>152.0</u>	kg
TARGET TEST WEIGHT	=	<u>1657.3</u>	kg

WEIGHT OF TEST VEHICLE WITH TWO DUMMIES AND 46 KG OF CARGO WEIGHT:

Right Front	=	<u>468.5</u>	kg	Right Rear	=	<u>352.0</u>	kg
Left Front	=	<u>468.0</u>	kg	Left Rear	=	<u>363.0</u>	kg
TOTAL FRONT	=	<u>936.5</u>	kg	TOTAL REAR	=	<u>715.0</u>	kg
TOTAL TEST WEIGHT = <u>1651.5</u> kg							
% of Total Front Weight = <u>56.7</u> %				% of Total Rear Weight = <u>43.3</u> %			
Weight of Ballast Secured in Vehicle Trunk Area = <u>0</u> kg							
Vehicle Components Removed for Weight Reduction:				<u>Muffler and Spare Tire</u>			

VEHICLE ATTITUDE (all dimension in millimeters):

AS DELIVERED :	RF	<u>702</u>	LF	<u>698</u>	RR	<u>733</u>	LR	<u>725</u>
FULLY LOADED :	RF	<u>690</u>	LF	<u>686</u>	RR	<u>703</u>	LR	<u>697</u>
AS TESTED :	RF	<u>696</u>	LF	<u>692</u>	RR	<u>706</u>	LR	<u>704</u>
Vehicle's Wheel Base : <u>2616</u> mm								
Location of Vehicle's C.G. : <u>1132.6</u> mm rearward of front wheel center.								

FUEL SYSTEM DATA :

Fuel System Capacity From Owner's Manual	=	<u>56.8</u>	liters
Usable Capacity Figure Furnished by COTR	=	<u>56.8</u>	liters
Test Volume Range (92 to 94% of Usable Capacity)	=	<u>52.3</u>	to <u>53.4</u> liters
ACTUAL TEST VOLUME	=	<u>52.6</u>	liters (with entire fuel system filled)
Test Fluid Type:	<u>Stoddard Solution</u>	; Spec. Grav. =	<u>0.764</u>
	Kinematic Viscosity =	<u>0.96</u>	centistokes; Color = <u>Orange</u>
Type of Fuel Pump:	Electric- <u>X</u>	; Mechanical- <u>-</u>	
Does Electric Pump operate with ignition switch "ON" & engine "OFF"		Yes- <u>X</u>	No- <u>-</u>
Details of Fuel System <u>Tank - Centered ahead of rear axle; Lines - Inside right rail; Filler - Right side behind the rear axle.</u>			

DATA SHEET NO. 3 POST IMPACT DATA

TYPE OF TEST:

Type of Test : Frontal Barrier Impact Angle : 0°
Test Date : June 8, 2000 Time: 13:30 Temperature: 21 °C
Vehicle NHTSA No. : MY0305
Required Impact Velocity Range : 55.5 to 57.1 kph

BARRIER IMPACT VELOCITY : (Speed traps within 5 feet of impact plane.)

Trap No. 1 = 56.49 kph; Trap No. 2 = 56.49 kph
Distance from vehicle to barrier : (1) entering trap = 813 mm
(2) exiting trap = 305 mm

VEHICLE STATIC CRUSH: (mm) (For frontal and rear impacts only.)

Vehicle Length:

Pre-Test	Right =	<u>4146</u>	; C/L =	<u>4253</u>	; Left =	<u>4148</u>
Post-Test	Right =	<u>3675</u>	; C/L =	<u>3747</u>	; Left =	<u>3624</u>
Crush	Right =	<u>471.0</u>	; C/L =	<u>506.0</u>	; Left =	<u>524.0</u>
AVERAGE	=	<u>500.3</u>	mm			

VEHICLE REBOUND: (From rigid barrier only.)

Distance from front of test vehicle to impact point :

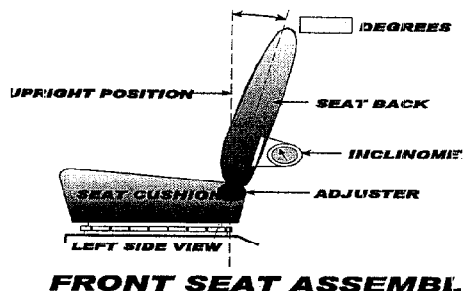
	Right =	<u>484</u>	; C/L =	<u>547</u>	; Left =	<u>539</u>
AVERAGE	=	<u>523.3</u>	mm			

DATA SHEET NO. 4 TEST VEHICLE INFORMATION

VEHICLE IDENTIFICATION:

Model Year : 2001 Vehicle Model: Chrysler PT Cruiser Body Style : Special Purpose Vehicle

1. Nominal Design Riding Position for adjustable driver and passenger seat backs. Please describe how to position the inclinometer to measure the seat back angle. Include description of the location of the adjustment latch detent, if applicable.



Seat back angle for driver's seat: 21.5°

Measurement instructions: Place the vehicle on a hoist so it is not supported by its suspension. Measure the sill angle at the round tooling hole under the scuff plate. Measure seat angle at lowest portion of the flat area on the seat back frame. Recline seatback until the inclinometer measures 111.5° from the horizontal sill angle.

Seat back angle for passenger's seat: 21.5°

Measurement instructions: Same as the driver's seat.

2. Seat Fore and Aft Positioning

Positioning of the driver's seat: There are twenty total detents. Test position is detent 10 from full forward.

Positioning of the passenger's seat: Same as the driver's seat.

3. Fuel Tank Capacity Data

3.1 A. "Usable Capacity" of the standard equipment fuel tank is 56.8 liters

B. "Usable Capacity" of the optional equipment fuel tank is - liters

C. "Usable Capacity" of the vehicle(s) used for certification testing to requirements of FMVSS 301 = 56.8 liters

3.2 Amount of Stoddard solvent added to vehicle(s) used for certification test(s) = 54.1 liters

3.3 Is vehicle equipped with electric fuel pump? Yes- X; No- -

If YES, explain the vehicle operating conditions under which the fuel pump will pump fuel.

The fuel pump activates when the key is turned to the ON position.

DATA SHEET NO. 4 TEST VEHICLE INFORMATION (cont.)

4. STEERING COLUMN ADJUSTMENTS :

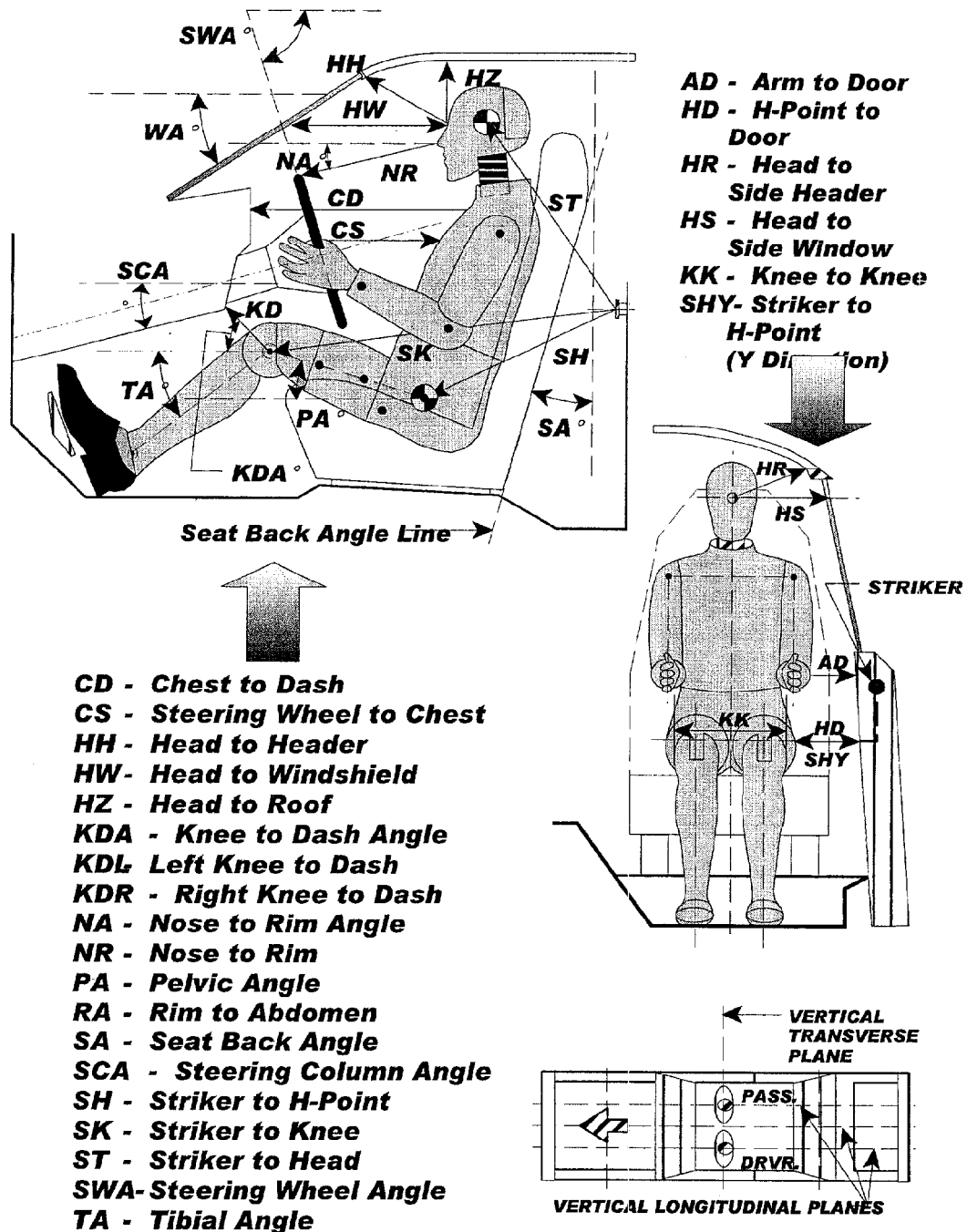
Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes when it is moved through its full range of driving positions. If the tested vehicle has any of these adjustments, does your company use any specific procedures to determine the geometric center.

Operational Instructions: Place the steering column at mid angle of it's full-up and full-down positions.

5. SEAT BELT UPPER ANCHORAGE

Nominal design riding position: There are five latched positions. Place anchorage in mid-position.

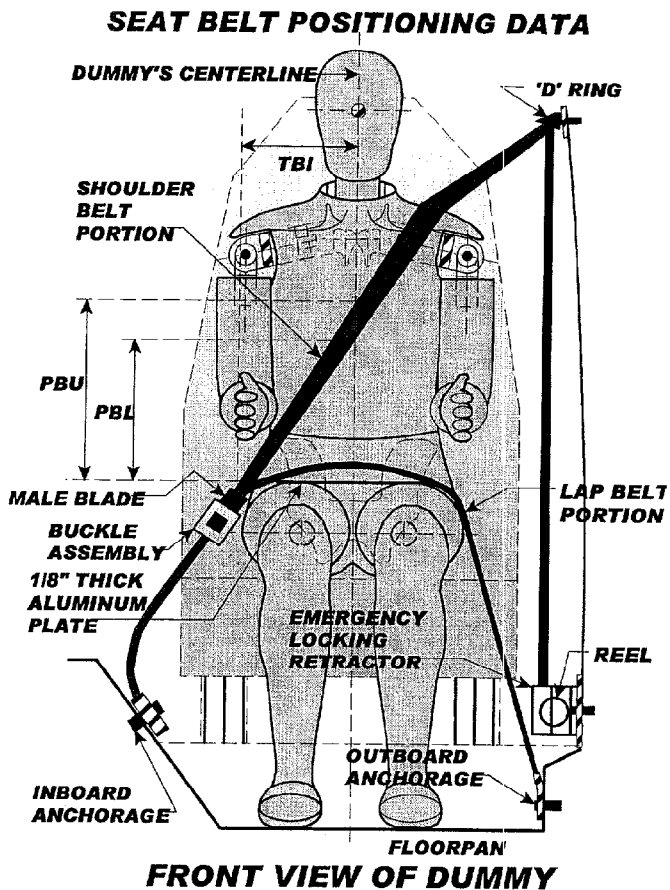
DUMMY MEASUREMENT FOR FRONT SEAT PASSENGER



DATA SHEET NO. 5 FRONT SEAT DUMMY POSITIONING MEASUREMENTS IN VEHICLE (cont.)

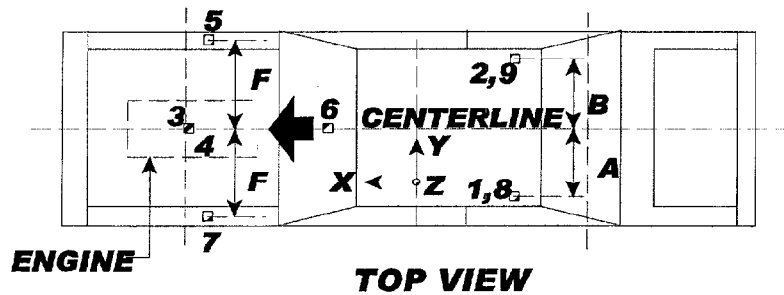
	DRIVER (Serial #245)			PASS. (Serial # 064)		
WA ^o	32 deg.			N/A		
SWA ^o	63 deg.			N/A		
SCA ^o	27 deg.			N/A		
SA ^o	21.3 deg.			21.5 deg.		
HZ	217			215		
HH	415			431		
HW	617			622		
HR	226			222		
NR	384	Angle	-12 deg.	N/A		
CD	566			554		
CS	292			N/A		
RA	176			N/A		
KDL	209	Angle (KDA)	27 deg.	170		
KDR	169			206	Angle (KDA)	31 deg.
PA ^o	22.1 deg.			21.9 deg.		
TA ^o	-50 deg.			-53 deg.		
KK	290			290		
ST	511	Angle	12.5 deg.	520	Angle	9 deg.
SK	574	Angle	93.5 deg.	590	Angle	90.0 deg.
SH	232	Angle	130 deg.	233	Angle	125.2 deg.
SHY	255			235		
HS	305			326		
HD	176			174		
AD	99			95		

Dimensions in millimeters

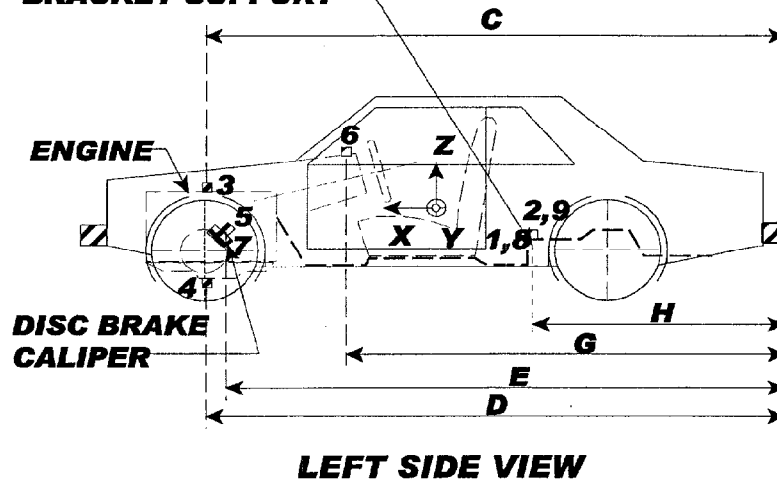


	DRIVER DUMMY (mm)	PASSENGER DUMMY (mm)
PBU -- Top surface of alum. plate to upper edge	347	347
PBL-- Top surface of alum. plate to belt lower edge	270	270
<u>LAP BELT TENSION</u>	10 N	10 N
<u>SHOULDER BELT TENSION</u>	Retractor	Retractor

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY



REAR SEAT CUSHION ASSY. FRONT ATTACHMENT BRACKET SUPPORT



Note: Vehicle accelerometer location and data summary shown in DATA SHEET NO. 7

DATA SHEET NO. 7 VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY (cont.)

DIMENSION	LENGTH (mm)
	PRE-TEST VALUES
A Left Rear Seat Crossmember Y	-611
B Right Rear Seat Crossmember Y	607
C Top of Engine X	3633
D Bottom of Engine X	3150
E Disc Brake Calipers X	2334
F Disc Brake Calipers Y	657
G Instrument Panel X	2913
H Rear Seat Crossmembers X	1721

LOCATION NUMBER	DESCRIPTION	MAXIMUM VALUE (g's)			
		Pos.	msec.	Neg.	msec.
1	Rear Seat X-Member @ Left Side	2.1	141.2	-49.6	39.5
2	Rear Seat X-Member @ Right Side	1.6	-13.1	-51.4	35.4
3	Top of Engine Block	84.1	40.8	-180.0	32.6
4	Bottom of Engine	*	*	*	*
5	Disc Brake Caliper @ Right Side	19.3	64.3	-121.4	42.8
6	Instrument Panel	84.9	51.5	-92.0	40.2
7	Disc Brake Caliper @Left Side	61.1	56.3	-192.4	38.4
8	Rear Seat X-Member @ Left-Redundant	1.9	103.9	-47.6	40.2
9	Rear Seat X-Member @ Right-Redundant	1.6	-13.2	-47.3	35.2

* Data is Questionable

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES

Vehicle Year/Make/Model/Body Style: 2001 Chrysler PT Cruiser Special Purpose Vehicle
 NHTSA Test No.: MY0305 Test Date: June 8, 2000

DESCRIPTION	Unit	MAXIMUM VALUE							
		Driver				Passenger			
		Pos	msec	Neg	msec	Pos	msec	Neg	msec
Head X	g	8.3	179.0	-90.6	81.9	2.3	259.9	-54.8	87.0
Head Y	g	2.8	66.3	-6.1	83.9	3.9	67.5	-8.9	92.6
Head Z	g	27.7	62.0	-29.1	94.9	35.1	68.2	-1.0	138.7
Head Resultant	g	92.2	82.0	0.0	20.1	59.1	86.4	0.0	19.9
Redundant Head X	g	8.0	180.3	-91.7	81.9	2.7	263.3	-65.2	86.9
Redundant Head Y	g	11.4	64.7	-9.5	84.0	3.2	46.1	-11.7	88.1
Redundant Head Z	g	28.9	62.3	-34.6	95.0	43.6	68.3	-4.4	138.7
Redundant Head Resultant	g	93.0	82.0	0.0	21.8	69.8	85.0	0.1	-13.4
Upper Neck Fx	N	303.2	51.5	-641.2	94.4	869.3	130.0	-374.4	76.0
Upper Neck Fy	N	119.4	155.9	-202.2	96.0	166.7	63.9	-294.9	126.2
Upper Neck Fz	N	2247.9	72.5	-545.3	105.2	1730.8	81.6	-74.3	138.1
Upper Neck F Resultant	N	2277.6	72.5	2.8	20.1	1736.0	81.6	2.5	20.1
Upper Neck Mx	N-m	24.2	79.1	-11.4	145.7	18.2	128.4	-22.4	93.7
Upper Neck My	N-m	21.4	93.9	-29.1	111.2	60.7	135.0	-16.7	191.0
Upper Neck Mz	N-m	4.8	178.8	-9.4	106.7	19.7	98.0	-15.1	139.9
Upper Neck M Resultant	N-m	31.8	110.7	0.1	-22.5	63.9	134.9	0.1	-35.3
Chest X	g	3.4	159.1	-58.5	81.1	2.6	146.3	-50.7	76.1
Chest Y	g	9.6	91.2	-10.2	54.6	5.6	55.9	-6.2	102.9
Chest Z	g	11.1	63.7	-16.2	92.6	16.5	69.8	-17.3	105.7
Chest Resultant	g	58.9	81.0	0.1	-17.9	50.7	76.1	0.1	-17.2
Redundant Chest X	g	3.7	196.0	-59.3	81.2	3.1	146.2	-46.2	76.0
Redundant Chest Y	g	10.1	92.3	-9.5	54.6	6.9	54.9	-6.4	103.7
Redundant Chest Z	g	11.4	68.8	-15.5	91.9	16.7	69.9	-16.0	105.7
Redundant Chest Resultant	g	59.7	81.1	0.1	-16.8	46.3	76.0	0.1	-3.4
Chest Displacement	mm	0.1	19.8	-41.3	74.4	0.0	11.3	-28.8	88.7

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES (cont.)

Vehicle Year/Make/Model/Body Style: 2001 Chrysler PT Cruiser Special Purpose Vehicle

NHTSA Test No.: MY0305 Test Date: June 8, 2000

		MAXIMUM VALUE							
		Driver				Passenger			
DESCRIPTION	Unit	Pos	msec	Neg	msec	Pos	msec	Neg	msec
Pelvic X	g	2.4	120.9	-75.0	53.6	8.7	85.1	-126.9	53.8
Pelvic Y	g	11.8	81.8	-19.4	53.6	23.1	53.8	-13.1	81.1
Pelvic Z	g	3.6	182.7	-23.8	68.7	5.2	44.2	-25.1	53.9
Pelvic Resultant	g	78.3	53.6	0.1	-49.5	131.0	53.8	0.1	-49.8
Left Femur	N	1701.5	41.2	-2130.0	60.6	1036.9	47.2	-8144.4	54.0
Right Femur	N	960.2	45.8	-6997.1	53.6	1597.5	46.9	-3695.2	56.4
Left Upper Tibia Mx	N-m	31.8	83.4	-72.3	55.4	82.5	65.6	-24.6	133.7
Left Upper Tibia My	N-m	8.5	111.2	-160.0	41.5	200.9	51.5	-123.7	86.2
Left Lower Tibia Fz	N	368.5	52.7	-1855.2	80.0	362.4	57.4	-5909.7	86.0
Left Lower Tibia Mx	N-m	29.6	48.0	-7.0	248.5	56.1	94.1	-11.5	55.3
Left Lower Tibia My	N-m	43.7	84.8	-133.2	41.6	94.4	51.0	-68.9	47.5
Right Upper Tibia Mx	N-m	29.2	52.6	-128.7	55.8	32.8	84.0	-69.3	56.6
Right Upper Tibia My	N-m	123.4	48.8	-27.3	83.1	10.6	113.1	-201.3	43.2
Right Lower Tibia Fz	N	164.8	109.7	-3749.4	54.9	452.0	52.1	-3620.8	83.0
Right Lower Tibia Mx	N-m	41.4	51.8	-179.1	55.2	11.0	75.0	-14.6	56.4
Right Lower Tibia My	N-m	58.8	81.7	-72.9	50.5	29.1	82.4	-137.8	43.3
Left Foot Aft Ax	g	21.9	59.3	-157.3	42.3	48.9	85.6	-259.7	51.2
Left Foot Aft Az	g	16.6	59.2	-44.5	39.5	102.6	50.8	-70.6	85.9
Left Foot Fore Az	g	59.1	59.3	-213.6	40.5	123.7	51.6	-127.2	88.8
Right Foot Aft Ax	g	34.5	74.1	-232.8	49.2	42.6	81.6	-10.9	38.9
Right Foot Aft Az	g	28.0	53.3	-157.9	49.4	177.9	42.2	-27.6	63.5
Right Foot Fore Az	g	290.5	53.5	-387.0	49.3	50.8	52.5	-138.0	42.1
Lap Belt Load	N	8926.3	60.4	4.6	7.5	9731.7	62.0	3.8	-50.0
Torso Belt	N	*	*	*	*	*	*	*	*

*Vehicle was equipped with torso belt pretensioners. Torso load cells were not used per request of DaimlerChrysler representative.

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES (cont.)

Vehicle Year/Make/Model/Body Style: 2001 Chrysler PT Cruiser Special Purpose Vehicle

NHTSA Test No.: MY0305 Test Date: June 8, 2000

HEAD INJURY CRITERIA (HIC)				
	HIC**	t ₁ (msec)	t ₂ (msec)	Average Acceleration t ₁ to t ₂
Position #1 - Driver	1079.5	65.4	93.3	68.4
Position #2 - Passenger	466.8	65.5	101.5	44.2

** HIC is as defined in FMVSS 208. The maximum time interval from t₁ to t₂ is 36 milliseconds.

CLIP SUMMARY*				
	CLIP (g's)	t ₁ (msec)	t ₂ (msec)	CSI
Position #1 - Driver	58.2	78.3	82.0	627.4
Position #2 - Passenger	49.3	74.8	77.8	513.8

* The maximum chest resultant acceleration is defined as the maximum acceleration which exceeds 0.003 seconds in duration.

DATA SHEET NO. 8 DUMMY INJURY CRITERIA VALUES (cont.)
REDUNDANT DATA

Vehicle Year/Make/Model/Body Style: 2001 Chrysler PT Cruiser Special Purpose Vehicle

NHTSA Test No.: MY0305 Test Date: June 8, 2000

HEAD INJURY CRITERIA (HIC) REDUNDANT				
	HIC**	t ₁ (msec)	t ₂ (msec)	Average Acceleration t ₁ to t ₂
Position #1 - Driver	1117.7	65.1	95.8	66.8
Position #2 - Passenger	713.6	66.3	102.3	52.3

** HIC is as defined in FMVSS 208. The maximum time interval from t₁ to t₂ is 36 milliseconds.

CLIP SUMMARY* REDUNDANT				
	CLIP (g's)	t ₁ (msec)	t ₂ (msec)	CSI
Position #1 - Driver	59.0	77.9	82.0	650.7
Position #2 - Passenger	45.0	74.4	77.4	454.0

* The maximum chest resultant acceleration is defined as the maximum acceleration which exceeds 0.003 seconds in duration.

DATA SHEET NO. 9 SEAT BELT PERFORMANCE ASSESSMENT TEST DATA

BELT LENGTH DATA:

	<u>Driver</u>	<u>Passenger</u>
Belt length from trim panel exit to bolt hole anchor point for continuous webbing systems.	<u>2120</u>	<u>2020</u>
Shoulder belt length as measured on Part 572 Dummy.	<u>820</u>	<u>770</u>
Lap belt length as measured on Part 572 Dummy.	<u>830</u>	<u>780</u>

SHOULDER BELT SPOOL-OFF DATA:

As determined by film analysis.	<u>203</u>	<u>254</u>
As determined mechanically.	<u>*</u>	<u>*</u>
As determined electronically.	<u>*</u>	<u>*</u>

BELT STRETCH DATA:

Measured electronically between shoulder belt load cell and the "D" ring.	<u>*</u>	<u>*</u>
Measured mechanically.	<u>*</u>	<u>*</u>

Dimensions in millimeters

* Seat belt spoolout and stretch could not be measured electronically or mechanically due to this vehicle being equipped with torso seat belt pretensioners at the front outboard seating positions.

DATA SHEET NO.10 SUMMARY OF FMVSS 212 DATA

FMVSS NO. 212 - "WINDSHIELD MOUNTING" DATA

DETAILS OF WINDSHIELD MOUNTING SUCH AS RETENTION METHOD, TRIM TYPE, ETC.:

Windshield is bonded in place and covered with a 19 mm molding.

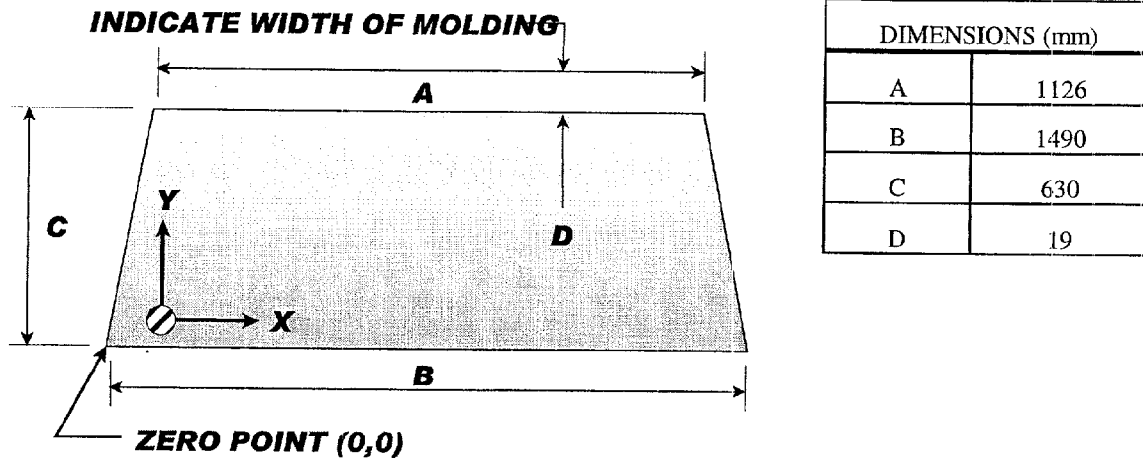
FMVSS 212 REQUIREMENTS:

The Post-Test periphery retention amount must be at least 75% of the Pre-Test periphery measurement for vehicles NOT equipped with automatic restraints, and 50% for each side of the windshield for vehicles equipped with automatic restraint systems for front occupants,

FMVSS 212 TEST DATA

	WINDSHIELD PERIPHERY		% OF RETENTION
	PRE-TEST (mm)	POST-TEST(mm)	
RIGHT SIDE	1938	1938	100
LEFT SIDE	1938	1938	100
TOTAL	3876	3876	100

AREA OF RETENTION FAILURE: None



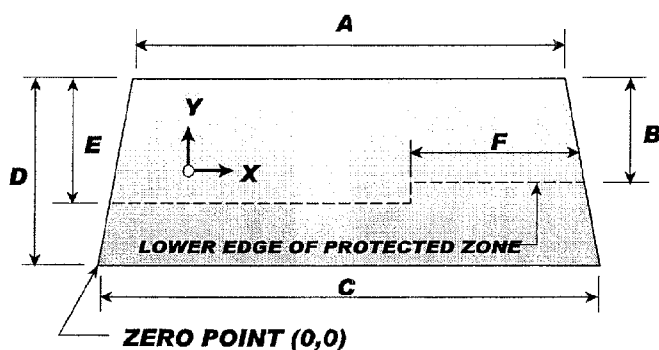
FAILURE DETAILS: None

DATA SHEET NO. 11 FMVSS NO. 219 (PARTIAL) - "WINDSHIELD ZONE INTRUSION" DATA

PROTECTED ZONE LOWER EDGE REQUIREMENT:

The lower edge of the protected zone is determined by placing a 165 mm diameter rigid sphere weighing 6.8 kg in a position such that it simultaneously contacts the inner surface of the windshield and the top surface of the instrument panel including padding. The locus of points is drawn on the inner surface of the windshield contacted by the sphere across the width of the instrument panel. From the outermost contactable points extend the locus line horizontally to the edges of the windshield, then draw a line on the inner surface of the windshield below and 13 mm distant from the locus line. The LOWER EDGE OF THE PROTECTED ZONE is the longitudinal projection of this line onto the outer surface of the windshield.

FMVSS 219 TEST DATA:



DIMENSIONS (mm)	
A	1126
B	375
C	1490
D	630
E	363
F	560

FRONT VIEW OF WINDSHIELD

DETAILS OF WINDSHIELD GLASS PENETRATION GREATER THAN 6 mm: None

(Show location of penetration on the above sketch)

COORDINATES		
	X	Y
1.	-	-
2.	-	-
3.	-	-
4.	-	-

DATA SHEET NO. 12 FMVSS NO. 301-75 "FUEL SYSTEM INTEGRITY" POST IMPACT TEST DATA

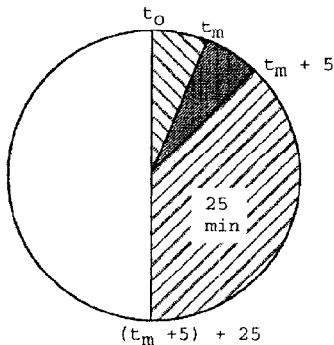
NHTSA TEST No.: MY0305 TEST DATE: June 8, 2000
VEHICLE MAKE/MODEL: 2001 Chrysler PT Cruiser

The test vehicle was filled from 92% to 94% of the manufacture's "usable" capacity. The electric fuel pump was operating if it will operate without engine operation. Two Part 572 anthropomorphic test devices were located at each of the front designated seating positions.

=====

TEST VEHICLE IMPACT TYPE: X Frontal (56 kph)
- Oblique (48 kph) with _____ deg. barrier face first contacting _____
 (driver/passenger) side
- Rear Moving Barrier (48 kph)
- Lateral Moving Barrier (32 kph)

FUEL SPILLAGE MEASUREMENT:



1. From impact until vehicle motion ceases
2. For 5 minute period after vehicle motion ceases
3. For next 25 minutes

ACTUAL	MAX ALLOWED
0	28 g
0	141 g
0	28 g/min.

SOLVENT SPILLAGE DETAILS: None

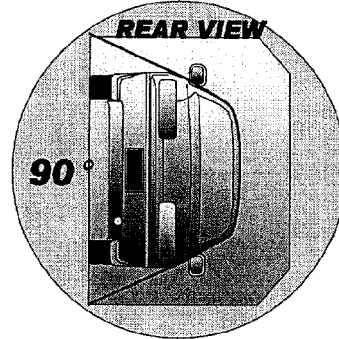
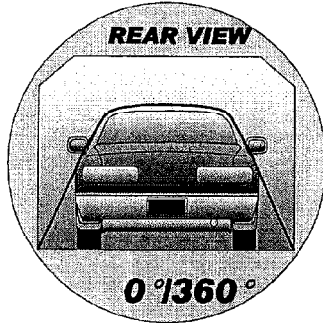
DATA SHEET 13

FMVSS NO. 301 STATIC ROLLOVER DATA SHEET

Vehicle: 2001 Chrysler PT Cruiser

NHTSA No. MY0305

0 - 90 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time (Spec. Range = 1 to 3 minutes)	<u>1</u> minutes	<u>12</u> seconds
FMVSS 301 Position Hold Time +	<u>5</u> minutes	<u>0</u> seconds
TOTAL	<u>6</u> minutes	<u>12</u> seconds
Next whole minute interval	<u>7</u> minutes	

II. FMVSS 301 REQUIREMENTS :

(1) Time Period

First 5 minutes FROM onset of rotation	6th min.	7th min.	8th min. (if required)
--	----------	----------	------------------------

(2) Maximum Allowable Solvent Spillage

142 g	28 g	28 g	28 g
-------	------	------	------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0 g	0 g	0 g	N/A
-----	-----	-----	-----

Note: Record spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATION(S) :

None

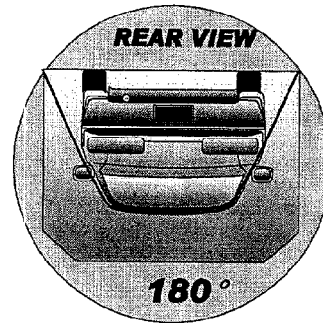
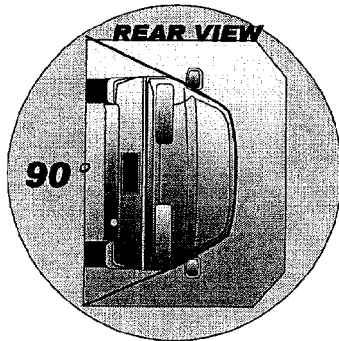
DATA SHEET 13

FMVSS NO. 301 STATIC ROLLOVER DATA SHEET (CONTINUED)

Vehicle: 2001 Chrysler PT Cruiser

NHTSA No. MY0305

90 - 180 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time (Spec. Range = 1 to 3 minutes)	<u>1</u> minutes	<u>08</u> seconds
FMVSS 301 Position Hold Time +	<u>5</u> minutes	<u>0</u> seconds
TOTAL	<u>6</u> minutes	<u>8</u> seconds
Next whole minute interval	<u>7</u> minutes	

II. FMVSS 301 REQUIREMENTS :

(1) Time Period

First 5 minutes FROM onset of rotation	6th min.	7th min.	8th min. (if required)
--	----------	----------	------------------------

(2) Maximum Allowable Solvent Spillage

142 g	28 g	28 g	28 g
-------	------	------	------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0 g	0 g	0 g	N/A
-----	-----	-----	-----

Note: Record spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATION(S) :

None

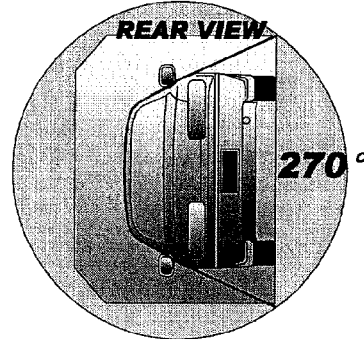
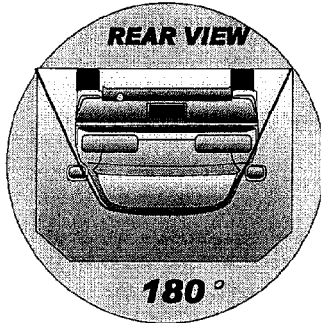
DATA SHEET 13

FMVSS NO. 301 STATIC ROLLOVER DATA SHEET (CONTINUED)

Vehicle: 2001 Chrysler PT Cruiser

NHTSA No. MY0305

180 - 270 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time	<u>1</u> minutes	<u>04</u> seconds
(Spec. Range = 1 to 3 minutes)		
FMVSS 301 Position Hold Time +	<u>5</u> minutes	<u>0</u> seconds
TOTAL	<u>6</u> minutes	<u>4</u> seconds
Next whole minute interval	<u>7</u> minutes	

II. FMVSS 301 REQUIREMENTS :

(1) Time Period

First 5 minutes FROM onset of rotation	6th min.	7th min.	8th min. (if required)
--	----------	----------	------------------------

(2) Maximum Allowable Solvent Spillage

142 g	28 g	28 g	28 g
-------	------	------	------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

0 g	0 g	0 g	N/A
-----	-----	-----	-----

Note: Record spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATION(S) :

None

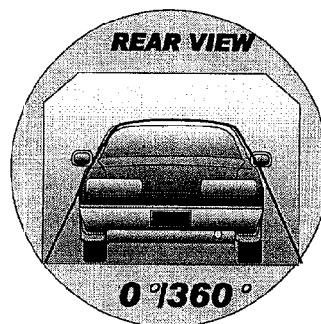
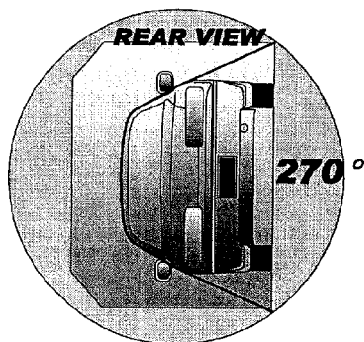
DATA SHEET 13

FMVSS NO. 301 STATIC ROLLOVER DATA SHEET (CONTINUED)

Vehicle: 2001 Chrysler PT Cruiser

NHTSA No. MY0305

270 - 360 Degrees



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD :

Rollover Fixture 90° Rotation Time (Spec. Range = 1 to 3 minutes)	<u>1</u> minutes	<u>12</u> seconds
FMVSS 301 Position Hold Time +	<u>5</u> minutes	<u>0</u> seconds
TOTAL	<u>6</u> minutes	<u>12</u> seconds
Next whole minute interval	<u>7</u> minutes	

II. FMVSS 301 REQUIREMENTS :

(1) Time Period

First 5 minutes FROM onset of rotation	6th min.	7th min.	8th min. (if required)
--	----------	----------	------------------------

(2) Maximum Allowable Solvent Spillage

142 g	28 g	28 g	28 g
-------	------	------	------

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

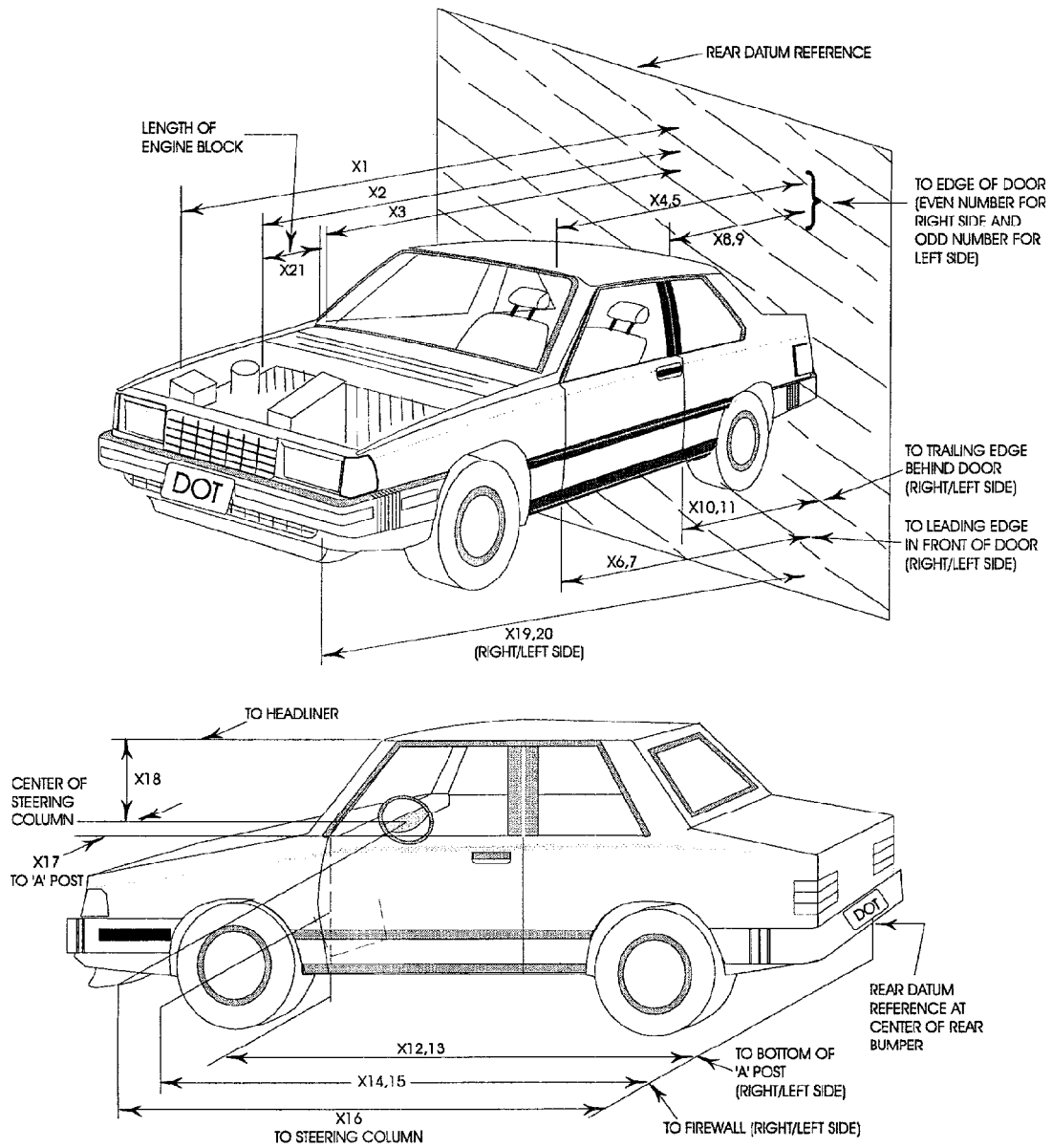
0 g	0 g	0 g	N/A
-----	-----	-----	-----

Note: Record spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATION(S) :

None

DATA SHEET NO. 14 TEST VEHICLE MEASUREMENTS

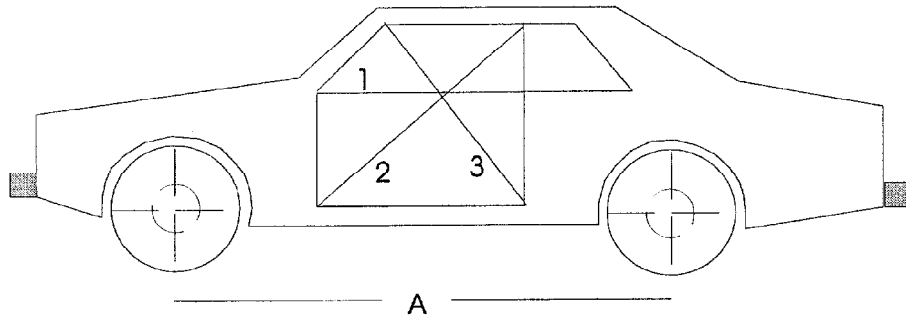


DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)

No.		Pre-Test	Post-Test	Differences
X1	Total Length of Vehicle at Centerline	4253	3747	506
X2	Rear Surface of Vehicle to Front of Engine	3647	3412	235
X3	Rear Surface of Vehicle to Firewall	3313	3207	106
X4	Rear Surface of Vehicle to Upper Leading Edge of Right Door	2901	2897	4
X5	Rear Surface of Vehicle to Upper Leading Edge of Left Door	2902	2901	1
X6	Rear Surface of Vehicle to Lower Leading Edge of Right Door	2914	2905	9
X7	Rear Surface of Vehicle to Lower Leading Edge of Left Door	2910	2907	3
X8	Rear Surface of Vehicle to Upper Trailing Edge of Right Door	1897	1891	6
X9	Rear Surface of Vehicle to Upper Trailing Edge of Left Door	1893	1894	-1
X10	Rear Surface of Vehicle to Lower Trailing Edge of Right Door	1935	1929	6
X11	Rear Surface of Vehicle to Lower Trailing Edge of Left Door	1937	1935	2
X12	Rear Surface of Vehicle to Bottom of "A" Post of Right Side	3039	3050	-11
X13	Rear Surface of Vehicle to Bottom of "A" Post of Left Side	3003	3004	4
X14	Rear Surface of Vehicle to Firewall, Right Side	3300	3173	127
X15	Rear Surface of Vehicle to Firewall, Left Side	3295	3211	84
X16	Rear Surface of Vehicle to Steering Column	2488	2485	3
X17	Center of Steering Column to "A" Post	294	272	22
X18	Center of Steering Column to Headliner	412	373	39
X19	Rear Surface of Vehicle to Right Side of Front Bumper	4146	3675	471
X20	Rear Surface of Vehicle to Left Side of Front Bumper	4148	3624	524
X21	Length of Engine Block	272	272	0
RD	Rear Surface of Vehicle to Right Side of Dash Panel	2734	2718	16
CD	Rear Surface of Vehicle to Center of Dash Panel	2746	2735	11
LD	Rear Surface of Vehicle to Left Side of Dash Panel	2747	2717	30

All Dimensions in mm

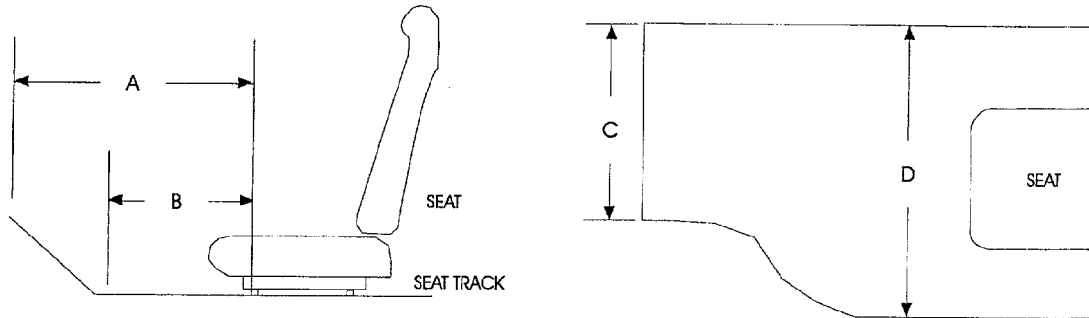
DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
VEHICLE INTRUSION MEASUREMENTS
DOOR OPENING WIDTH



UNITS (mm)	LEFT			RIGHT		
MEASUREMENT	1	2	3	1	2	3
BEFORE TEST	939	1446	1019	942	1448	1019
AFTER TEST	928	1447	1024	938	1449	1025
DIFFERENCE	11	-1	-5	4	-1	-6

UNITS (mm)	A = WHEELBASE LEFT	A = WHEELBASE RIGHT
BEFORE TEST	2616	2616
AFTER TEST	2528	2586
DIFFERENCE	88	30

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
VEHICLE INTRUSION MEASUREMENTS
STATIC FOOTWELL DEFORMATION



DRIVER

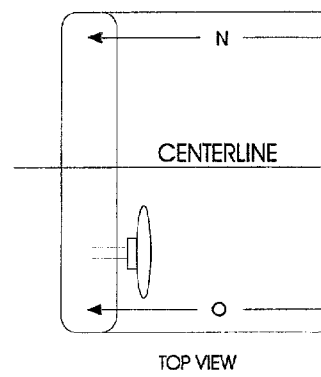
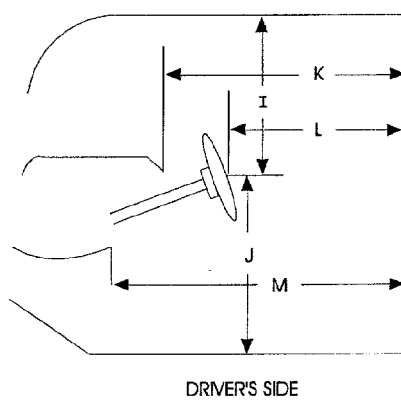
Measurement	Pre-Test	Post-Test	Difference
A	709	621	88
B	583	537	46
C	421	403	18
D	448	437	11

PASSENGER

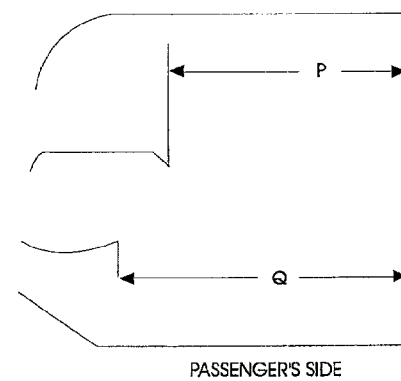
Measurement	Pre-Test	Post-Test	Difference
A	786	706	80
B	662	630	32
C	464	445	19
D	470	447	23

Units = mm

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
VEHICLE INTRUSION MEASUREMENTS
STATIC PASSENGER COMPARTMENT INTRUSION



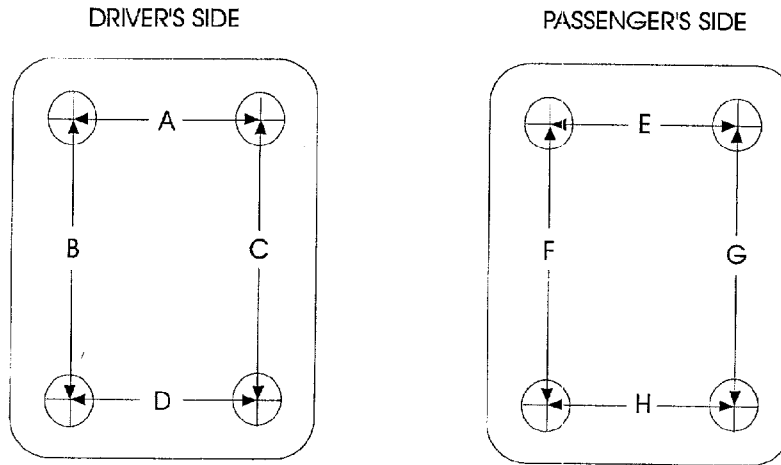
MEASUREMENTS
FROM C-PILLAR
BELT ANCHORAGE



Measurement	Pre-Test	Post-Test	Difference
I	412	373	39
J	707	791	-84
K	1737	1716	21
L	1444	1446	-2
M	1757	1730	27
N	1672	1656	16
O	271	241	30
P = K (PASS.)	1666	1636	30
Q = M (PASS.)	1693	1659	34

Units = mm

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
FLOORBOARD DEFORMATION

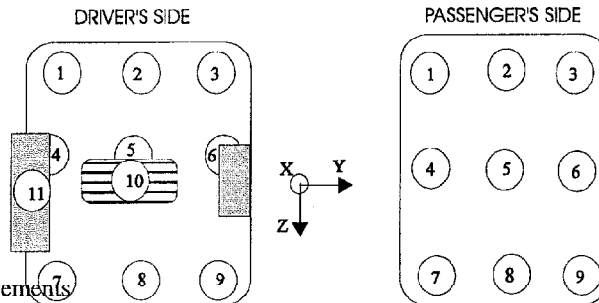


TOP VIEW THROUGH FLOOR PAN

Measurement	Pre-Test	Post-Test	Difference
A	159	155	4
B	251	250	1
C	259	253	6
D	167	166	1
E	164	163	1
F	256	244	12
G	256	248	8
H	162	160	2

Units = mm

DATA SHEET NO.14 VEHICLE MEASUREMENTS (cont.)
TOE-PAN INTRUSION



Driver Side Floorpan Measurements
Reference: X = Rear Bumper; Z = Ground

Floorpan Location	X Deformation			Z Deformation		
	Pre-Test	Post-Test	Difference	Pre-Test	Post-Test	Difference
1	3119	2999	120	-393	-421	28
2	3103	3015	88	-382	-428	46
3	3068	3054	14	-310	-363	53
4	3057	2962	95	-331	-399	68
5	3053	2967	86	-325	-353	28
6	3082	3029	53	-305	-326	21
7	2998	2926	72	-288	-296	8
8	2977	2932	45	-272	-289	17
9	2946	2928	18	-262	-263	1
10	2970	2917	53	-437	-464	27
11	2979	2946	33	-372	-389	17

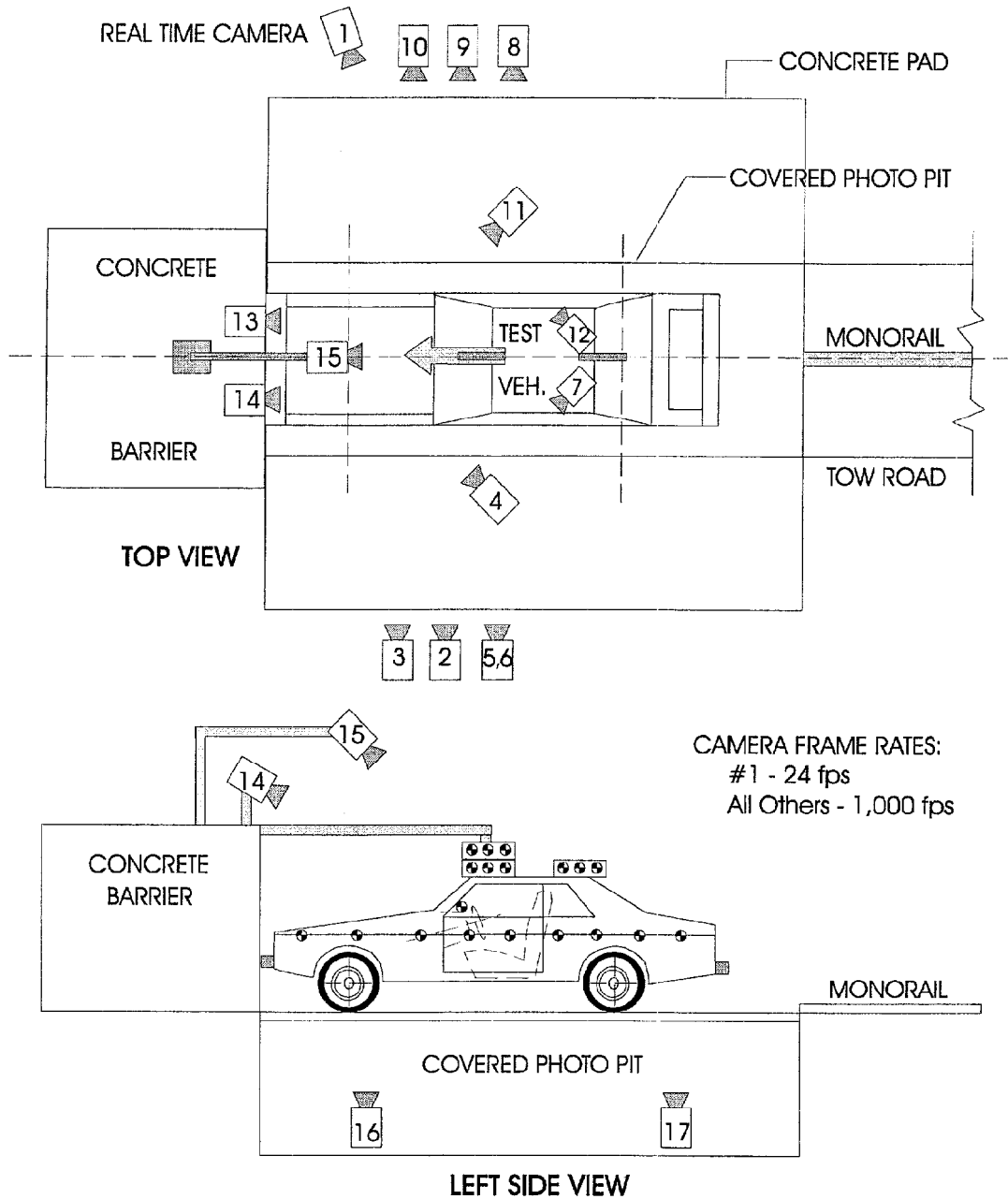
Passenger Side Floorpan Measurements
Reference: X = Rear Bumper; Z = Ground

Floorpan Location	X Deformation			Z Deformation		
	Pre-Test	Post-Test	Difference	Pre-Test	Post-Test	Difference
1	3134	3057	77	-365	-400	35
2	3137	3056	81	-374	-396	22
3	3136	3049	87	-376	-525	149
4	3056	3027	29	-318	-364	46
5	3067	3023	44	-326	-394	68
6	3083	3031	52	-337	-416	79
7	2992	2968	24	-281	-308	27
8	3012	2981	31	-289	-330	41
9	3023	2970	53	-298	-334	36

Units in mm

DATA SHEET NO.15 HIGH-SPEED CAMERA LOCATIONS

NOTE: Camera information shown in DATA SHEET NO. 15.



DATA SHEET NO.15 HIGH-SPEED CAMERA LOCATIONS (cont.)

NHTSA Test No.: MY0305 Vehicle: 2001 Chrysler PT Cruiser Special Purpose Vehicle

CAMERA NO.	VIEW	CAMERA POSITIONS (mm)*			ANGLE (deg)**	FILM PLANE TO HEAD TARGET	LENS (mm)	SPEED (fps)
		X	Y	Z				
1	Real-Time Camera	-	-	-	-	-	-	24
2	Overall Left Side	6343	1406	1044	-4	5921	12.5	1005
3	Left Side View	7704	940	1091	-2	7282	25	1000
4	Driver and Interior View	6618	2700	1918	-8	-	25	1050
5	Steering Column (Bottom)	7356	1675	1175	-3	6934	25	1000
6	Steering Column (Top)	7356	1675	1777	-12	6934	25	1005
7	Left Belt	-	-	-	-	-	13	1000
8	Overall Right Side	6502	1708	1052	-4	6080	13	1000
9	Right Side View	8237	1150	1088	-1	7815	25	1000
10	Right Passenger View	7620	1645	1296	-2	7198	35	1000
11	Passenger and Interior View	6649	2836	1968	-10	-	25	1005
12	Right Belt	-	-	-	-	-	13	1005
13	Passenger Front View	614	-104	1964	-40	-	13	1000
14	Driver Front View	614	-104	1967	-37	-	13	1000
15	Windshield View	0	-534	3374	-54	-	13	750
16	Pit View of Engine	0	720	-3048	90	-	13	1000
17	Pit View of Fuel Tank	0	2338	-3048	90	-	13	1045

*X = film plane to monorail centerline

** = referenced to horizontal plane

Y = film plane to impact location

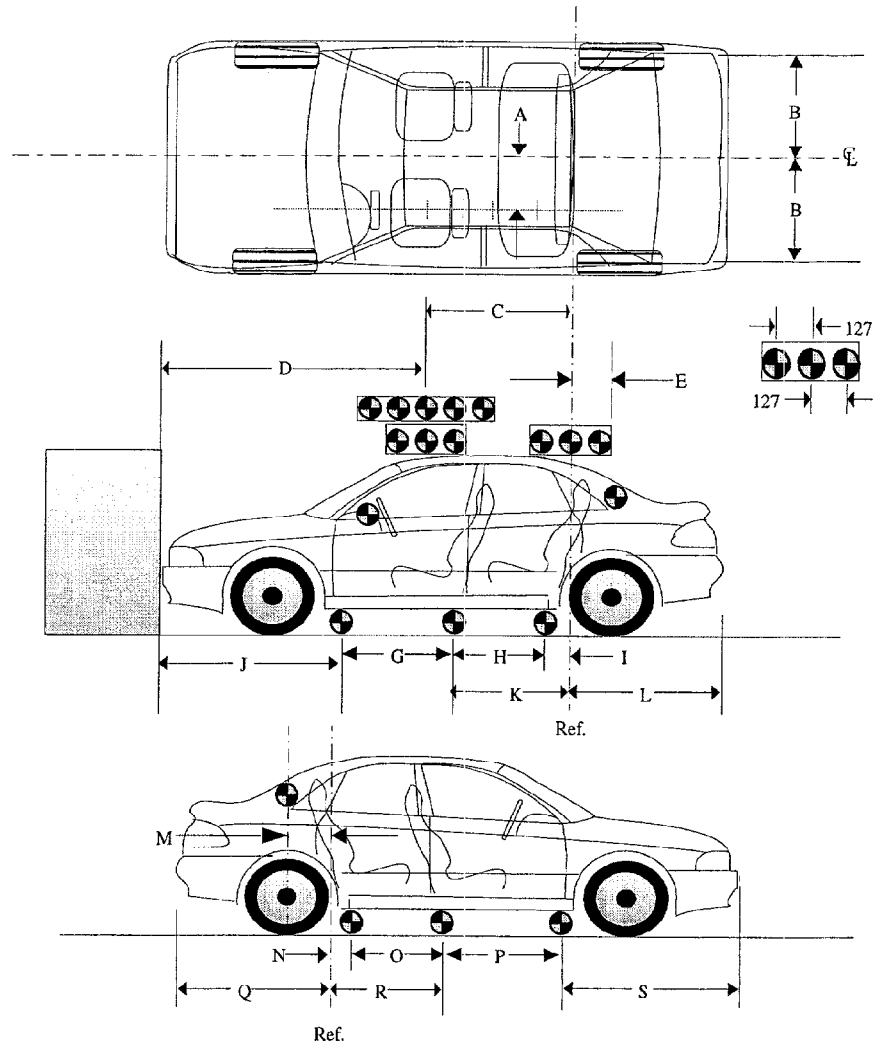
N.T. indicates No Timing

Z = film plane to ground

DATA SHEET NO. 16 VEHICLE REFERENCE PHOTO TARGET LOCATIONS

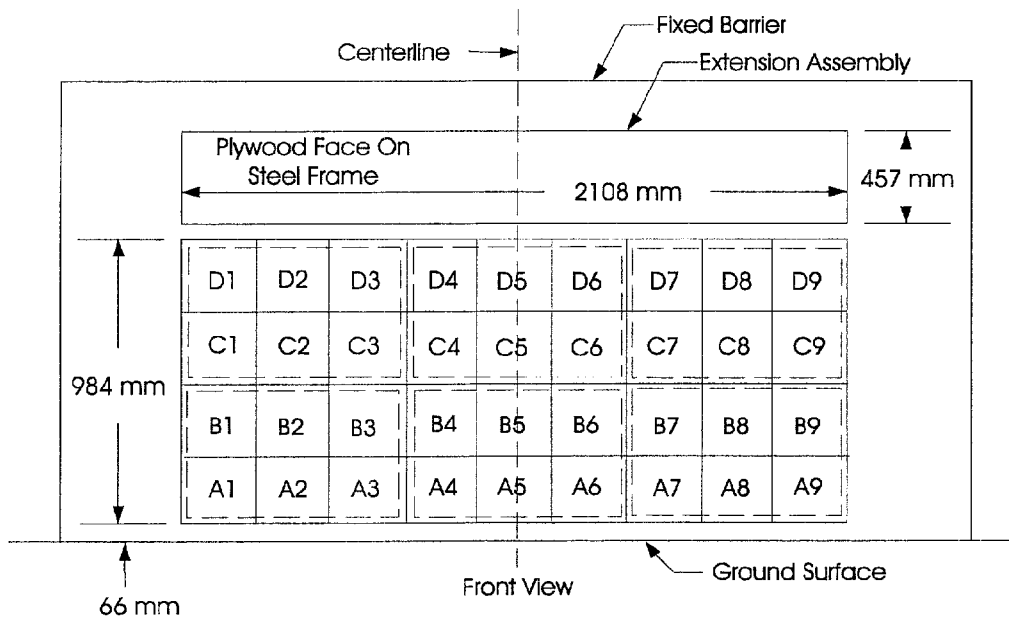
(Dimensions in millimeters)

A	346
B	536
C	1221
D	1914
E	212
F	1572
G	828
H	828
I	133
J	1311
K	961
L	1152
M	210
N	143
O	826
P	824
Q	1145
R	969
S	1314



DATA SHEET NO. 17 LOAD CELL LOCATIONS ON FIXED BARRIER

36 Load Cells
 4 Rows
 9 Columns
 6 Groupings (6 cells/group)



6 GROUPS OF 6 LOAD CELLS EACH

Group 4 C1 thru D3	Group 5 C4 thru D6	Group 6 C7 thru D9
Group 1 A1 thru B3	Group 2 A4 thru B6	Group 3 A7 thru B9

The following data is presented in Appendix B:

- (1) Data from 36 individual load cells
- (2) Total or Sum of 36 individual load cells
- (3) Data from 6 Groupings shown above (6 cells/group)

DATA SHEET NO. 18 POST TEST AIR BAG DATA

NHTSA No. : MY0305; Test Date: June 8, 2000; Technician: Patrick MacDiarmid

Vehicle Model Year/Make/Model: 2001 Chrysler PT Cruiser

A. No. of vent holes: 2 -Driver 2 -Passenger

B. Size of vent holes: (mm²) 154 -Driver 3848 -Passenger

C. Total vent area: (mm²) 308 -Driver 7696 -Passenger

D. Deflated air bag length and width dimensions or, if round, diameter. (mm)

Driver: 500 -Height; 570 -Width; 310 -Depth

Passenger: 725 -Height; 425 -Width; 625 -Depth

E. Is the air bag tethered?

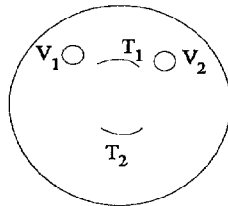
Driver: X -Yes; - -No; If yes, record length of tether- 110

Passenger: X -Yes; - -No; If yes, record length of tether- 490

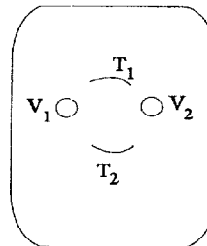
Sketch the air bag showing the location of the vent holes, how the bag is tethered, and where the bag is tethered. Also describe how the tethers are attached to the bag and the steering wheel.

(Note: Not to scale; V_n = Vent hole_n, T_n = Tether_n).

Driver



Passenger



F. Record part numbers and manufacturer name of the air bag and gas generator.

Driver: Air bag: None

Generator: 1PG493052 DC100CP0 ORL72WL8AD TCDE092010188 Supplier: 73427A

Passenger: Air bag: Breed Technologies TB6300940149

Generator: 1PG444110 04664252AE 73427A C/L:C TCPPB101010411

Allied Signal YR 2000 BAM-PT₁ -0658

DATA SHEET NO. 19 ACCIDENT INVESTIGATION DIVISION DATA

FOR 56.3 KPH FRONTAL BARRIER IMPACT

Vehicle Make/Model/Body Style: Chrysler PT Cruiser Special Purpose Vehicle

NHTSA Test No.: MY0305 VIN: 3C4FY4BB71T283350

Model Year: 2001 Build Date: 4-00 Test Date: June 8, 2000

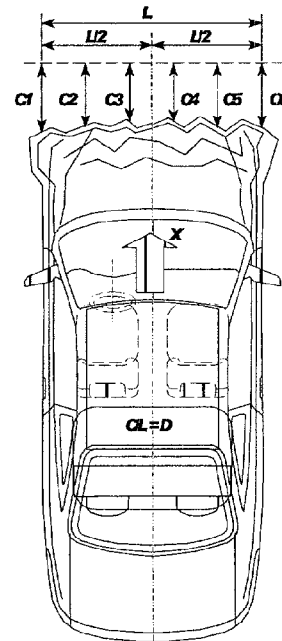
Vehicle Size Category: Special Purpose Test Weight: 1651.5 kg

Vehicle Wheelbase: 2616 mm; Front Overhang: 1311 mm; Overall Width: 1704 mm

Collision Deformation Classification (CDC) Code: 12FDEW3

Crush Depth Dimensions:

	PRE	POST	DIFF	
C1 =	4060	3588	-472.0	mm
C2 =	4177	3630	-547.0	mm
C3 =	4246	3643	-603.0	mm
C4 =	4247	3650	-597.0	mm
C5 =	4173	3678	-495.0	mm
C6 =	4052	3659	-393.0	mm



Midpoint of Damage: $D = \frac{\text{Vehicle Centerline}}{\text{(Longitudinal)}}$

Length of Damaged Region:

L1= 1400 mm

L2= 700.0 mm

L3= 466.7 mm

APPENDIX A
PHOTOGRAPHS

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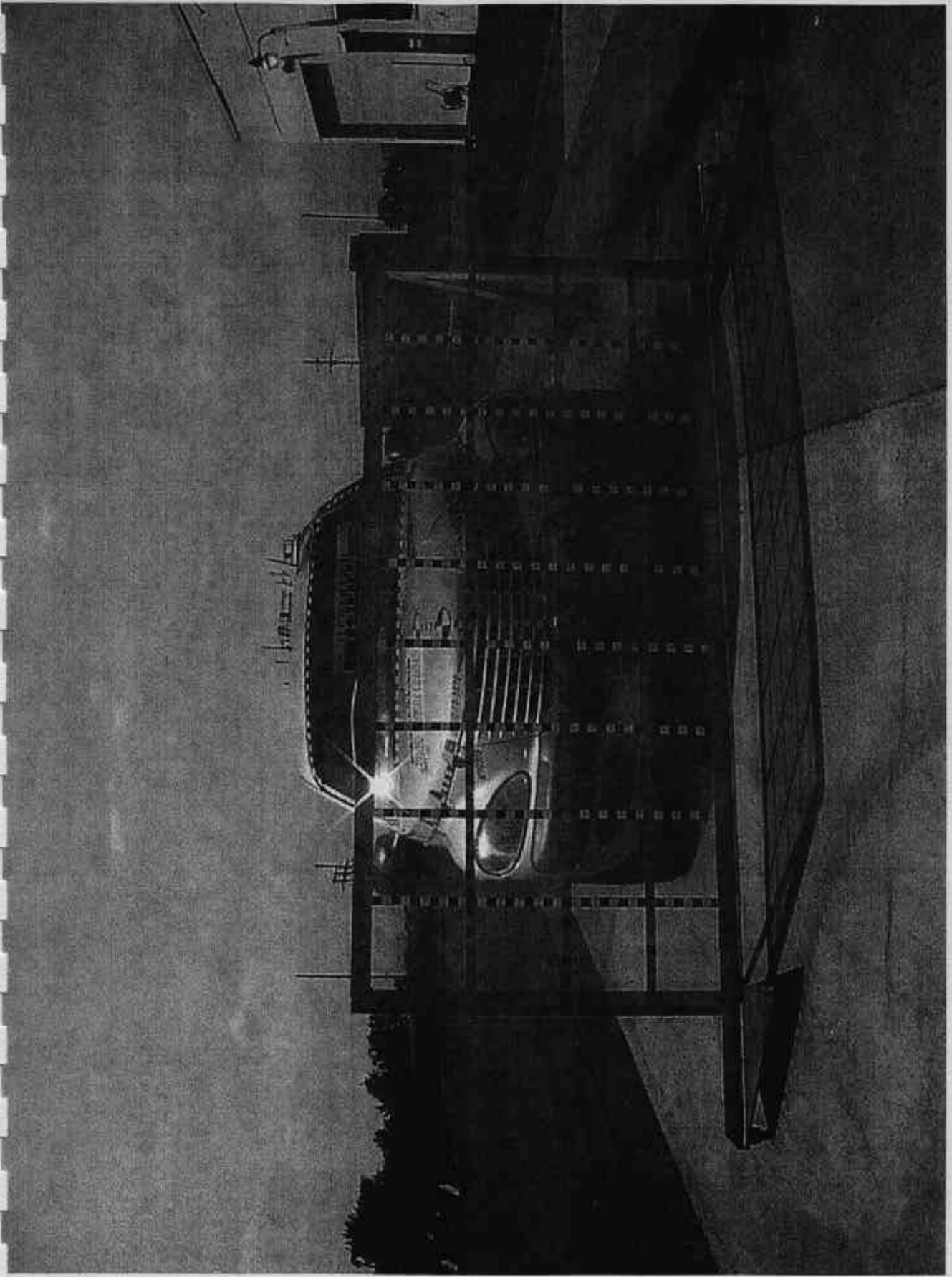


Figure A-1 LOAD CELL LOCATIONS

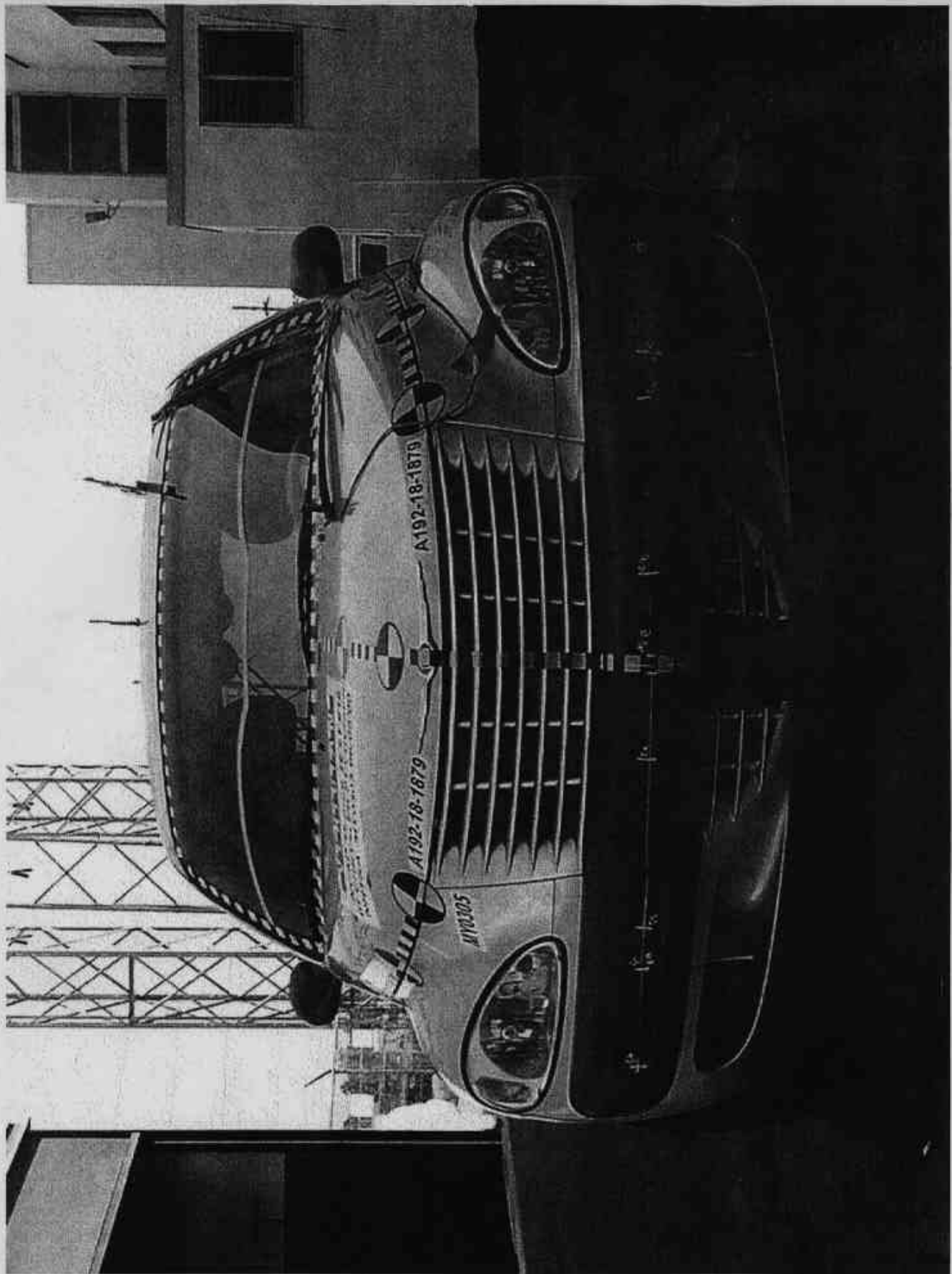


Figure A-2 PRE-TEST FRONT VIEW

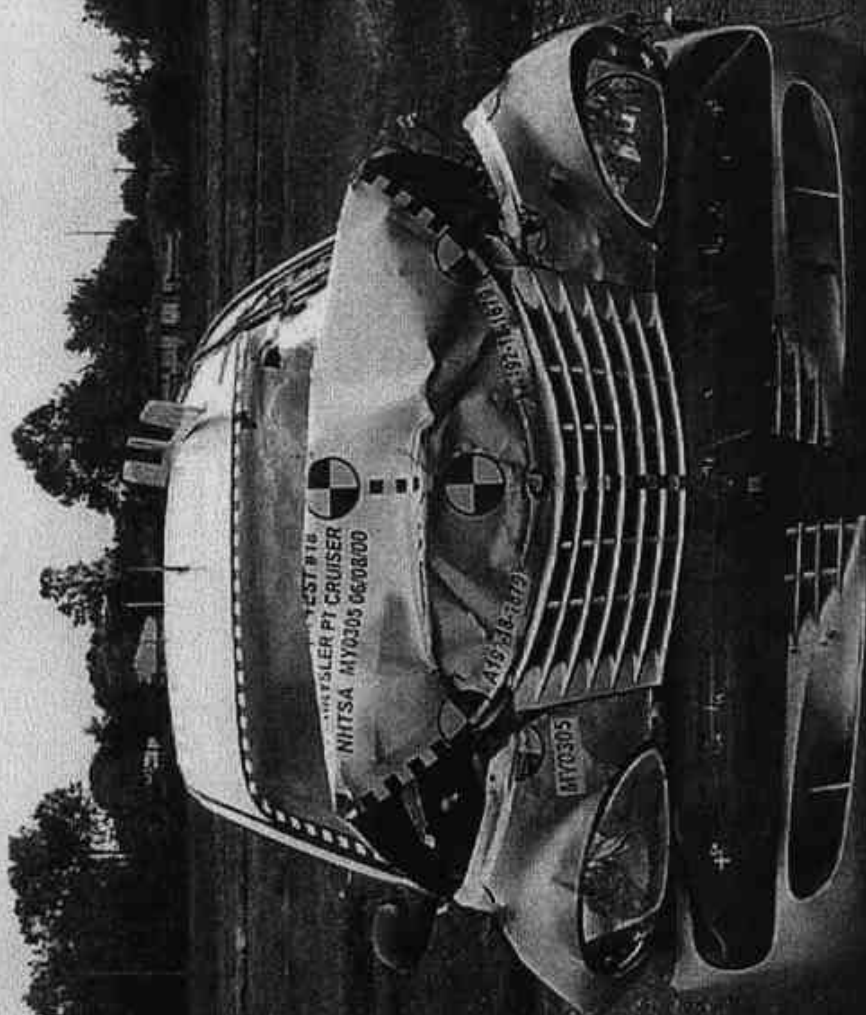


Figure A-3 POST-TEST FRONT VIEW

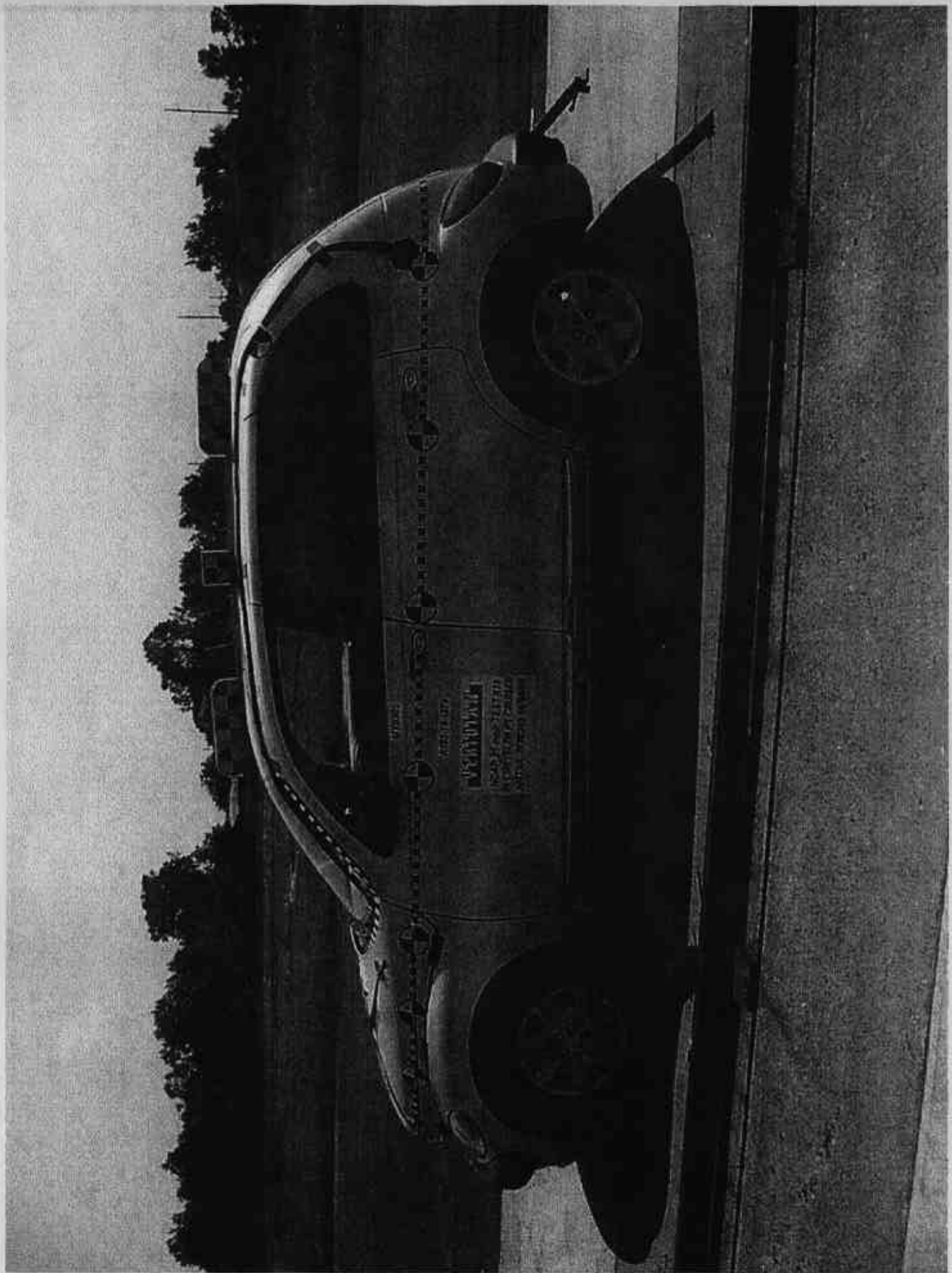


Figure A-4 PRE-TEST LEFT SIDE VIEW

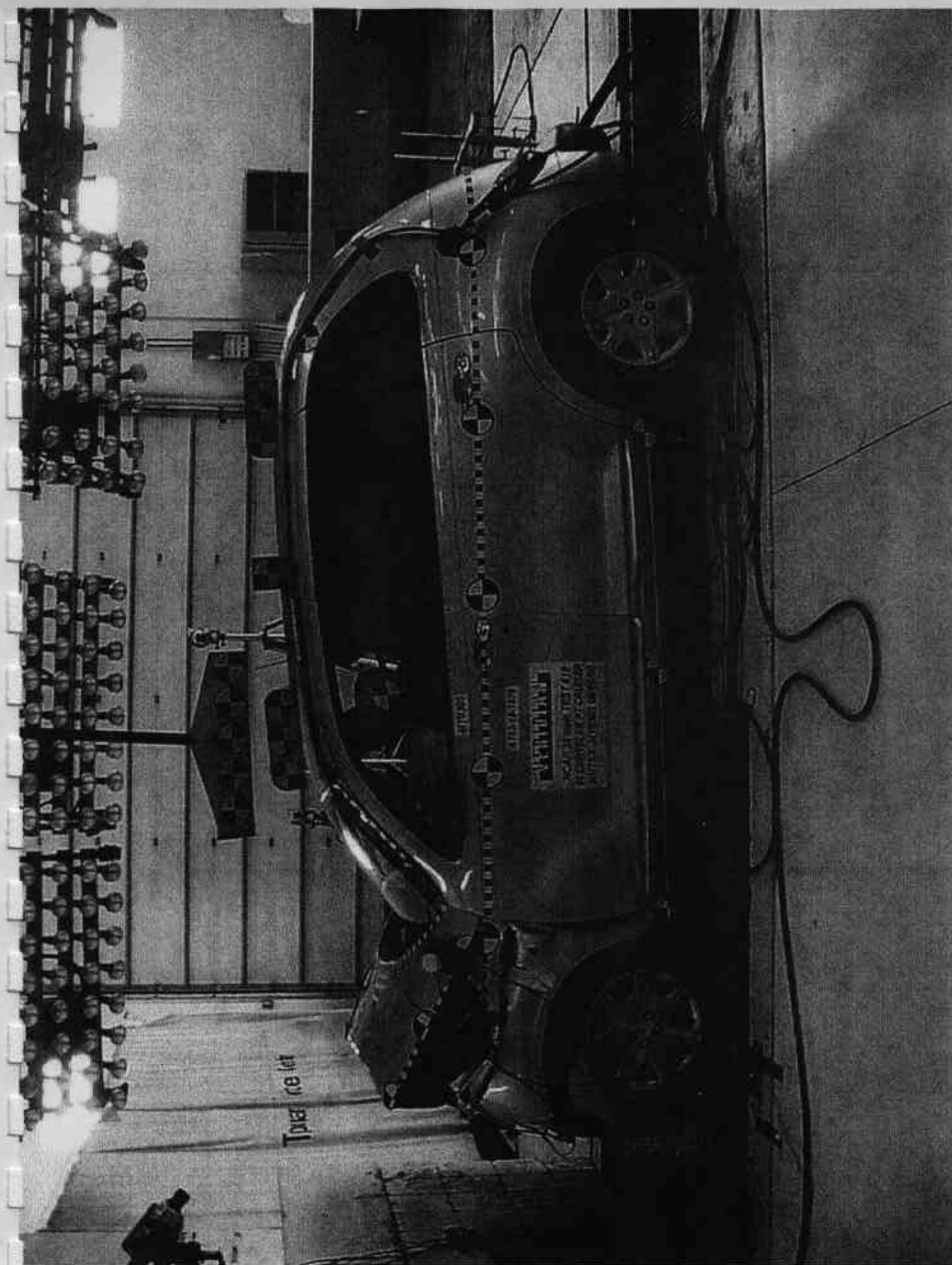


Figure A-5 POST-TEST LEFT SIDE VIEW

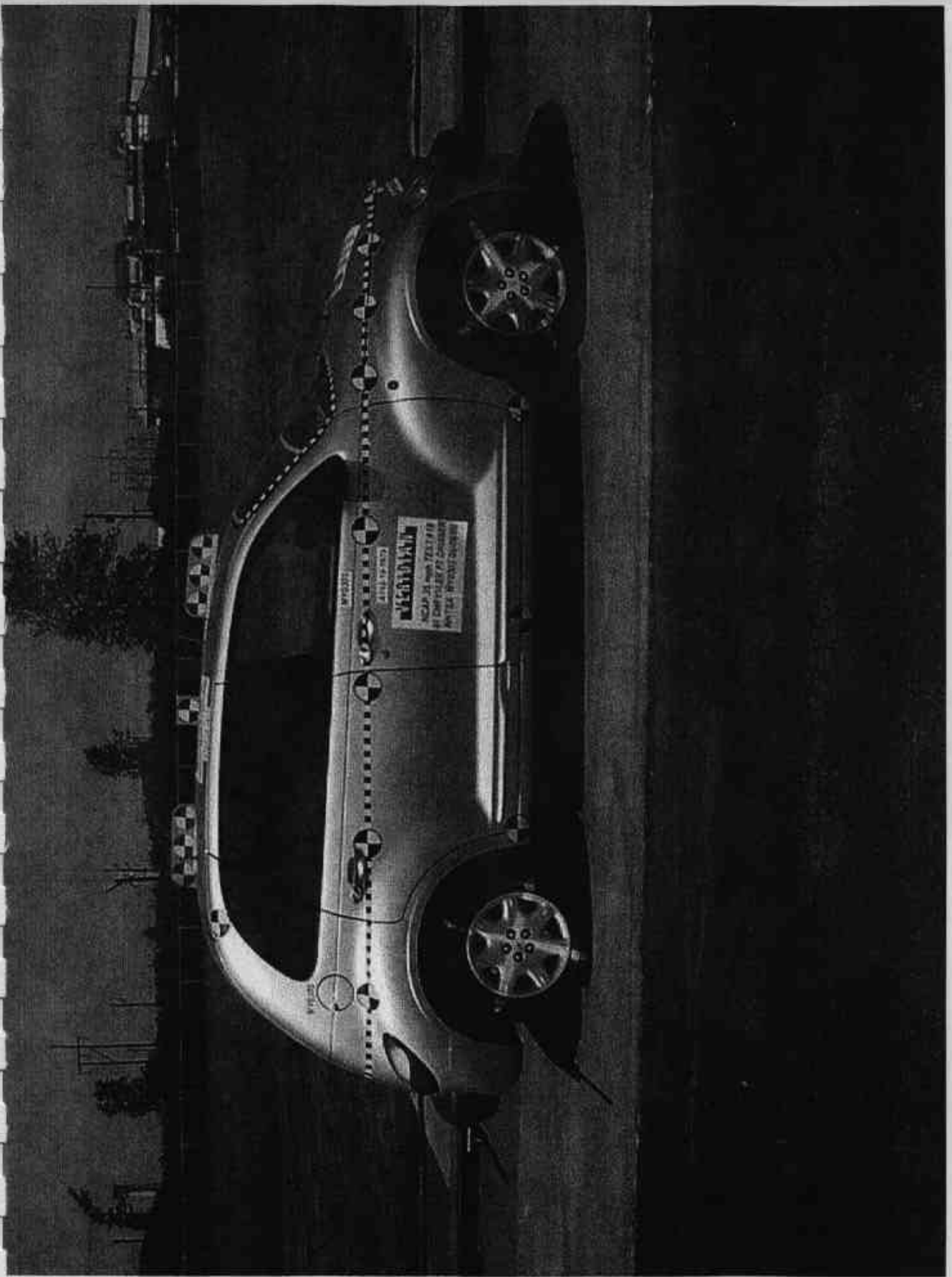


Figure A-6 PRE-TEST RIGHT SIDE VIEW

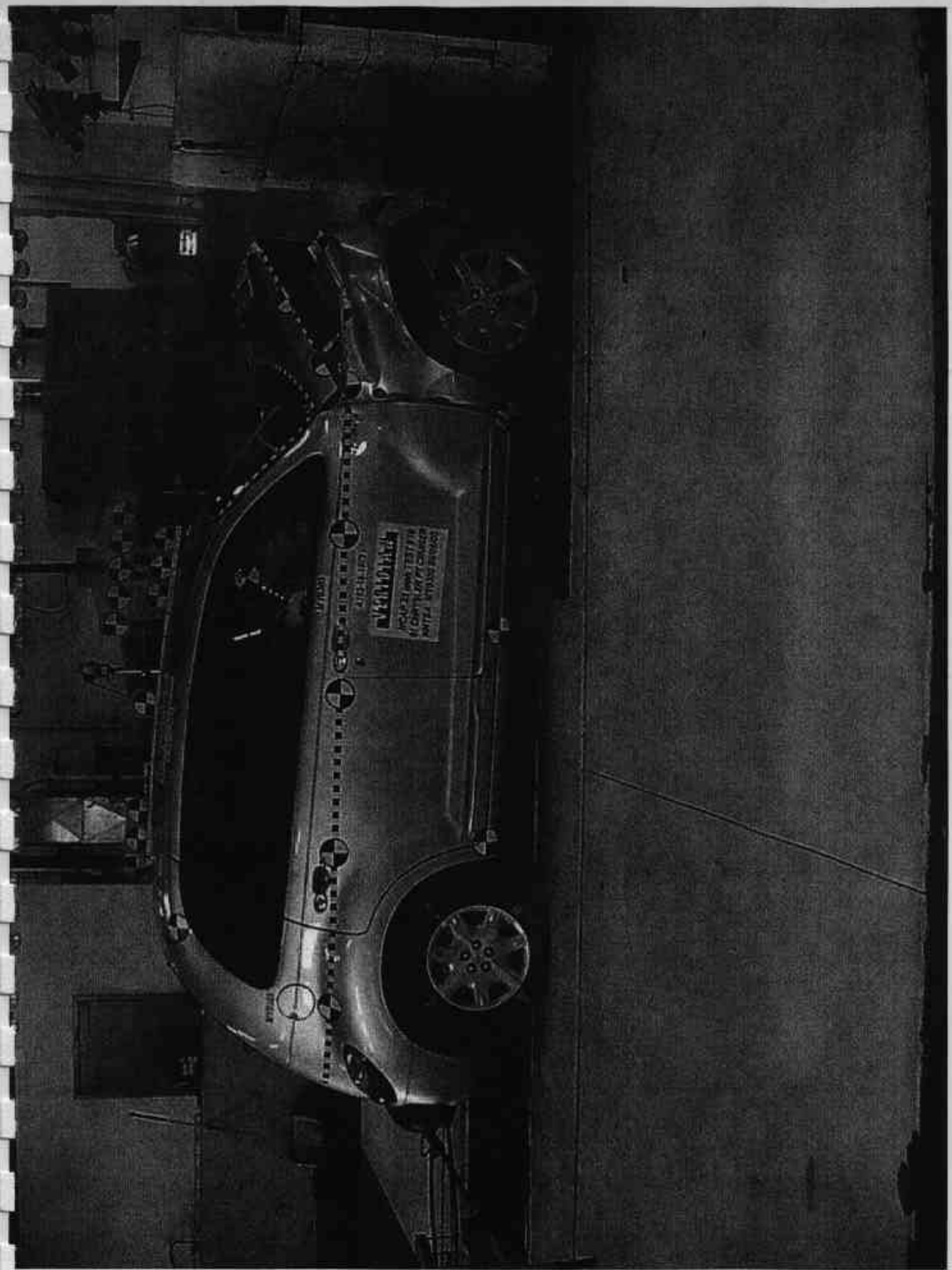


Figure A-7 POST-TEST RIGHT SIDE VIEW

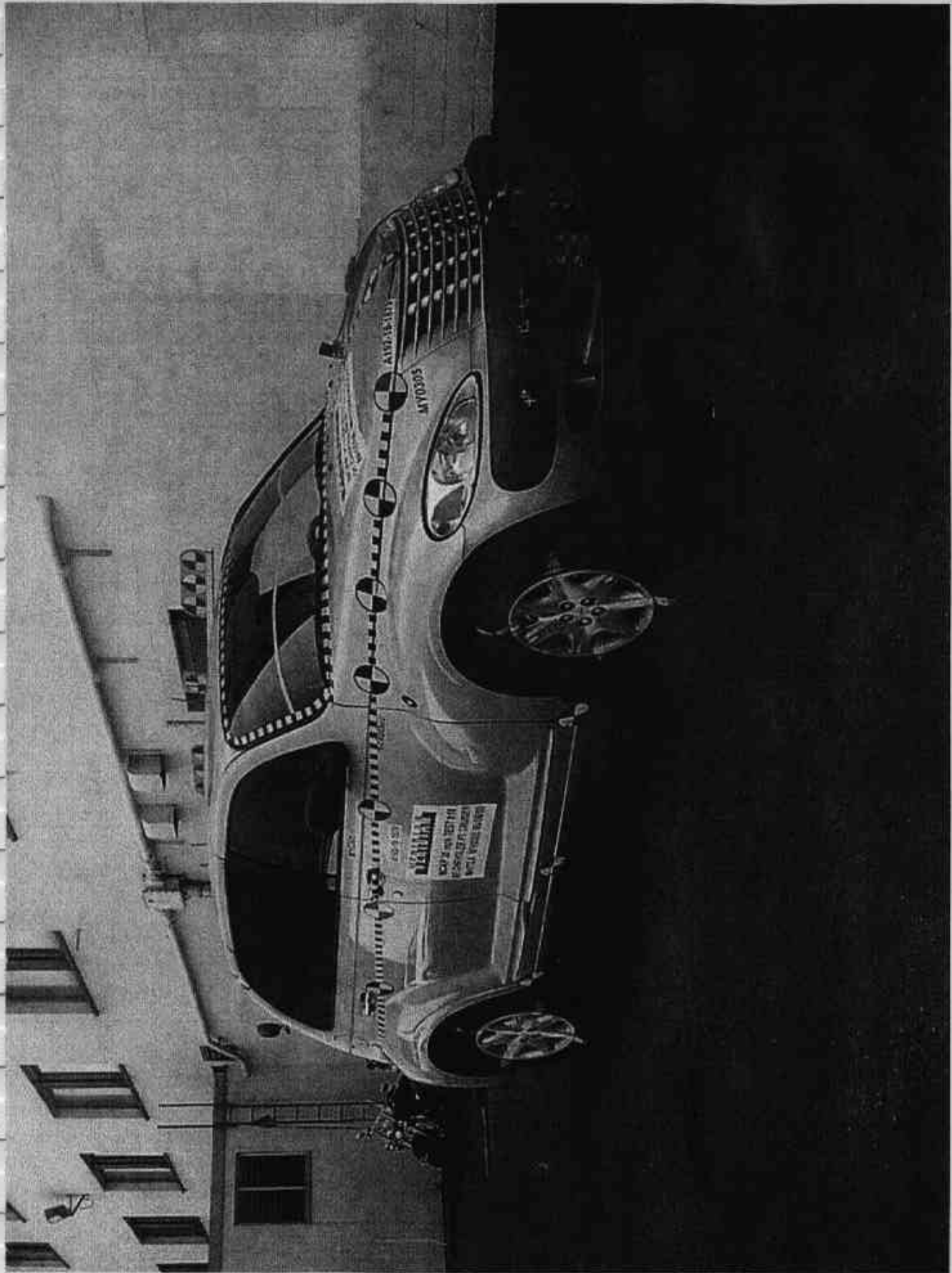


Figure A-8 PRE-TEST RIGHT FRONT THREE-QUARTER VIEW

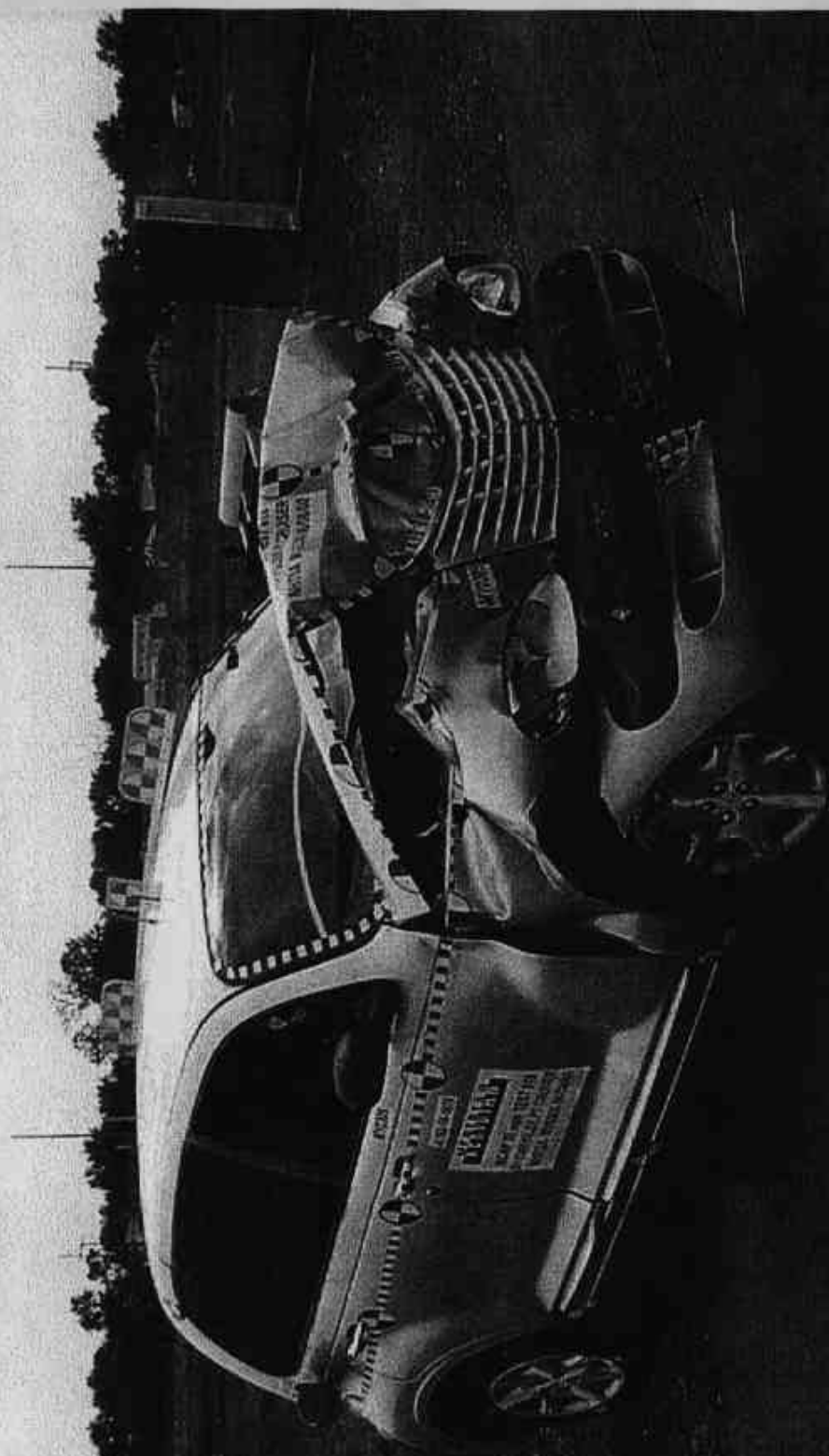


Figure A-9 POST-TEST RIGHT FRONT THREE-QUARTER VIEW

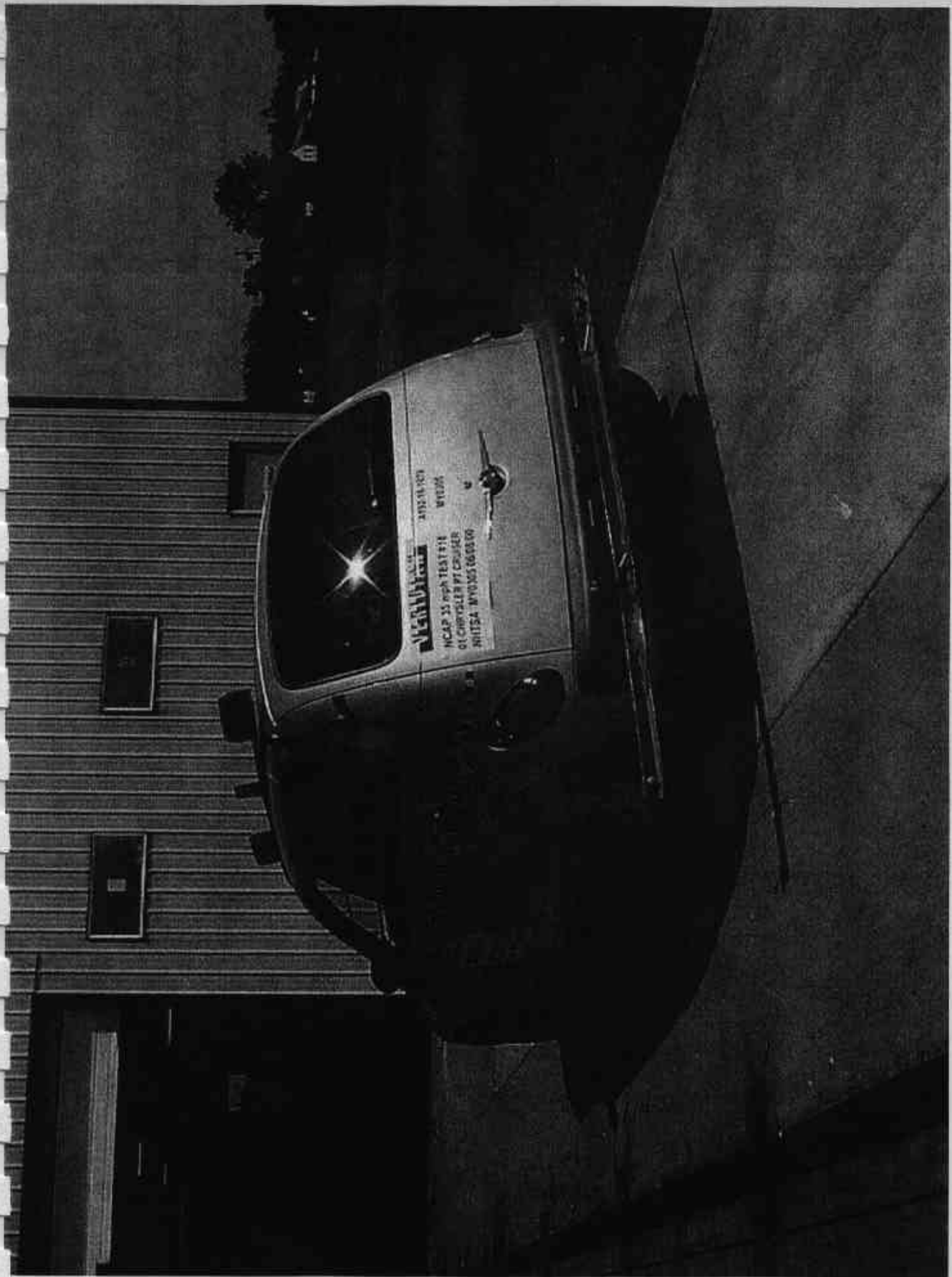


Figure A-10 PRE-TEST LEFT REAR THREE-QUARTER VIEW



Figure A-11 POST-TEST LEFT REAR THREE-QUARTER VIEW

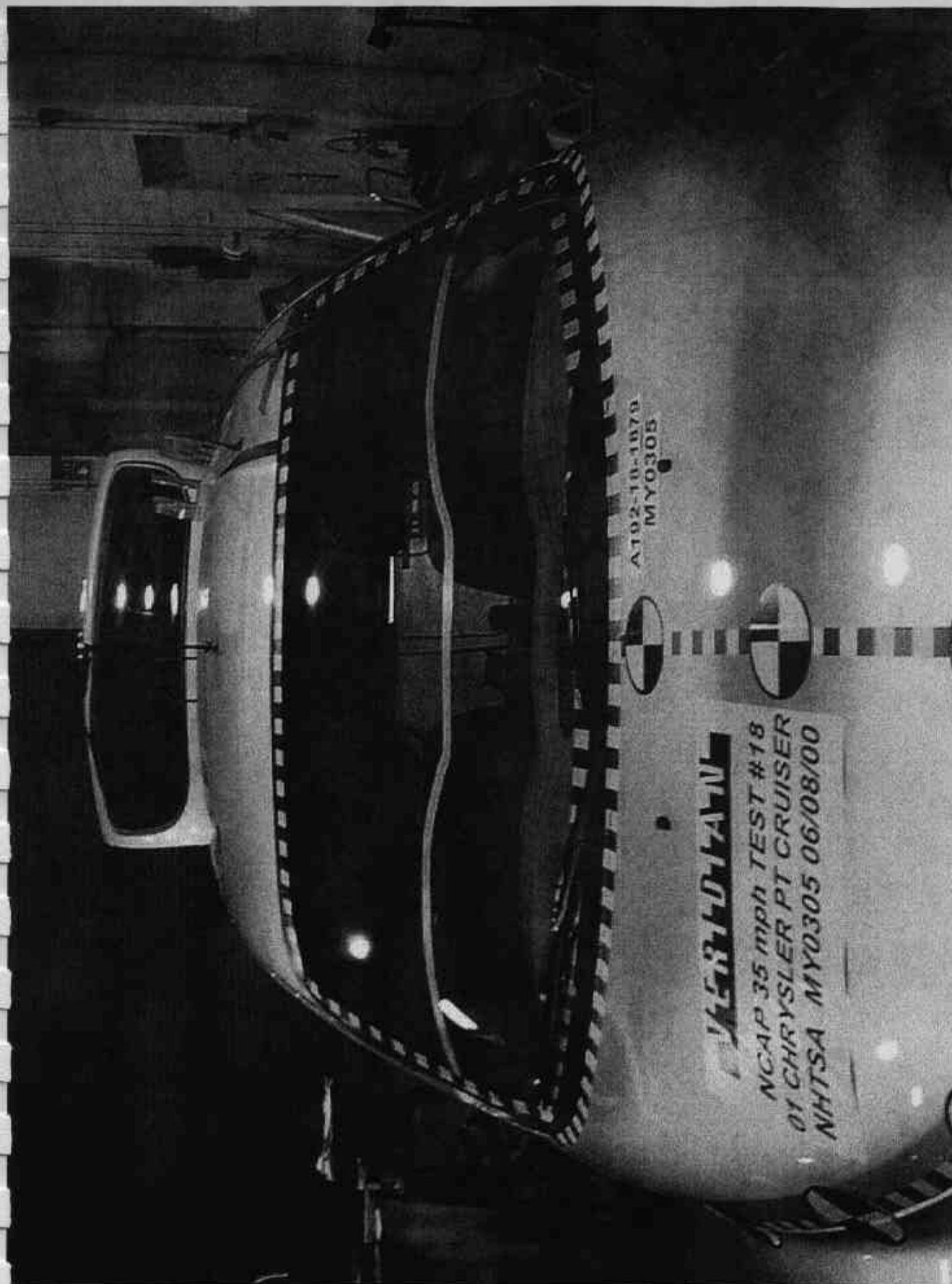


Figure A-12 PRE-TEST WINDSHIELD VIEW

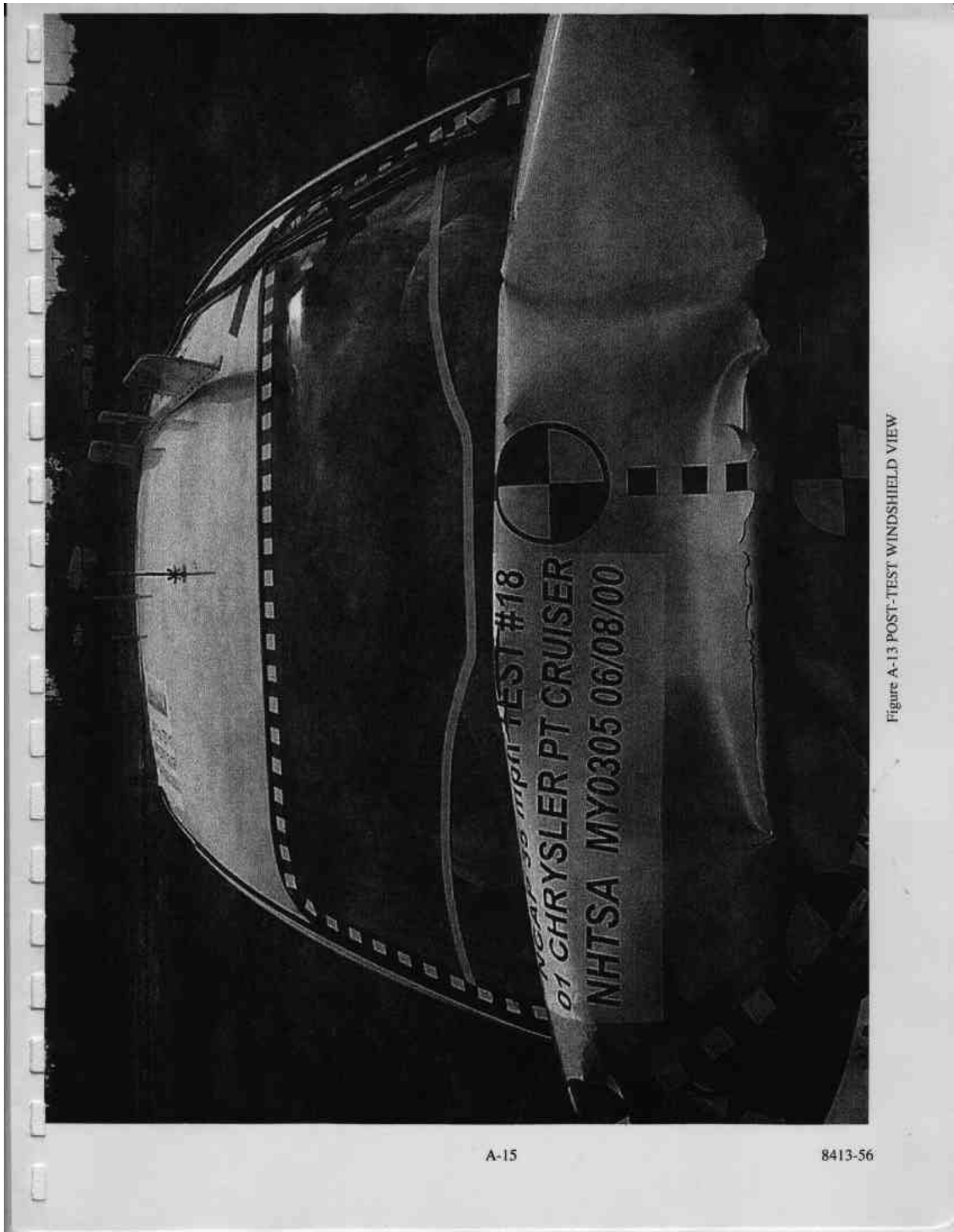


Figure A-13 POST-TEST WINDSHIELD VIEW

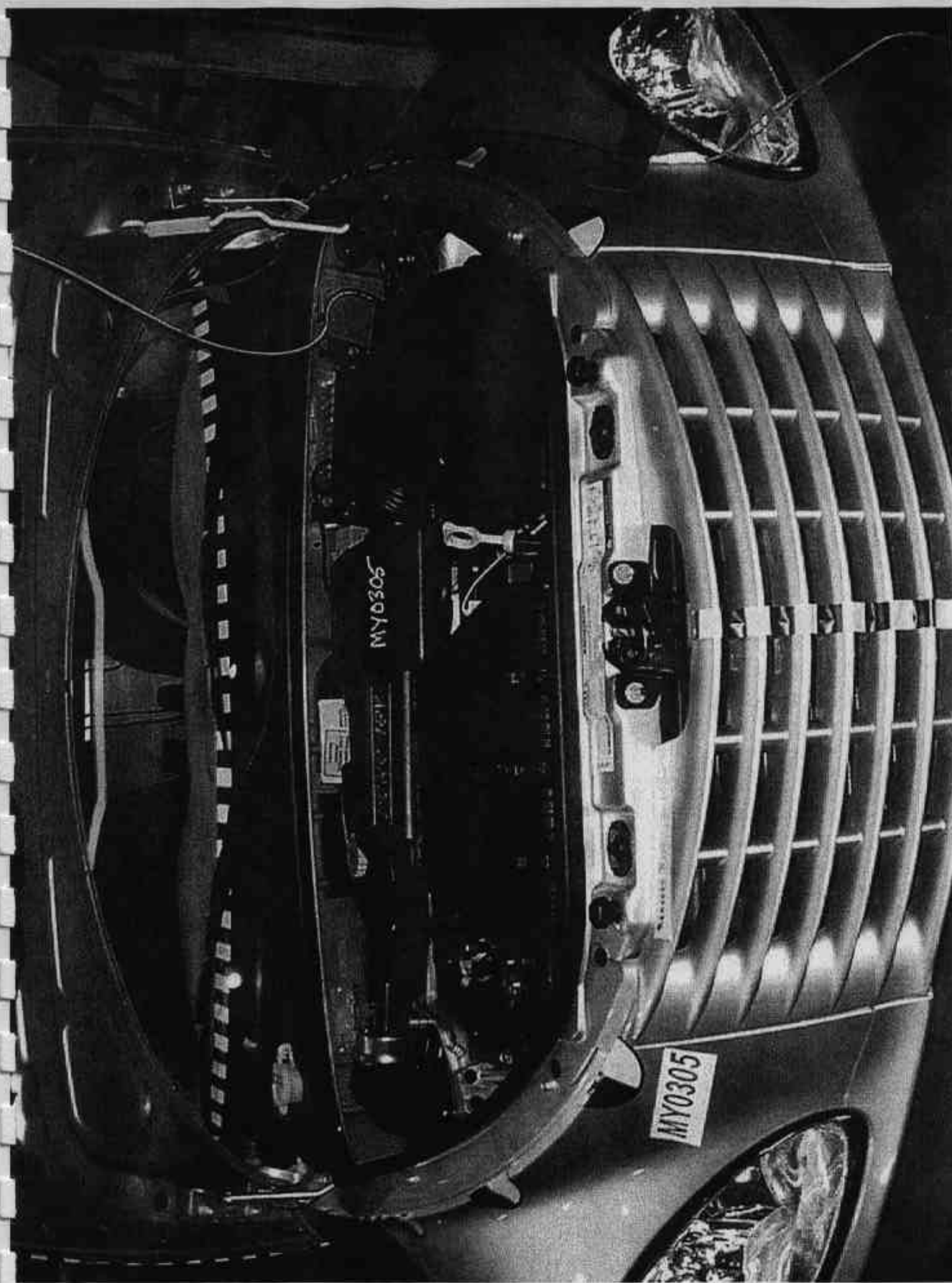


Figure A-14 PRE-TEST ENGINE COMPARTMENT VIEW

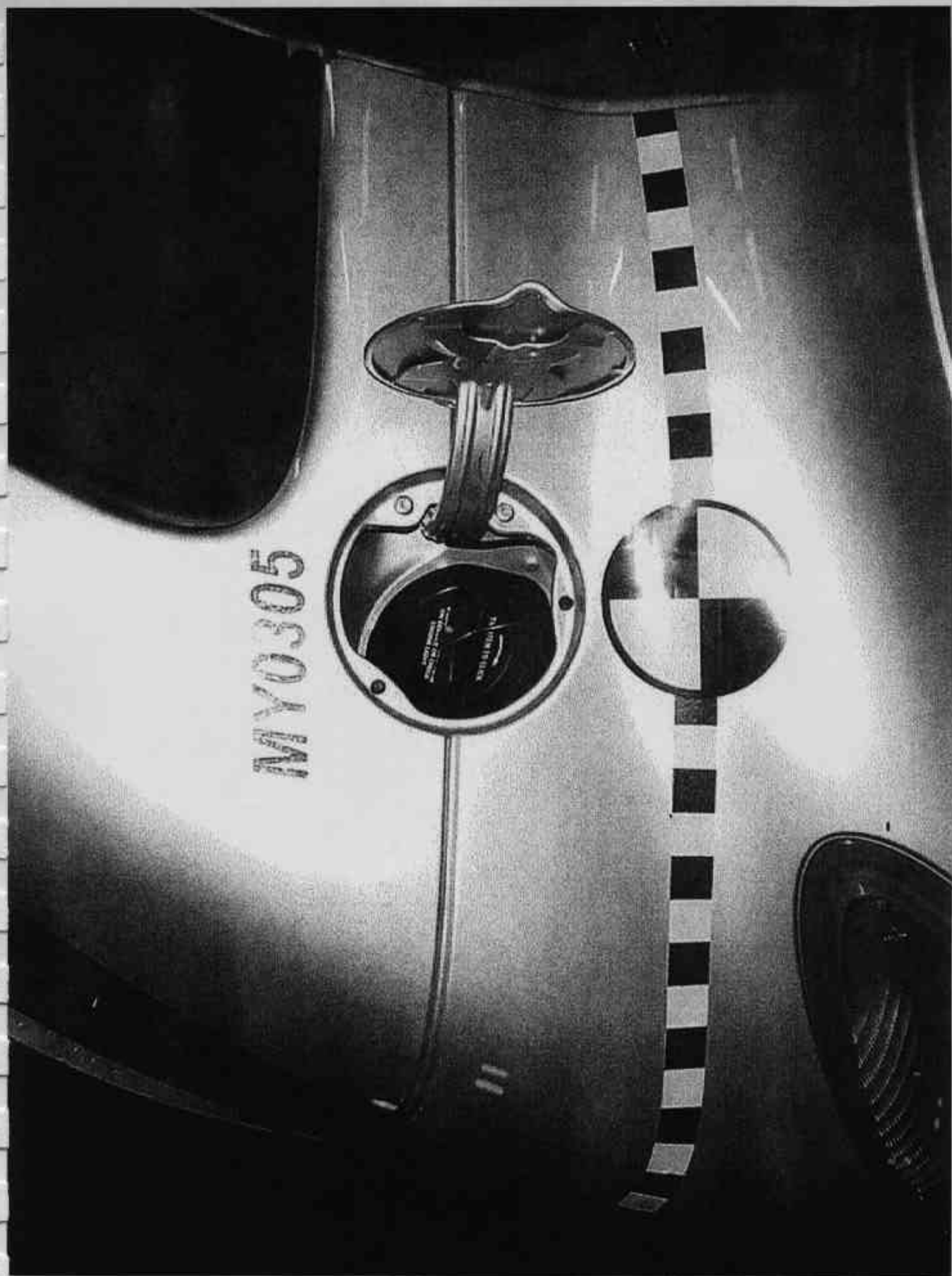


Figure A-15 FUEL CAP VIEW

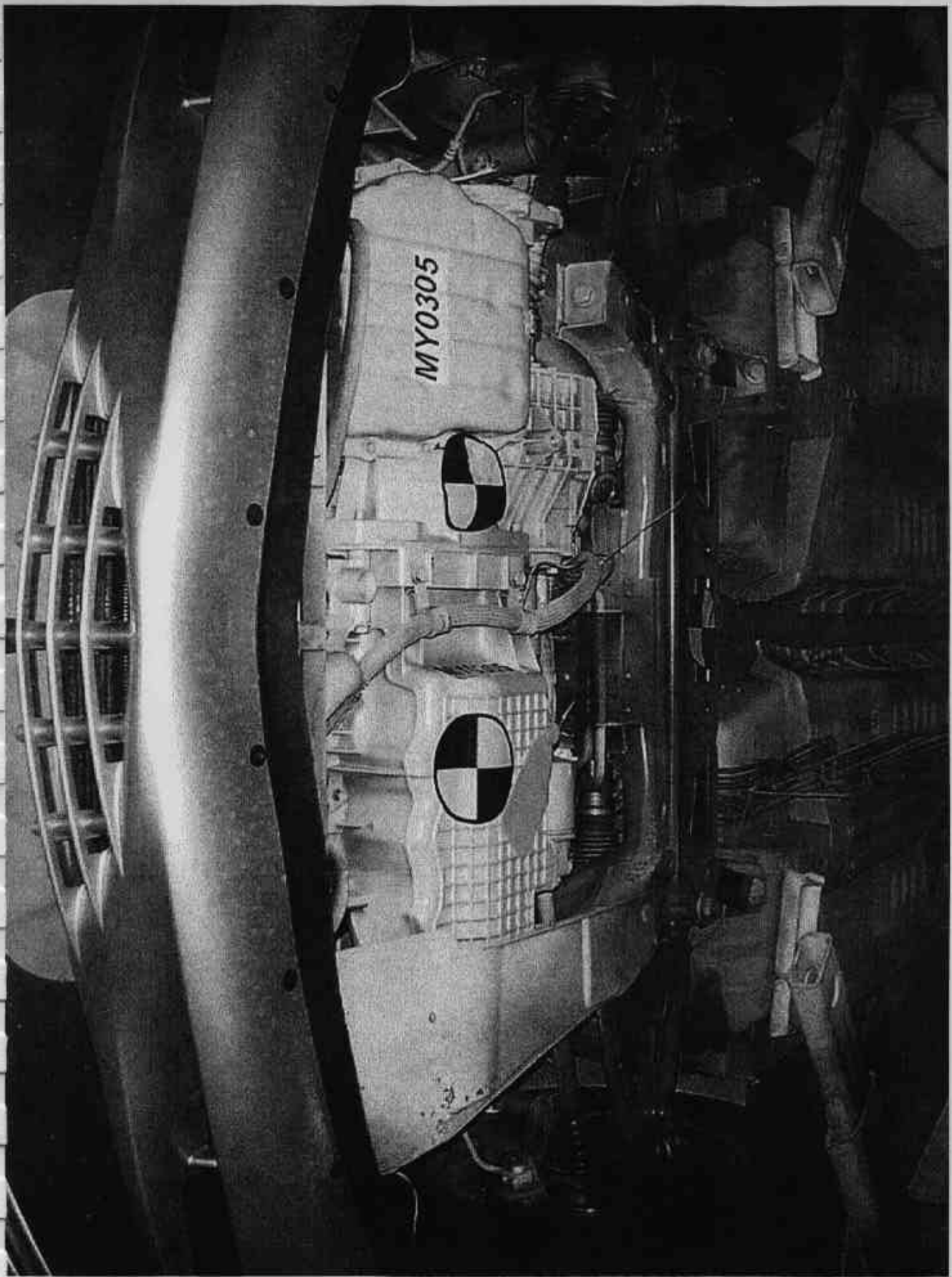


Figure A-16 PRE-TEST FRONT UNDERBODY VIEW



Figure A-17 POST-TEST FRONT UNDERBODY VIEW

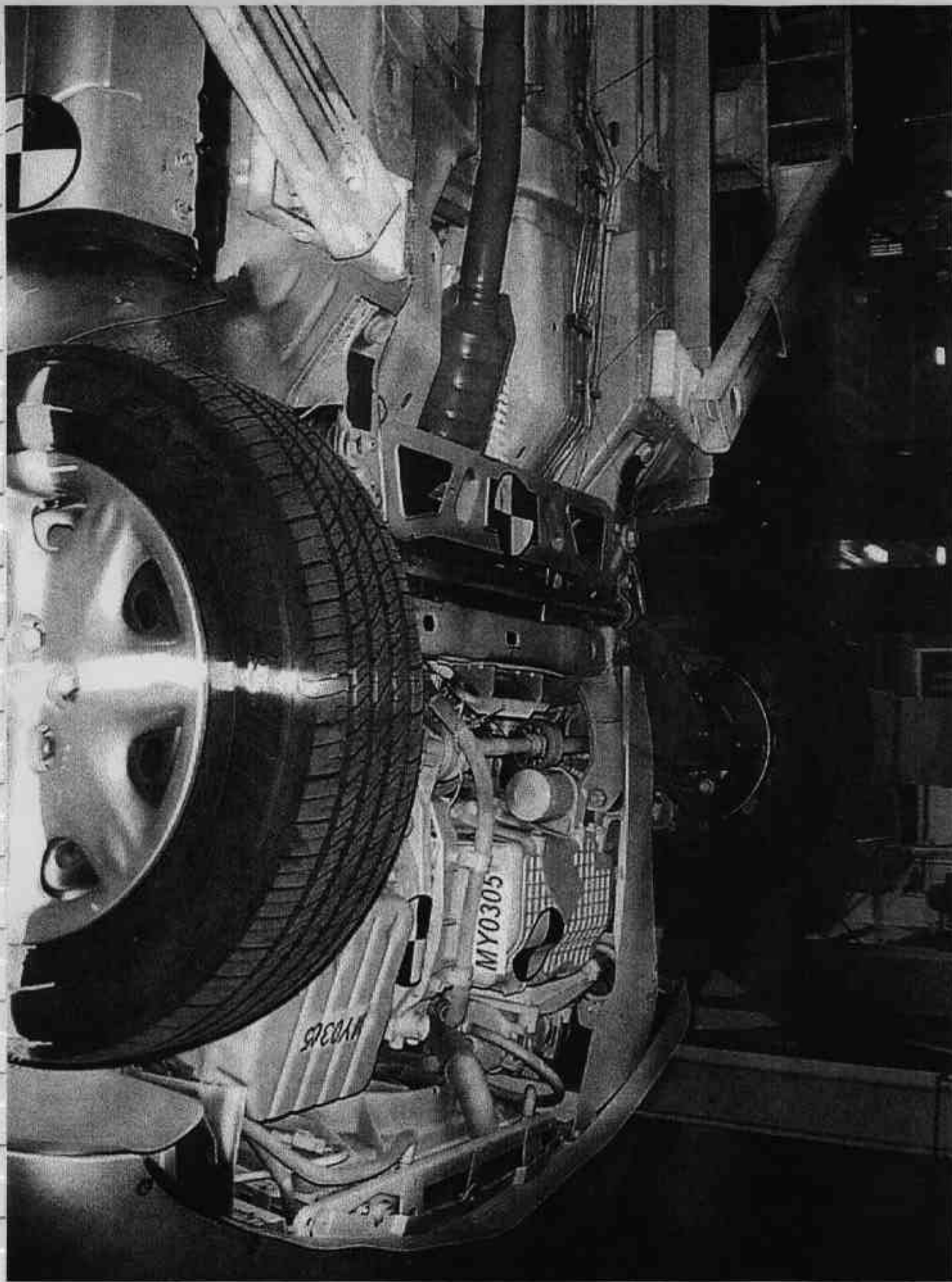


Figure A-18 PRE-TEST FRONT SIDE UNDERBODY VIEW

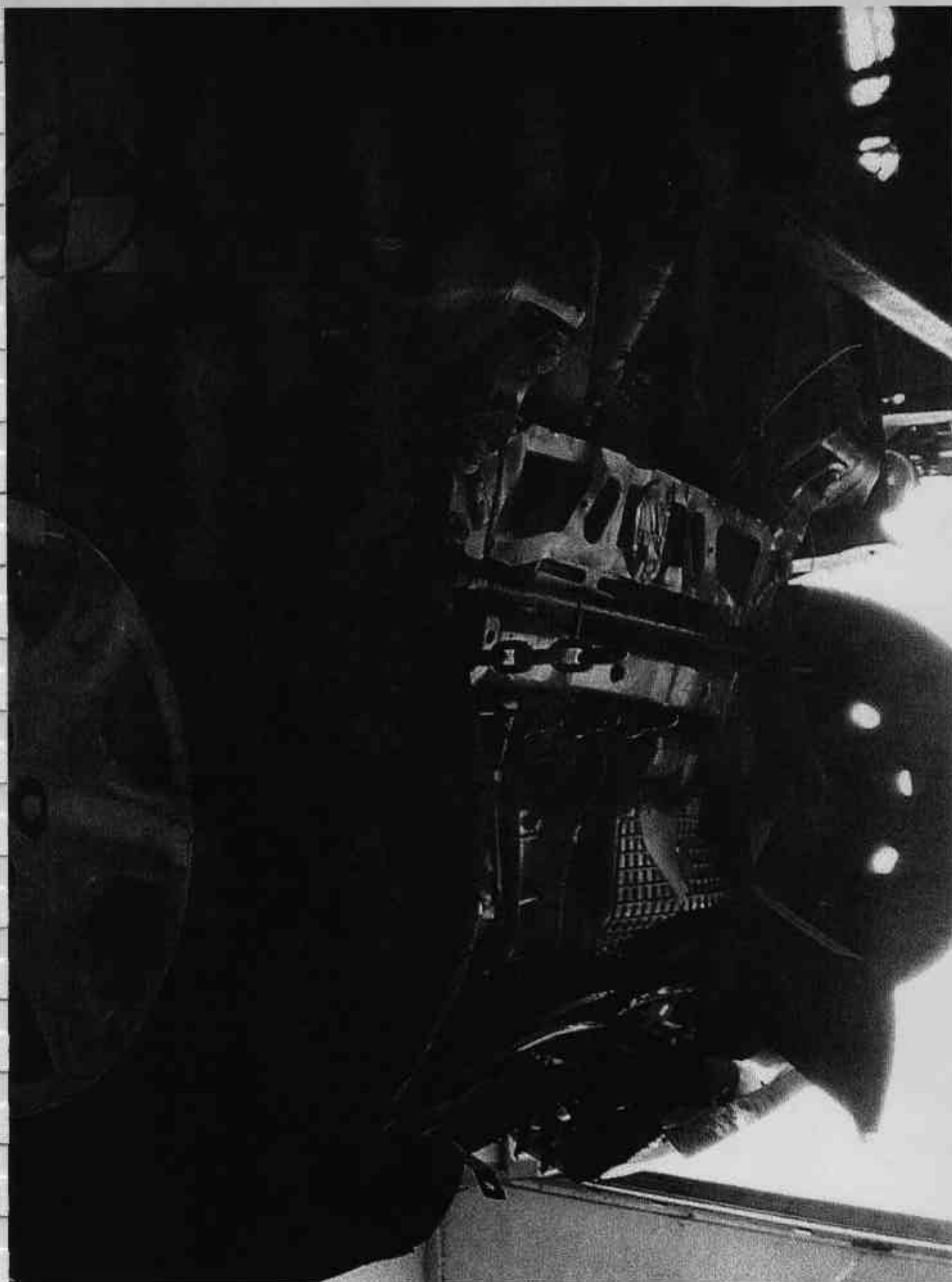


Figure A-19 POST-TEST FRONT SIDE UNDERBODY VIEW

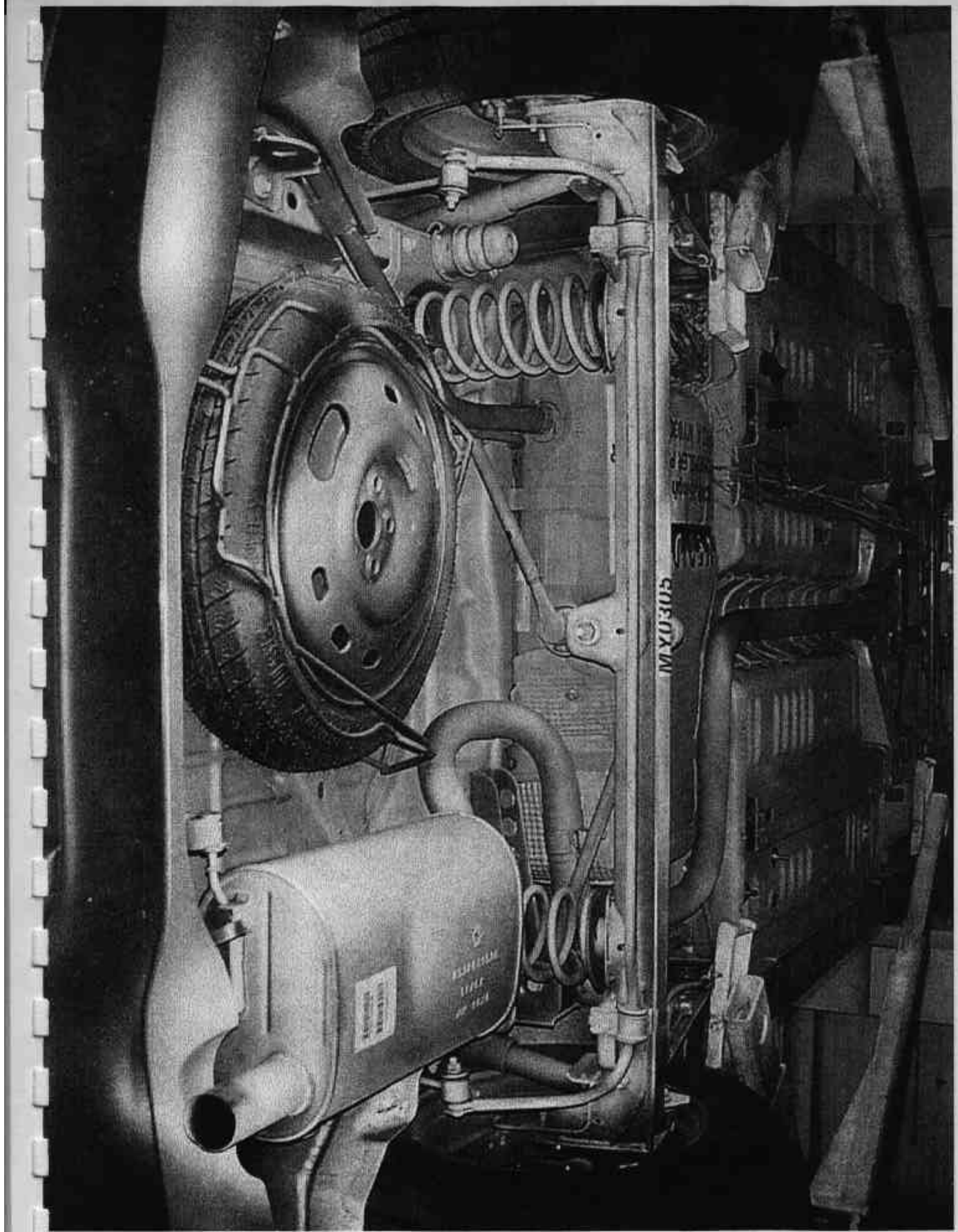


Figure A-20 PRE-TEST REAR UNDERBODY VIEW



Figure A-21 POST-TEST REAR UNDERBODY VIEW



Figure A-22 PRE-TEST DRIVER POSITION VIEW



Figure A-23 POST-TEST DRIVER POSITION VIEW



Figure A-24 PRE-TEST PASSENGER POSITION VIEW

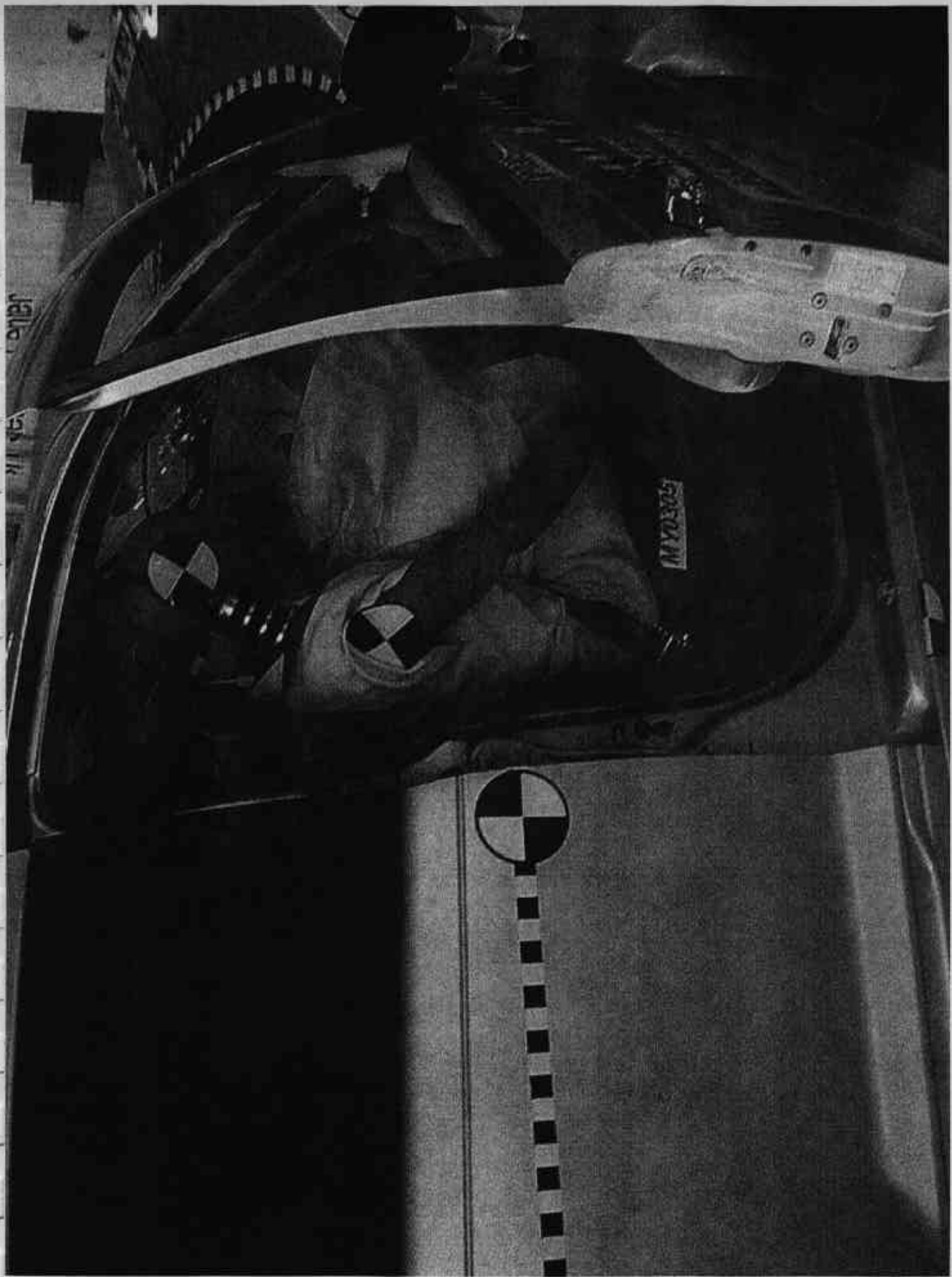


Figure A-25 POST-TEST PASSENGER POSITION VIEW

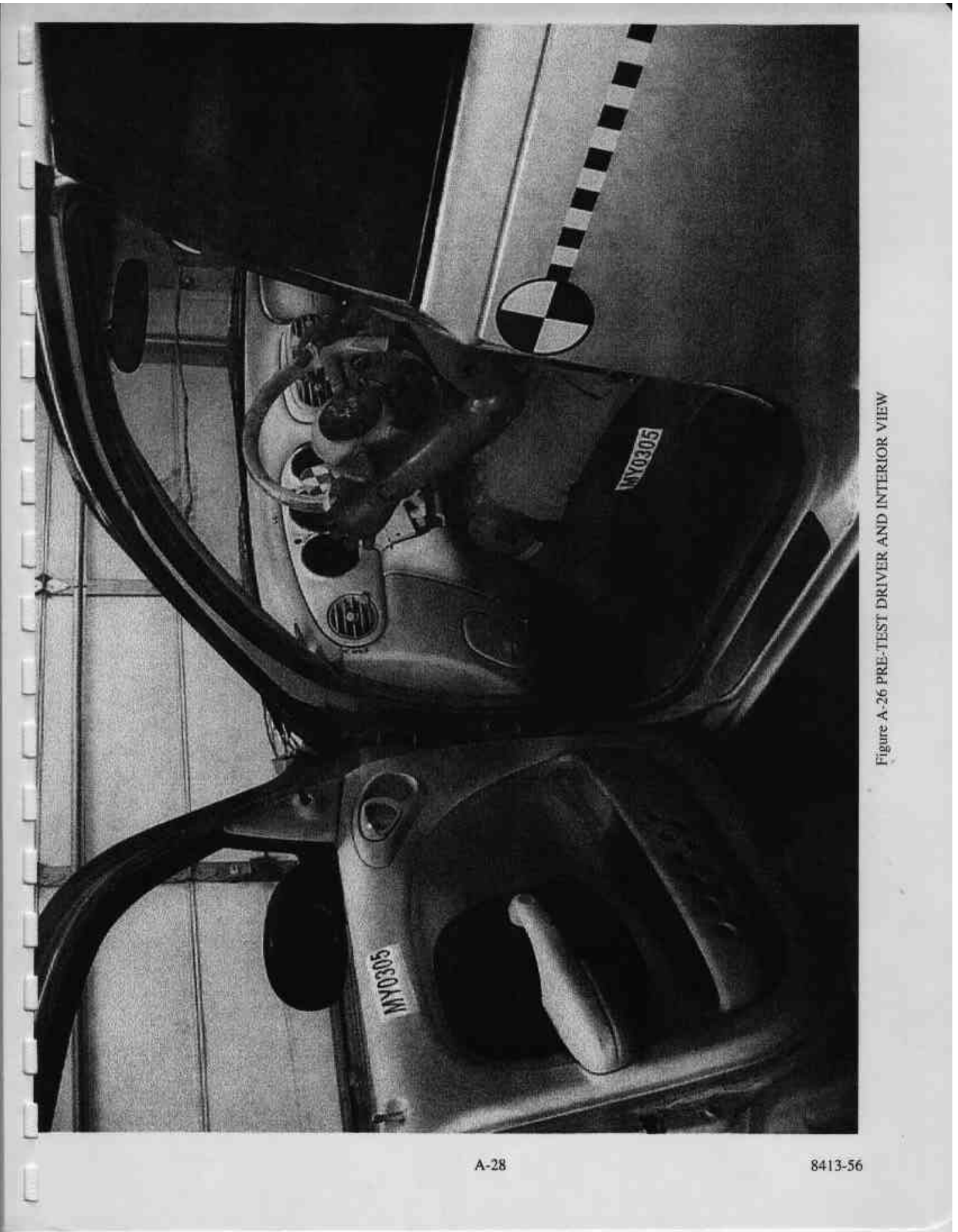


Figure A-26 PRE-TEST DRIVER AND INTERIOR VIEW



Figure A-27 POST-TEST DRIVER AND INTERIOR VIEW



Figure A-28 PRE-TEST PASSENGER AND INTERIOR VIEW

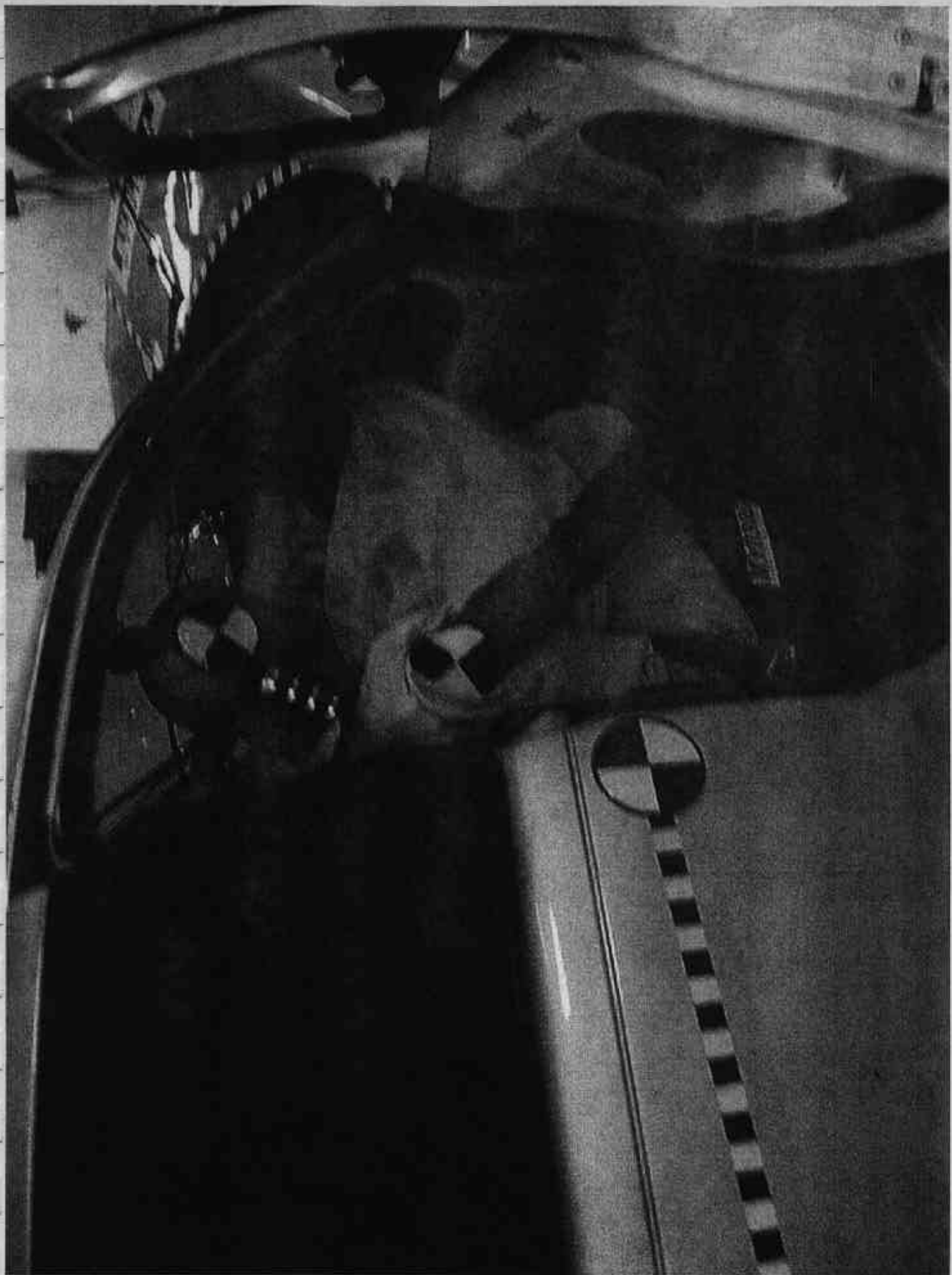


Figure A-29 POST-TEST PASSENGER AND INTERIOR VIEW

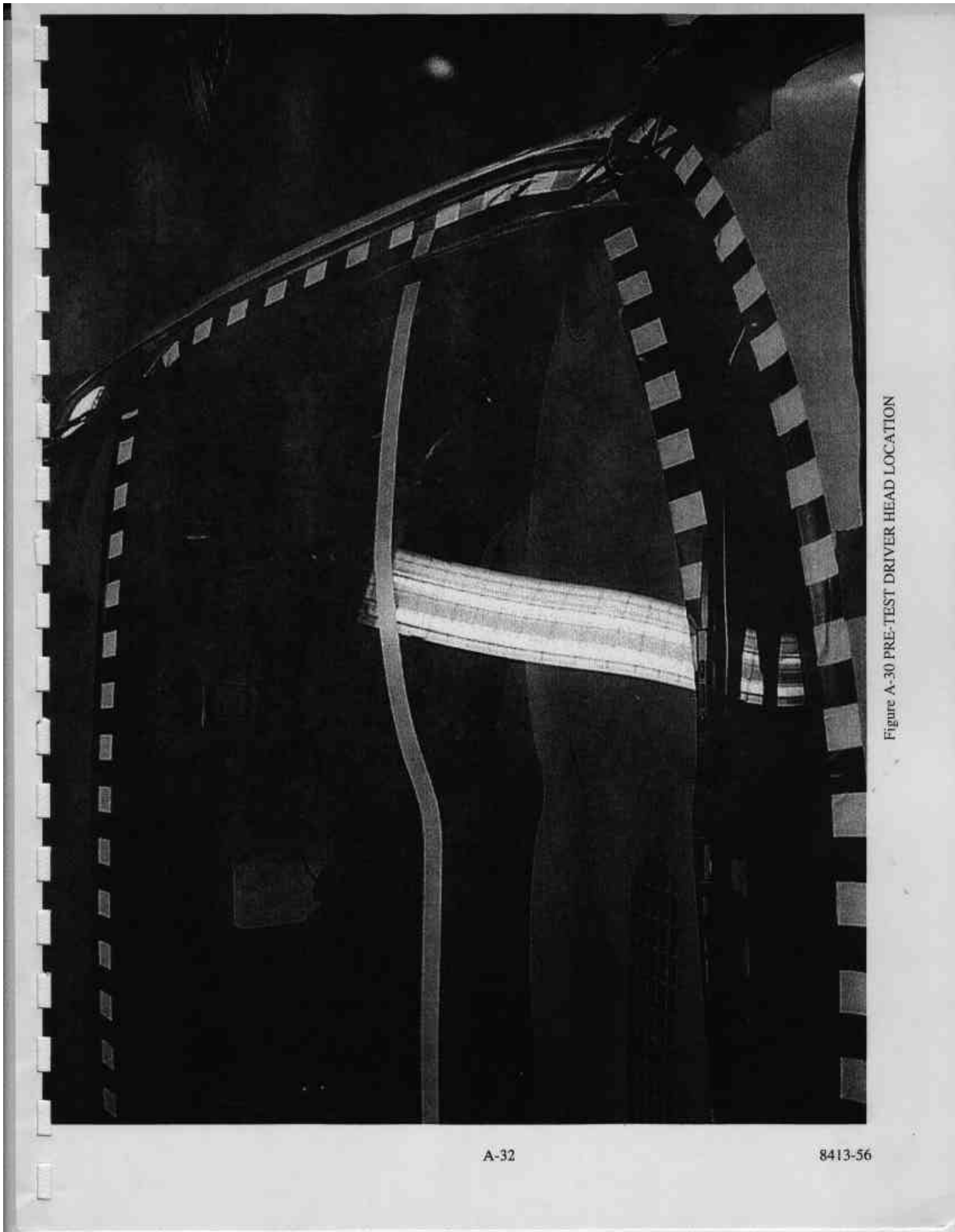


Figure A-30 PRE-TEST DRIVER HEAD LOCATION



Figure A-31 POST-TEST DRIVER HEAD LOCATION

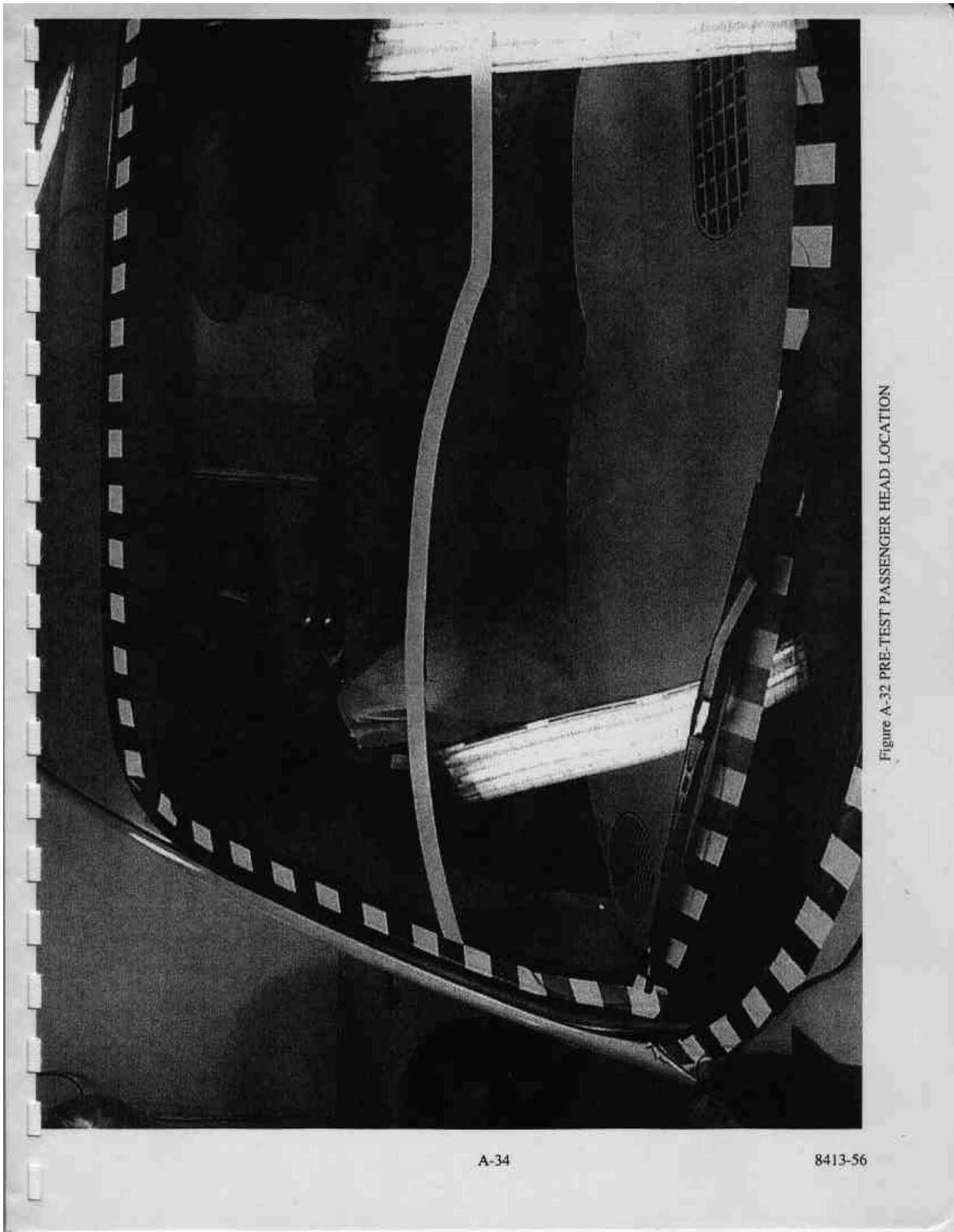


Figure A-32 PRE-TEST PASSENGER HEAD LOCATION

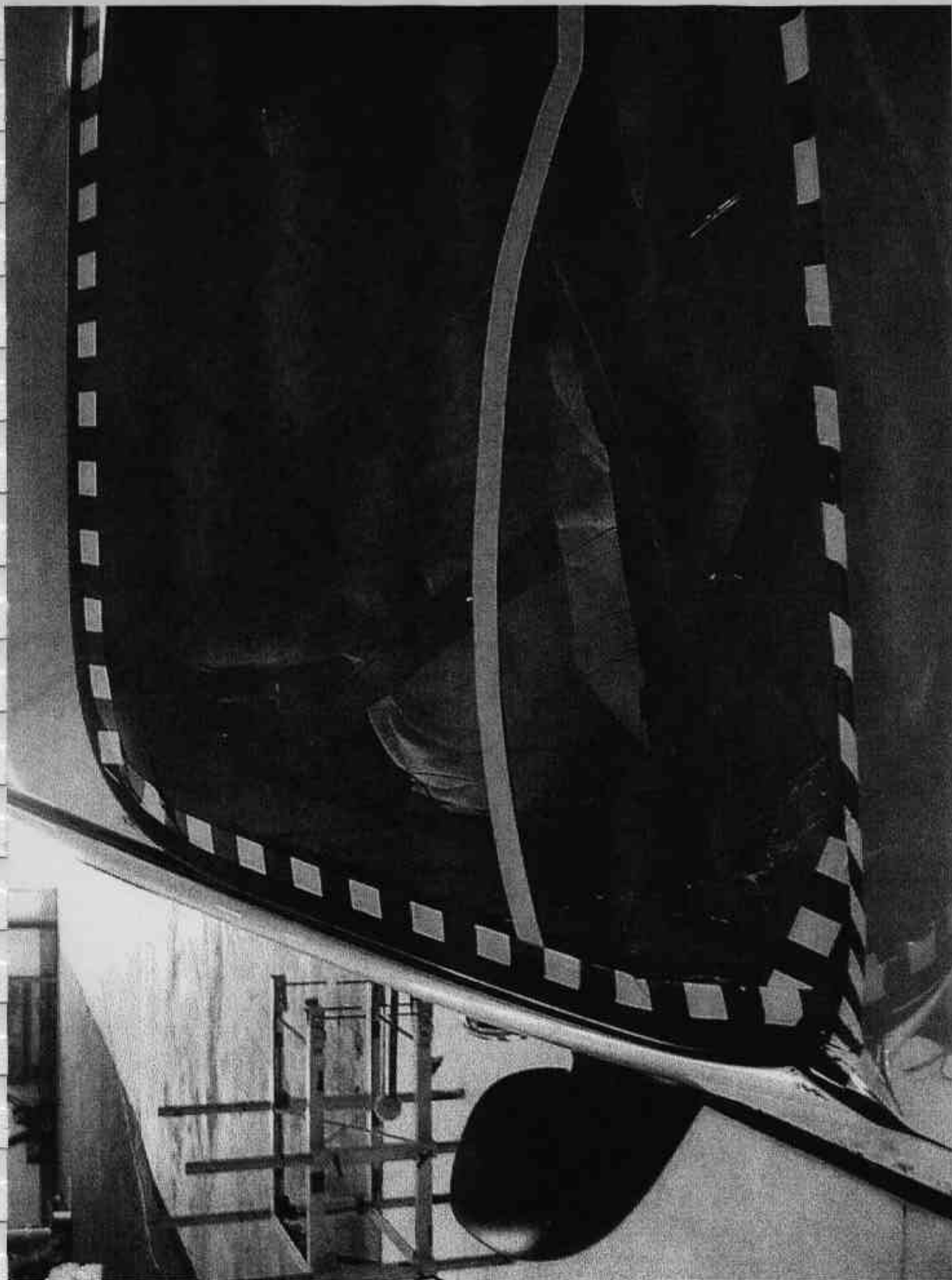


Figure A-33 POST-TEST PASSENGER HEAD LOCATION



Figure A-34 PRE-TEST DRIVER FLOOR PAN VIEW

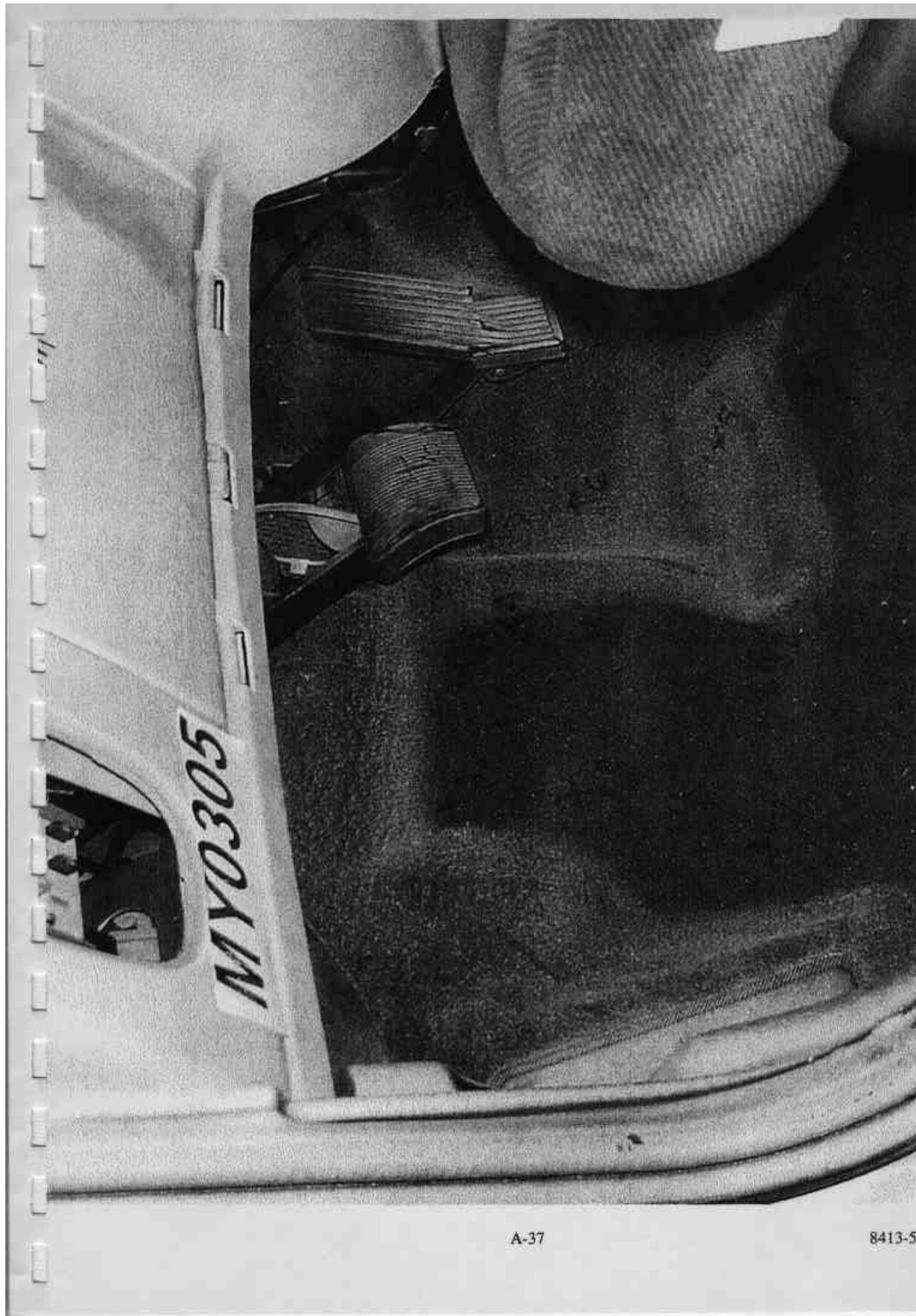


Figure A-35 POST-TEST DRIVER FLOOR PAN VIEW

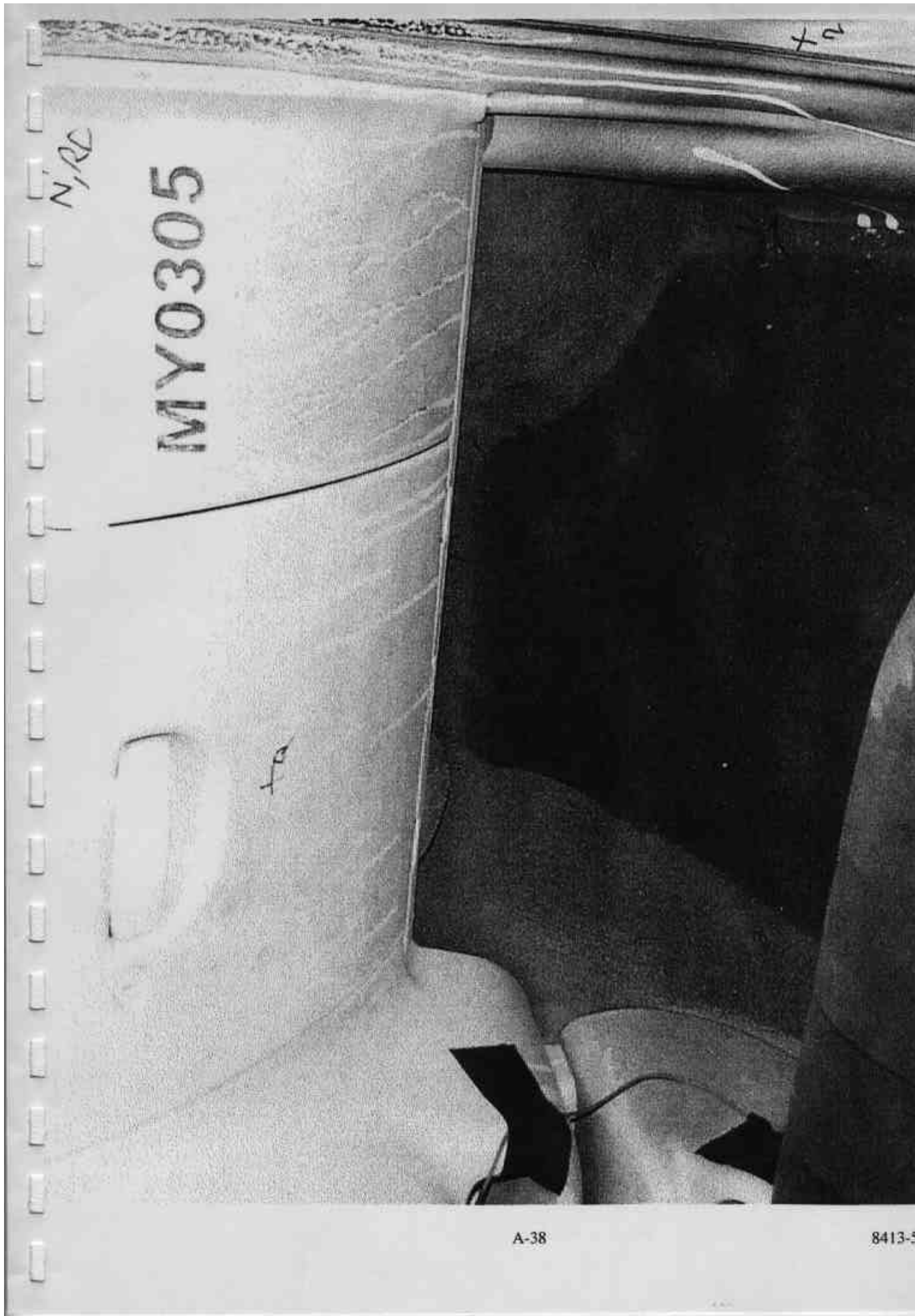


Figure A-36 PRE-TEST PASSENGER FLOOR PAN VIEW

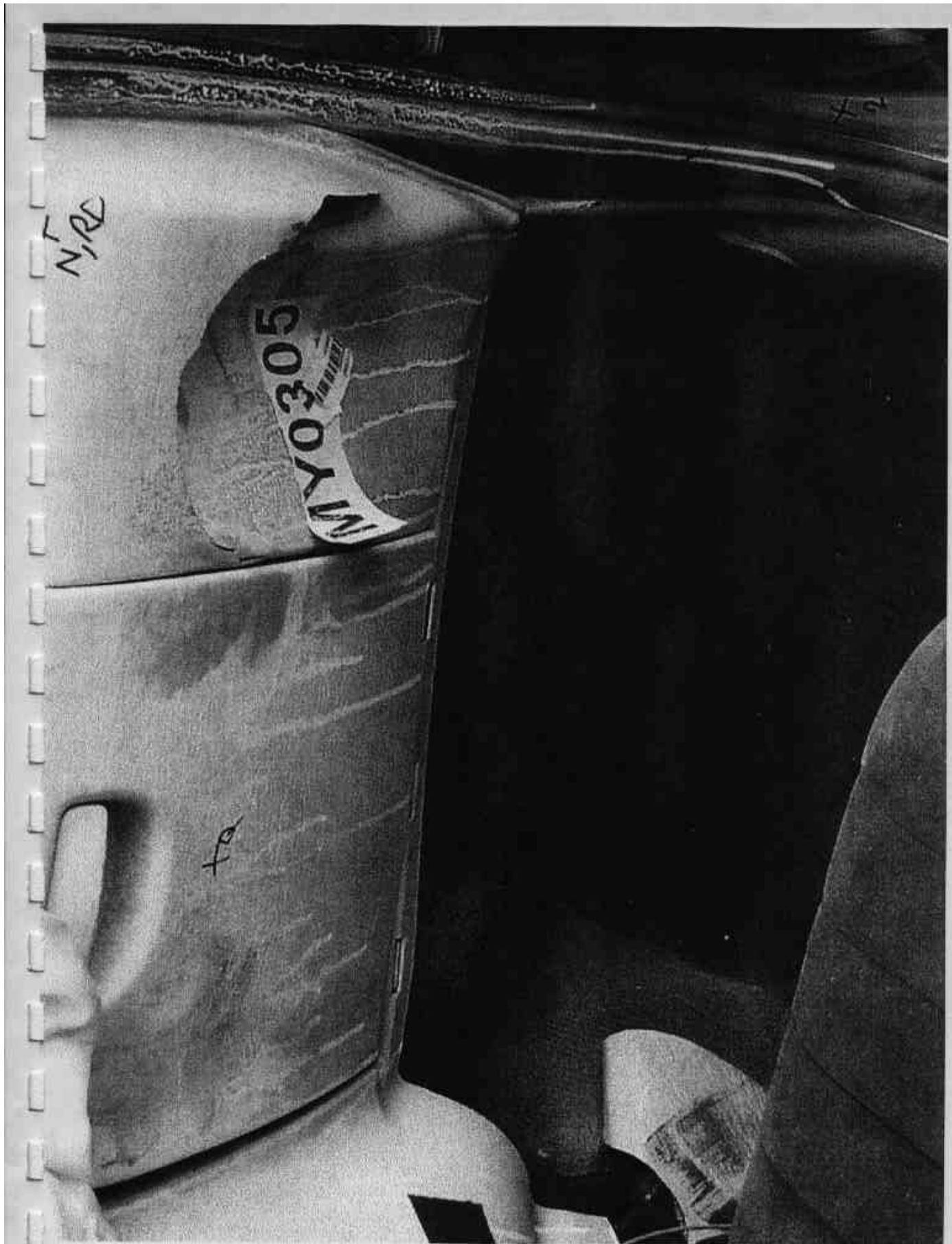


Figure A-37 POST-TEST PASSENGER FLOOR PAN VIEW

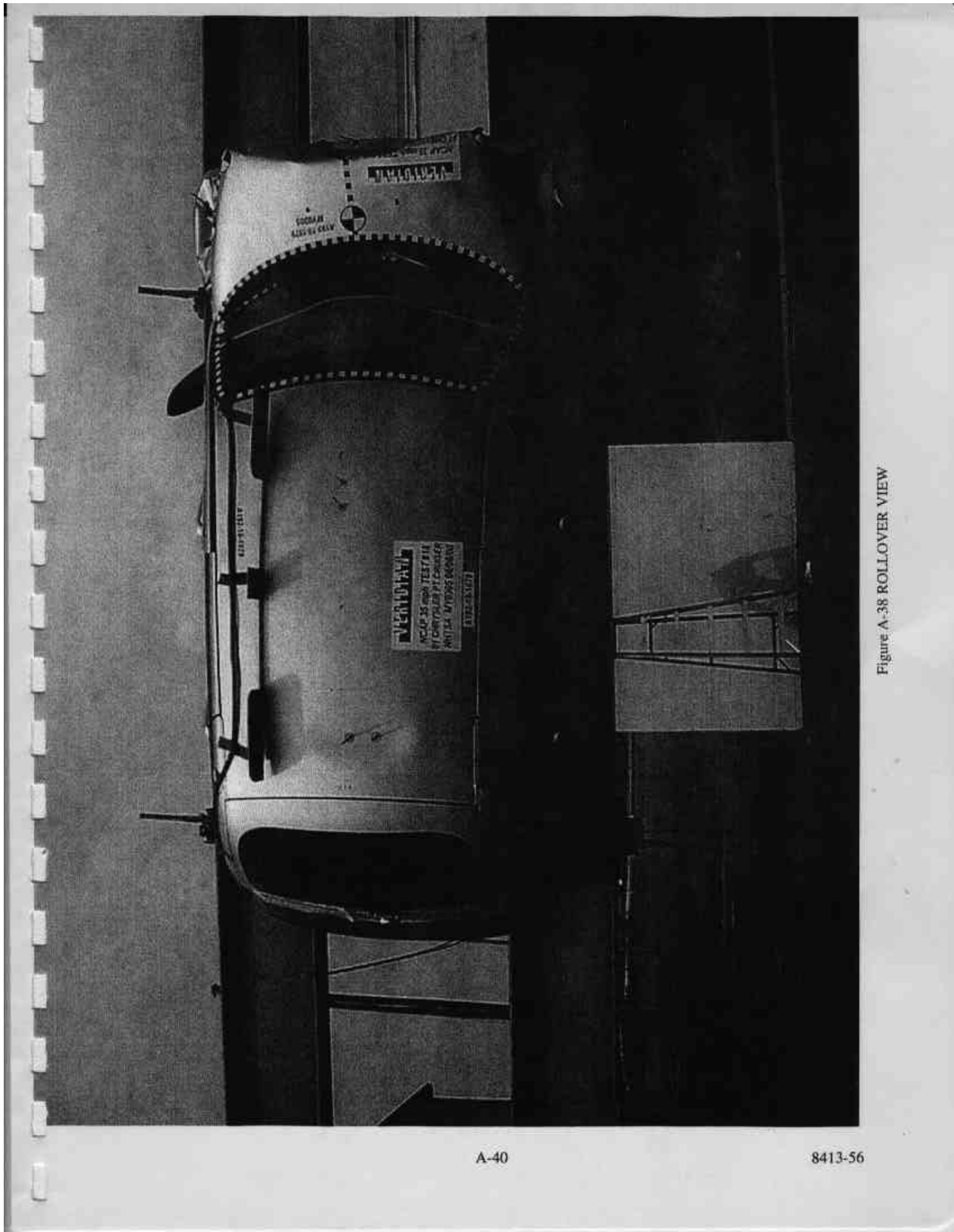


Figure A-38 ROLLOVER VIEW



Figure A-39 IMPACT VIEW

APPENDIX B

DUMMY, VEHICLE AND LOAD CELL BARRIER RESPONSE DATA

DATA CHANNEL FILTER CLASS SUMMARY

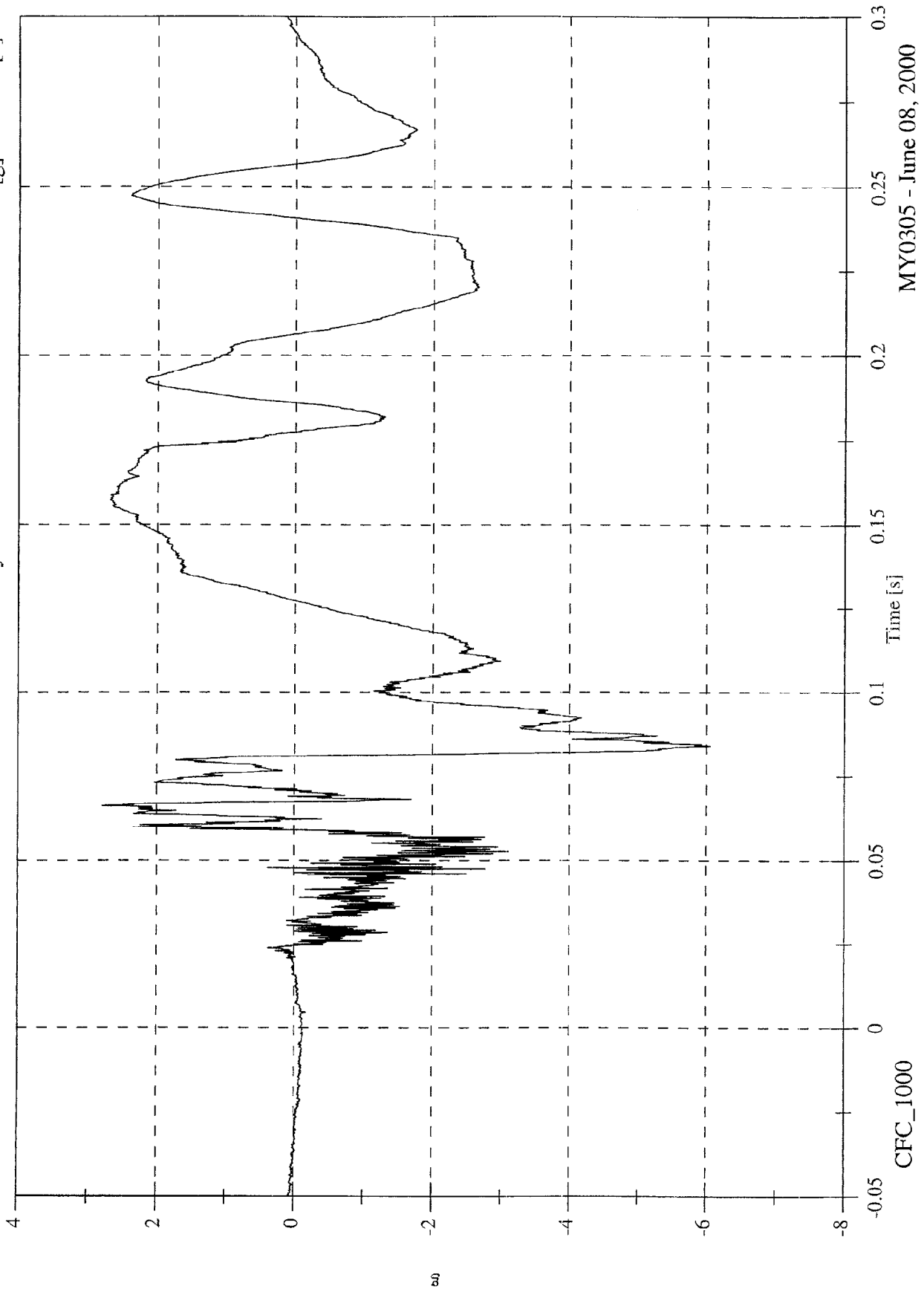
NHTSA TEST NO. MY0305

DATA TYPE	SAE FILTER CLASS (Hz)
Dummy Head Accelerations	1000
Dummy Chest Accelerations	180
Dummy Chest Displacements	60
Dummy Femur Forces	600
Dummy Belt Loads	60
Dummy Belt Displacements	180
Dummy Neck Forces	1000
Dummy Neck Moments	600
Vehicle Accelerations	60
Vehicle Velocity Integrations	180
Vehicle Displacement Integrations	180
Load Cell Barrier Forces	60

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 2.8 [g] at 0.066 [s]
Min: -6.1 [g] at 0.084 [s]

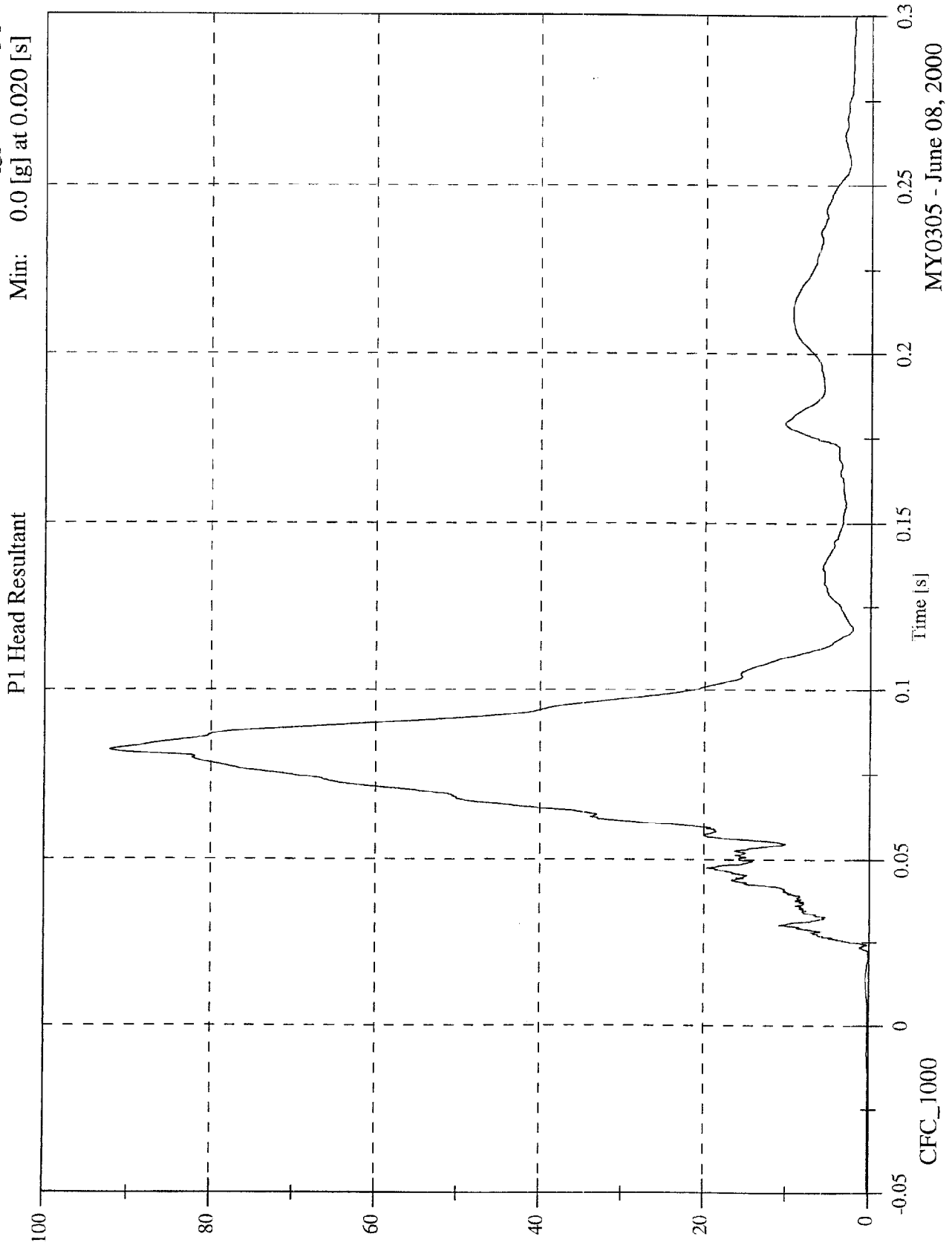
P1 Head y



MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

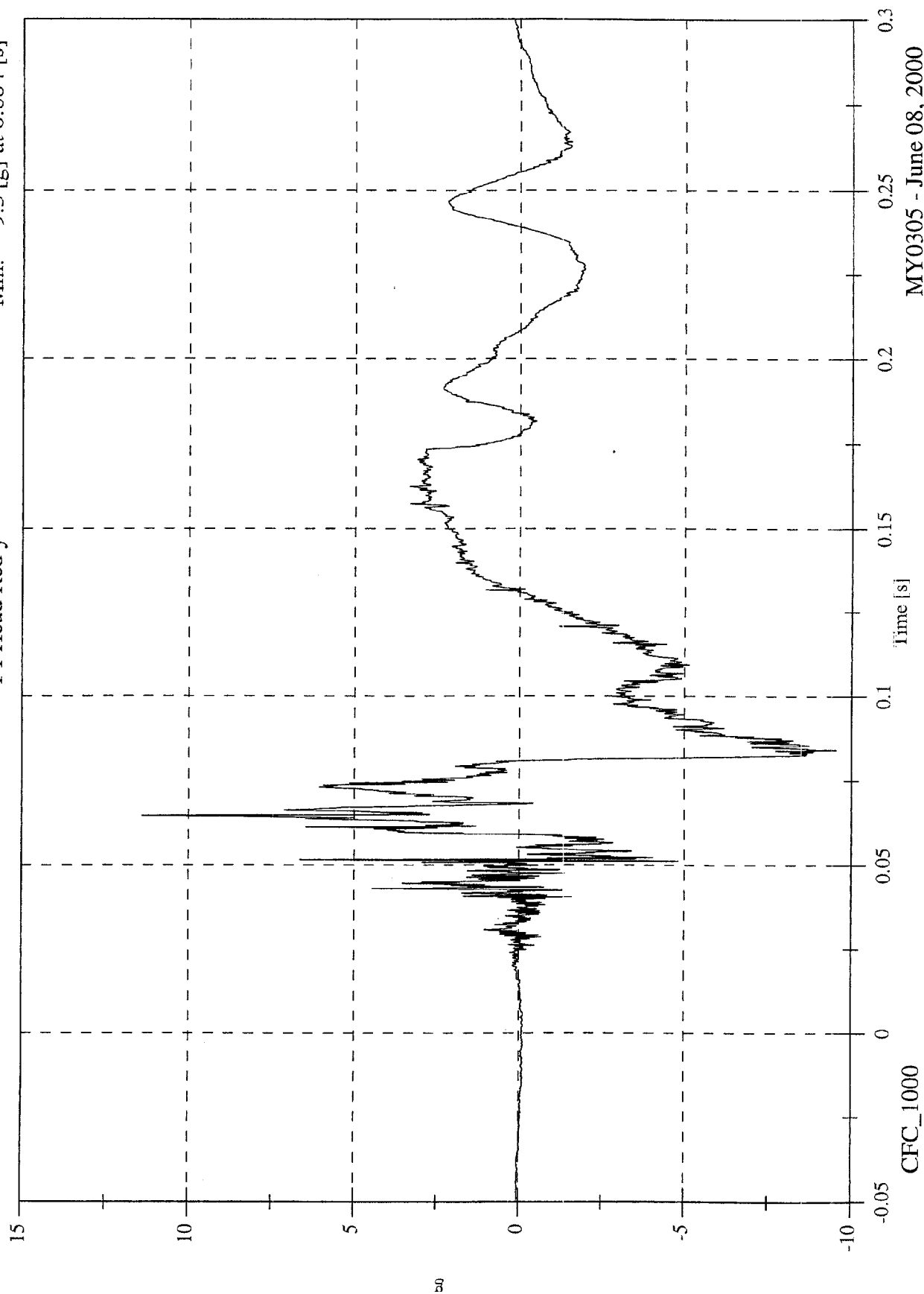
Max: 92.2 [g] at 0.082 [s]
Min: 0.0 [g] at 0.020 [s]



NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 11.4 [g] at 0.065 [s]
Min: -9.5 [g] at 0.084 [s]

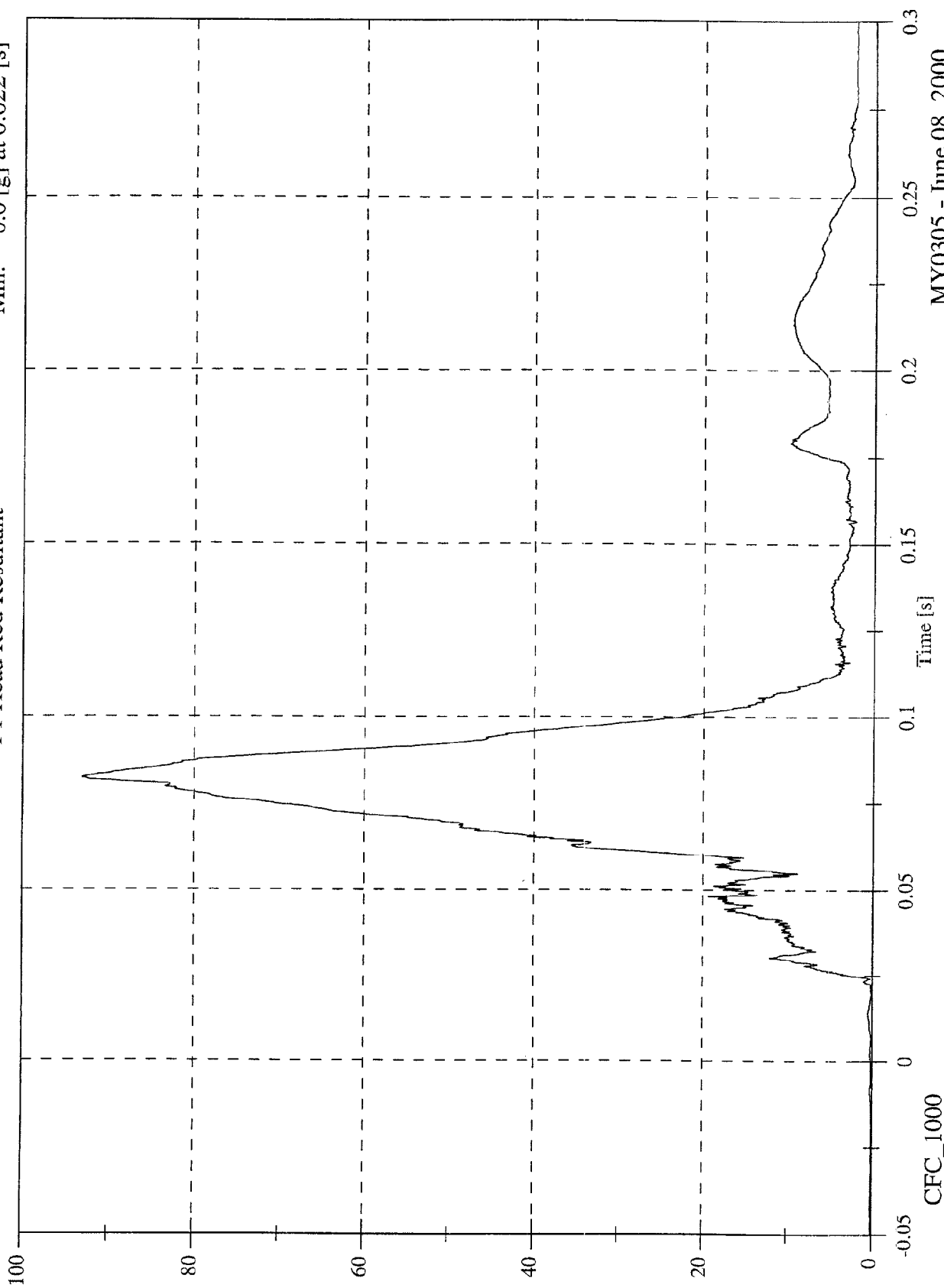
P1 Head Red y



NCAP Test # 18 - 2001 Chrysler PT Cruiser

P1 Head Red Resultant

Max: 93.0 [g] at 0.082 [s]
Min: 0.0 [g] at 0.022 [s]

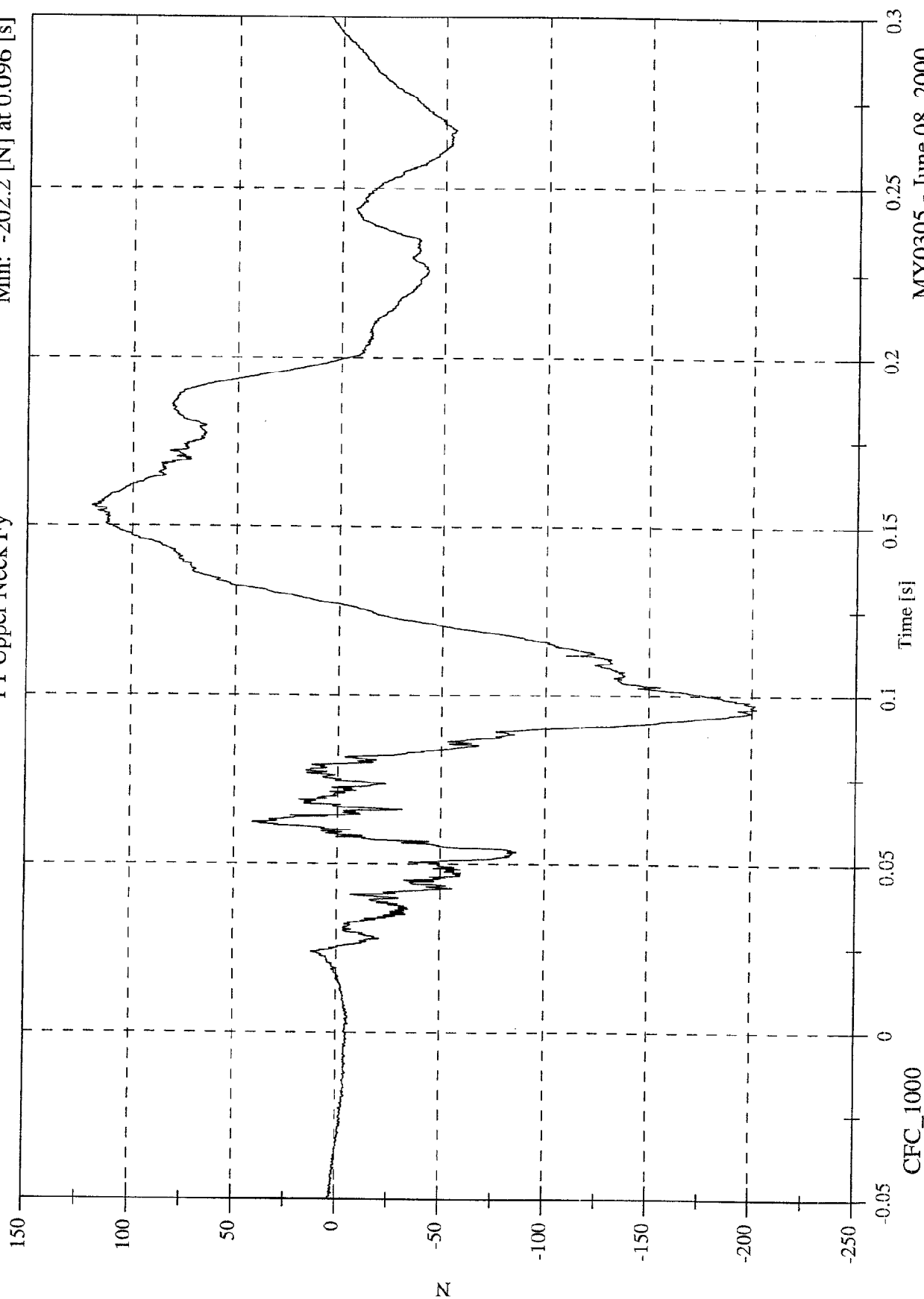


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

P1 Upper Neck Fy

Max: 119.4 [N] at 0.156 [s]
Min: -202.2 [N] at 0.096 [s]

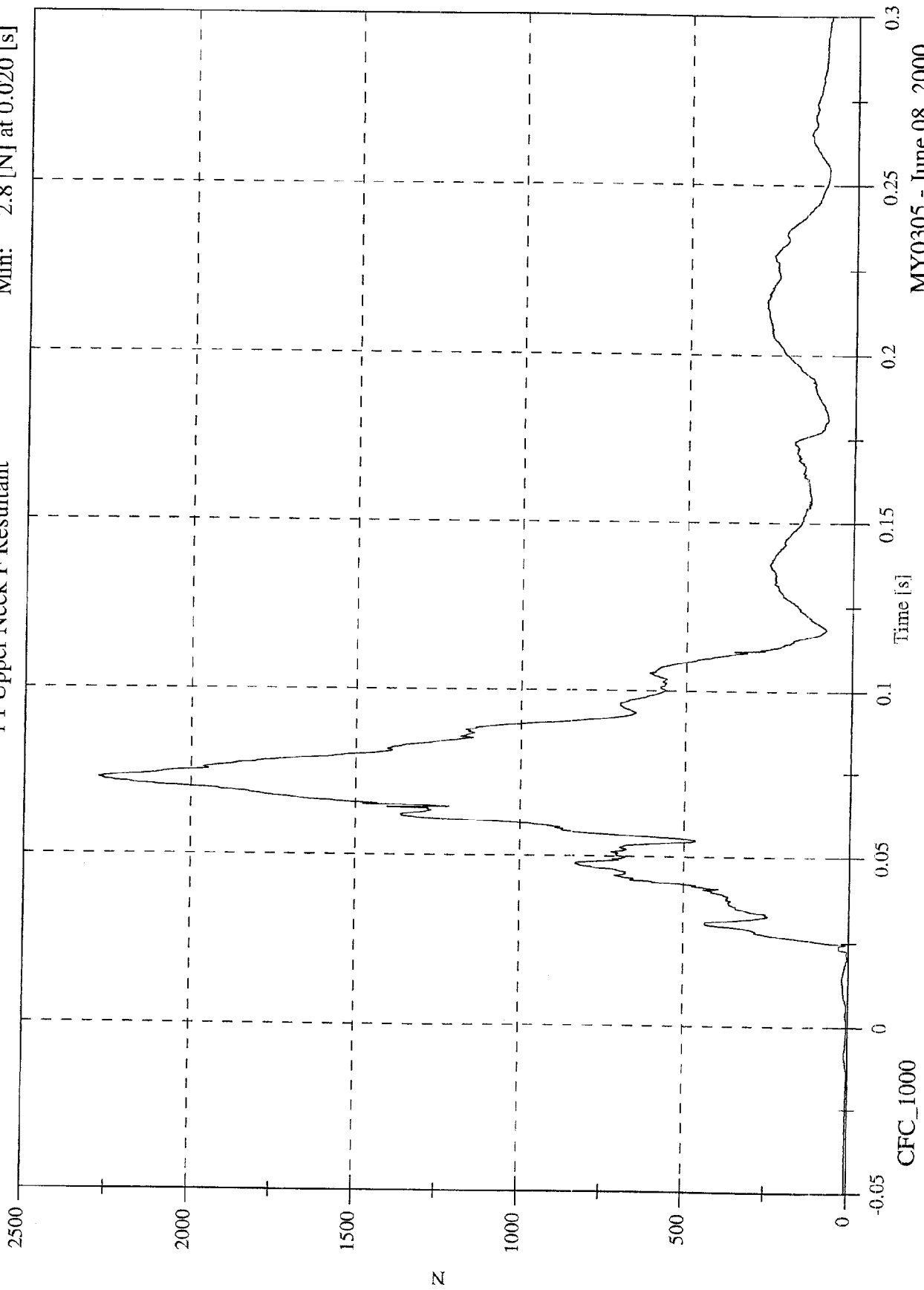


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler P1' Cruiser

Max: 2277.6 [N] at 0.073 [s]
Min: 2.8 [N] at 0.020 [s]

P1 Upper Neck F Resultant

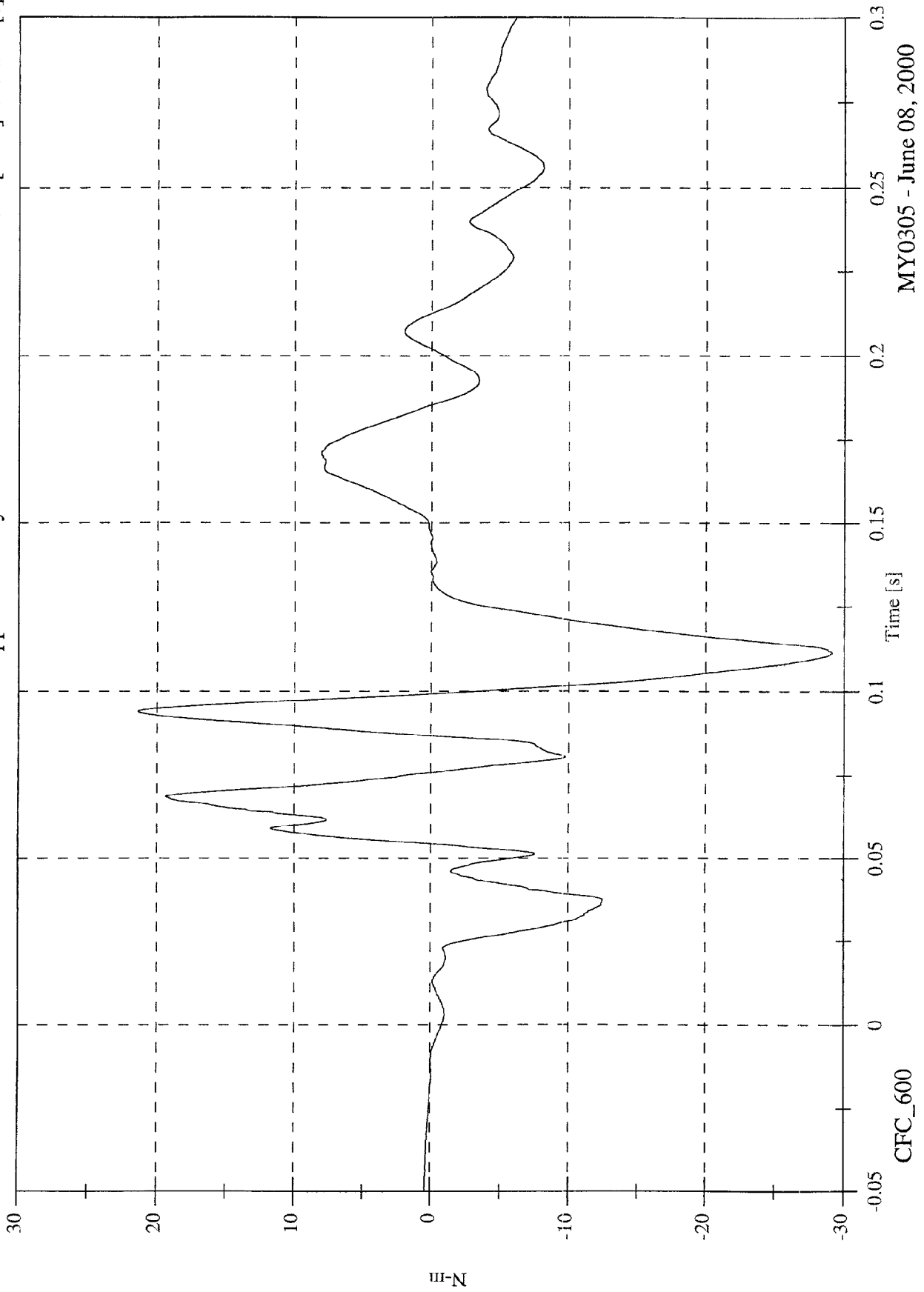


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

P1 Upper Neck My

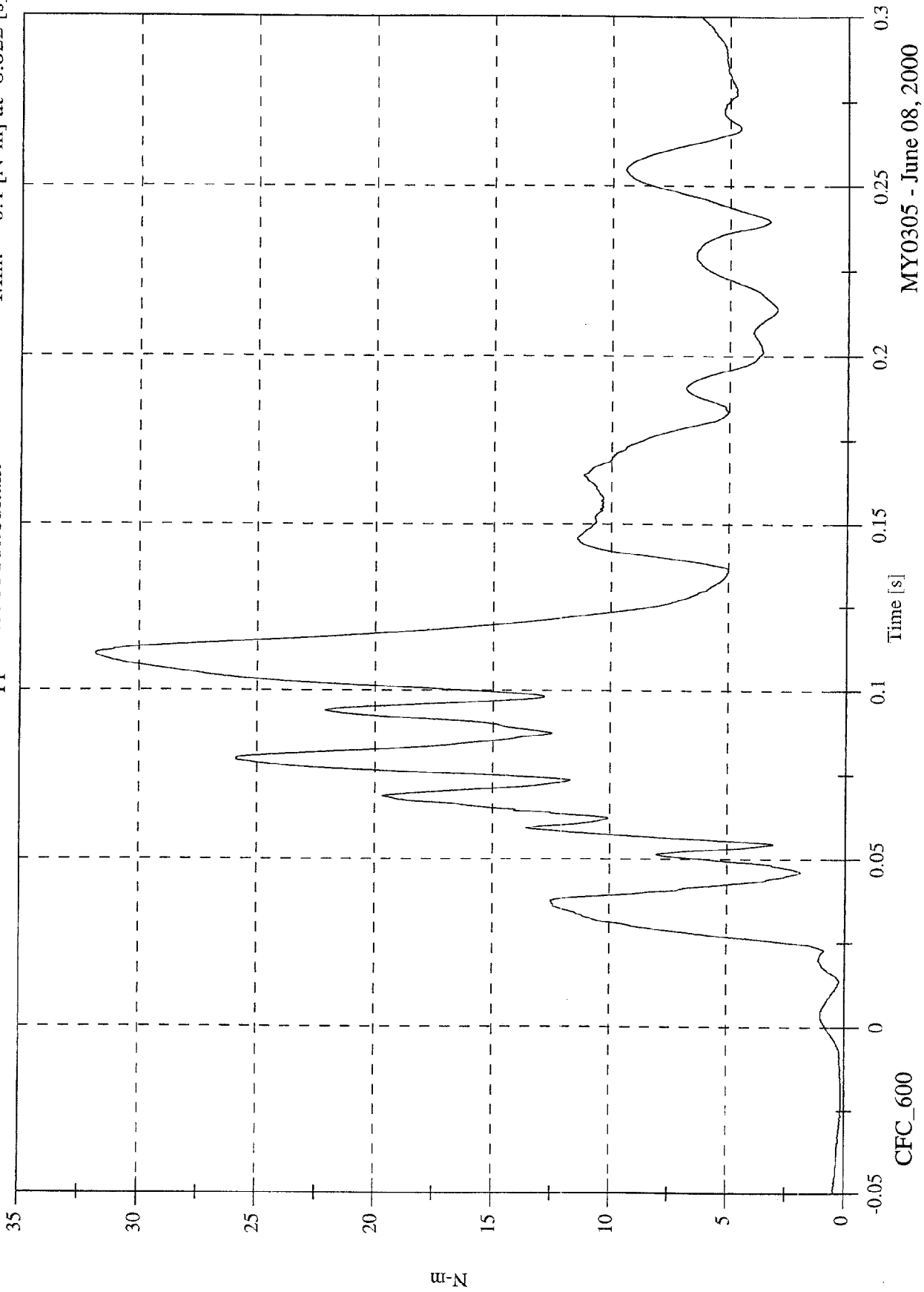
Max: 21.4 [N-m] at 0.094 [s]
Min: -29.1 [N-m] at 0.111 [s]



NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 31.8 [N-m] at 0.111 [s]
 Min: 0.1 [N-m] at -0.022 [s]

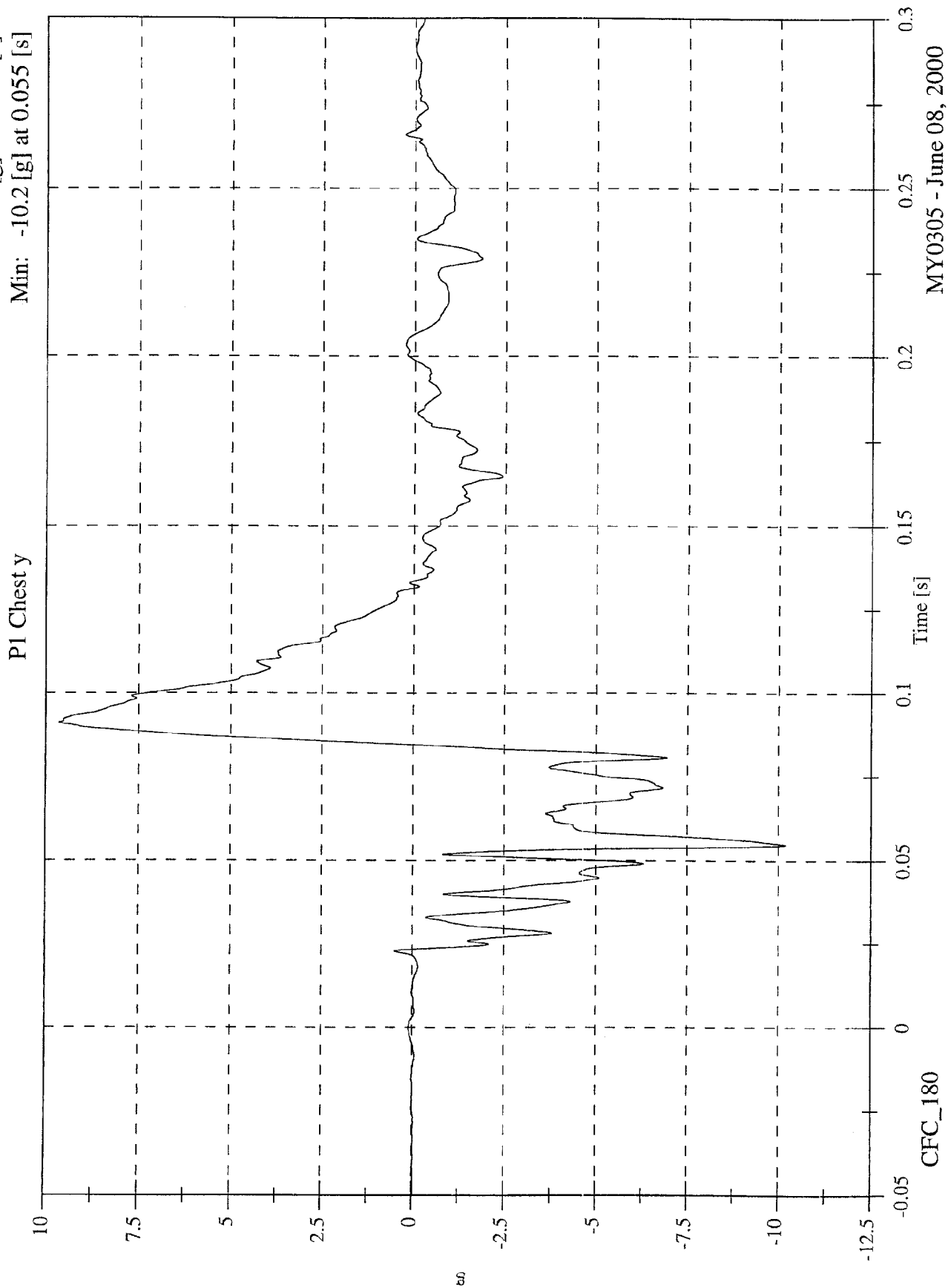
P1 Upper Neck M Resultant



MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 9.6 [g] at 0.091 [s]
 Min: -10.2 [g] at 0.055 [s]

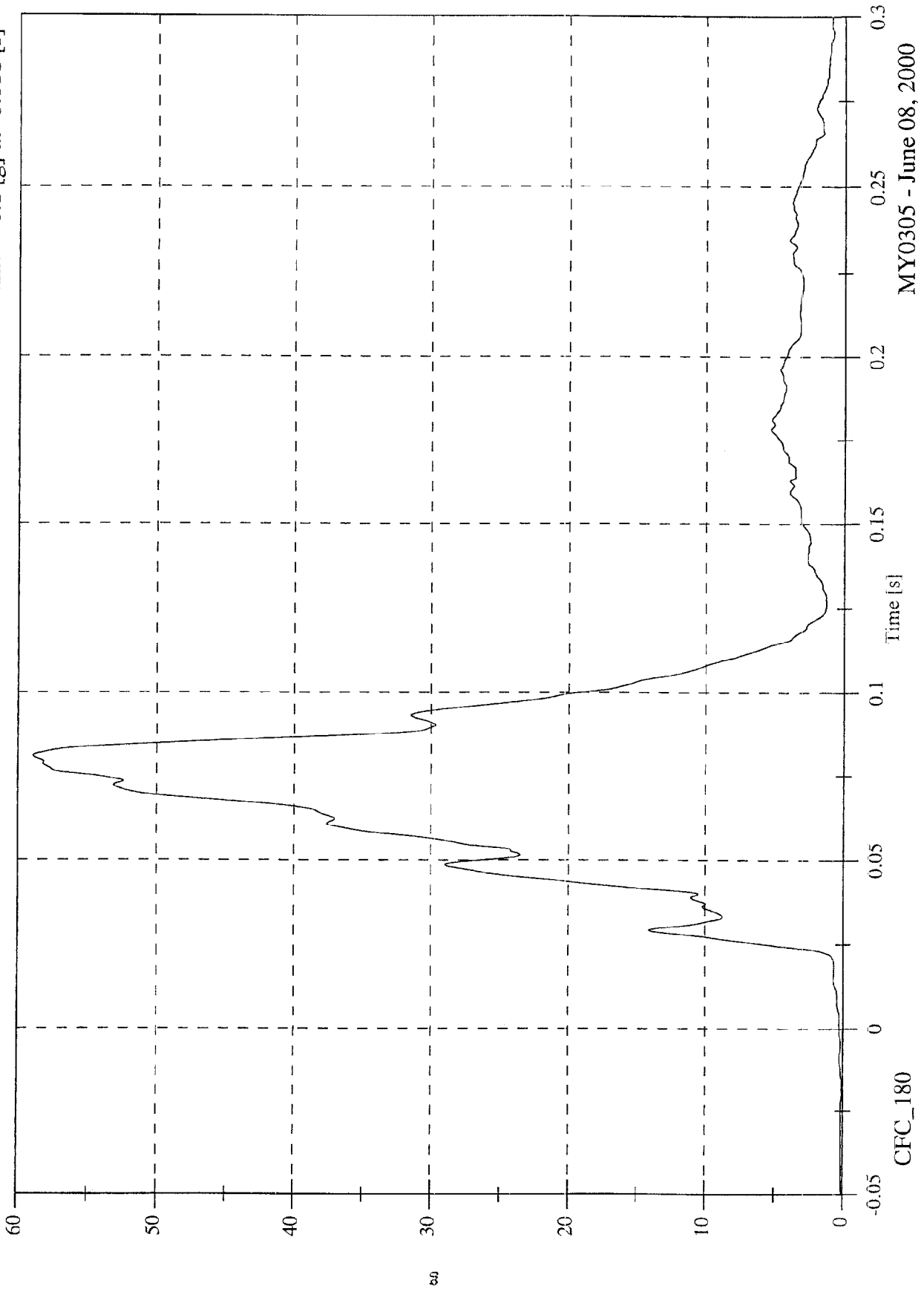


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

P1 Chest Resultant

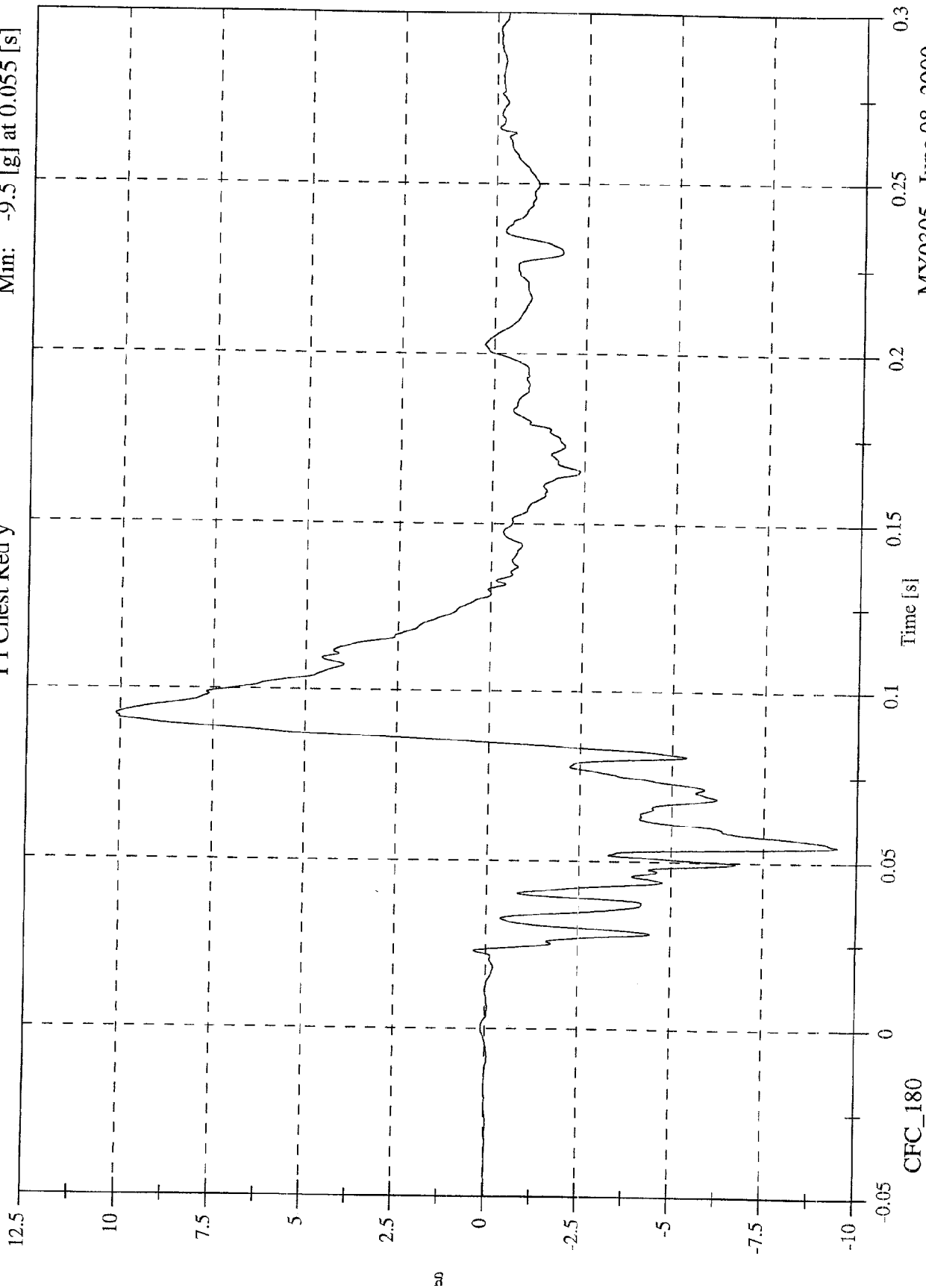
Max: 58.9 [g] at 0.081 [s]
Min: 0.1 [g] at -0.018 [s]



NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 10.1 [g] at 0.092 [s]
Min: -9.5 [g] at 0.055 [s]

P1 Chest Red y

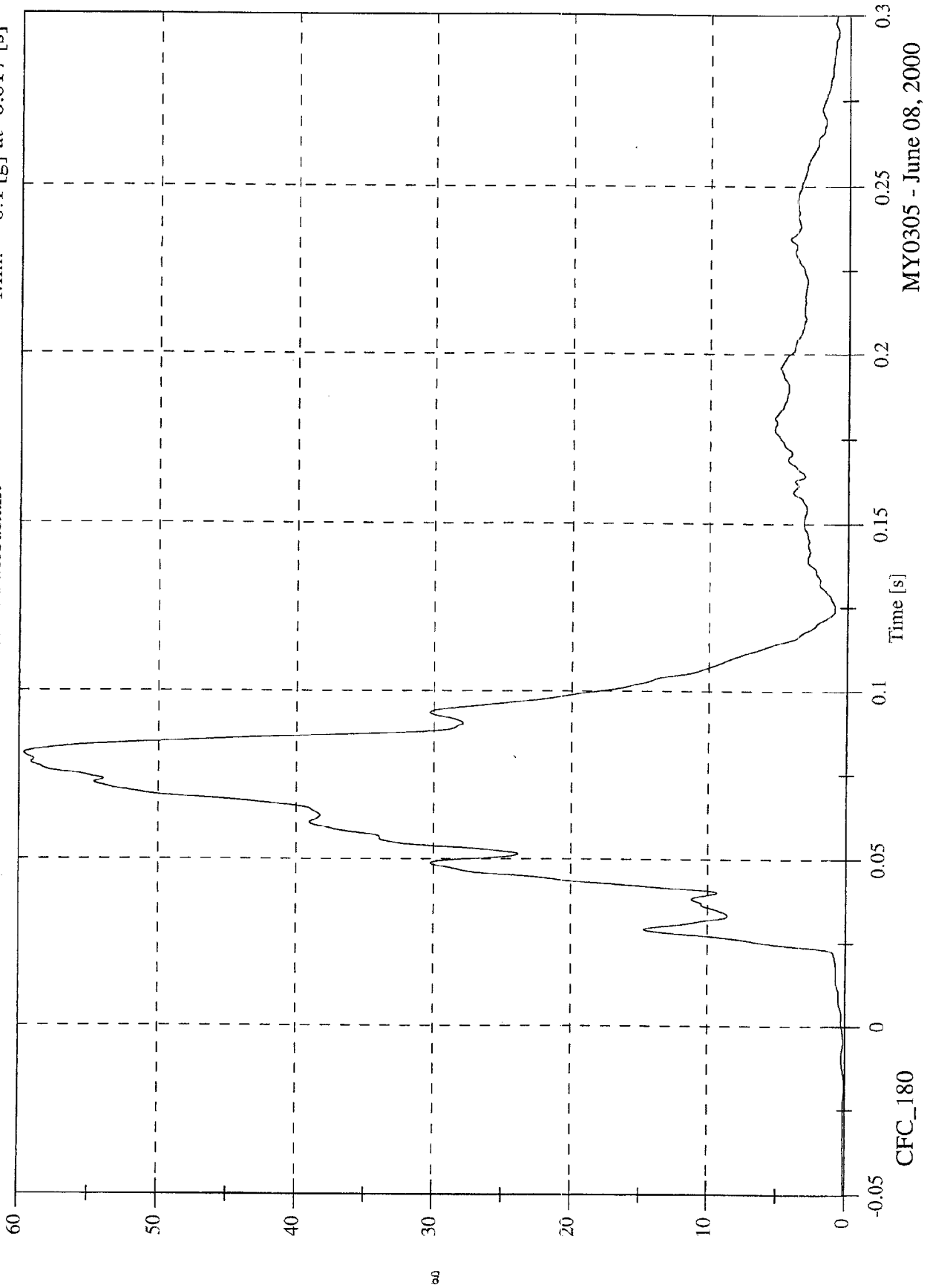


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 59.7 [g] at 0.081 [s]
Min: 0.1 [g] at -0.017 [s]

P1 Chest Red Resultant

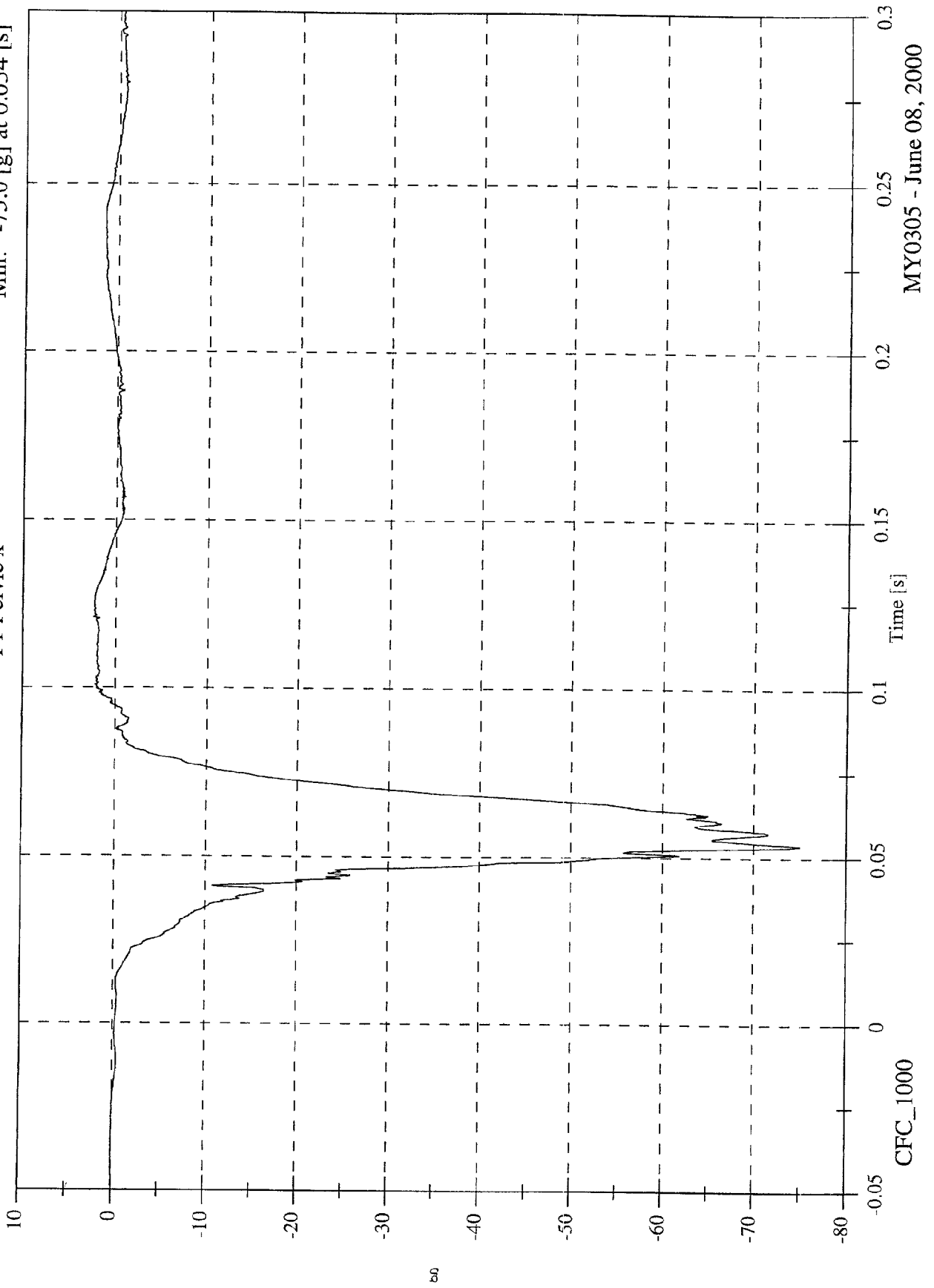


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 2.4 [g] at 0.121 [s]
Min: -75.0 [g] at 0.054 [s]

P1 Pelvic x

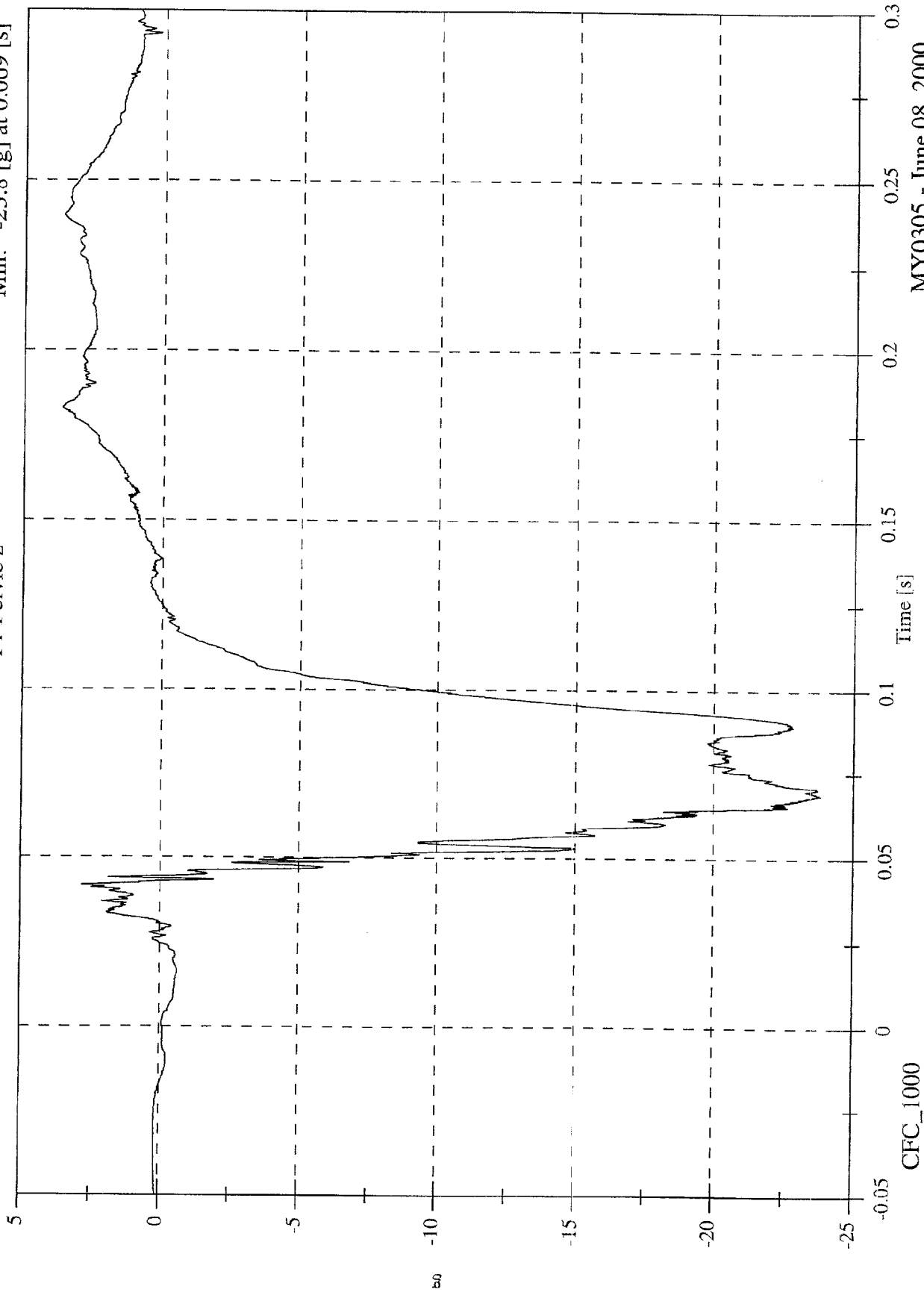


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 3.6 [g] at 0.183 [s]
 Min: -23.8 [g] at 0.069 [s]

P1 Pelvic z

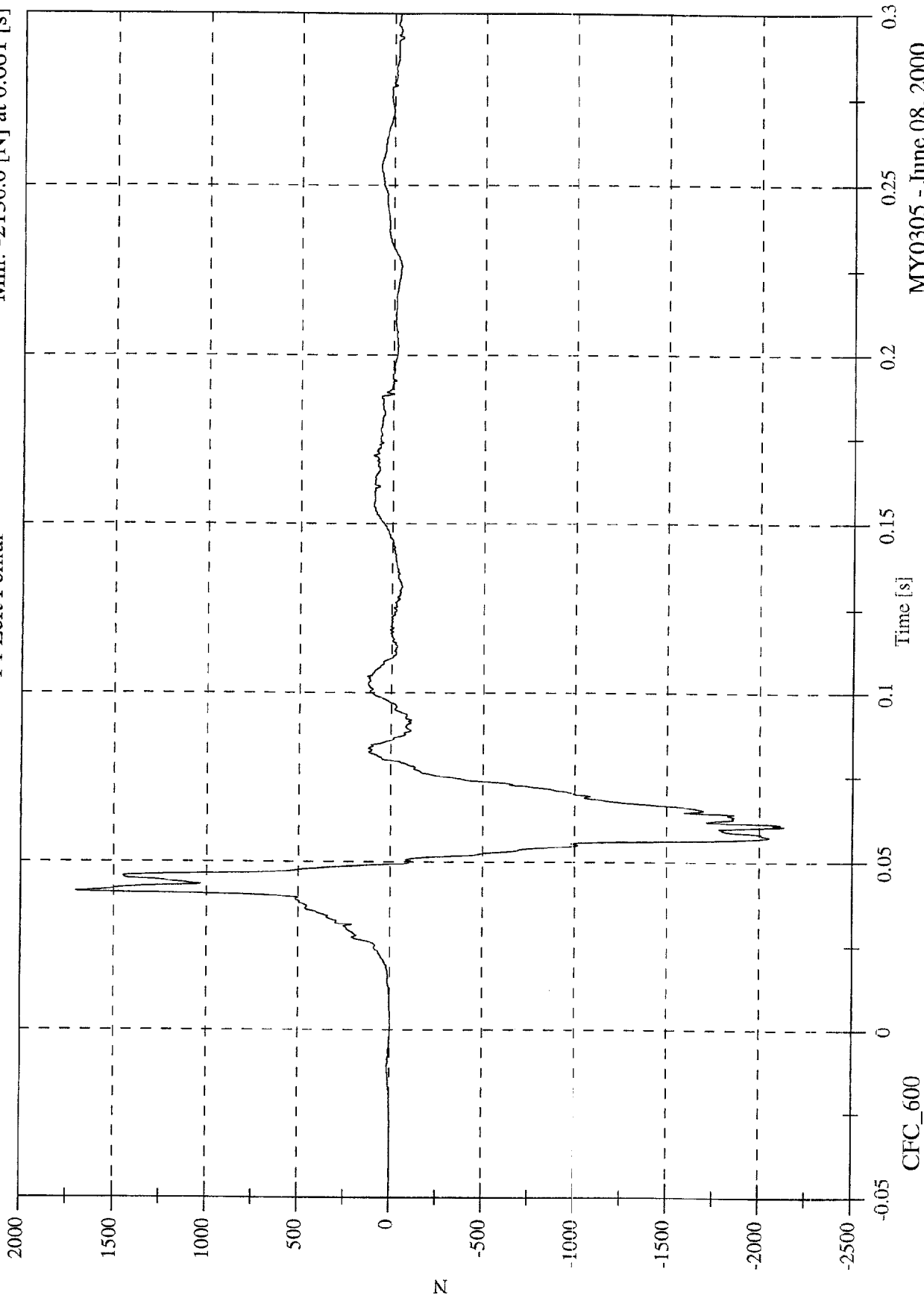


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 1701.5 [N] at 0.041 [s]
Min: -2130.0 [N] at 0.061 [s]

P1 Left Femur

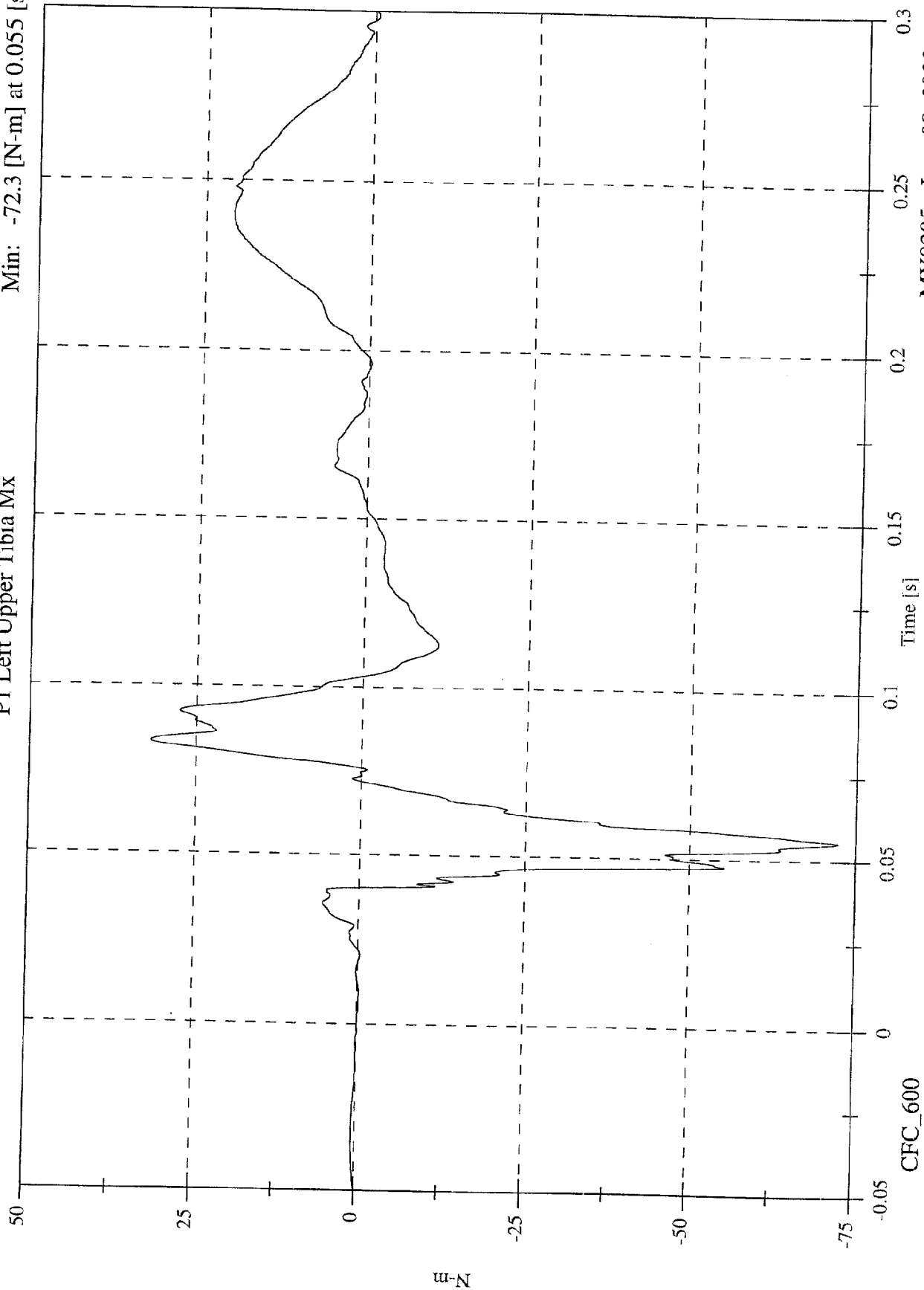


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

P1 Left Upper Tibia Mx

Max: 31.8 [N-m] at 0.083 [s]
Min: -72.3 [N-m] at 0.055 [s]

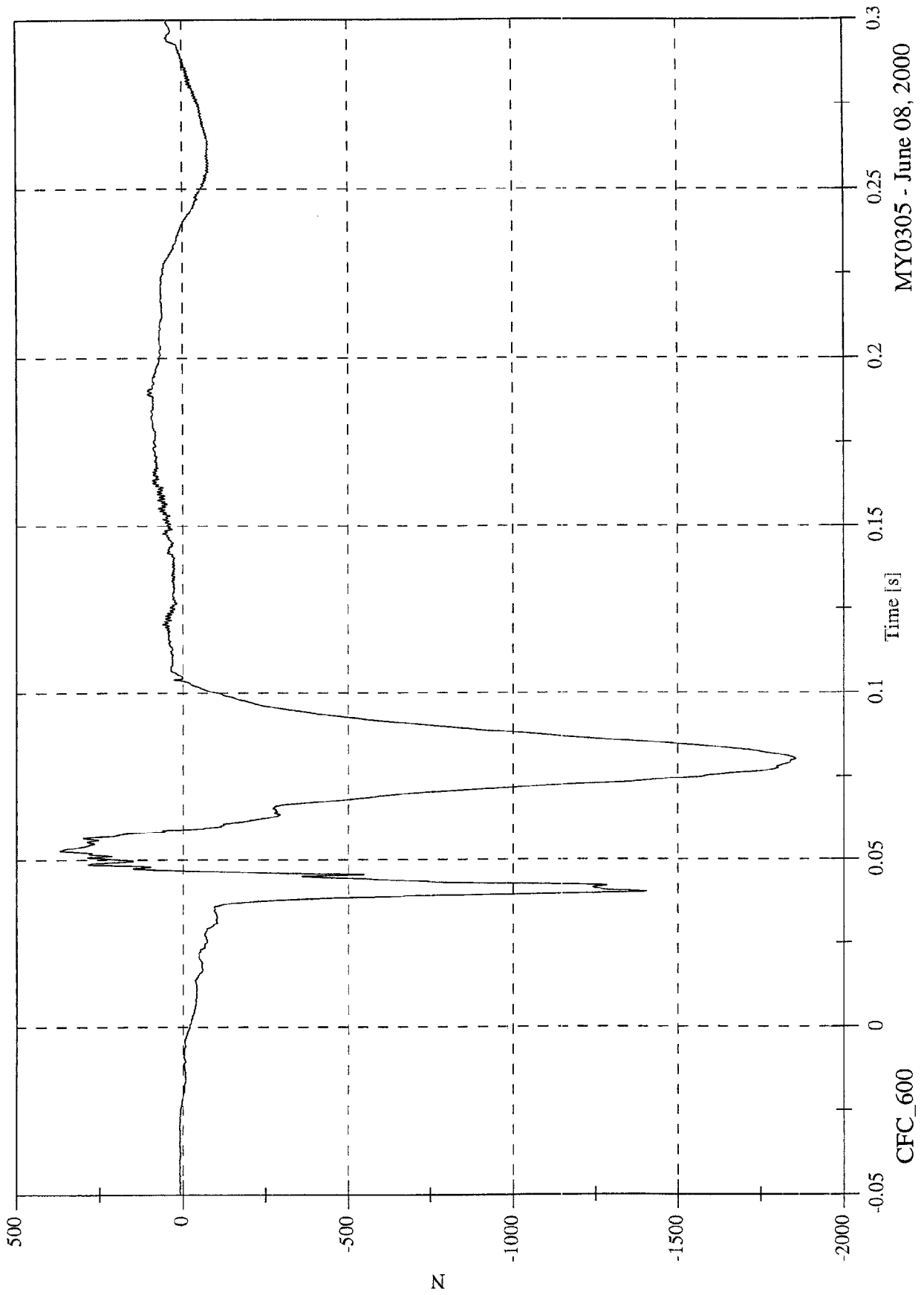


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 368.5 [N] at 0.053 [s]
Min: -1855.2 [N] at 0.080 [s]

P1 Left Lower Tibia Fz



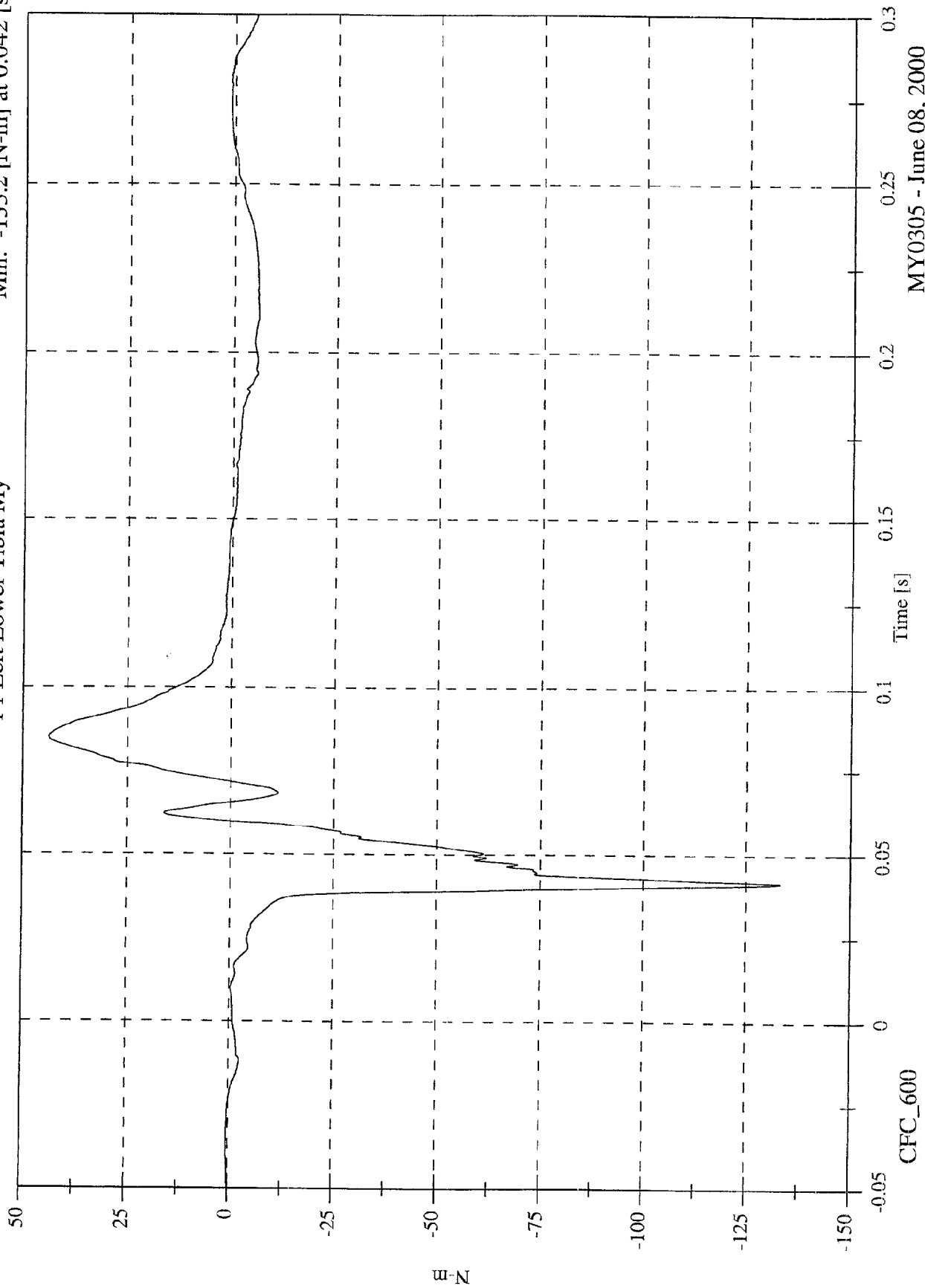
CFC_600

MY0305 - June 08, 2000

NCAP Test # 18 2001 Chrysler PT Cruiser

Max: 43.7 [N-m] at 0.085 [s]
Min: -133.2 [N-m] at 0.042 [s]

P1 Left Lower Tibia My

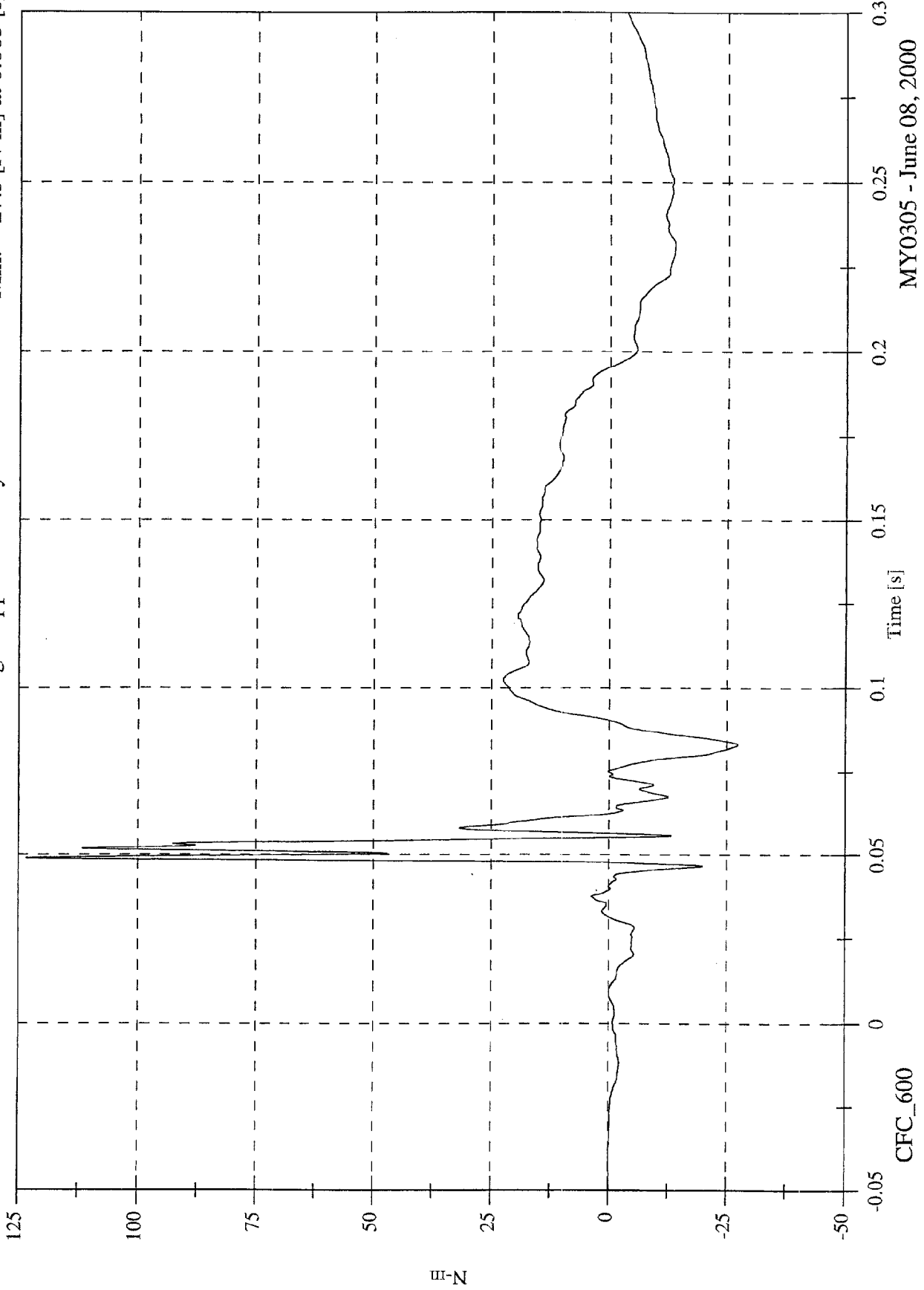


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 123.4 [N-m] at 0.049 [s]
 Min: -27.3 [N-m] at 0.083 [s]

P1 Right Upper Tibia My

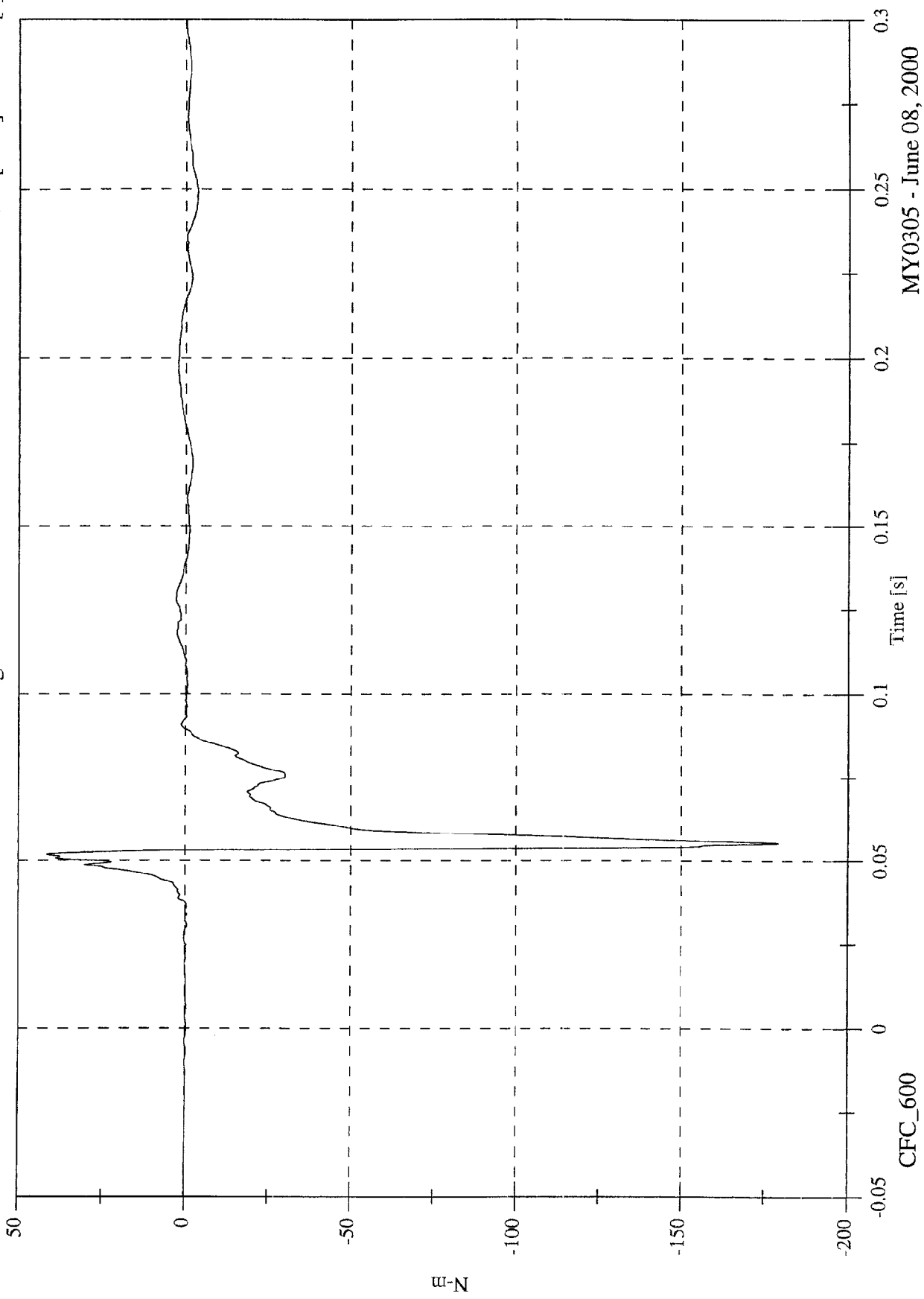


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

P1 Right Lower Tibia Mx

Max: 41.4 [N-m] at 0.052 [s]
Min: -179.1 [N-m] at 0.055 [s]

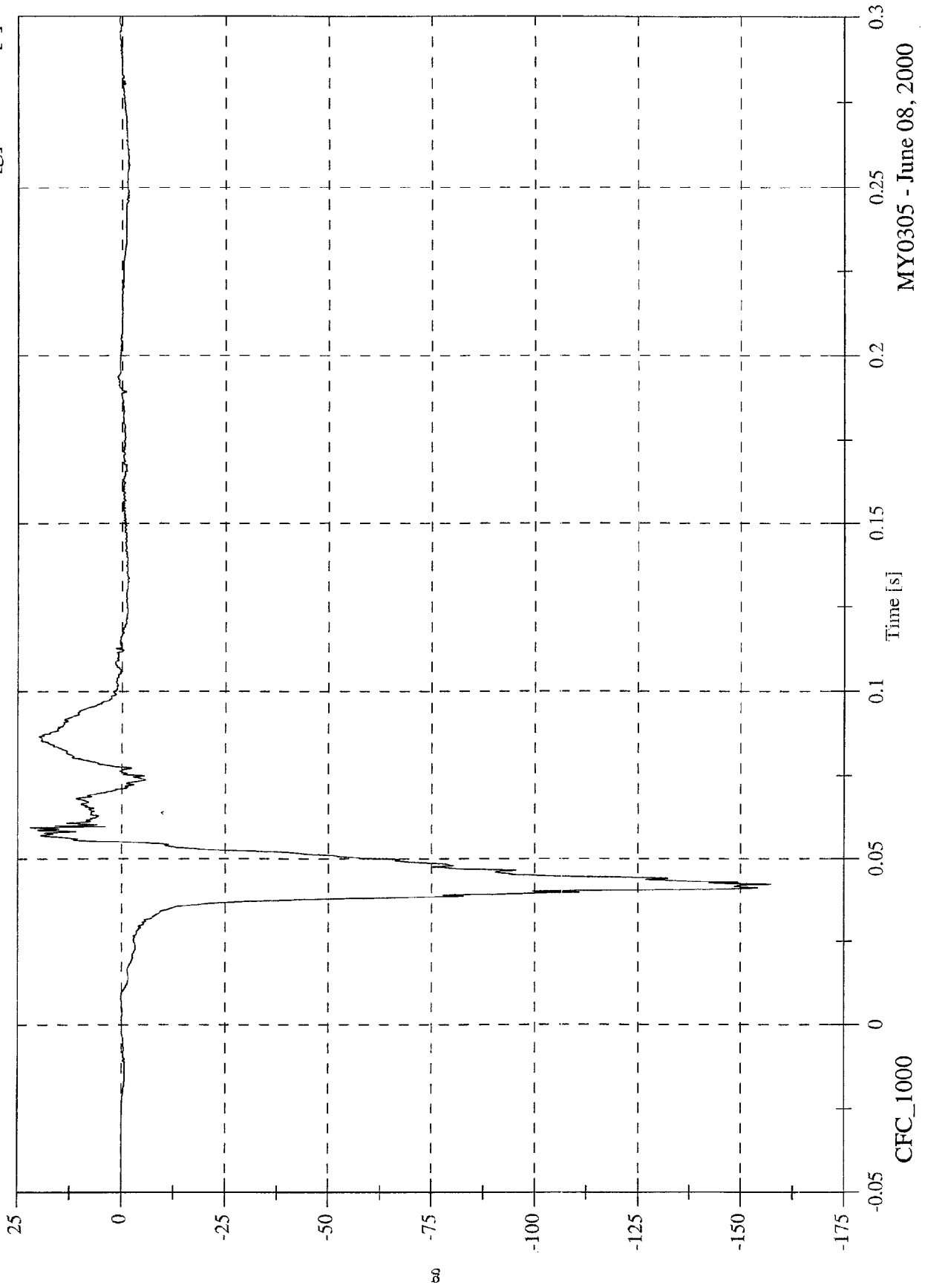


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

P1 Left Foot Aft x

Max: 21.9 [g] at 0.059 [s]
Min: -157.3 [g] at 0.042 [s]

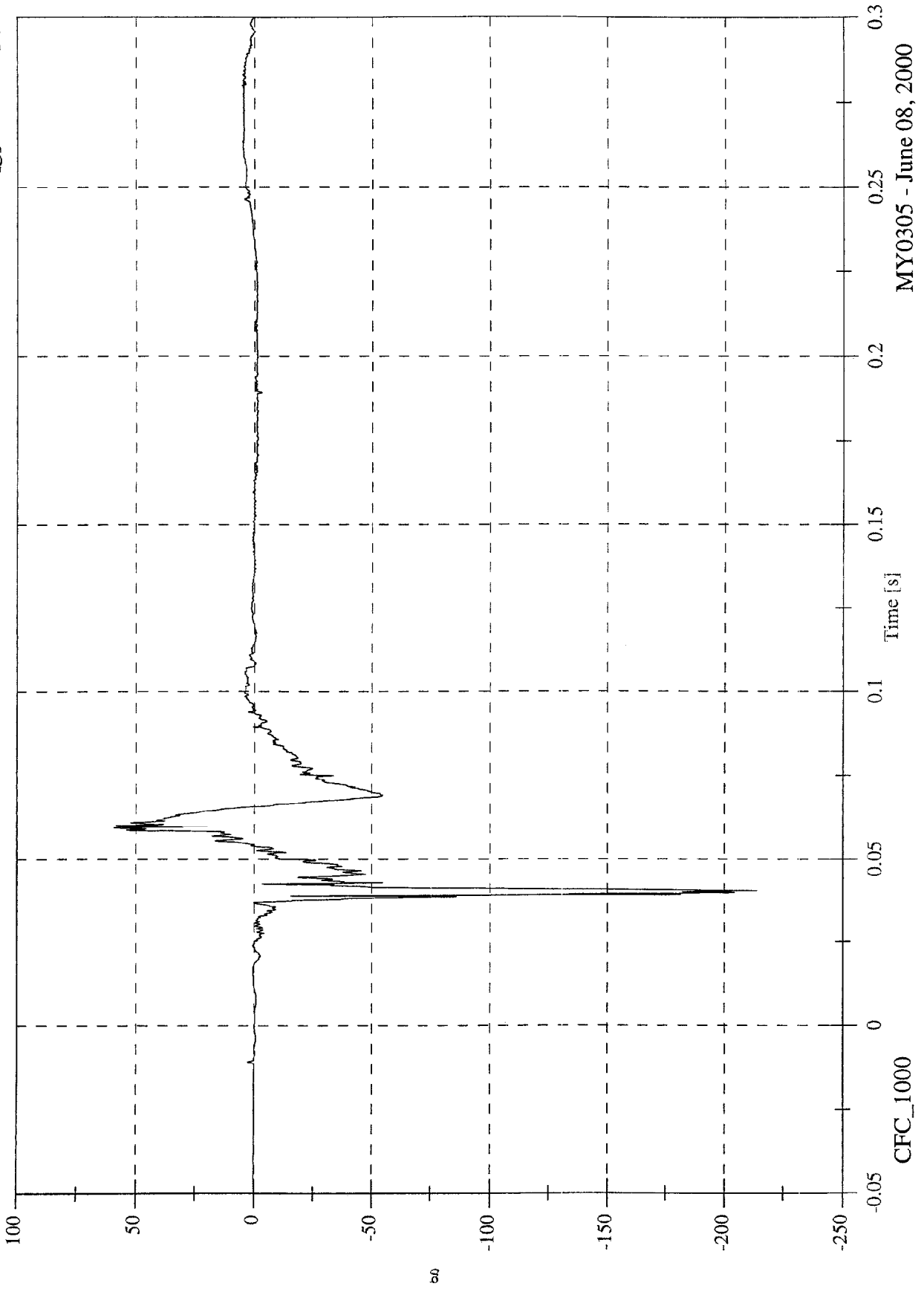


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

P1 Left Foot Fore z

Max: 59.1 [g] at 0.059 [s]
Min: -213.6 [g] at 0.040 [s]

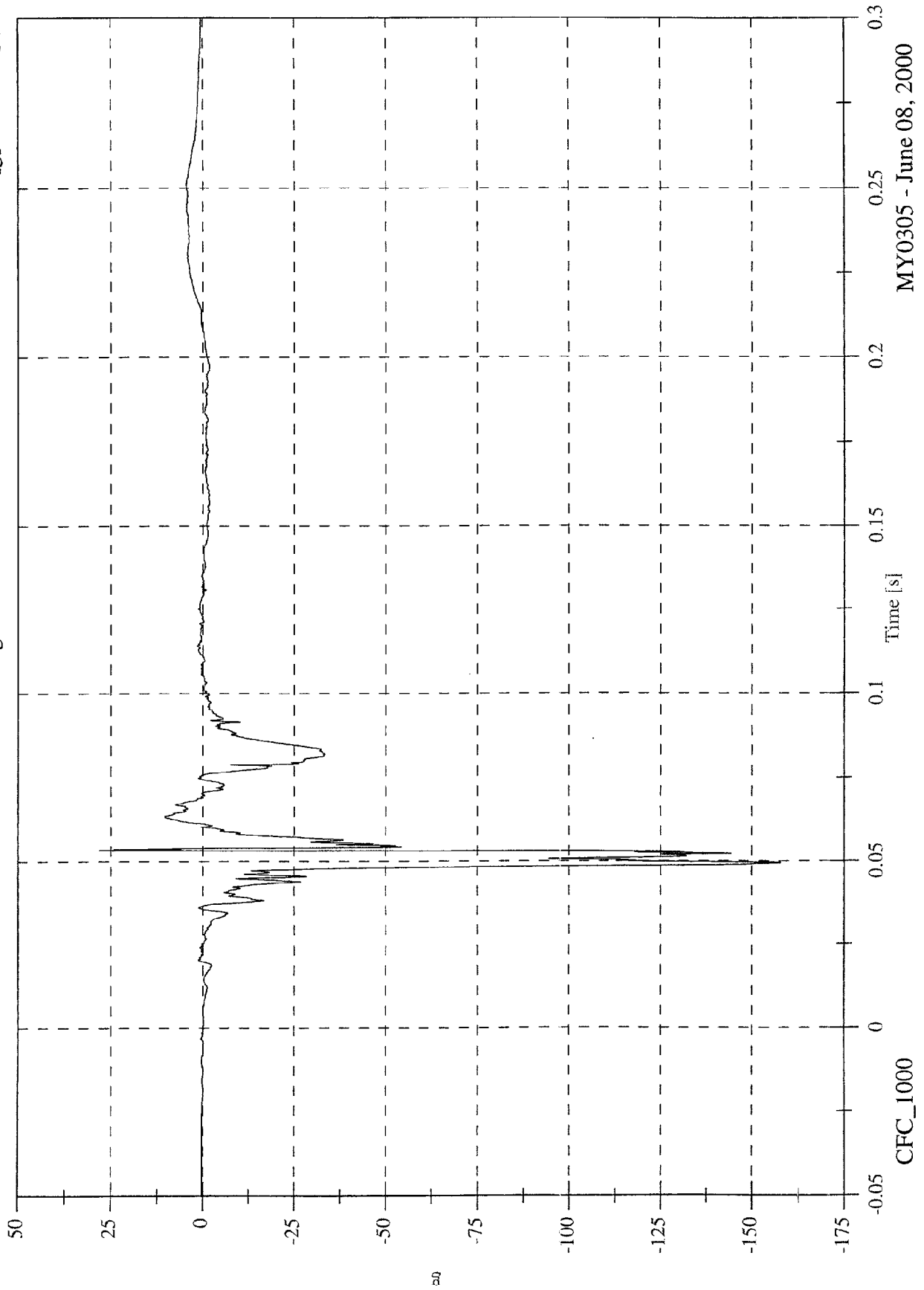


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

P1 Right Foot Aft z

Max: 28.0 [g] at 0.053 [s]
Min: -157.9 [g] at 0.049 [s]

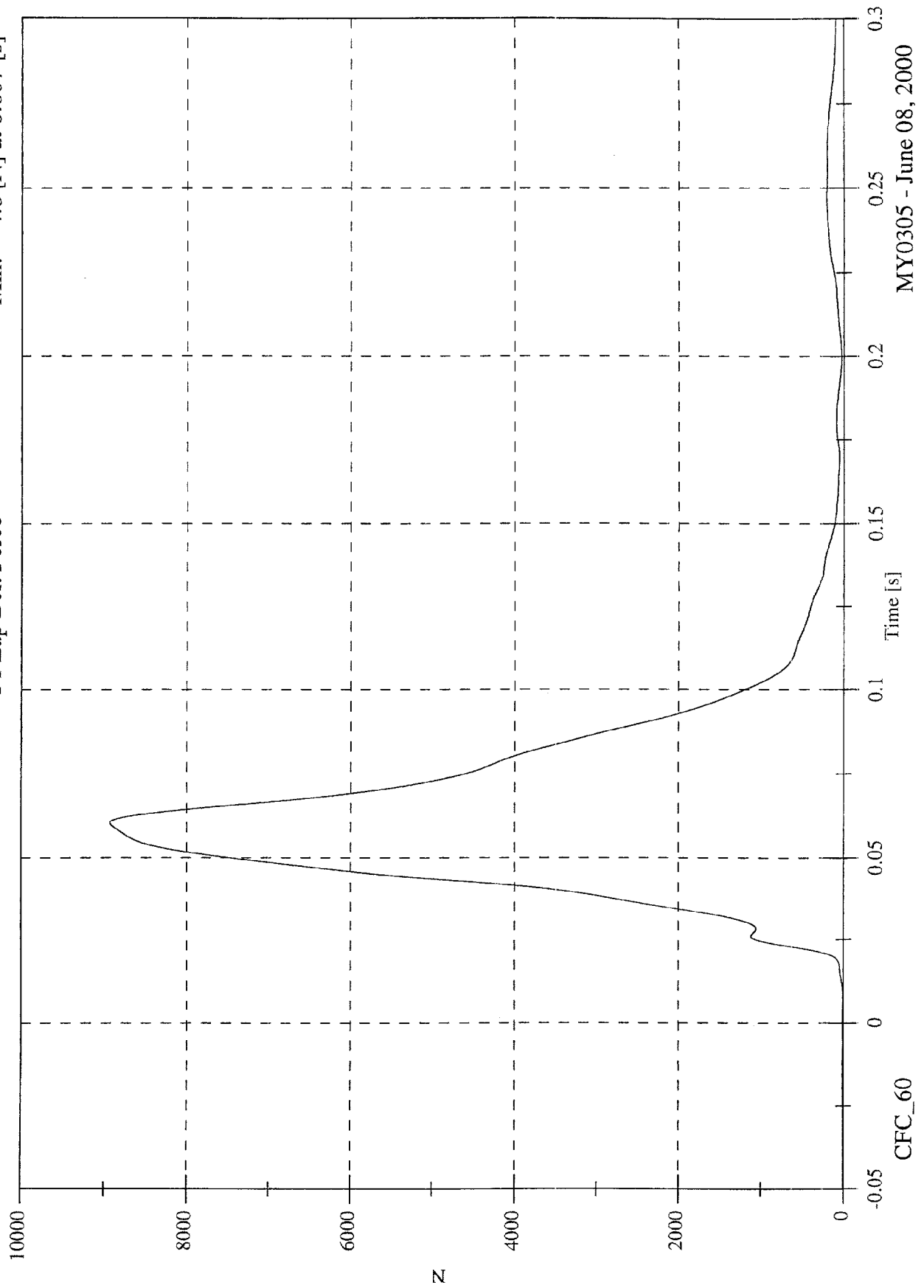


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 8926.3 [N] at 0.060 [s]
Min: 4.6 [N] at 0.007 [s]

P1 Lap Belt Force

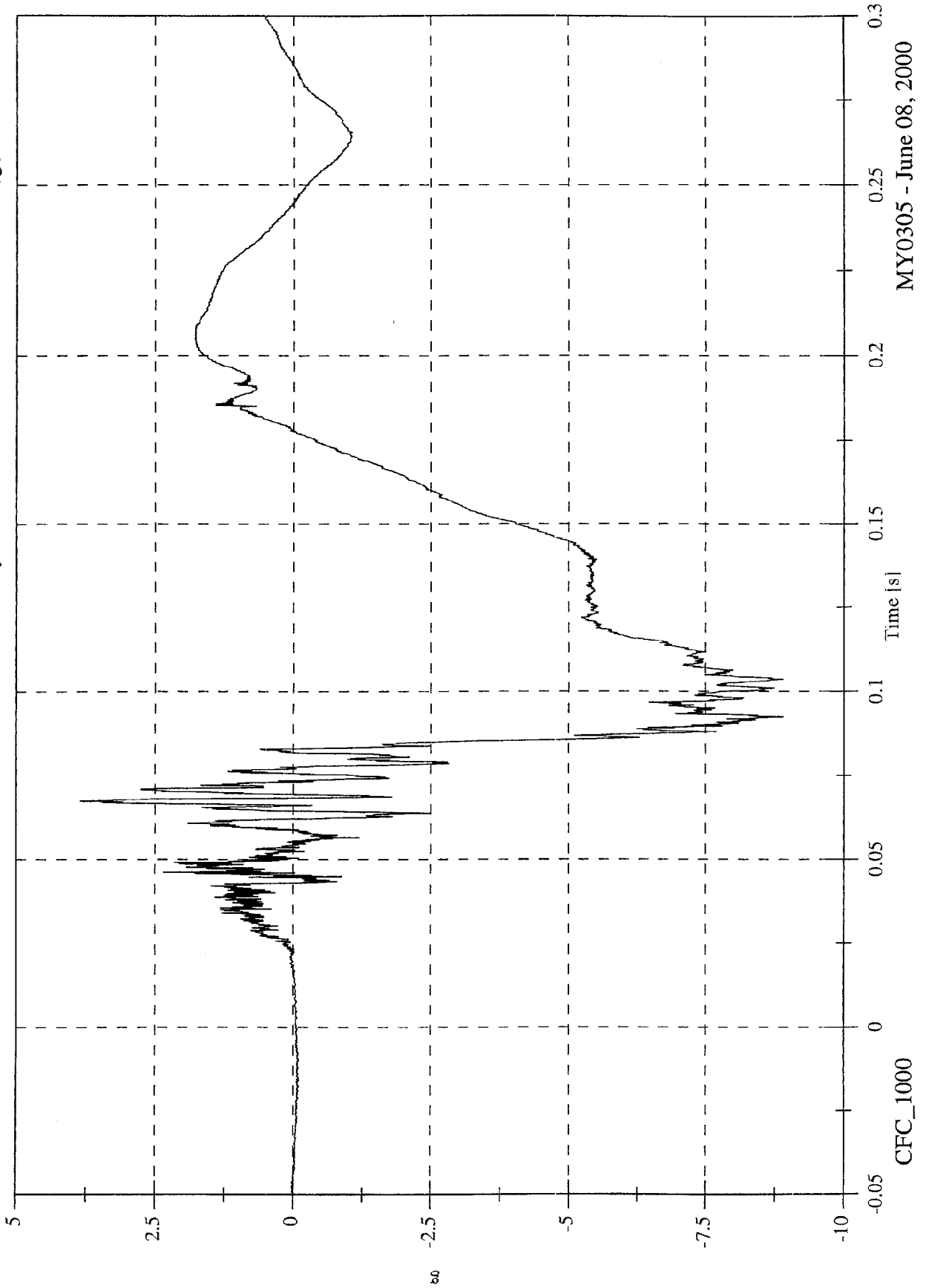


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 3.9 [g] at 0.068 [s]
Min: -8.9 [g] at 0.093 [s]

P2 Head y

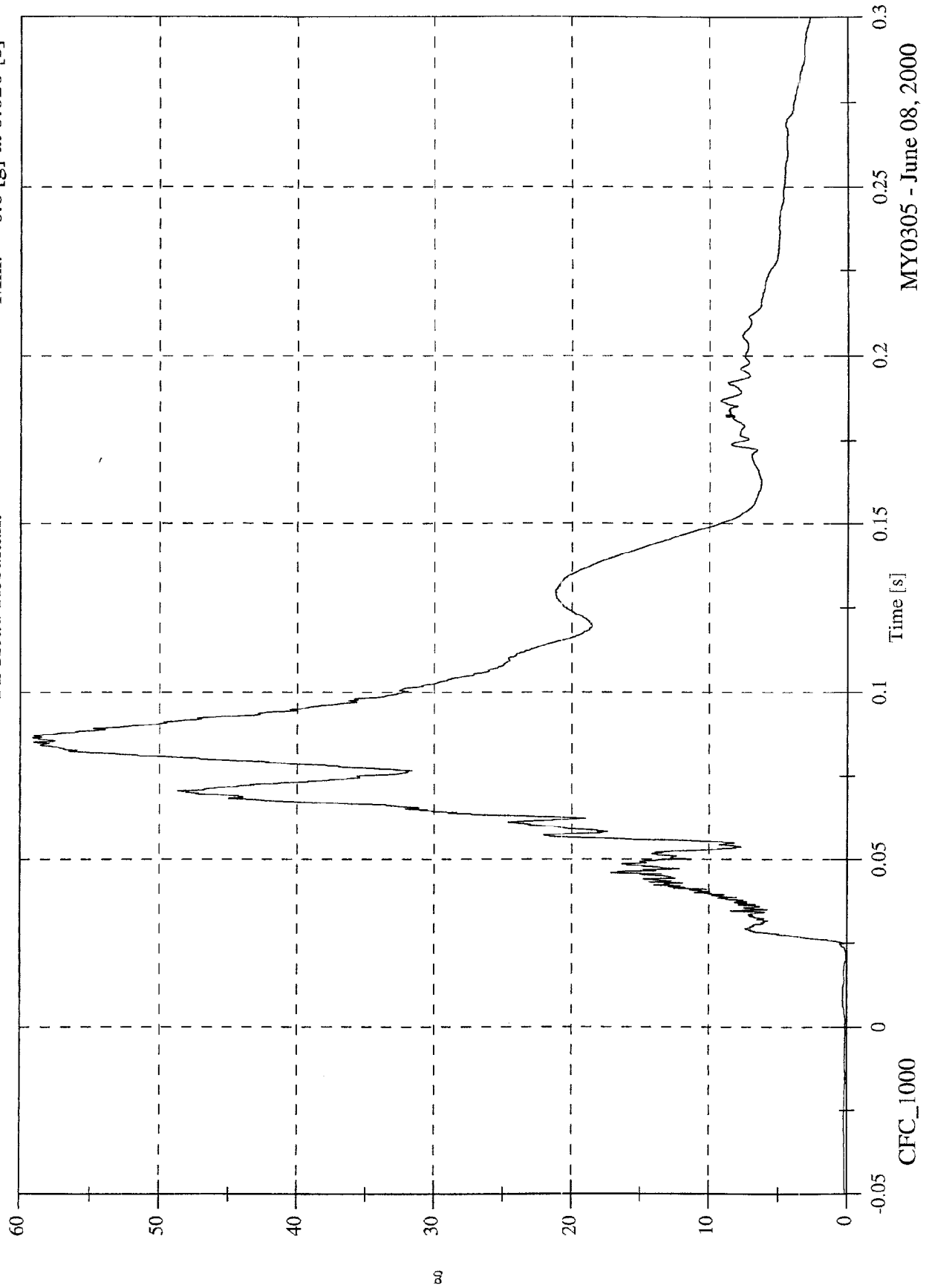


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 59.1 [g] at 0.086 [s]
Min: 0.0 [g] at 0.020 [s]

P2 Head Resultant

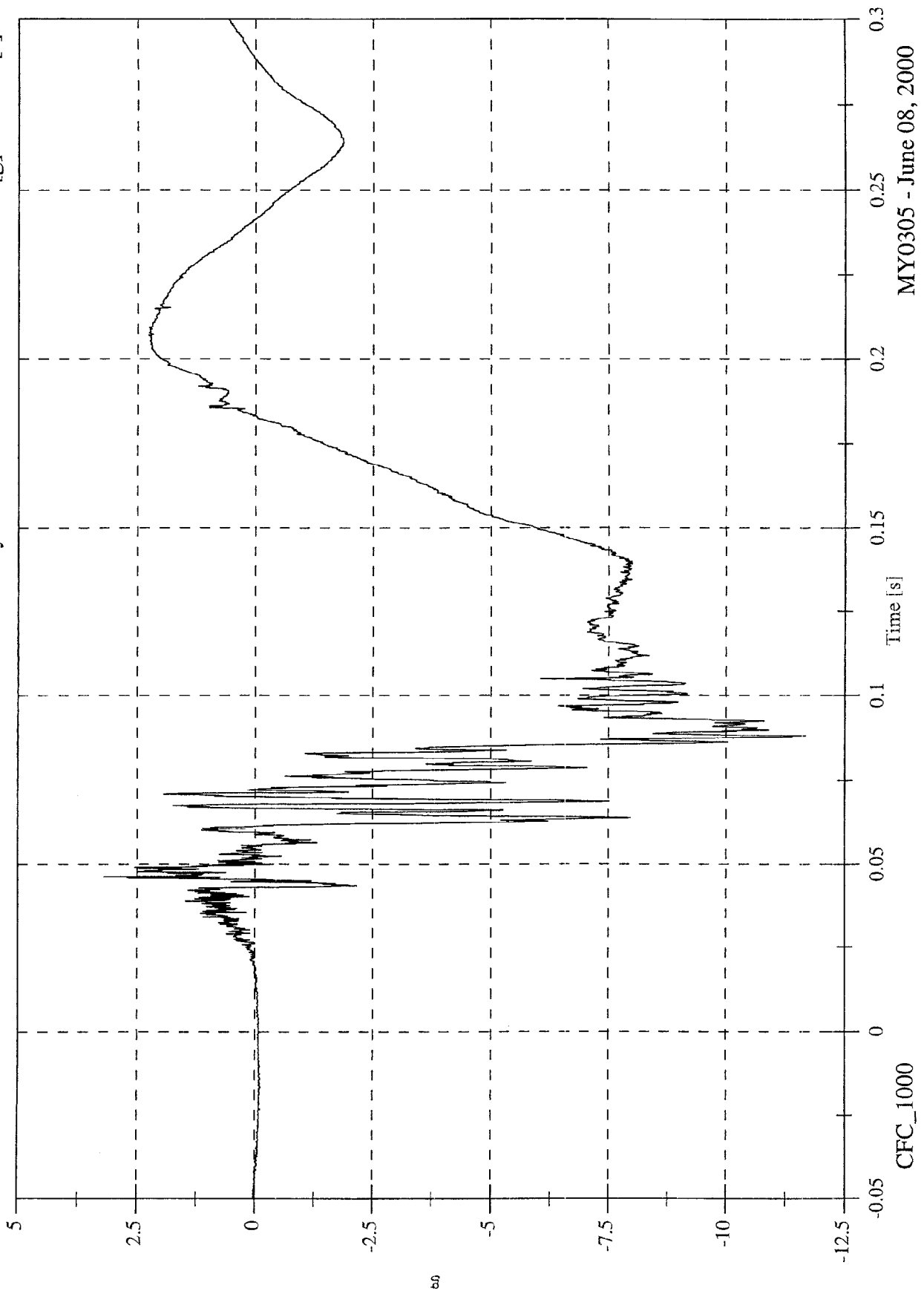


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 3.2 [g] at 0.046 [s]
Min: -11.7 [g] at 0.088 [s]

P2 Head Red y

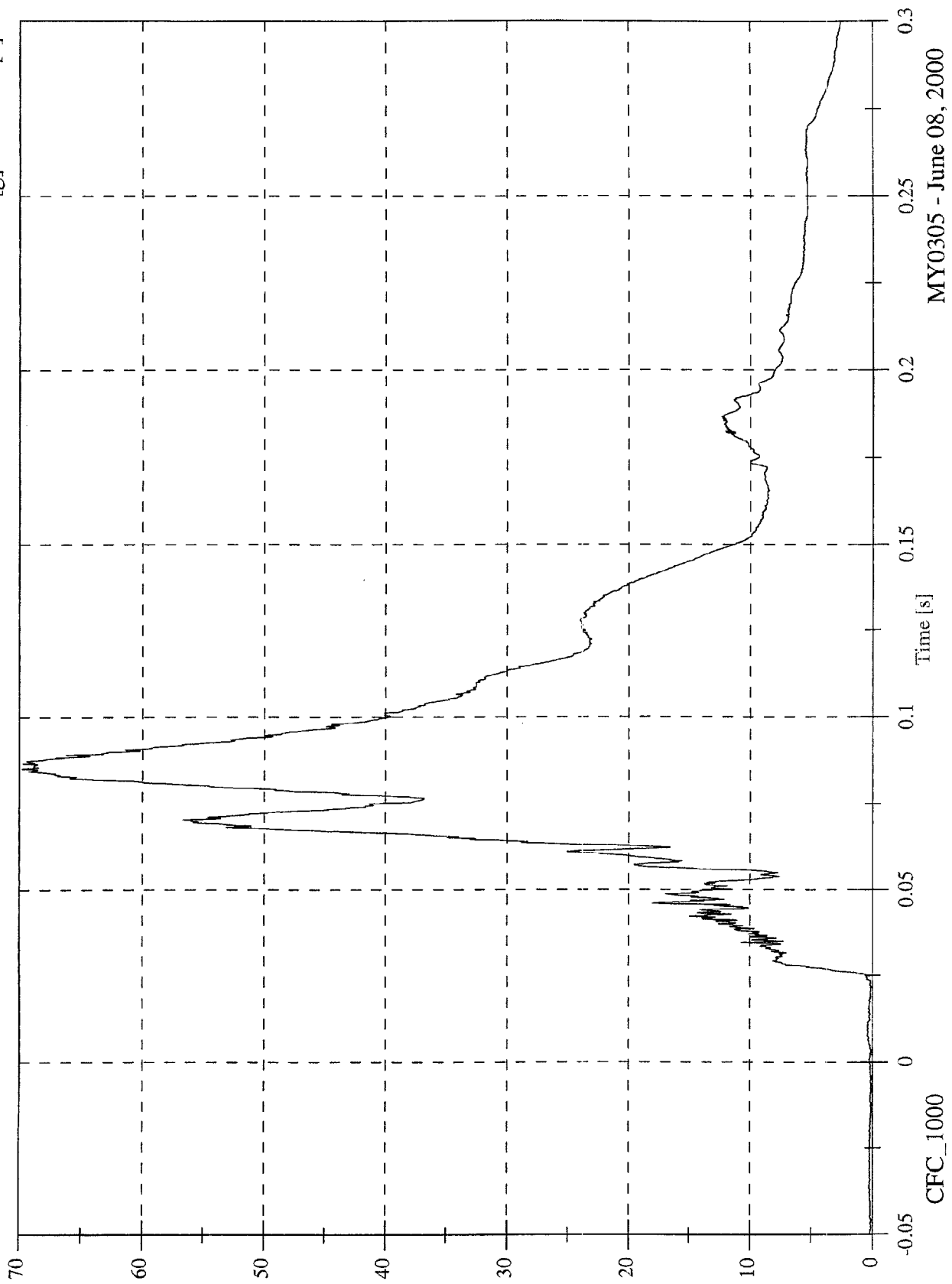


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

P2 Head Red Resultant

Max: 69.8 [g] at 0.085 [s]
Min: 0.1 [g] at -0.013 [s]

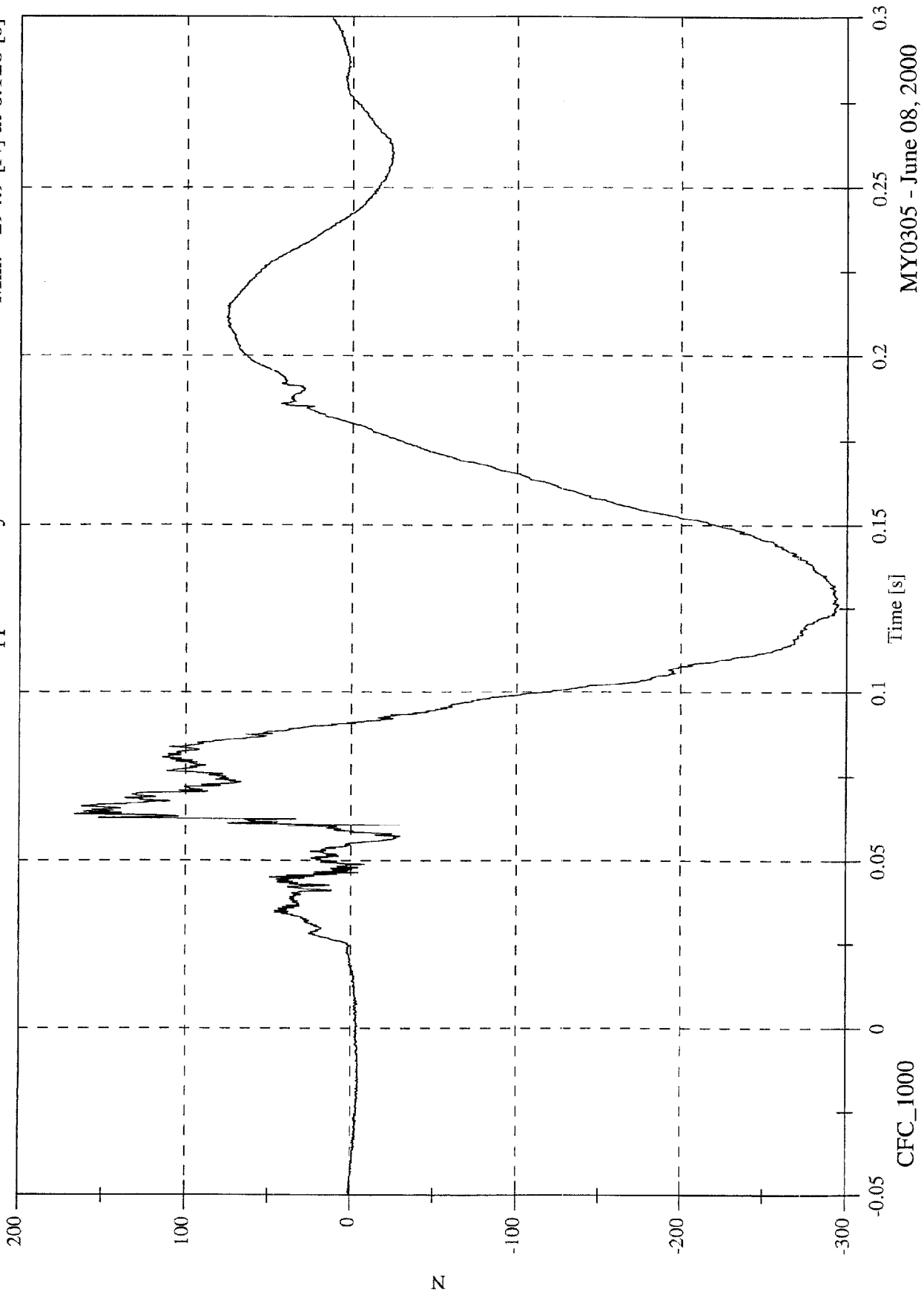


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

P2 Upper Neck Fy

Max: 166.7 [N] at 0.064 [s]
Min: -294.9 [N] at 0.126 [s]

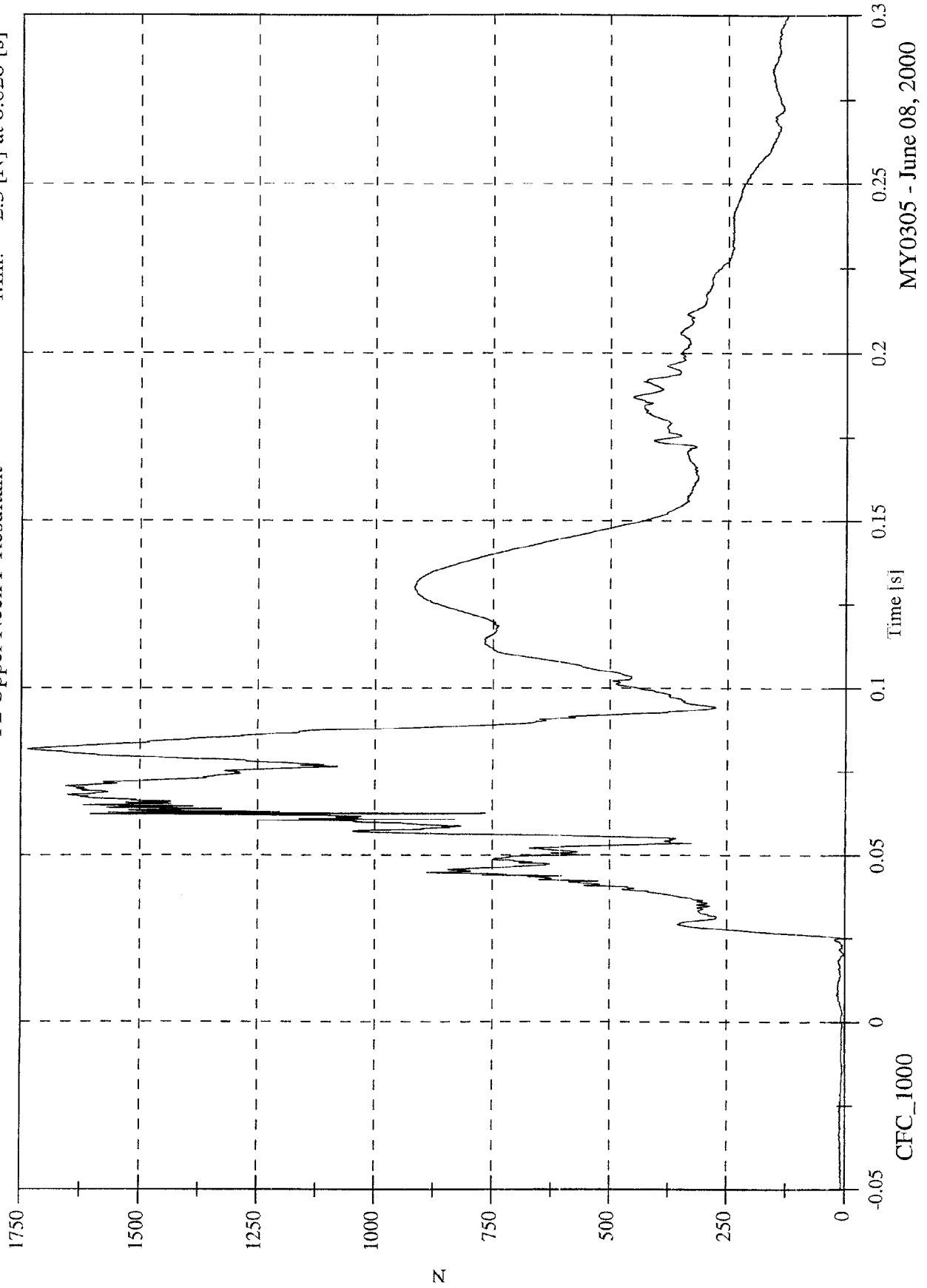


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 1736.0 [N] at 0.082 [s]
Min: 2.5 [N] at 0.020 [s]

P2 Upper Neck F Resultant

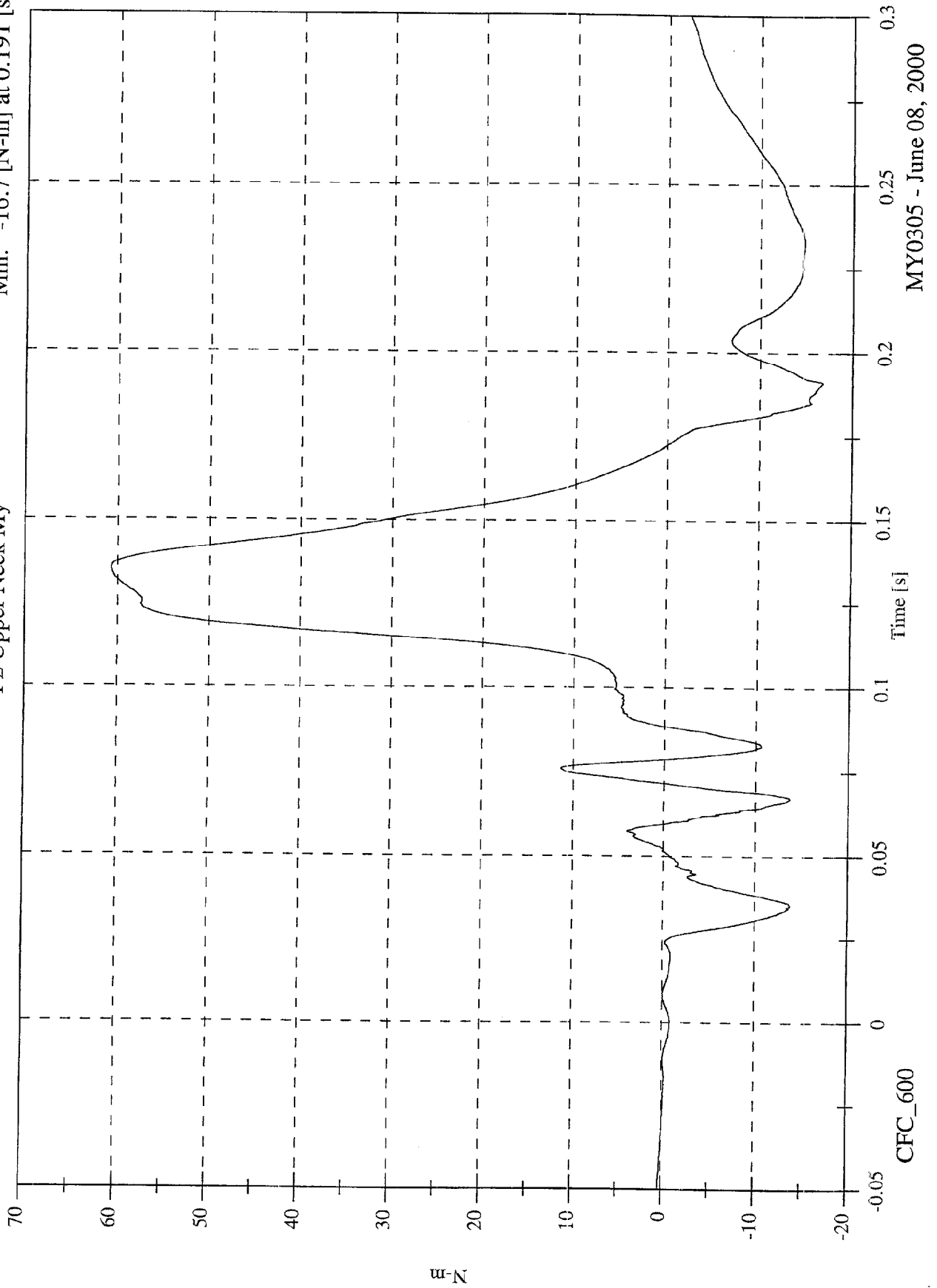


MY0305 - June 08, 2000

NCAP Test # i8 - 2001 Chrysler PT Cruiser

Max: 60.7 [N-m] at 0.135 [s]
Min: -16.7 [N-m] at 0.191 [s]

P2 Upper Neck My

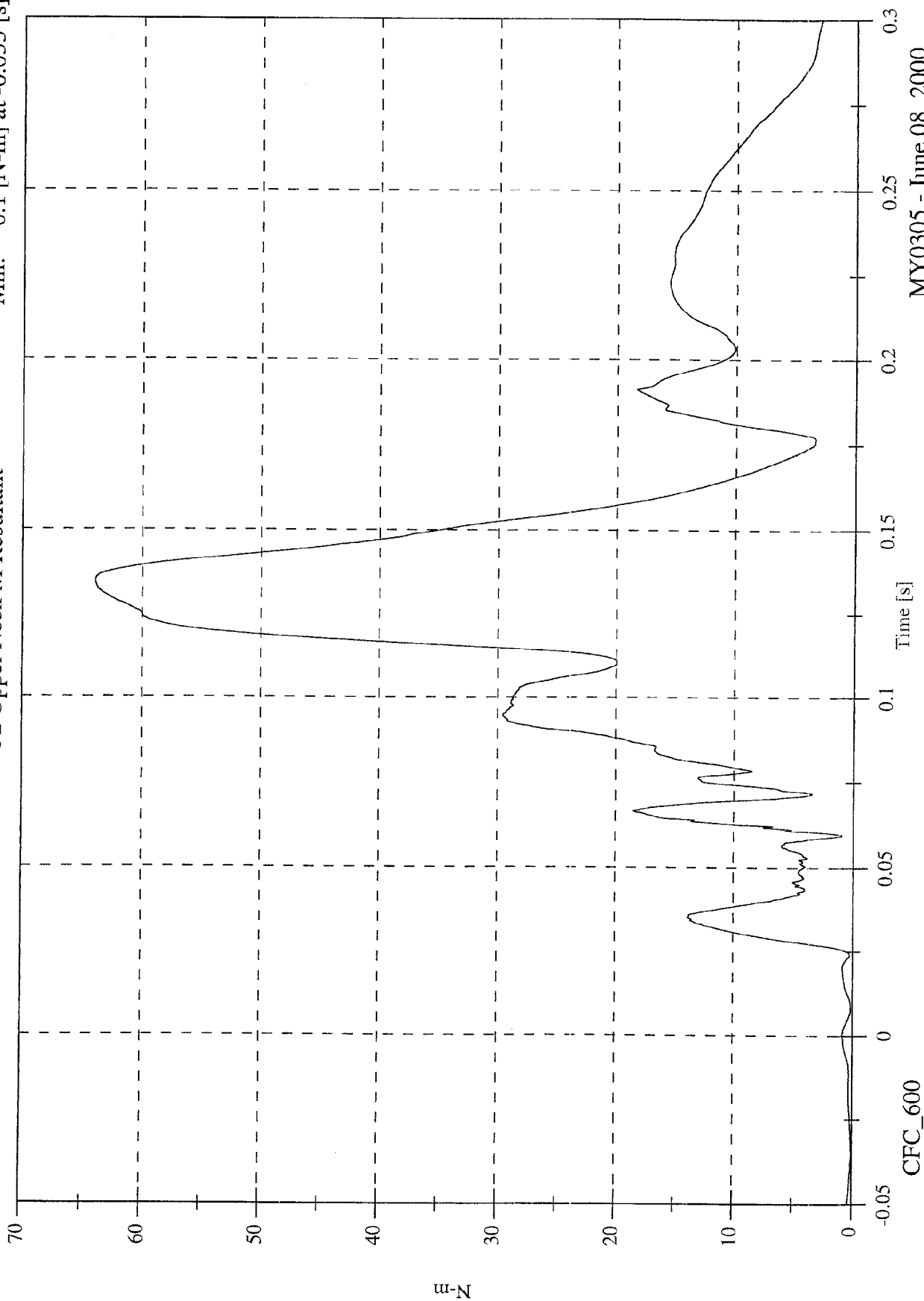


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

P2 Upper Neck M Resultant

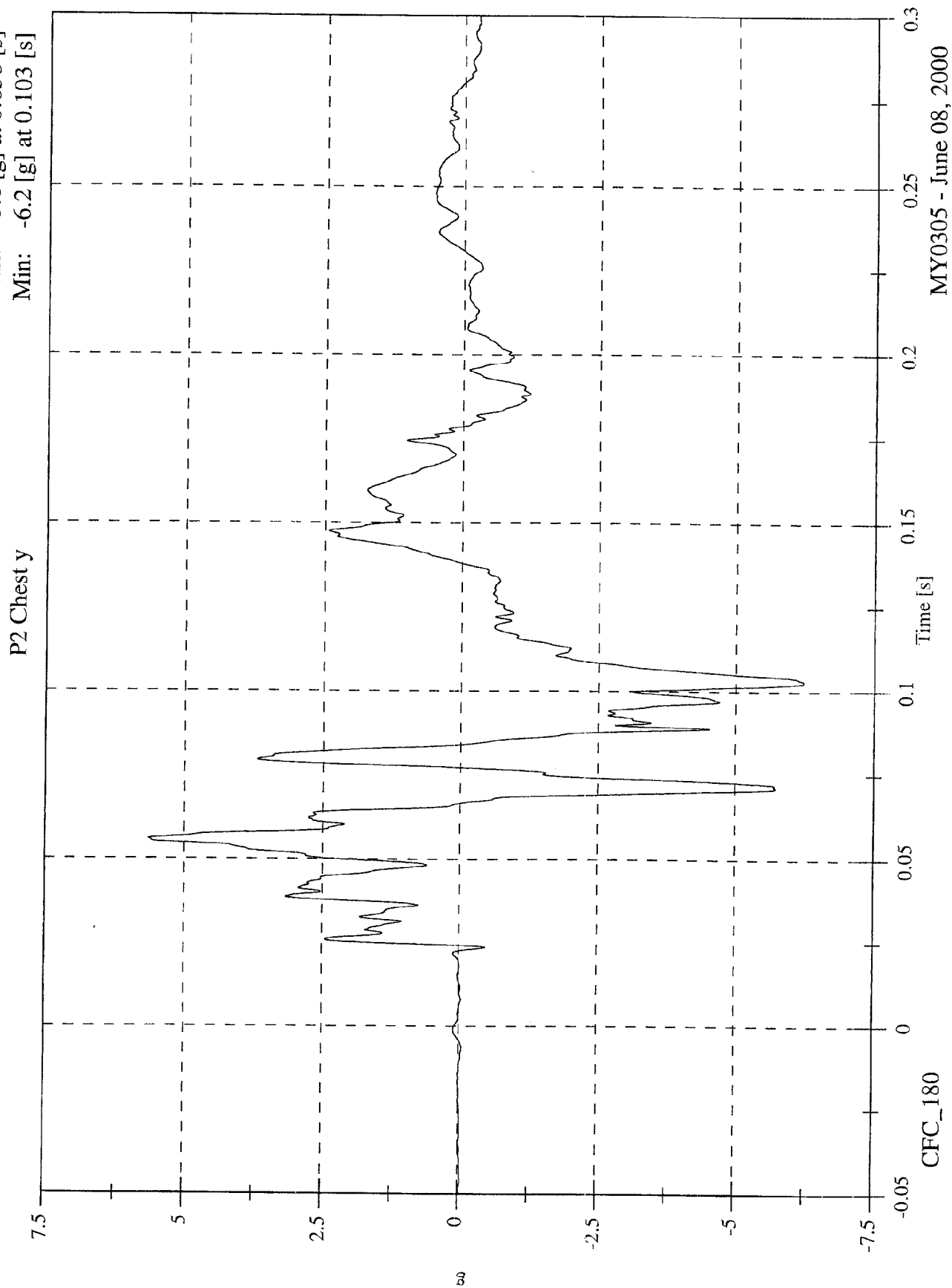
Max: 63.9 [N-m] at 0.135 [s]
 Min: 0.1 [N-m] at -0.035 [s]



MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 5.6 [g] at 0.056 [s]
 Min: -6.2 [g] at 0.103 [s]

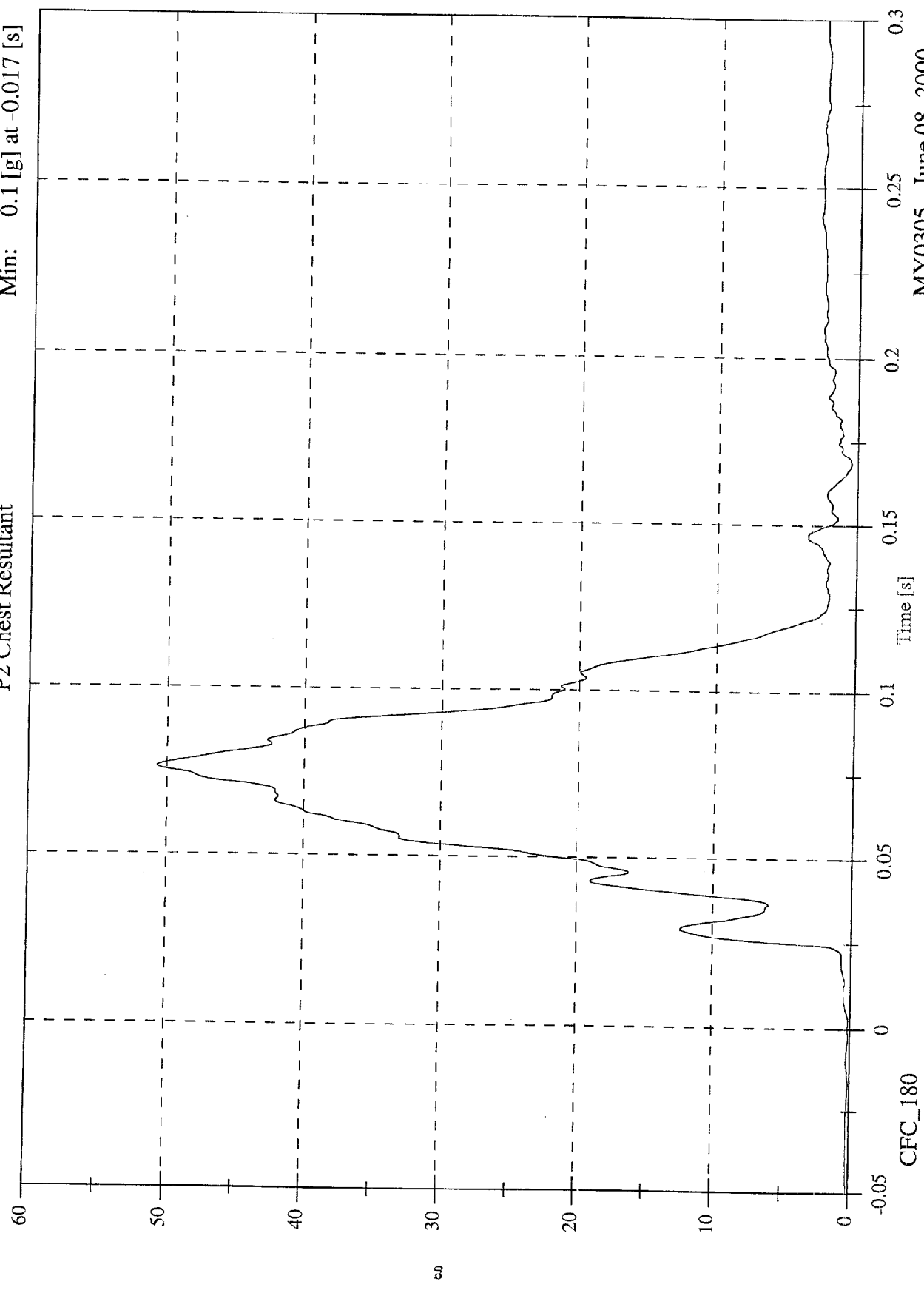


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

P2 Chest Resultant

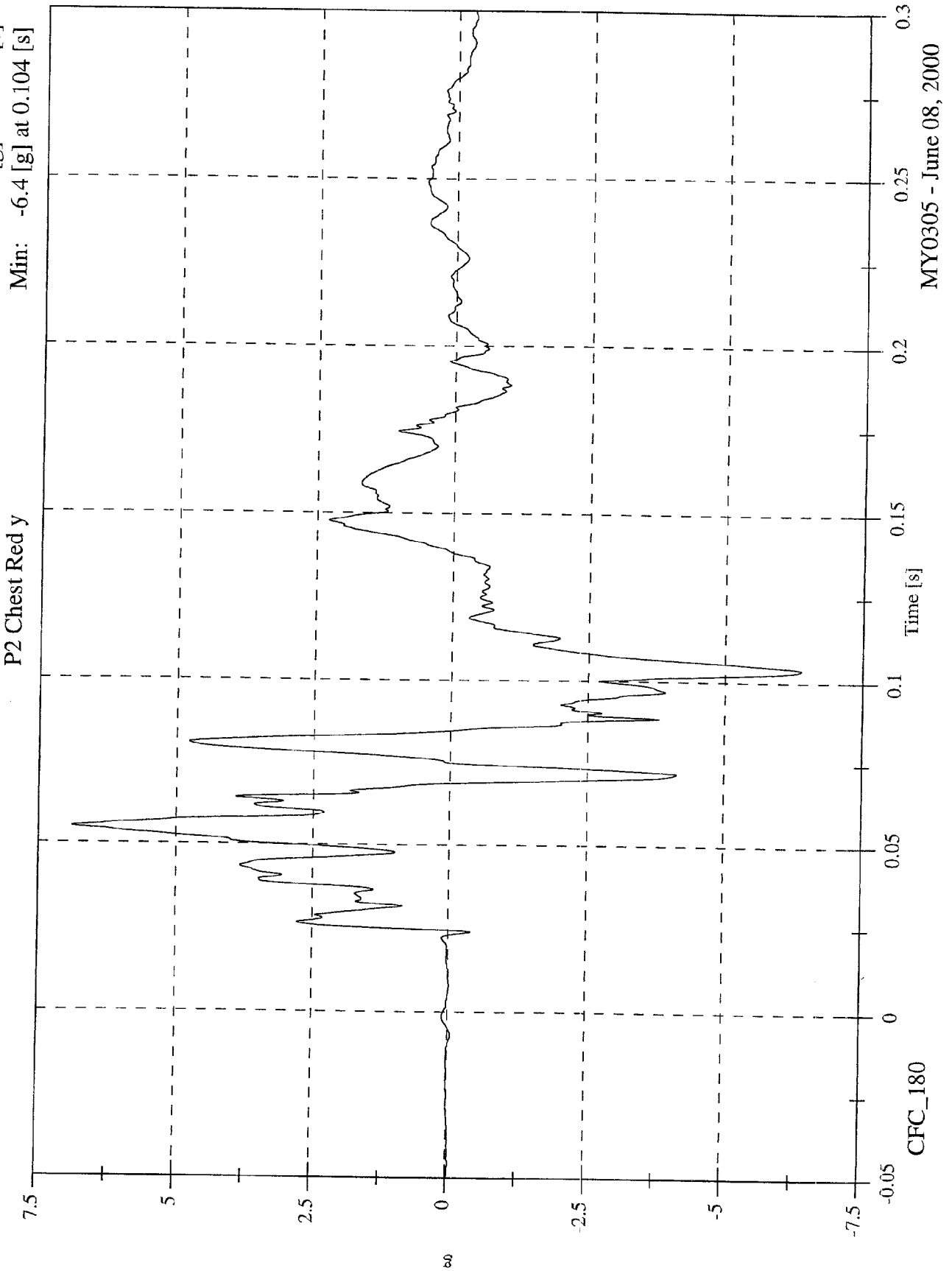
Max: 50.7 [g] at 0.076 [s]
Min: 0.1 [g] at -0.017 [s]



MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 6.9 [g] at 0.055 [s]
Min: -6.4 [g] at 0.104 [s]

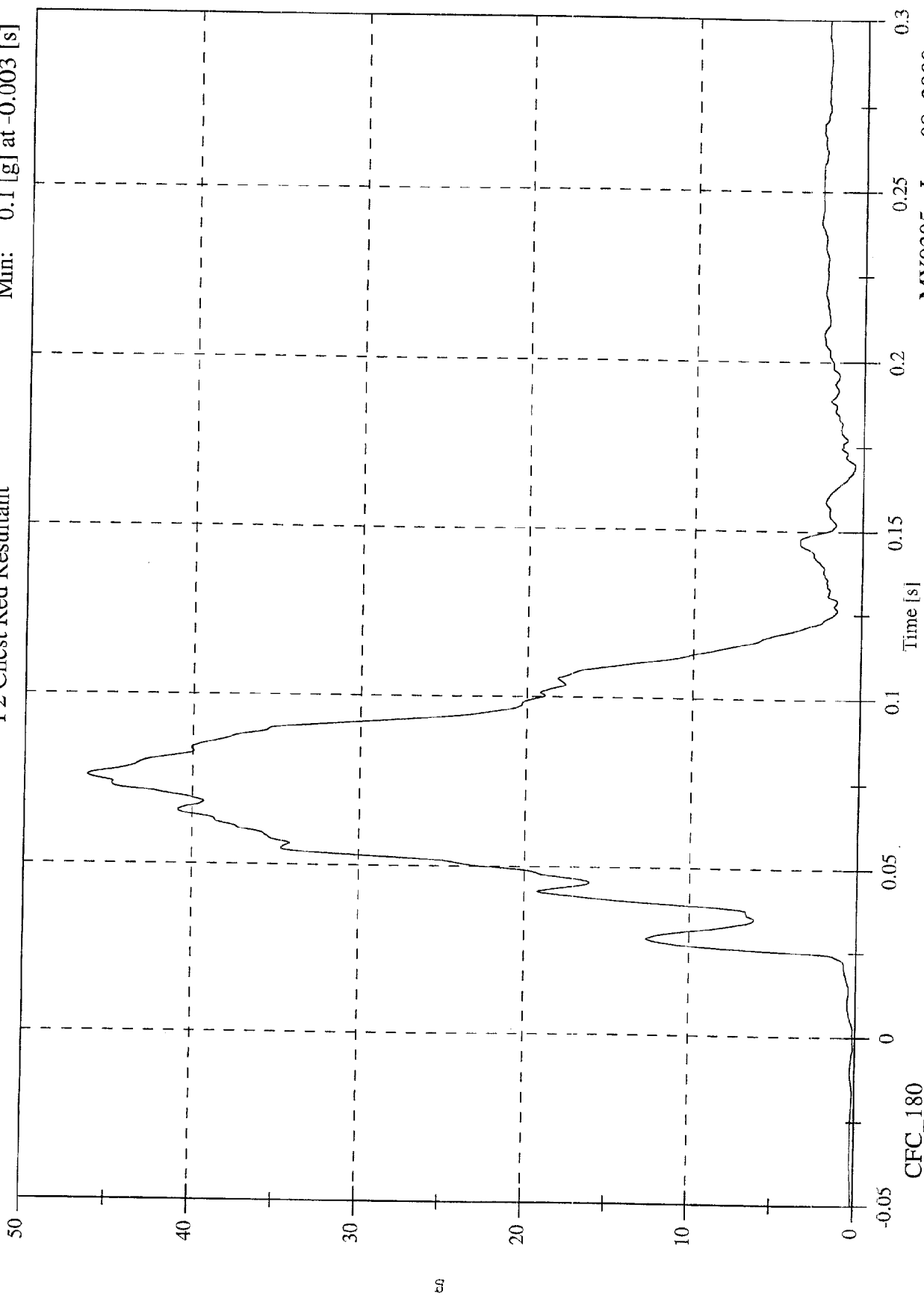


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 46.3 [g] at 0.076 [s]
 Min: 0.1 [g] at -0.003 [s]

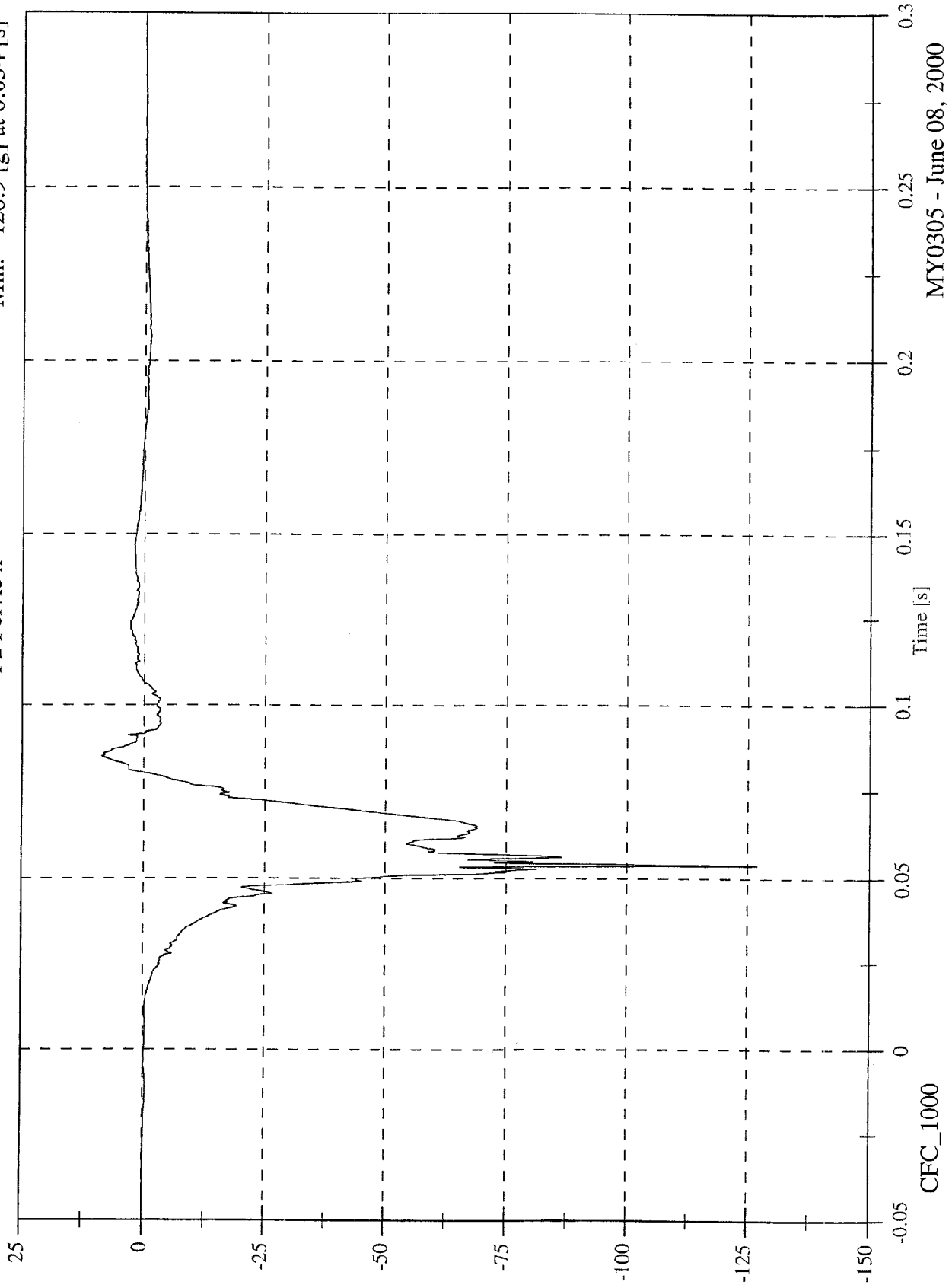
P2 Chest Red Resultant



NCAP Test # 18 - 2001 Chrysler PT Cruiser

P2 Pelvic x

Max: 8.7 [g] at 0.085 [s]
Min: -126.9 [g] at 0.054 [s]

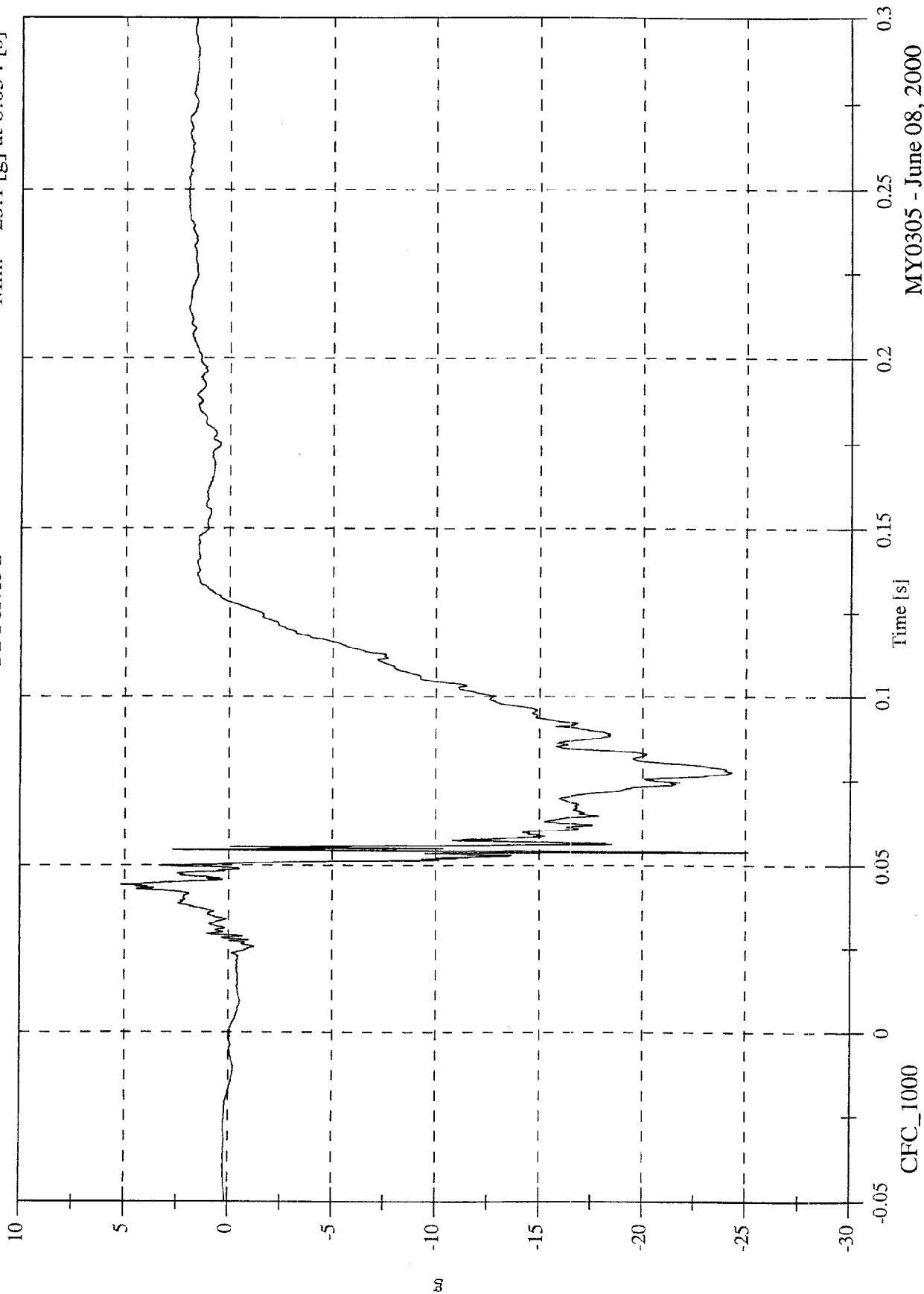


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 5.2 [g] at 0.044 [s]
 Min: -25.1 [g] at 0.054 [s]

P2 Pelvic z

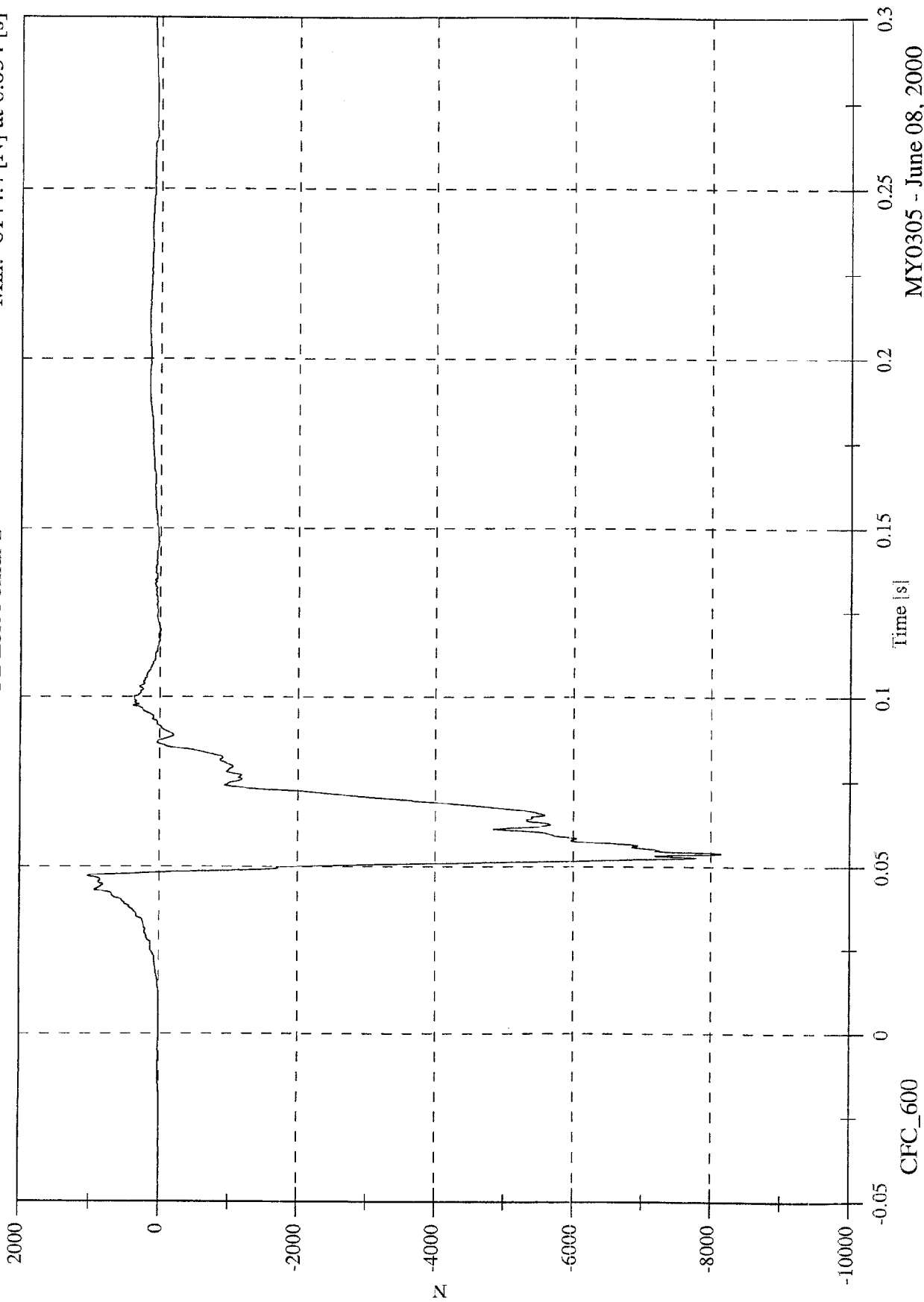


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

P2 Left Femur z

Max: 1036.9 [N] at 0.047 [s]
Min: -8144.4 [N] at 0.054 [s]

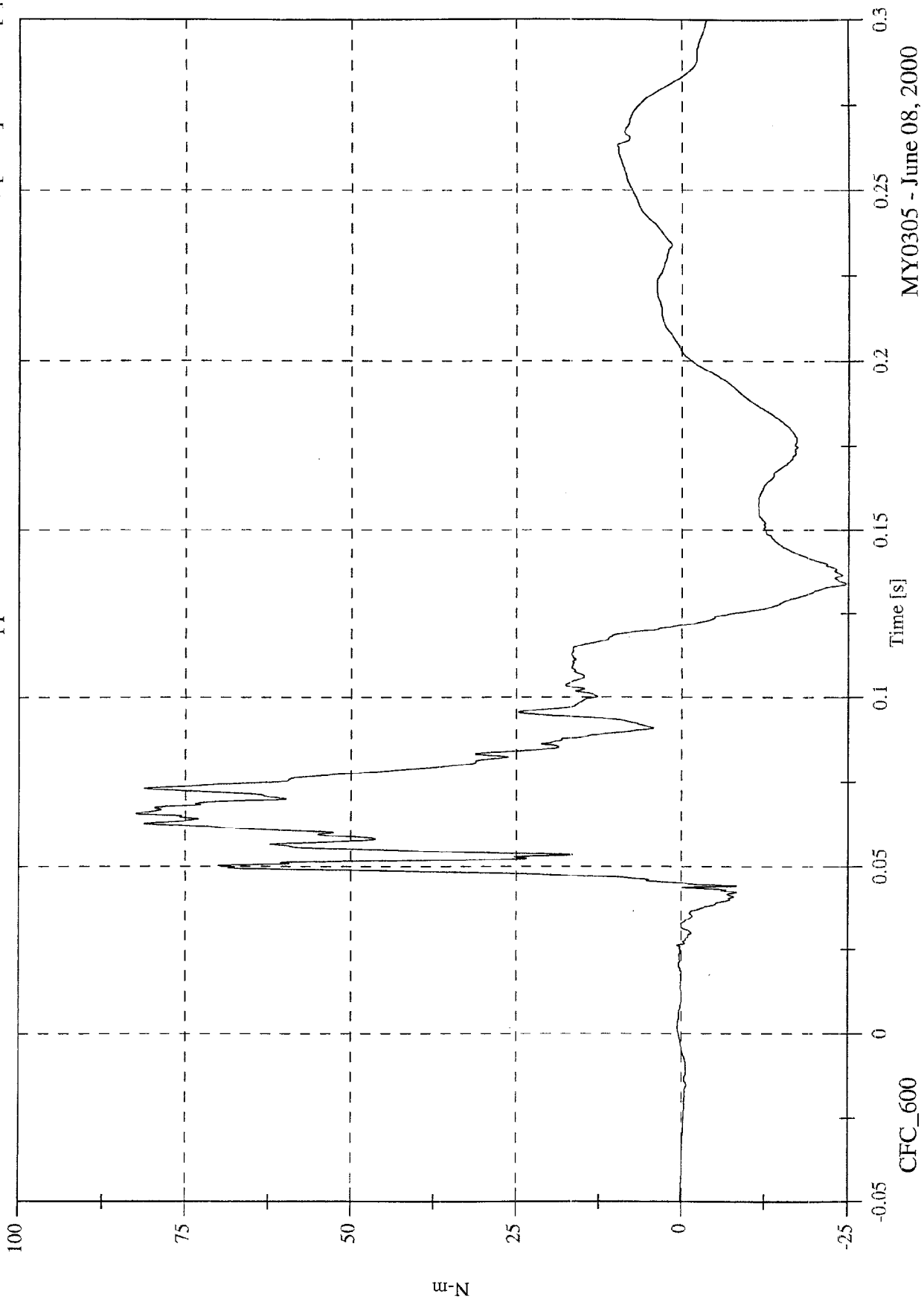


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

P2 Left Upper Tibia Mx

Max: 82.5 [N-m] at 0.066 [s]
Min: -24.6 [N-m] at 0.134 [s]

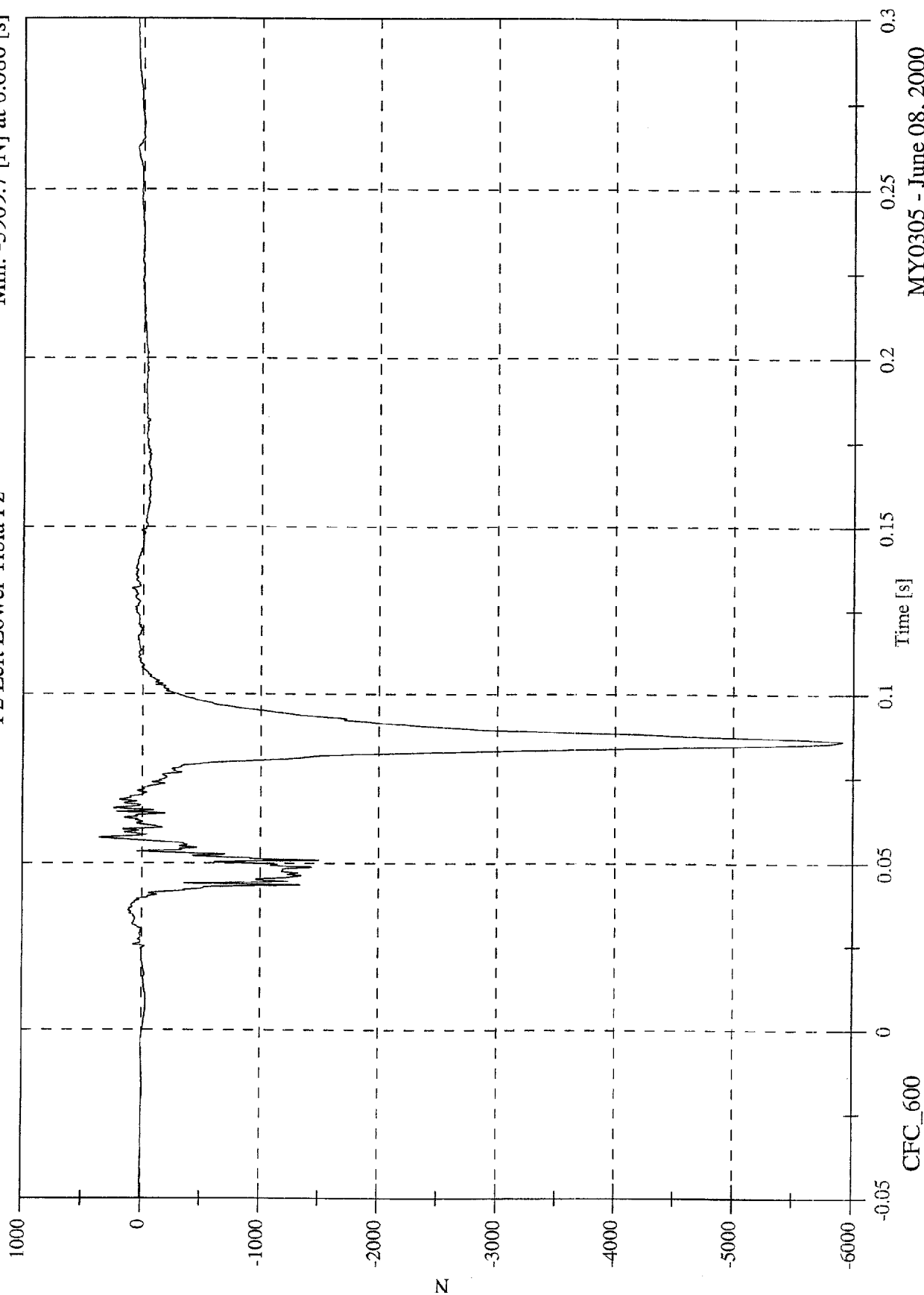


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 362.4 [N] at 0.057 [s]
Min: -5909.7 [N] at 0.086 [s]

P2 Left Lower Tibia Fz

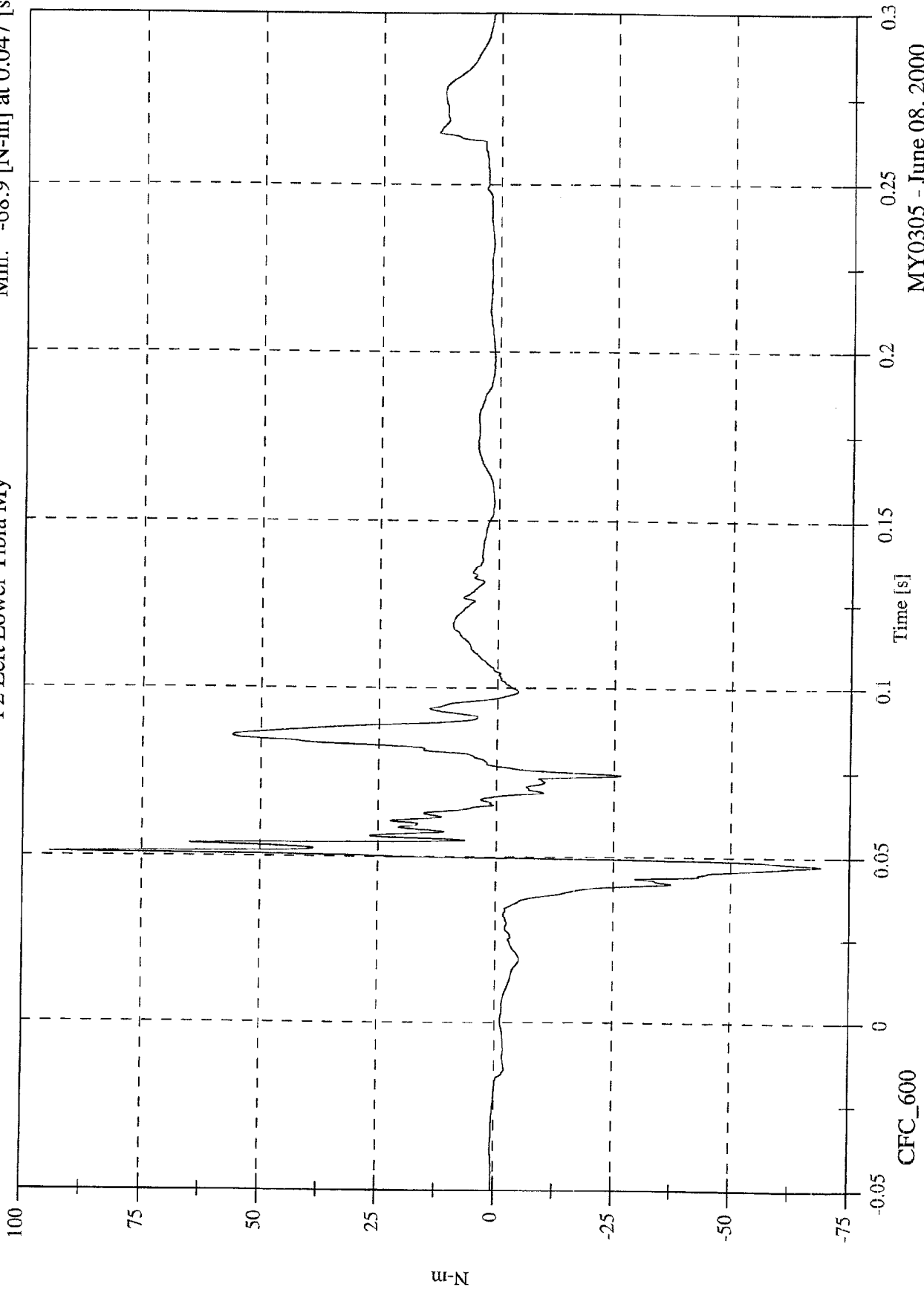


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 94.4 [N-m] at 0.051 [s]
Min: -68.9 [N-m] at 0.047 [s]

P2 Left Lower Tibia My

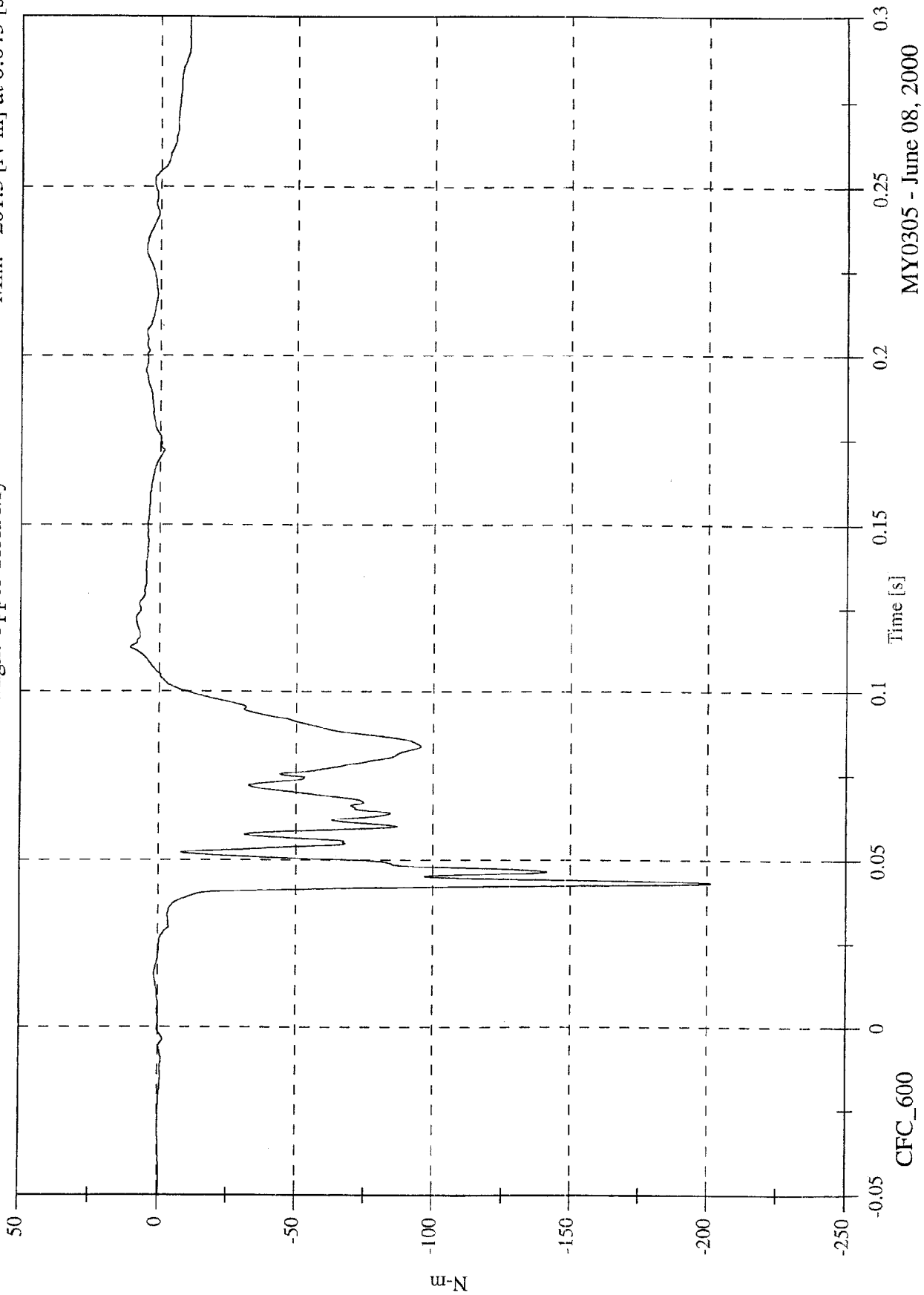


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

P2 Right Upper Tibia My

Max: 10.6 [N-m] at 0.113 [s]
Min: -201.3 [N-m] at 0.043 [s]

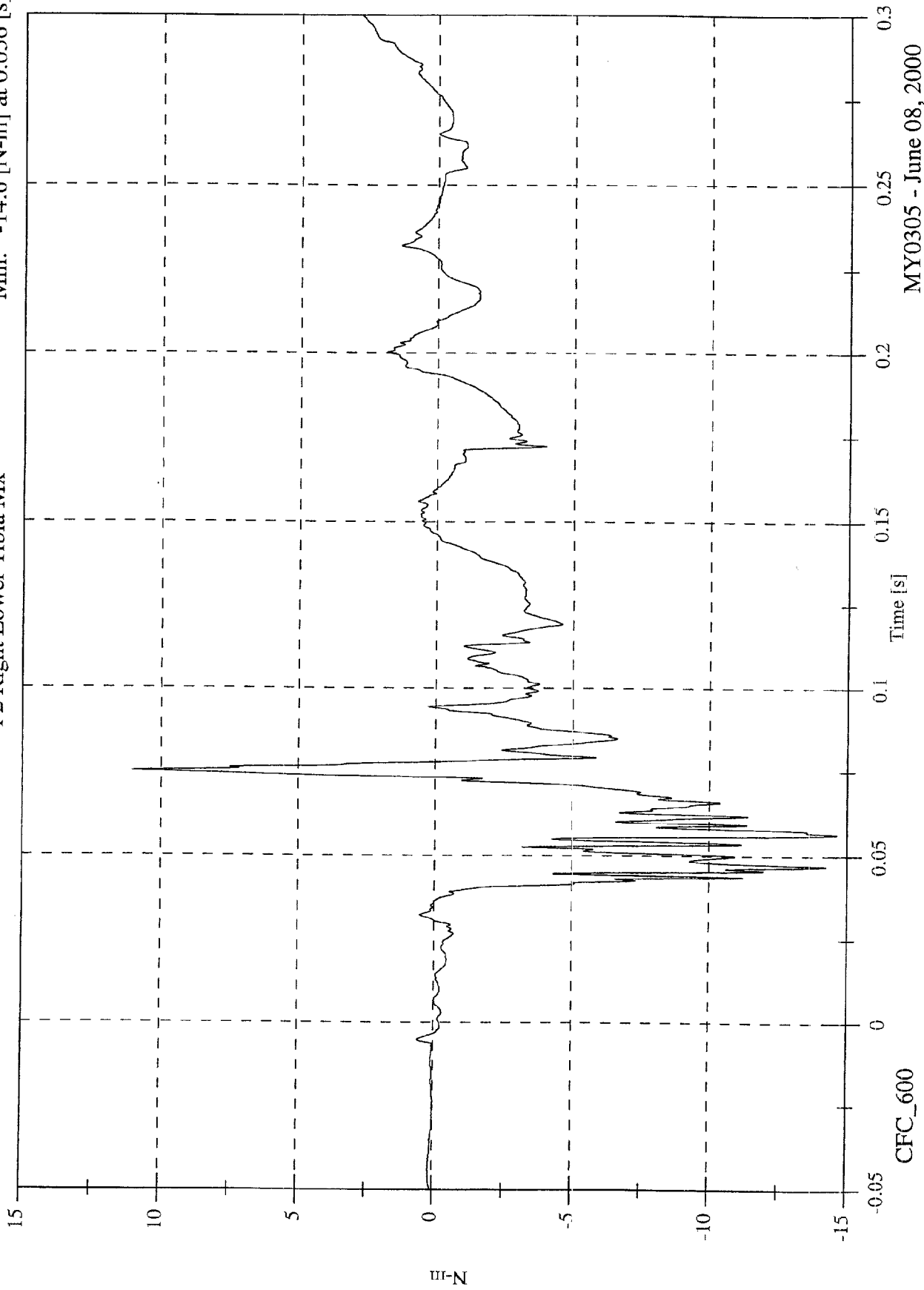


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

P2 Right Lower Tibia Mx

Max: 11.0 [N-m] at 0.075 [s]
Min: -14.6 [N-m] at 0.056 [s]

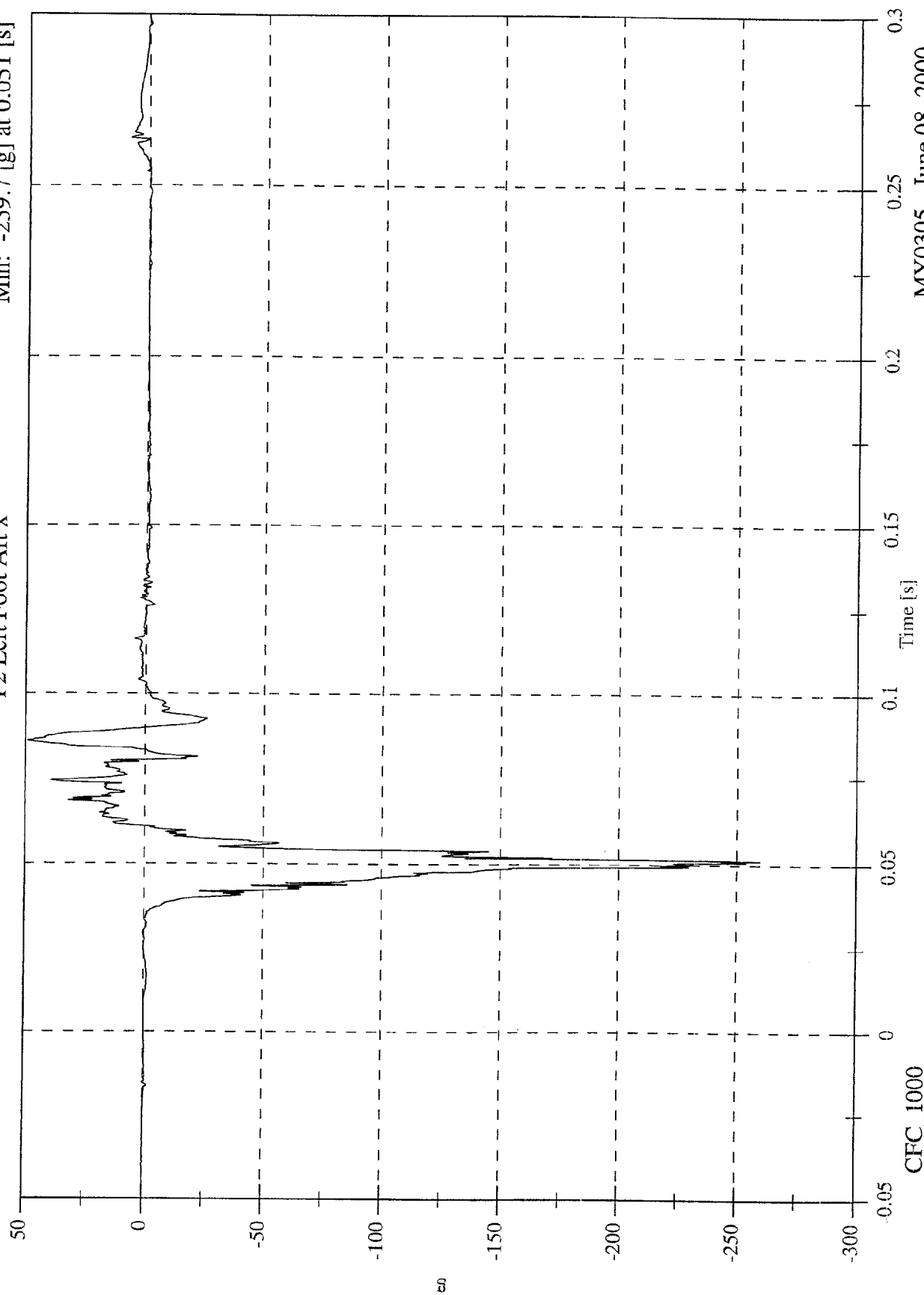


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 48.9 [g] at 0.086 [s]
 Min: -259.7 [g] at 0.051 [s]

P2 Left Foot Aft x

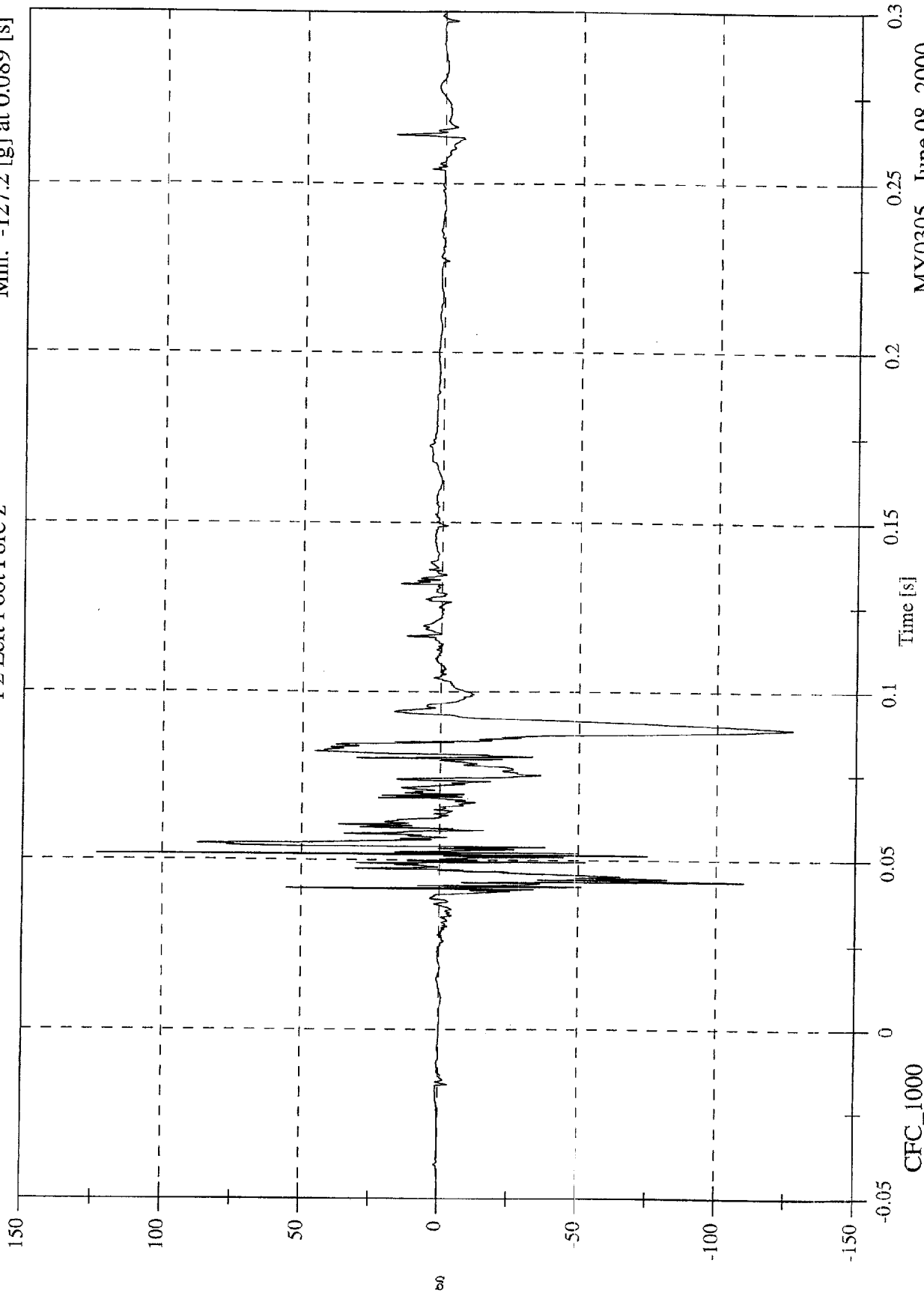


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 123.7 [g] at 0.052 [s]
Min: -127.2 [g] at 0.089 [s]

P2 Left Foot Fore z

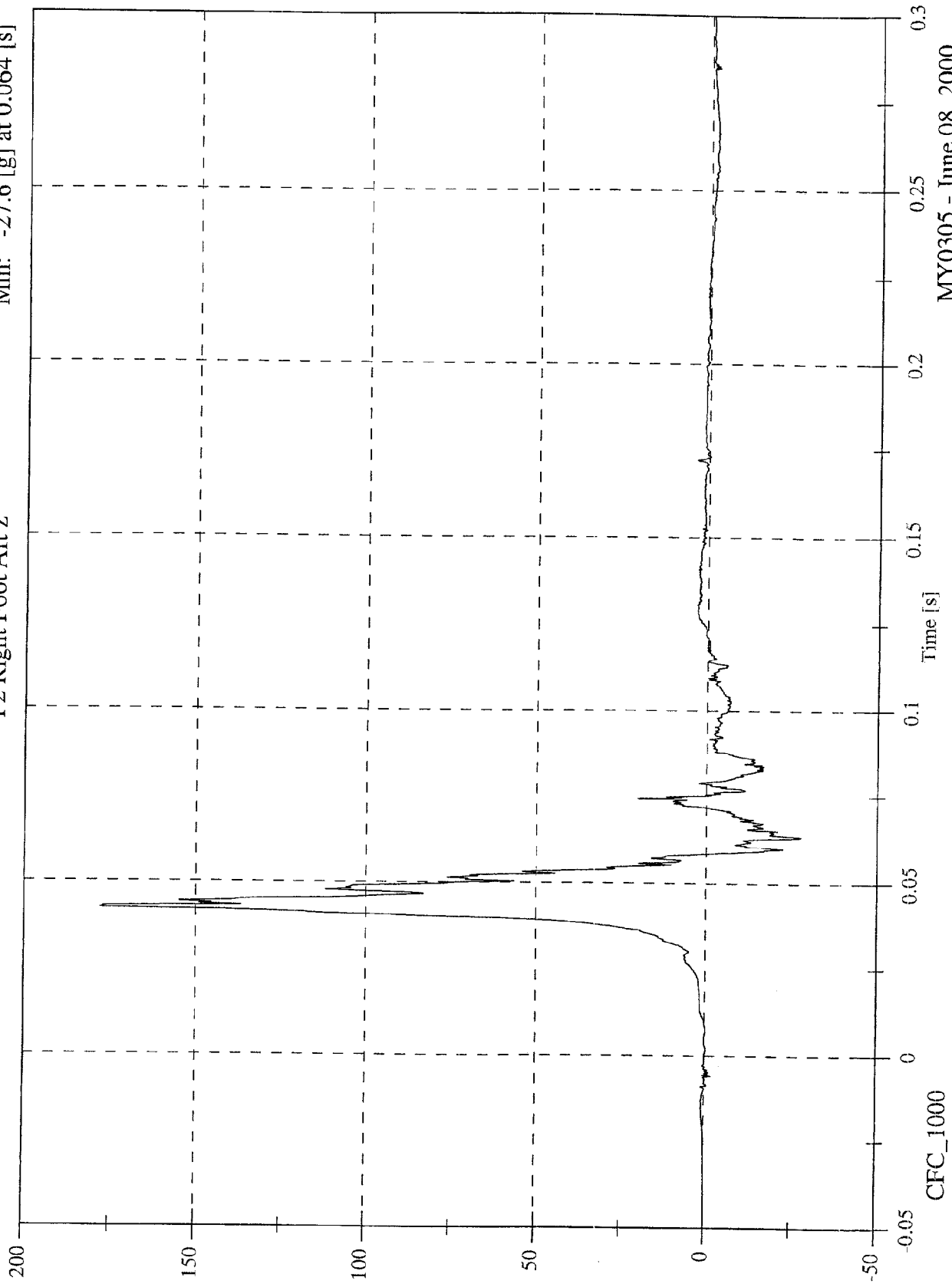


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

P2 Right Foot Aft z

Max: 177.9 [g] at 0.042 [s]
Min: -27.6 [g] at 0.064 [s]

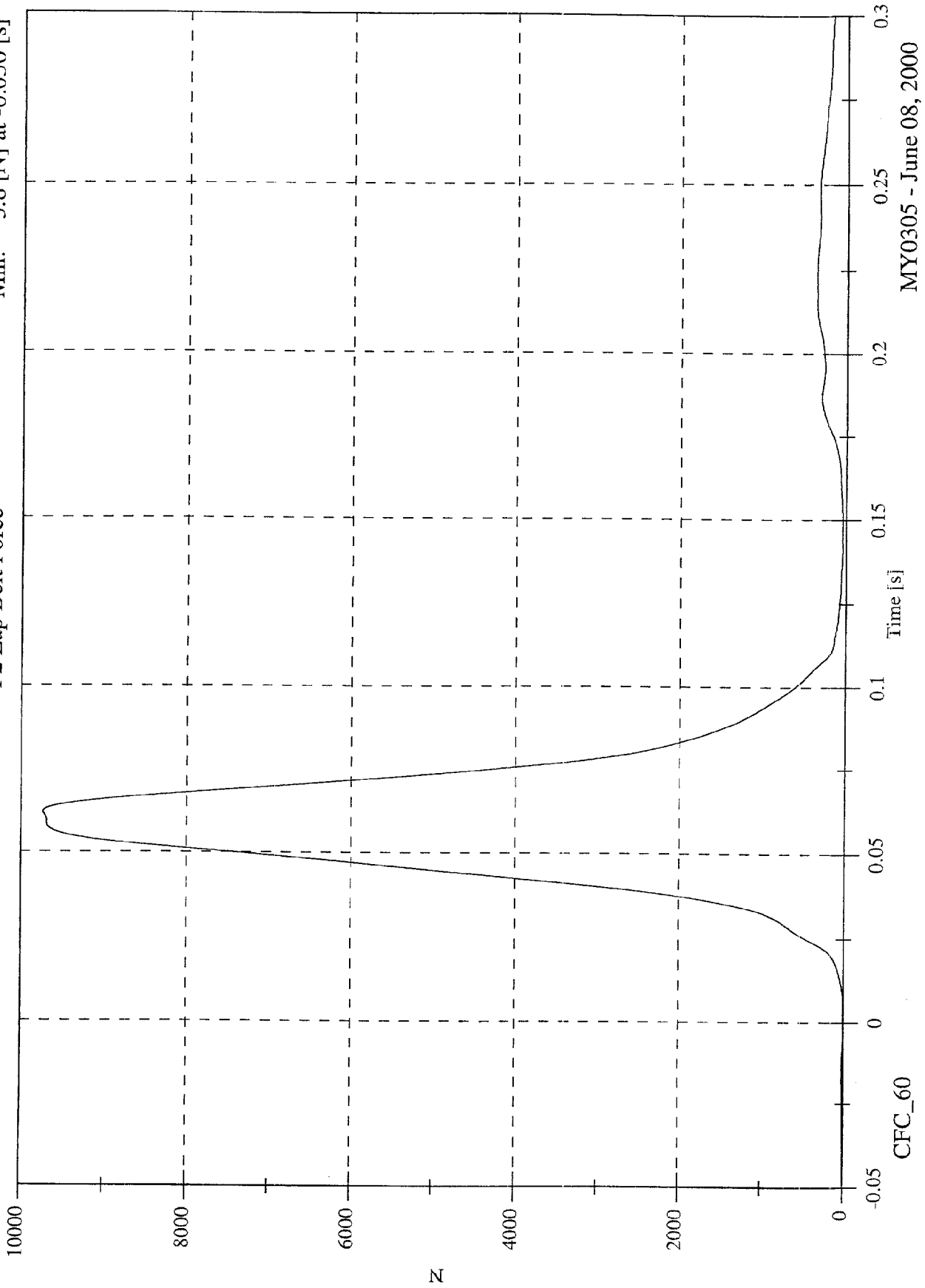


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 9731.7 [N] at 0.062 [s]
Min: 3.8 [N] at -0.050 [s]

P2 Lap Belt Force

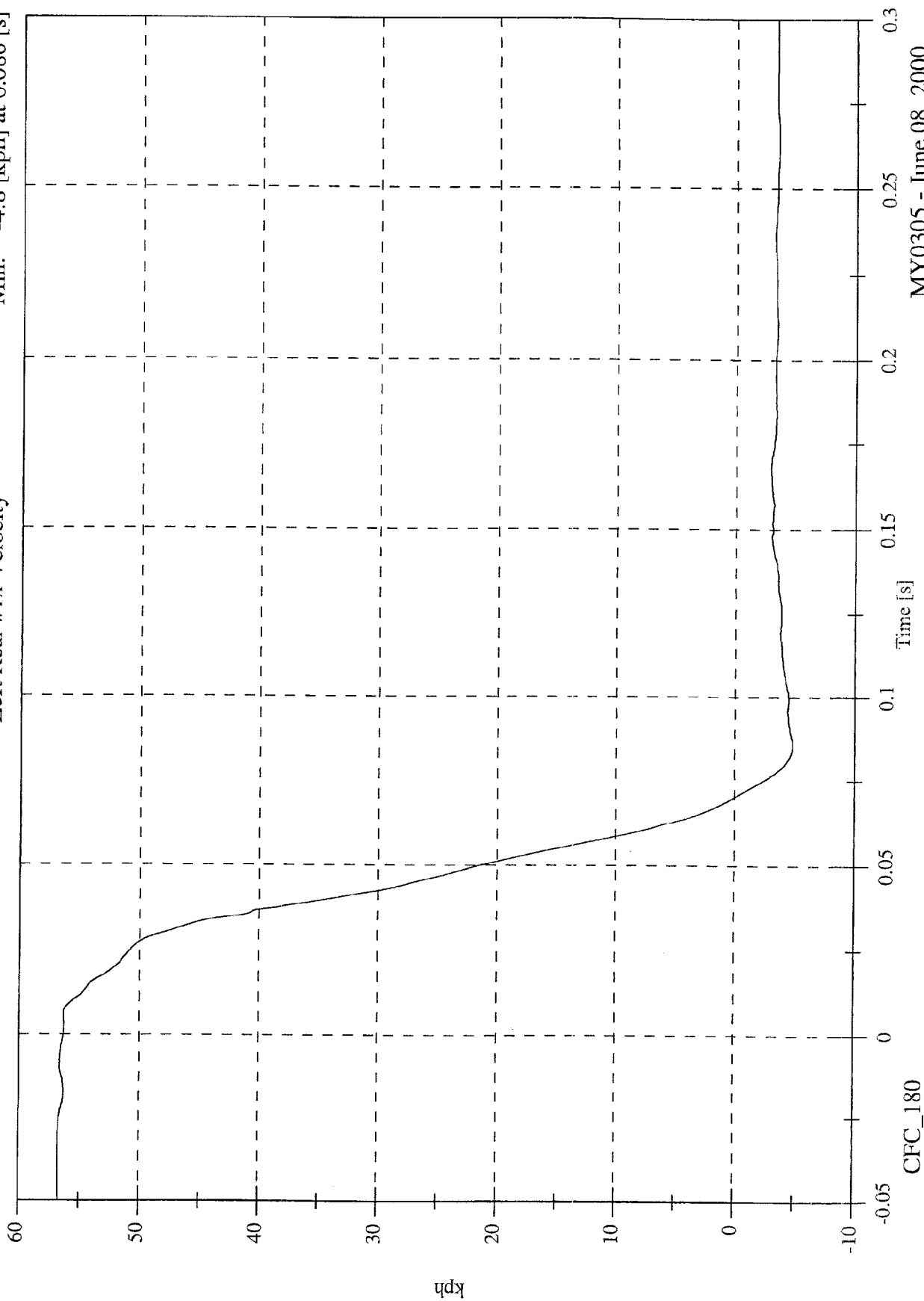


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Left Rear #1x Velocity

Max: 56.7 [kph] at -0.036 [s]
Min: -4.8 [kph] at 0.086 [s]

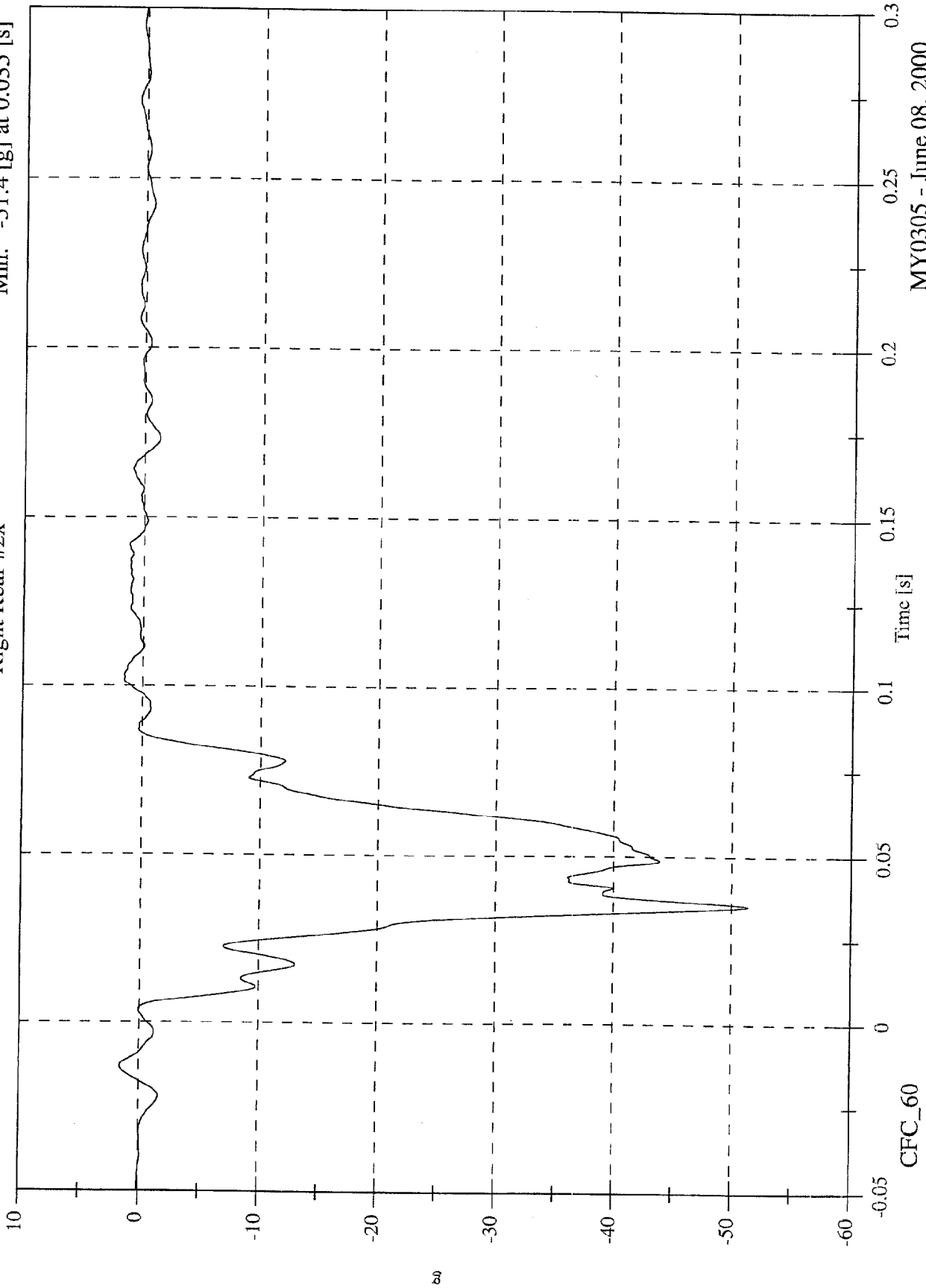


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 1.6 [g] at -0.013 [s]
Min: -51.4 [g] at 0.035 [s]

Right Rear #2x

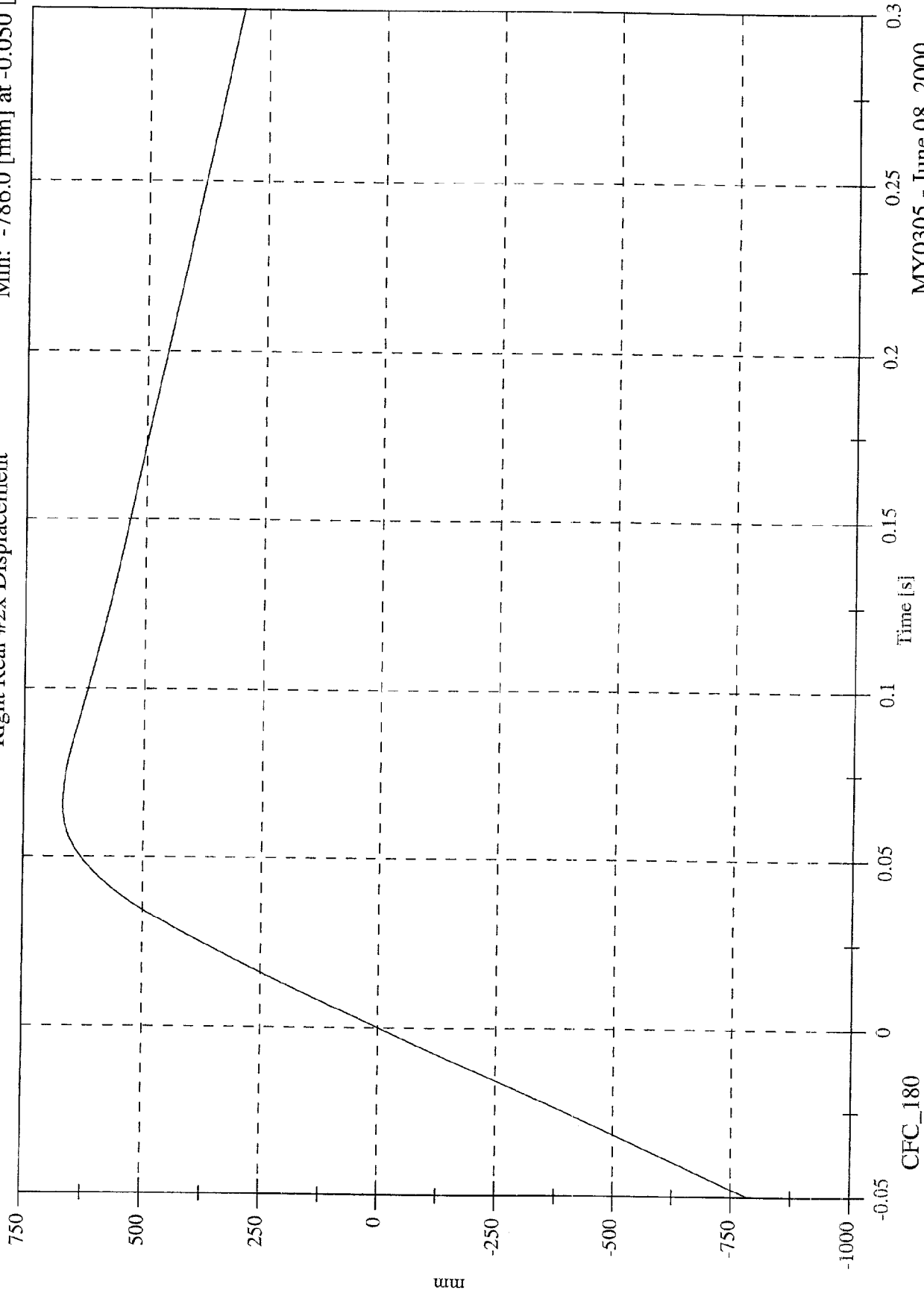


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 668.0 [mm] at 0.066 [s]
 Min: -786.0 [mm] at -0.050 [s]

Right Rear #2x Displacement

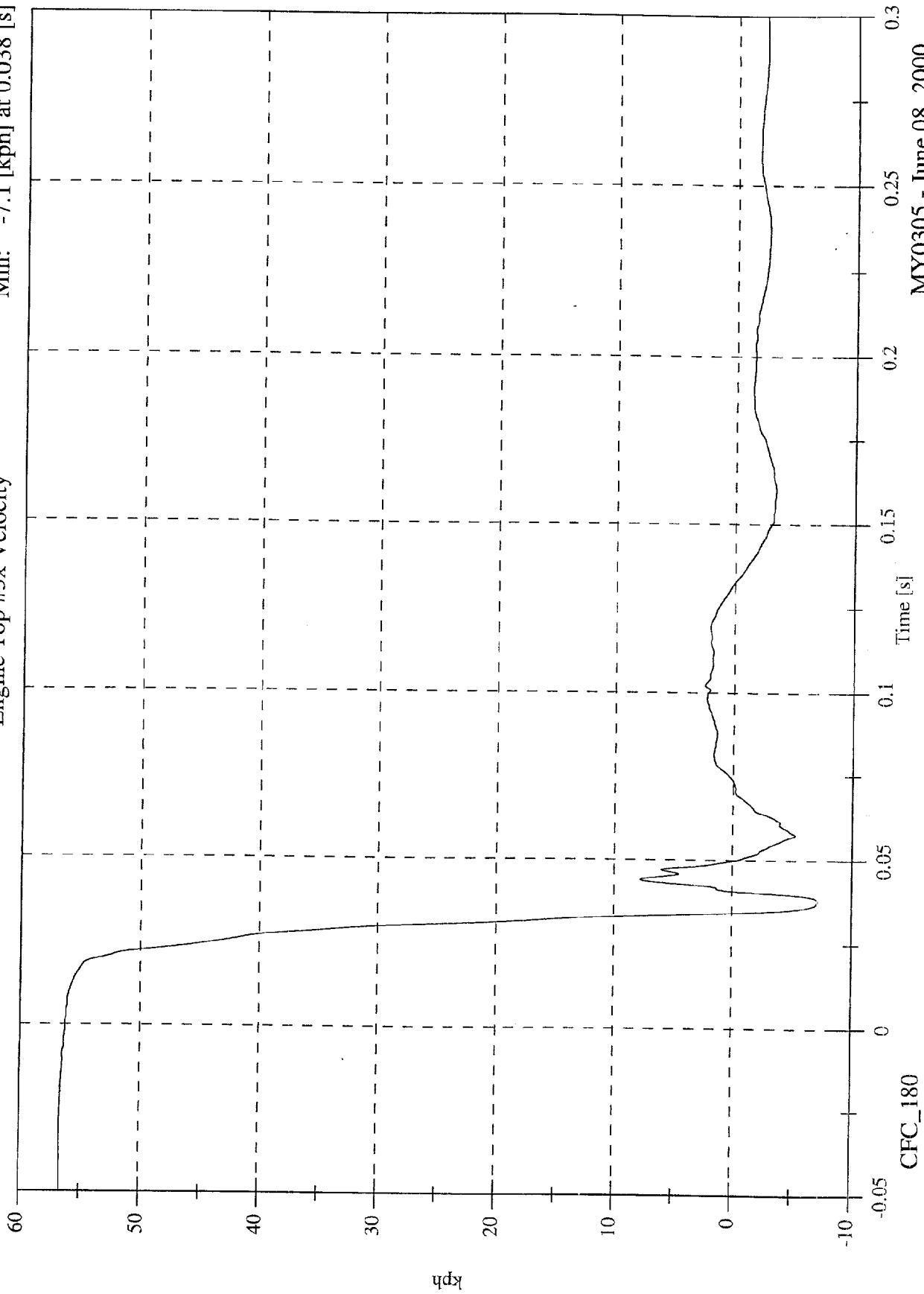


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Engine Top #3x Velocity

Max: 56.6 [kph] at -0.031 [s]
Min: -7.1 [kph] at 0.038 [s]

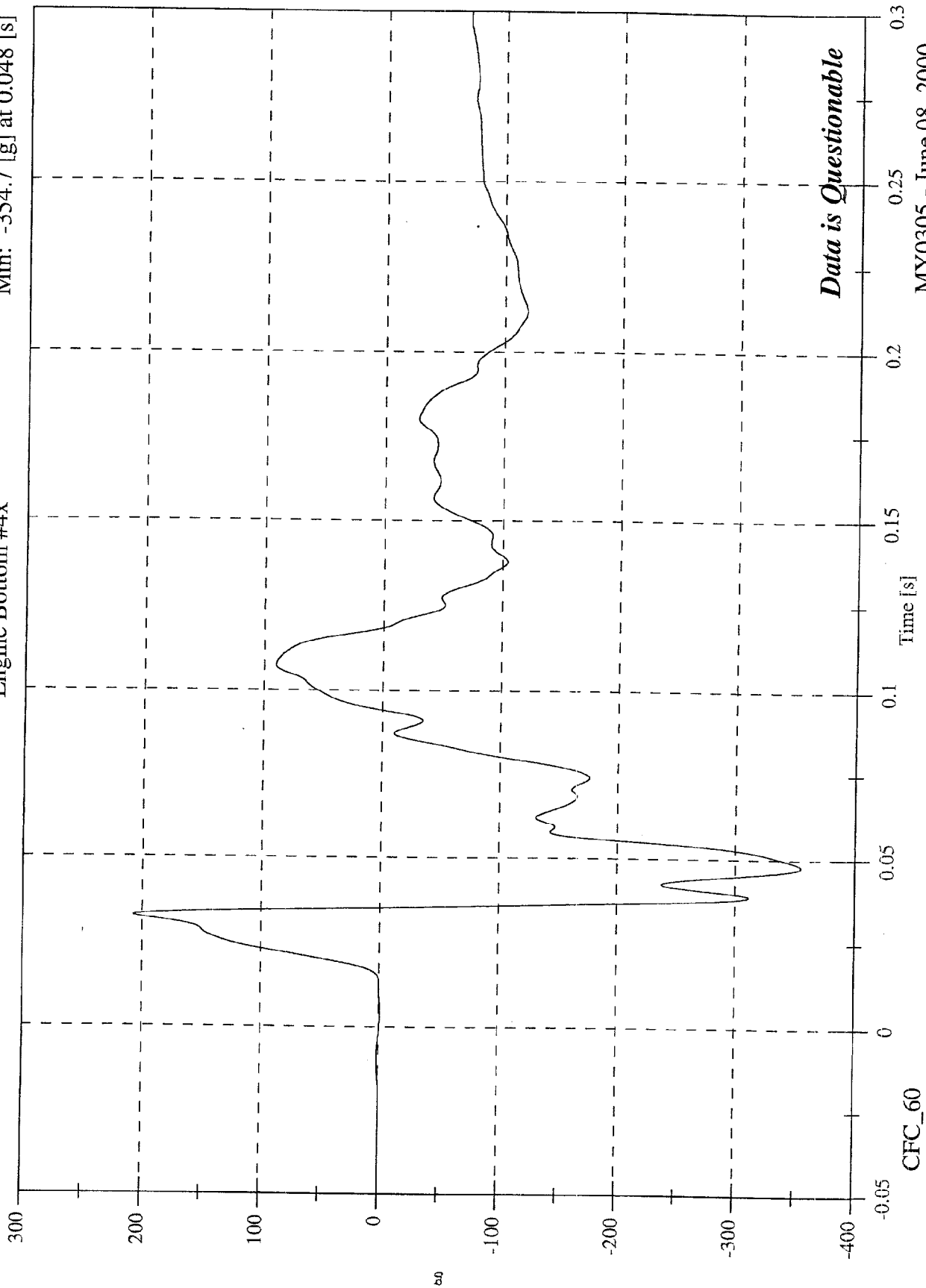


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 207.6 [g] at 0.033 [s]
Min: -354.7 [g] at 0.048 [s]

Engine Bottom #4x



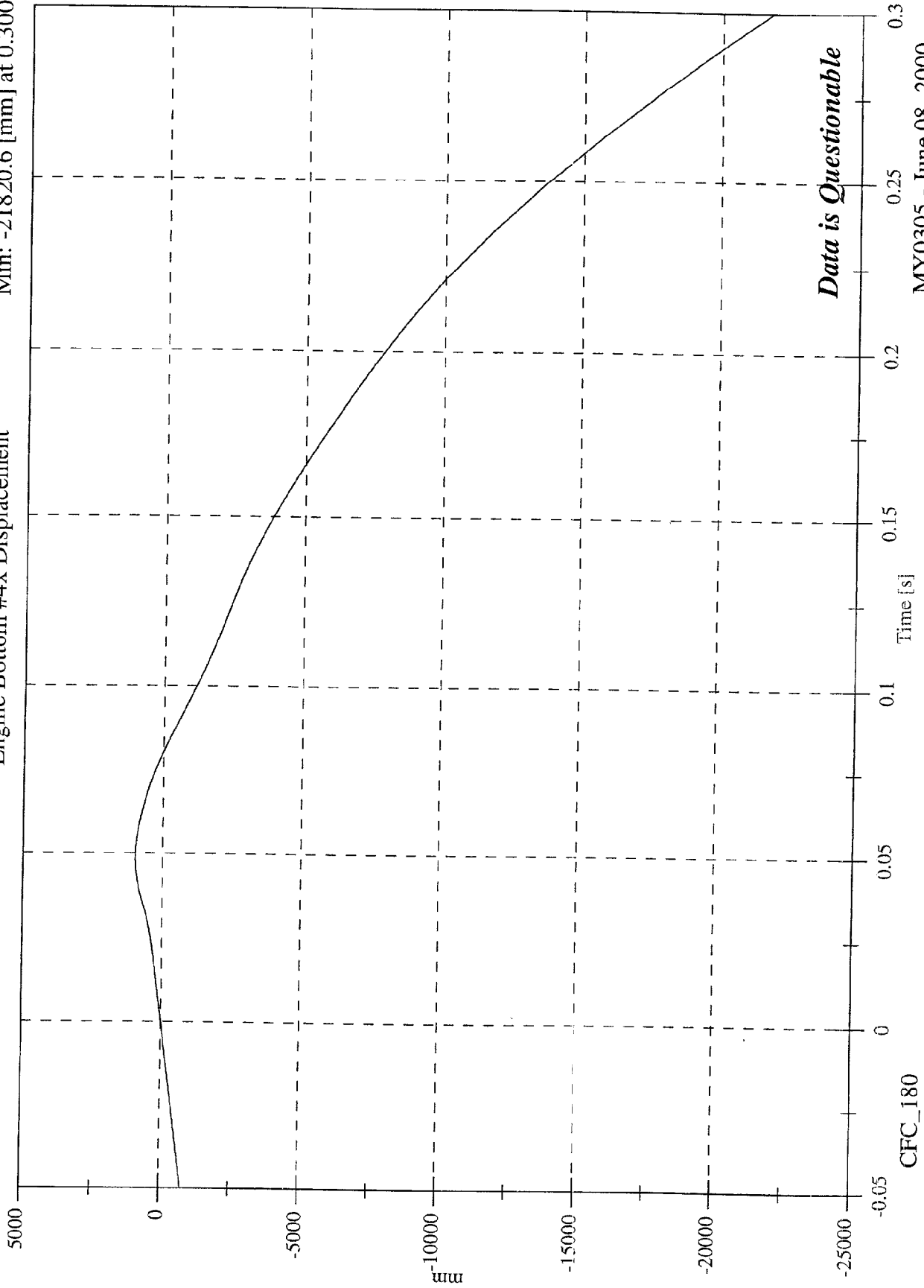
Data is Questionable

MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Engine Bottom #4x Displacement

Max: 989.8 [mm] at 0.049 [s]
Min: -21820.6 [mm] at 0.300 [s]

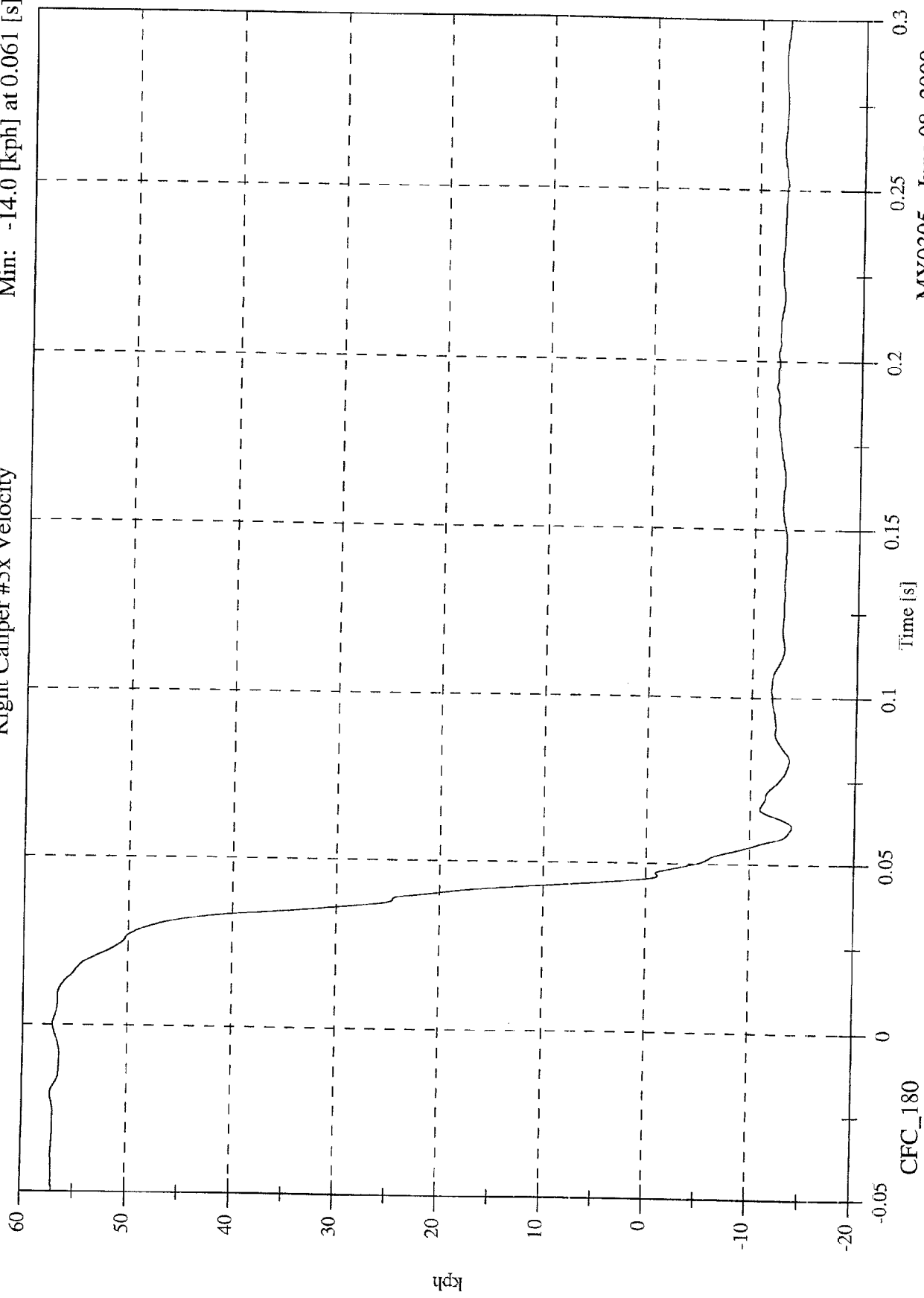


Data is Questionable
MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Right Caliper #5x Velocity

Max: 57.3 [kph] at -0.021 [s]
Min: -14.0 [kph] at 0.061 [s]

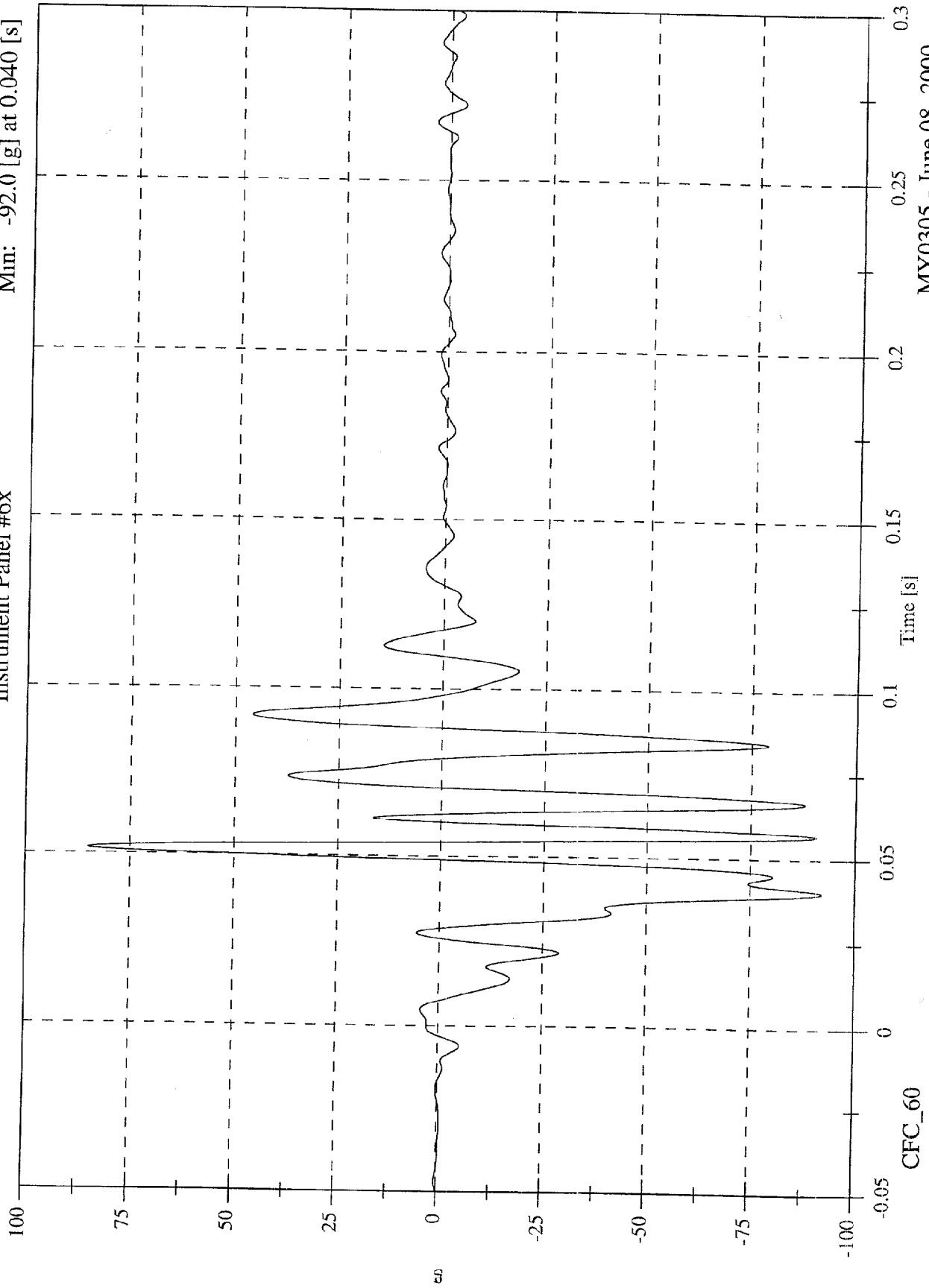


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Instrument Panel #6x

Max: 84.9 [g] at 0.052 [s]
Min: -92.0 [g] at 0.040 [s]

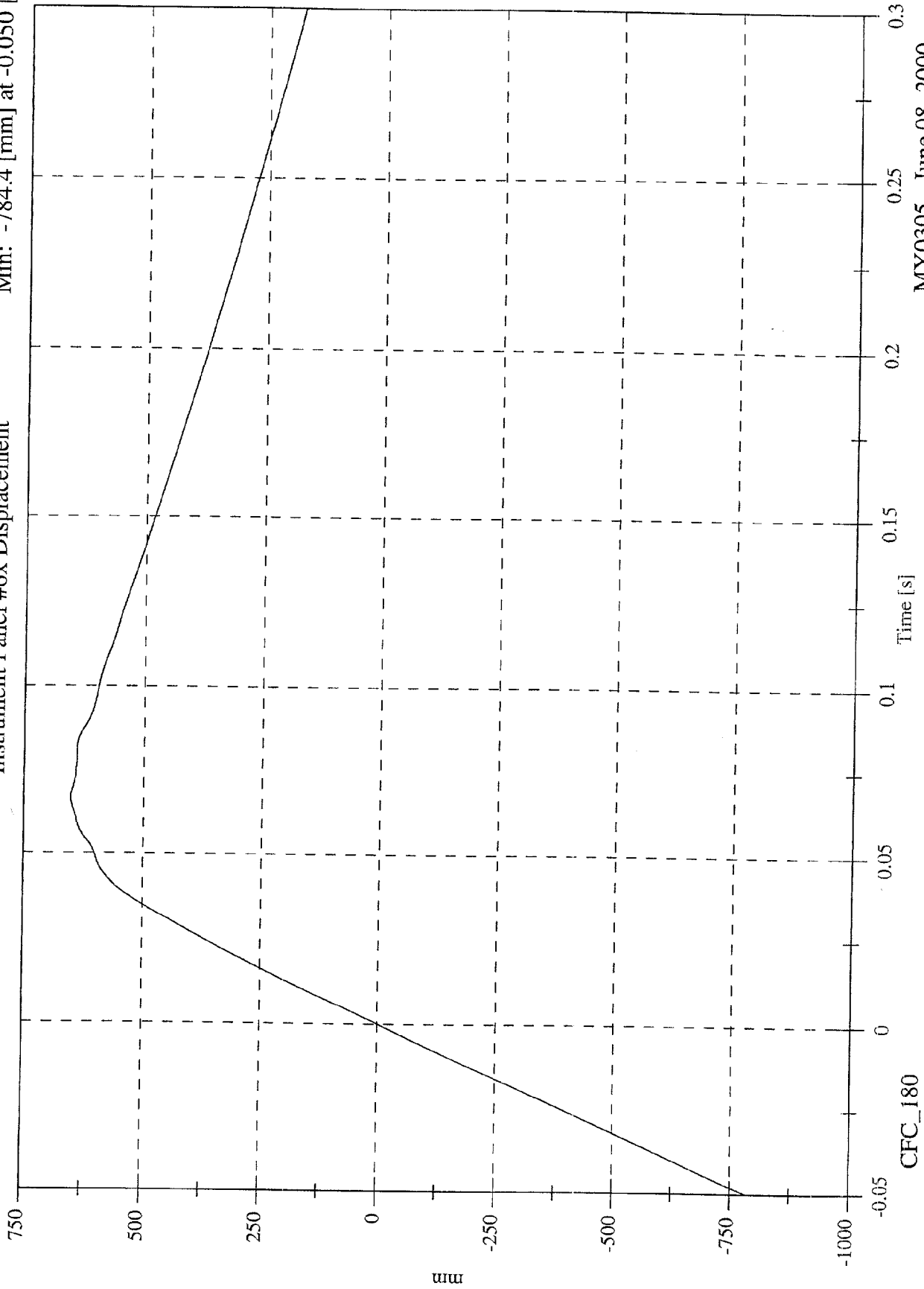


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 651.8 [mm] at 0.067 [s]
 Min: -784.4 [mm] at -0.050 [s]

Instrument Panel #6x Displacement

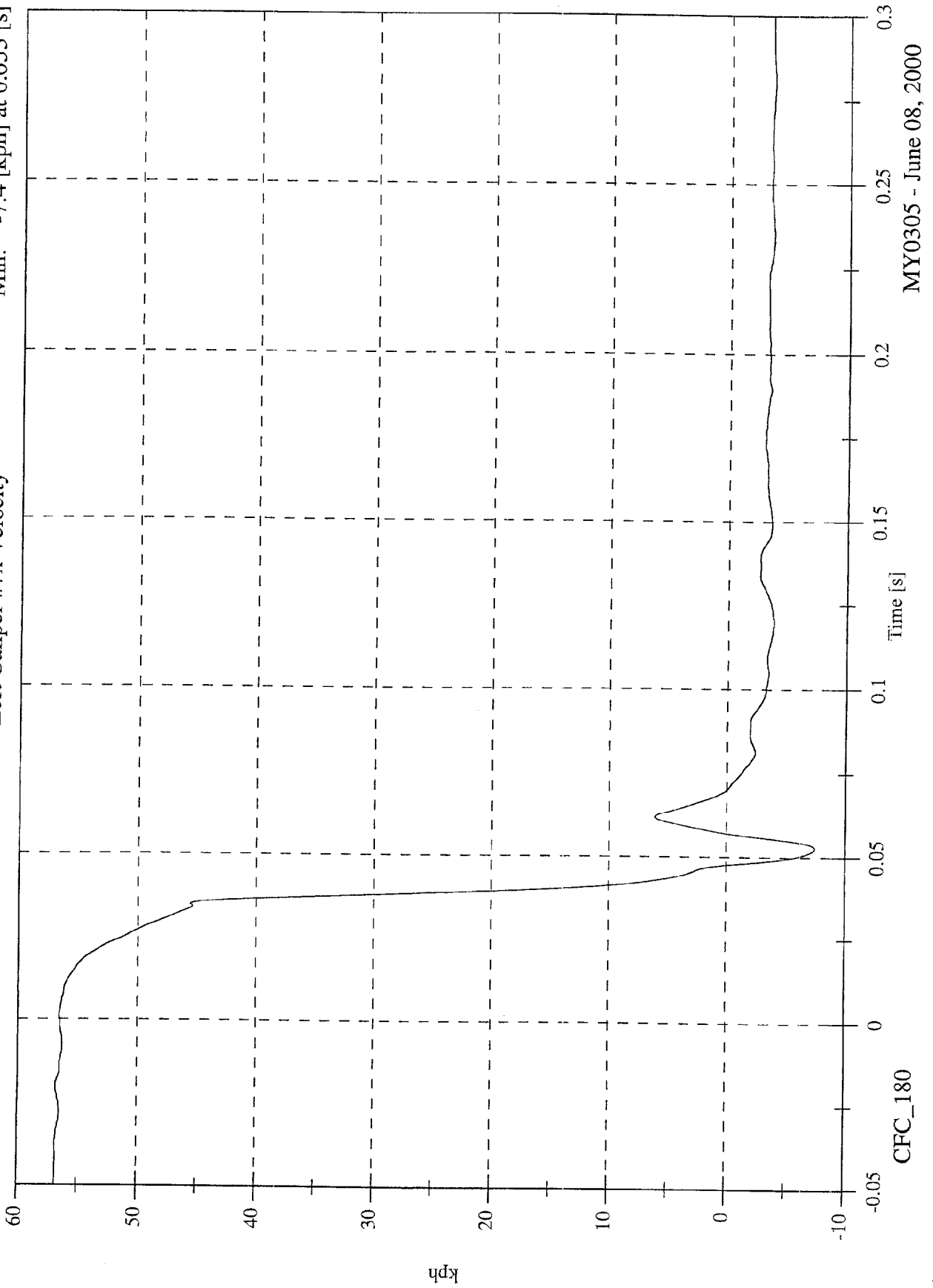


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Max: 56.8 [kph] at -0.049 [s]
Min: -7.4 [kph] at 0.053 [s]

Left Caliper #7x Velocity

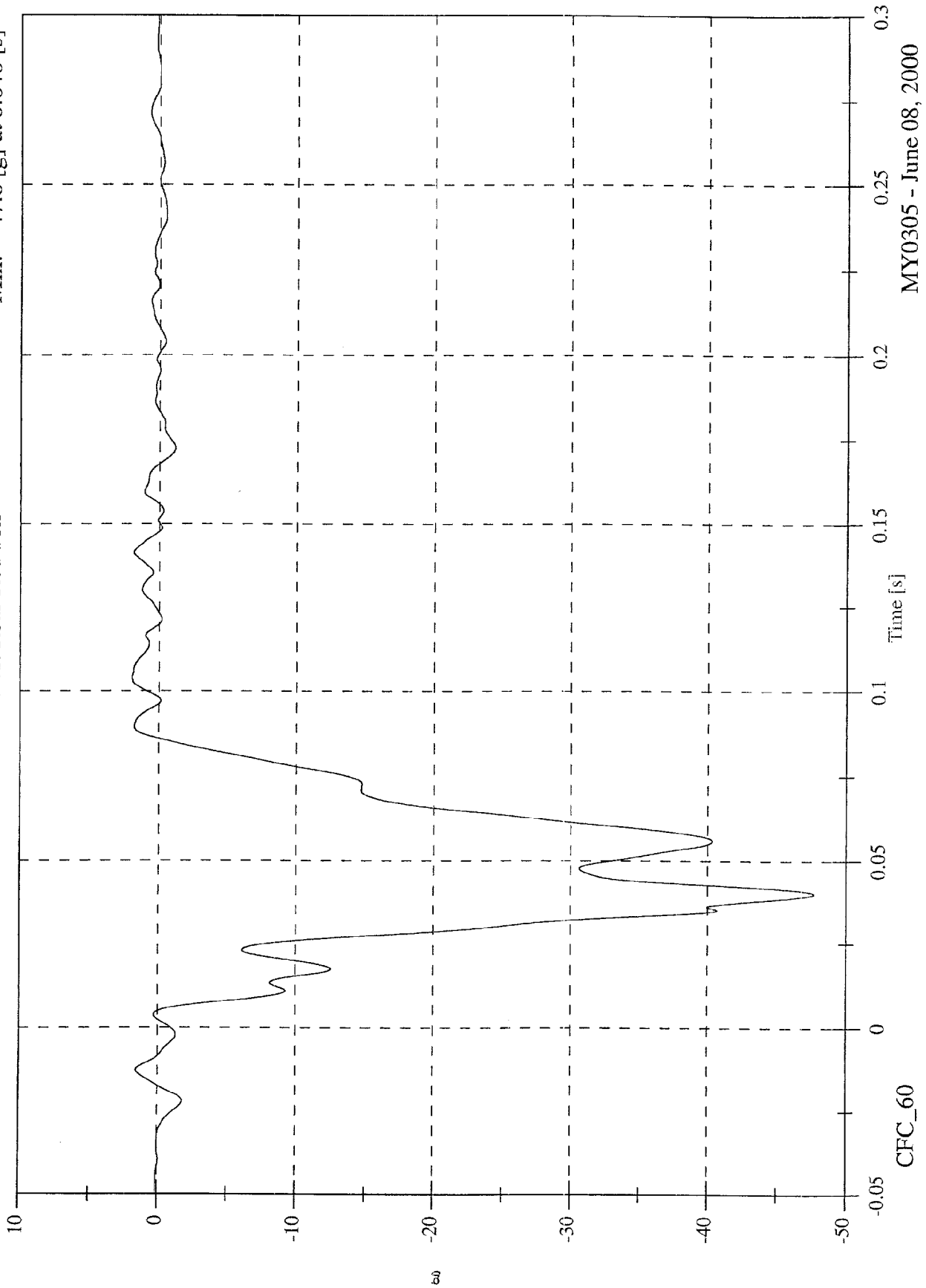


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Left Rear Red #8x

Max: 1.9 [g] at 0.104 [s]
Min: -47.6 [g] at 0.040 [s]

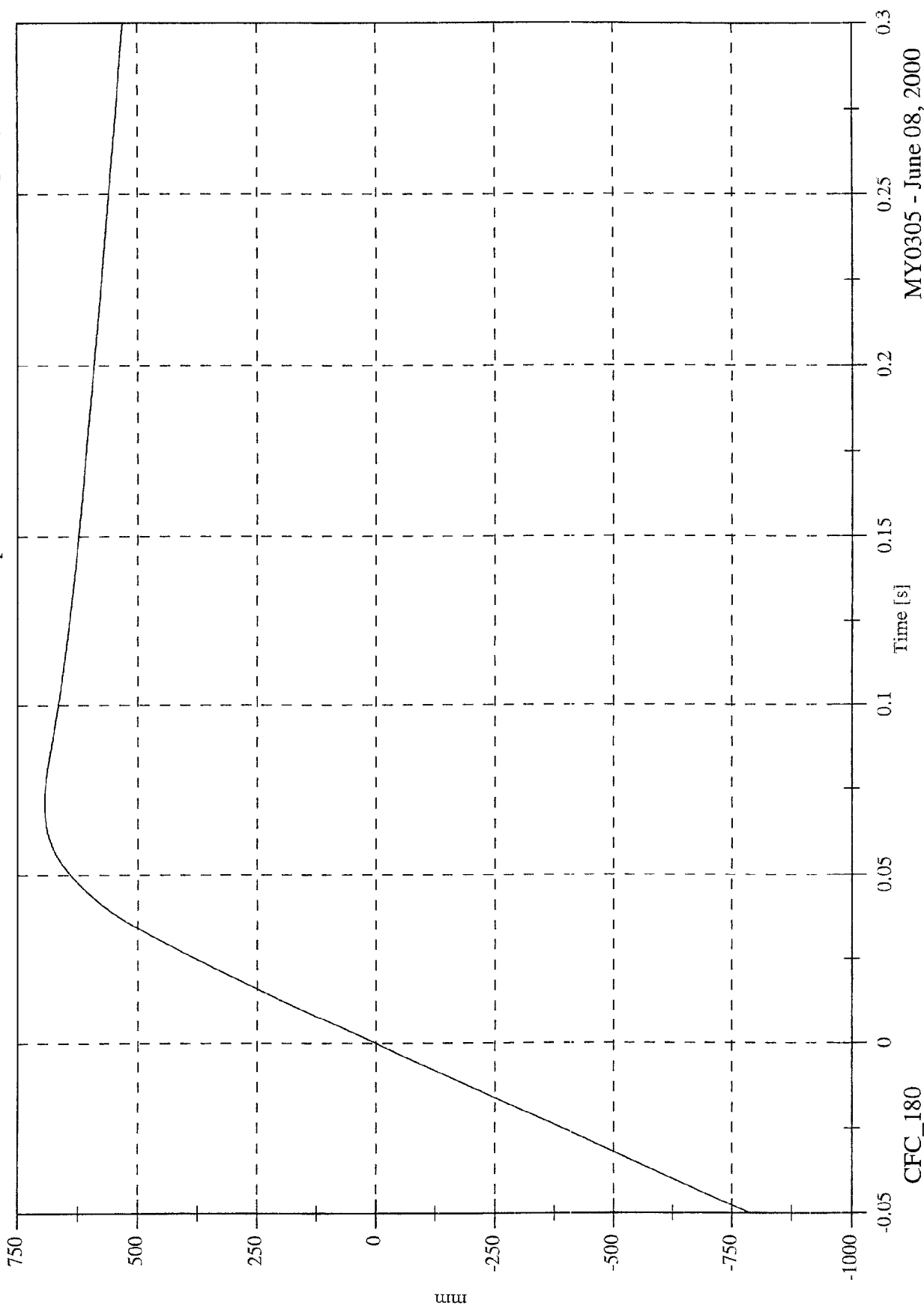


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Left Rear Red #8x Displacement

Max: 693.8 [mm] at 0.071 [s]
Min: -786.5 [mm] at -0.050 [s]

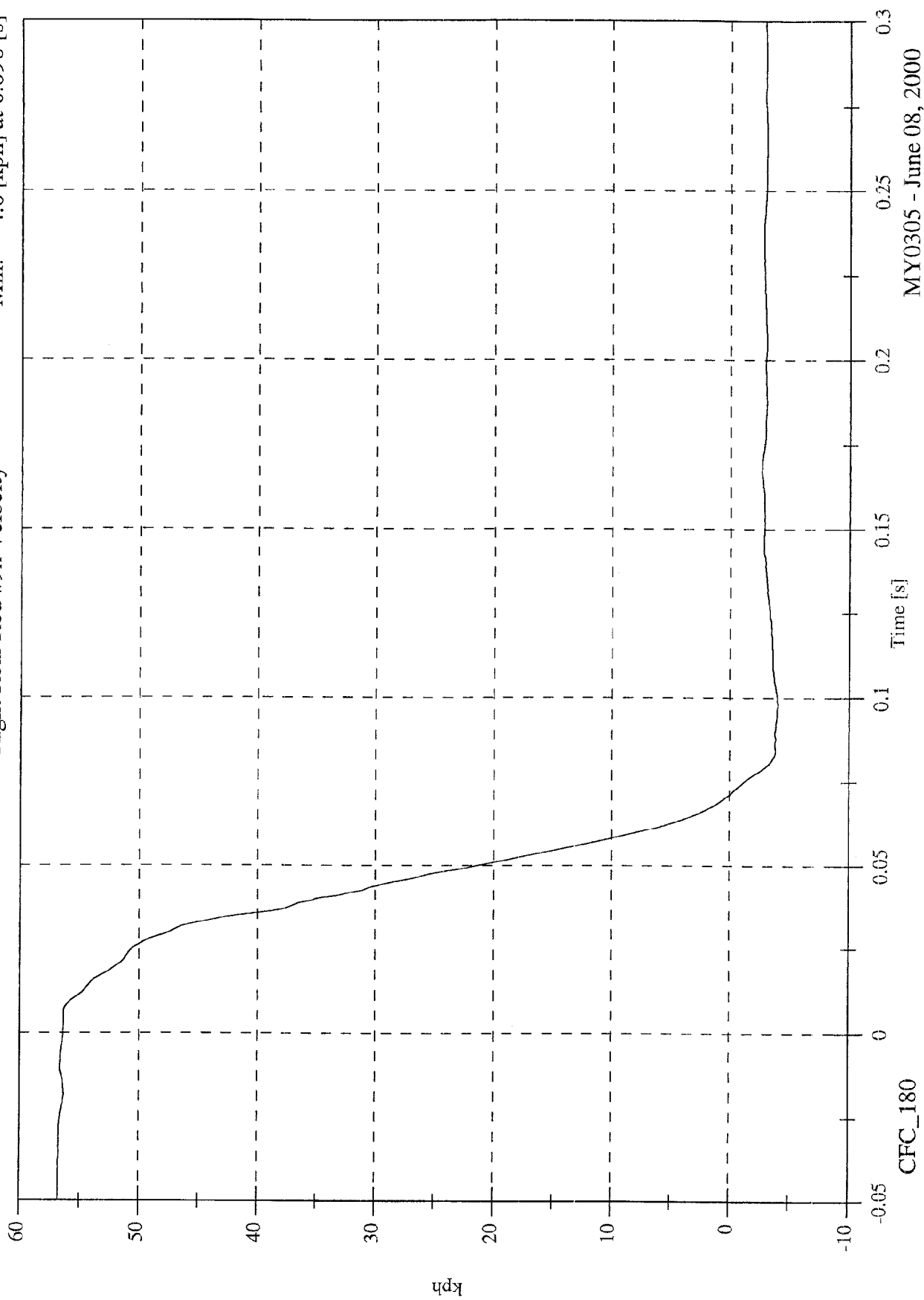


MY0305 - June 08, 2000

NCAP Test # 18 - 2001 Chrysler PT Cruiser

Right Rear Red #9x Velocity

Max: 56.7 [kph] at -0.043 [s]
Min: -4.0 [kph] at 0.098 [s]

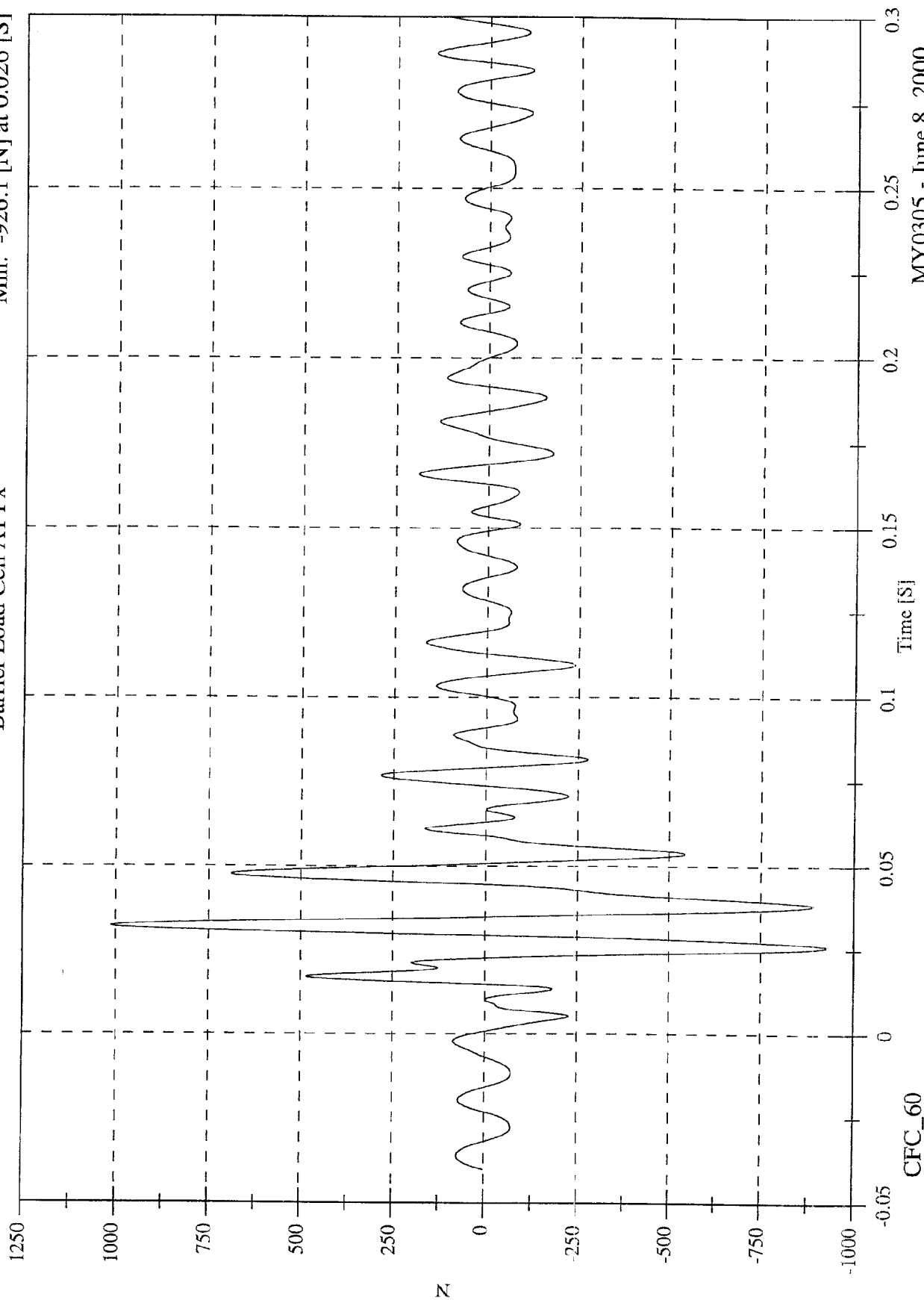


MY0305 - June 08, 2000

NCAP Test #18 - 2001 Chrysler PT Cruiser

Barrier Load Cell A1 Fx

Max: 1012.9 [N] at 0.032 [S]
Min: -926.1 [N] at 0.026 [S]

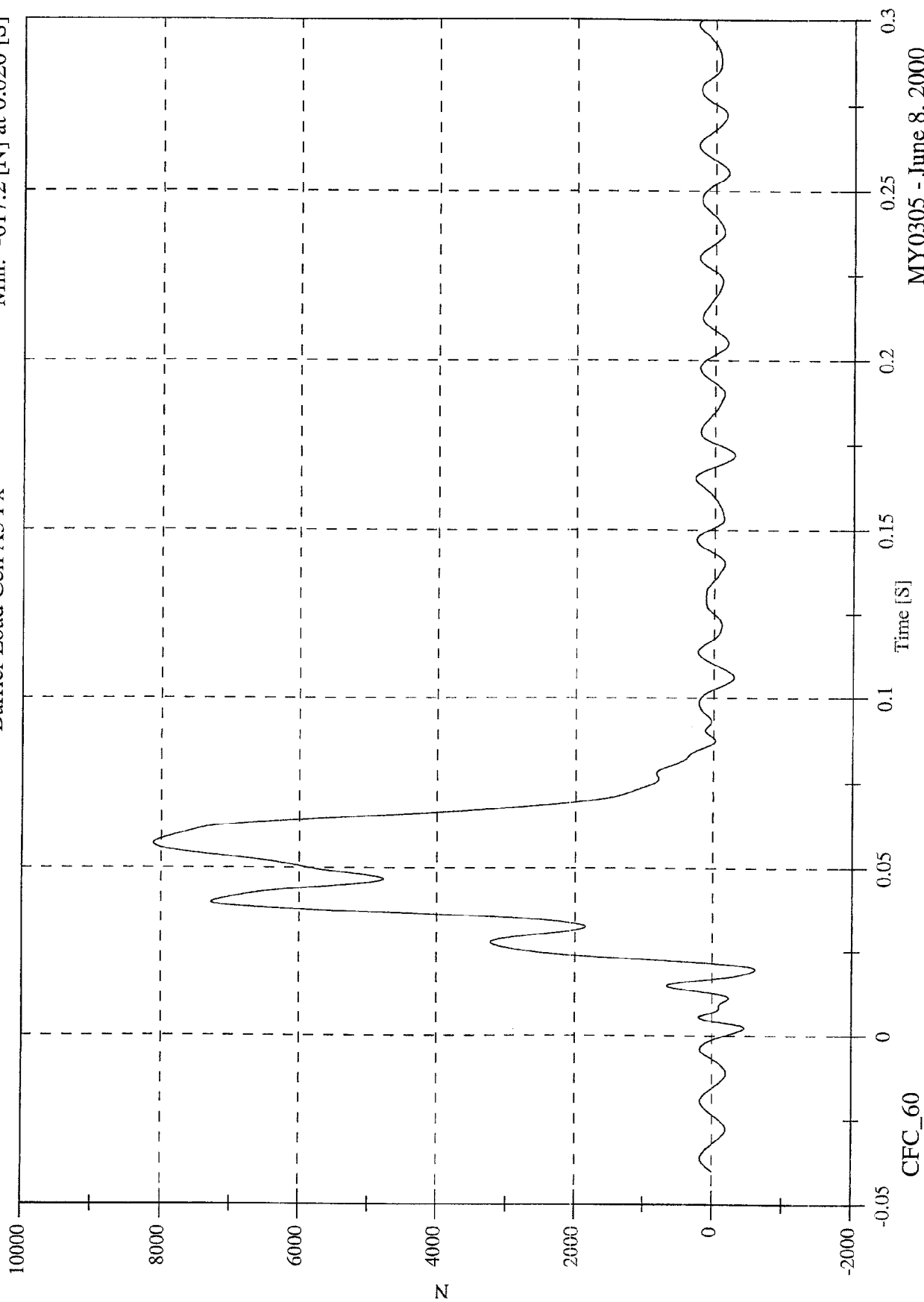


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Cruiser

Max: 8112.4 [N] at 0.057 [S]
Min: -617.2 [N] at 0.020 [S]

Barrier Load Cell A3 Fx

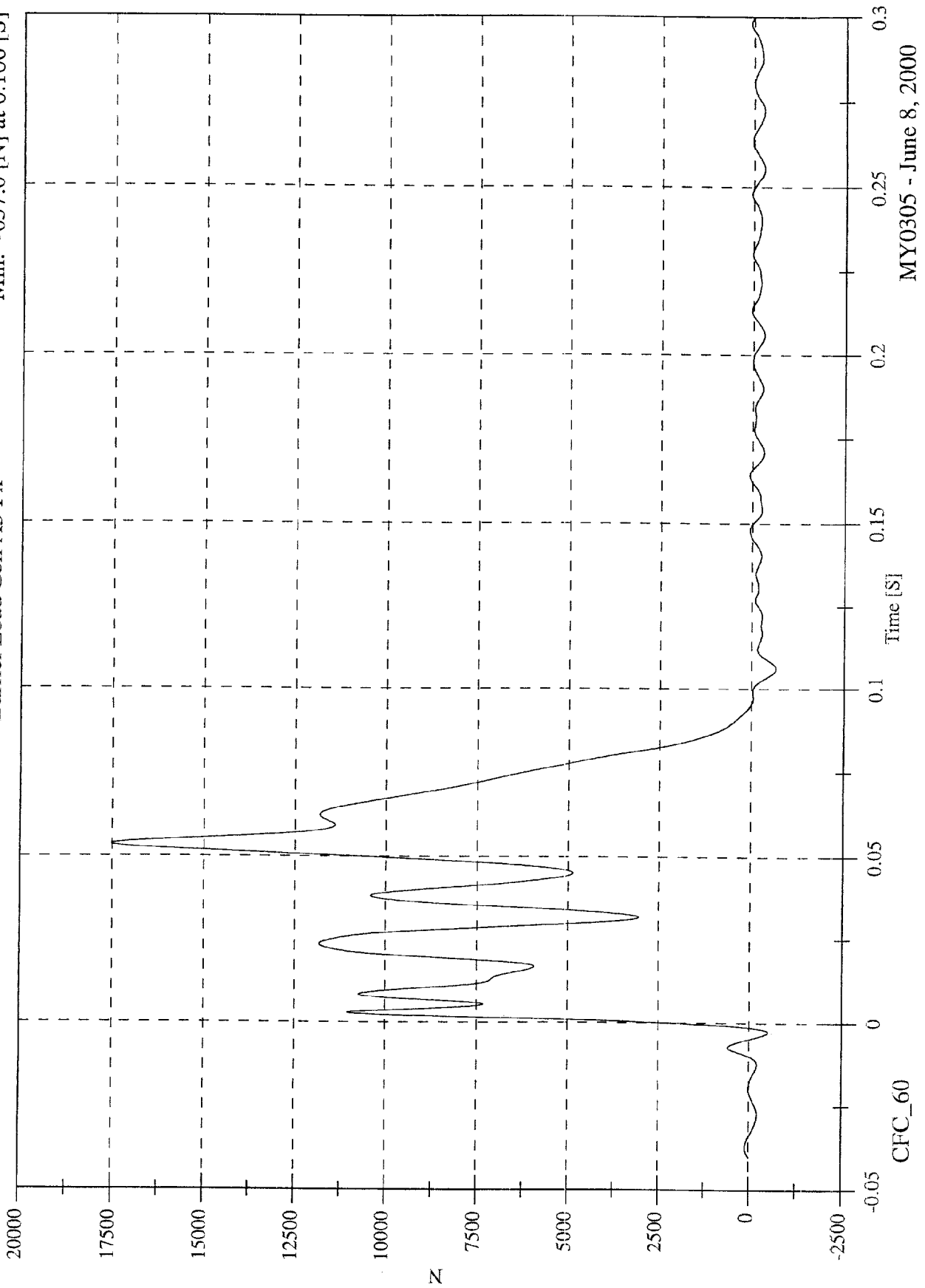


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Cruiser

Barrier Load Cell A5 Fx

Max: 17515.6 [N] at 0.053 [S]
Min: -657.0 [N] at 0.106 [S]

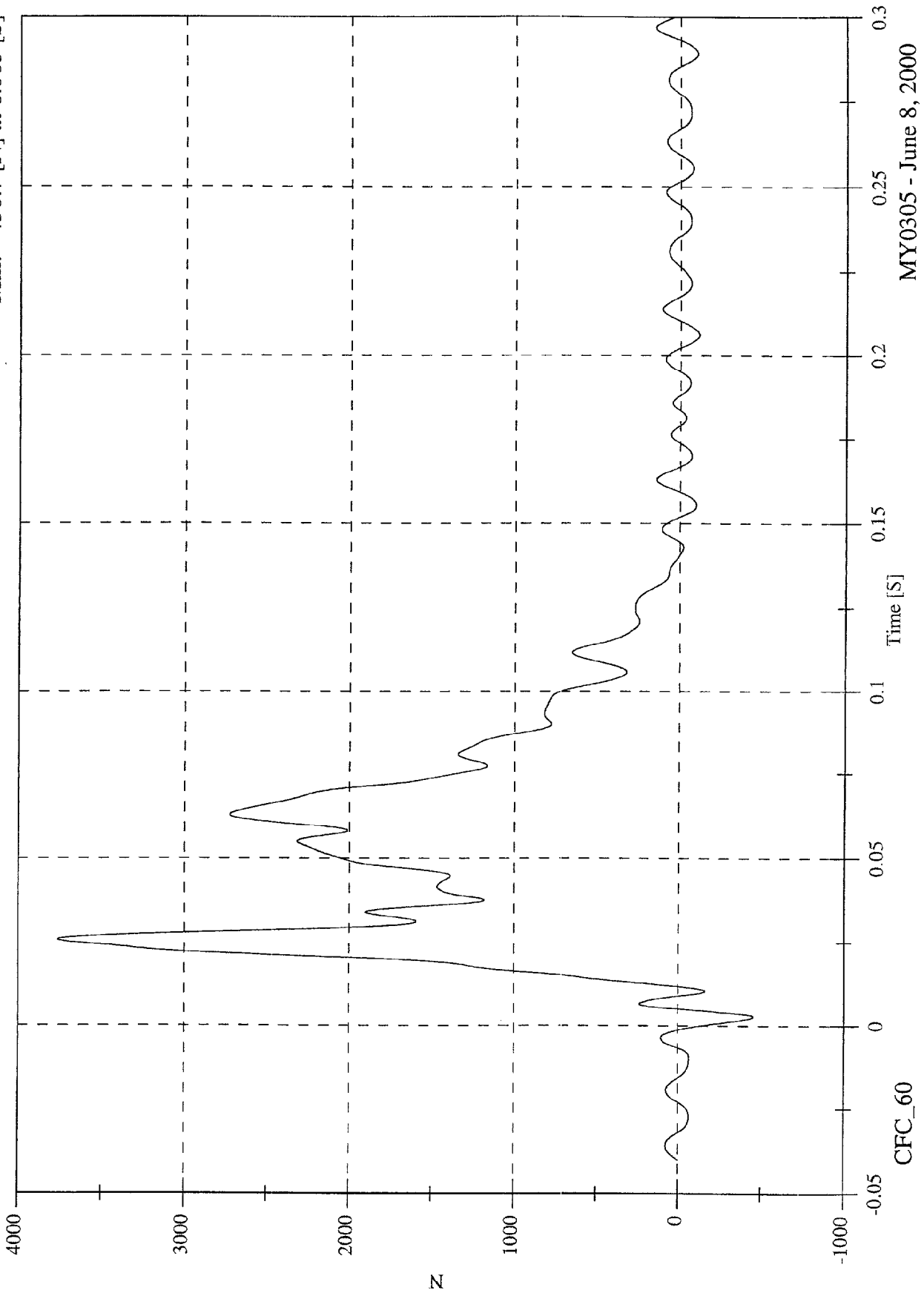


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Crusier

Barrier Load Cell A7 Fx

Max: 3762.2 [N] at 0.026 [S]
Min: -456.7 [N] at 0.003 [S]

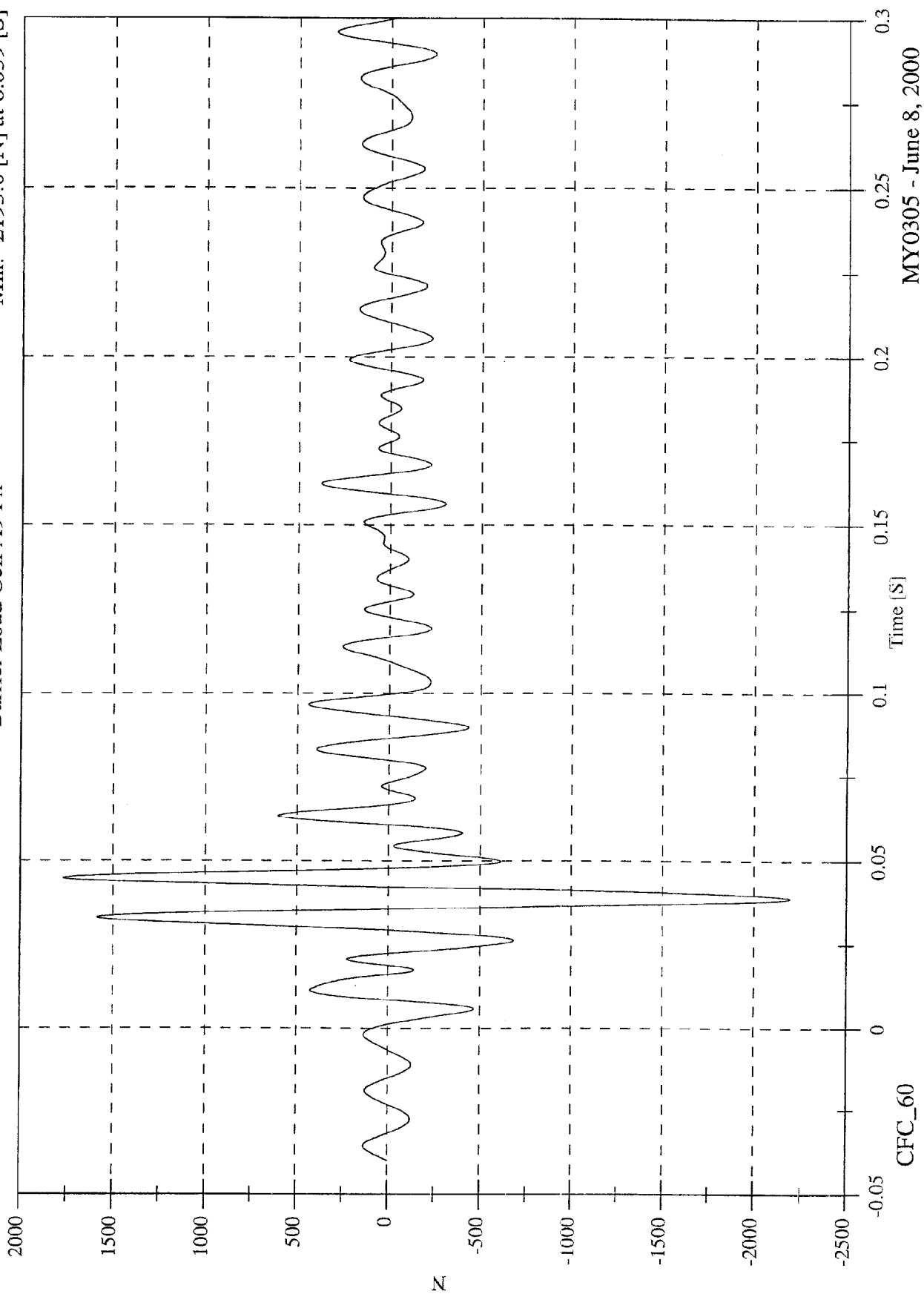


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Crusier

Max: 1768.4 [N] at 0.045 [S]
Min: -2193.8 [N] at 0.039 [S]

Barrier Load Cell A9 Fx

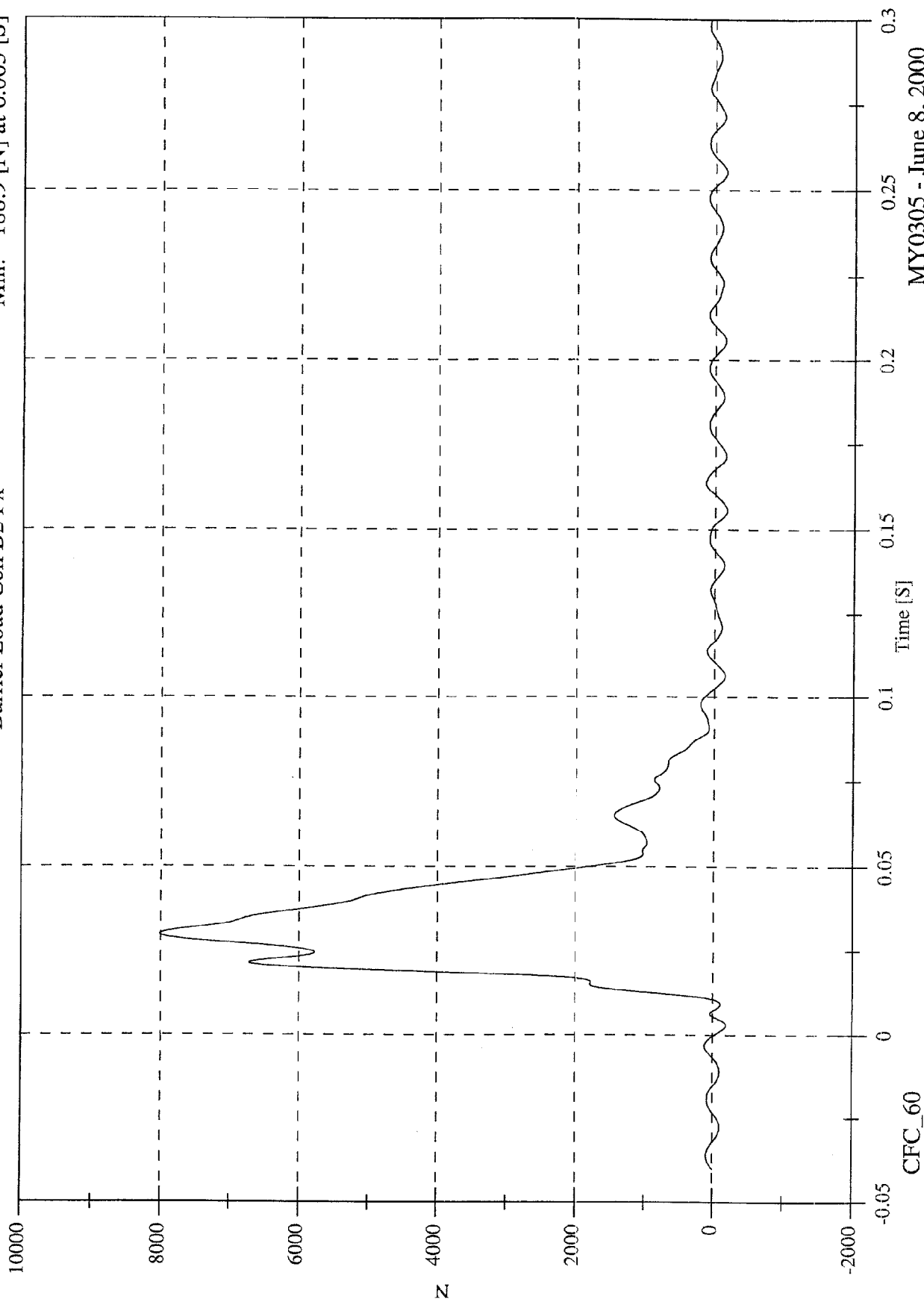


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Cruiser

Barrier Load Cell B2 Fx

Max: 8014.5 [N] at 0.030 [S]
Min: -188.9 [N] at 0.003 [S]

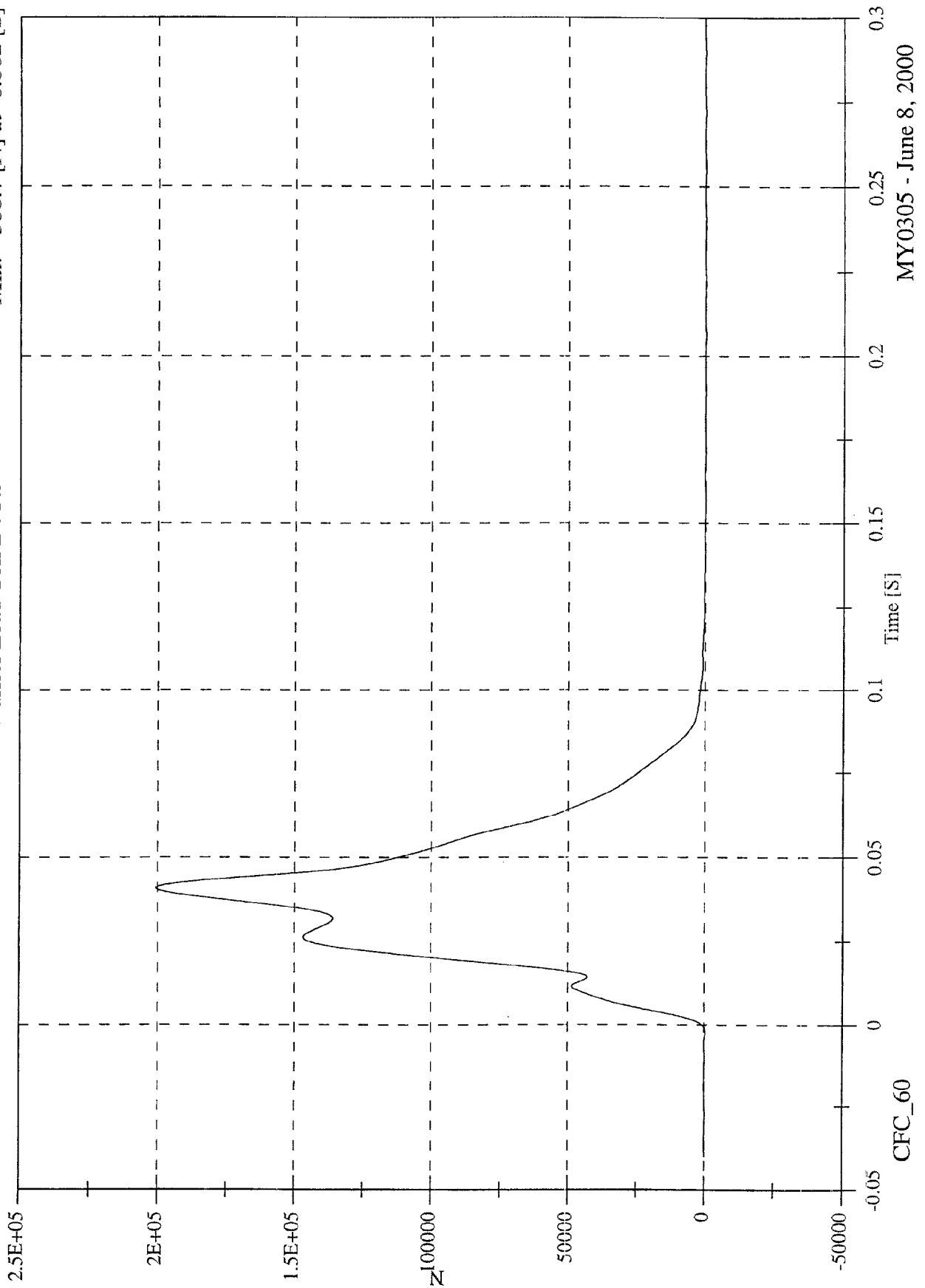


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Cruiser

Max: 200774.9 [N] at 0.041 [S]
Min: -368.7 [N] at -0.002 [S]

Barrier Load Cell B4 Fx

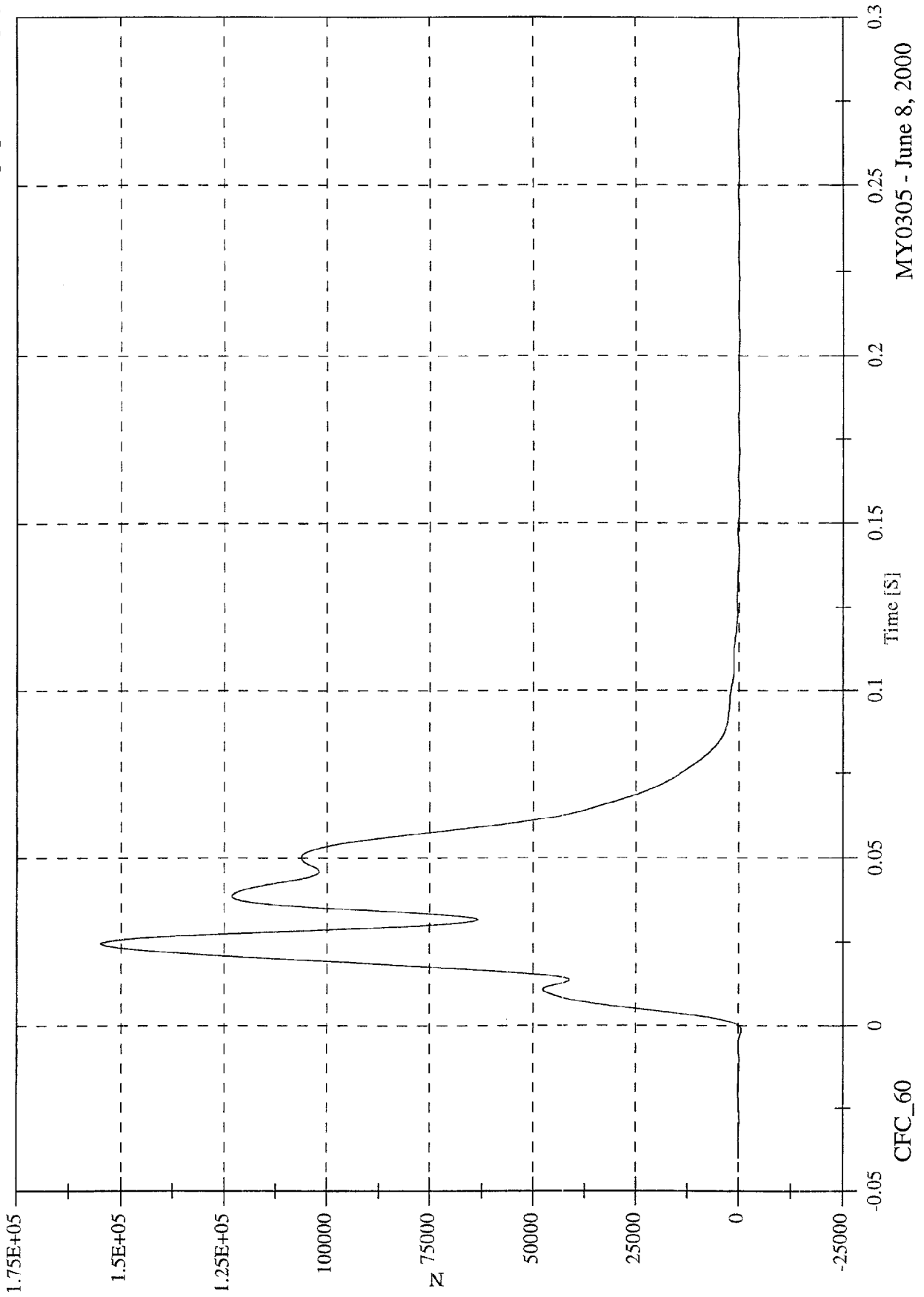


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Cruiser

Max: 154905.1 [N] at 0.024 [S]
Min: -621.2 [N] at -0.001 [S]

Barrier Load Cell B6 Fx

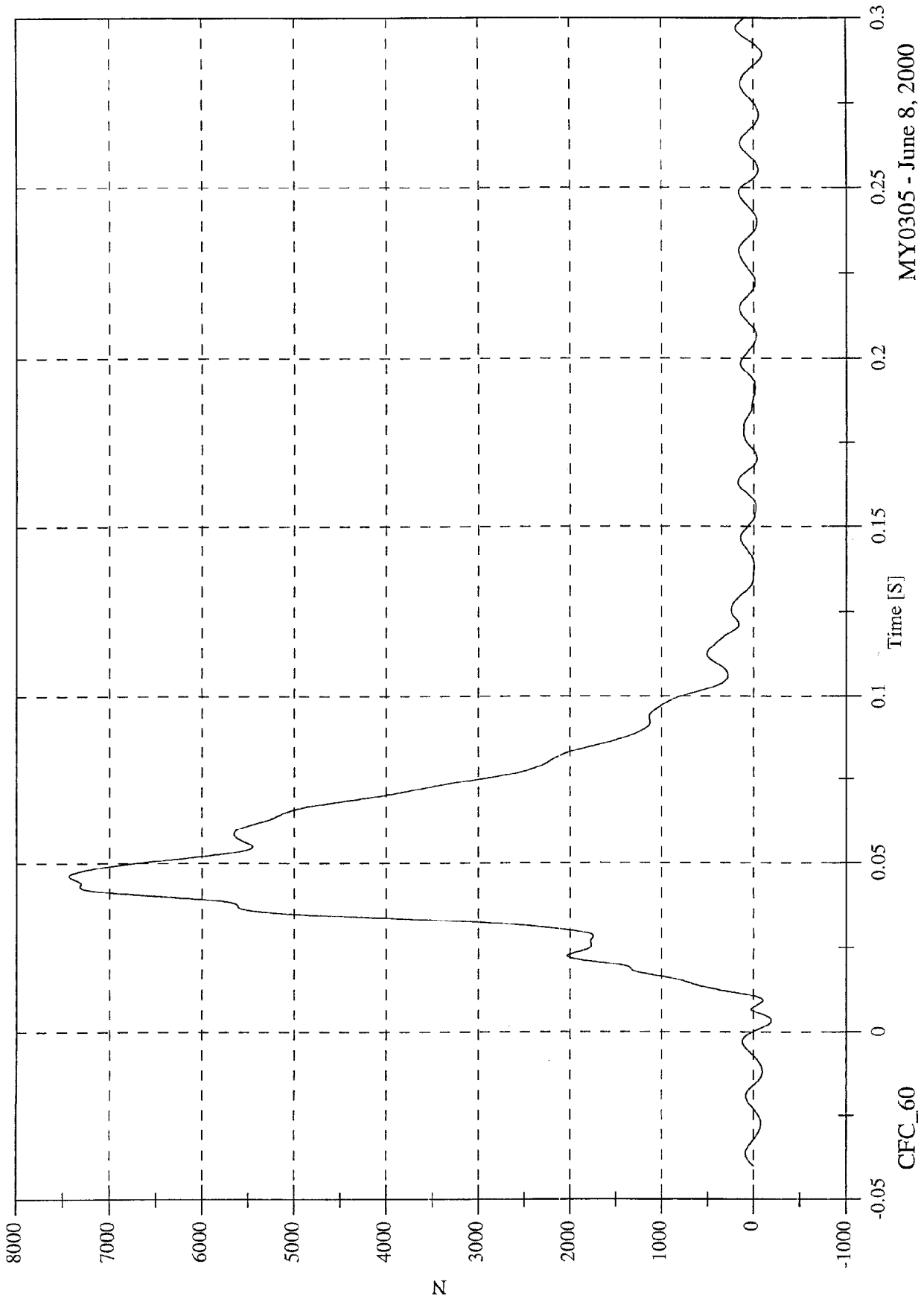


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Crusier

Barrier Load Cell B8 Fx

Max: 7435.9 [N] at 0.046 [S]
Min: -189.5 [N] at 0.003 [S]

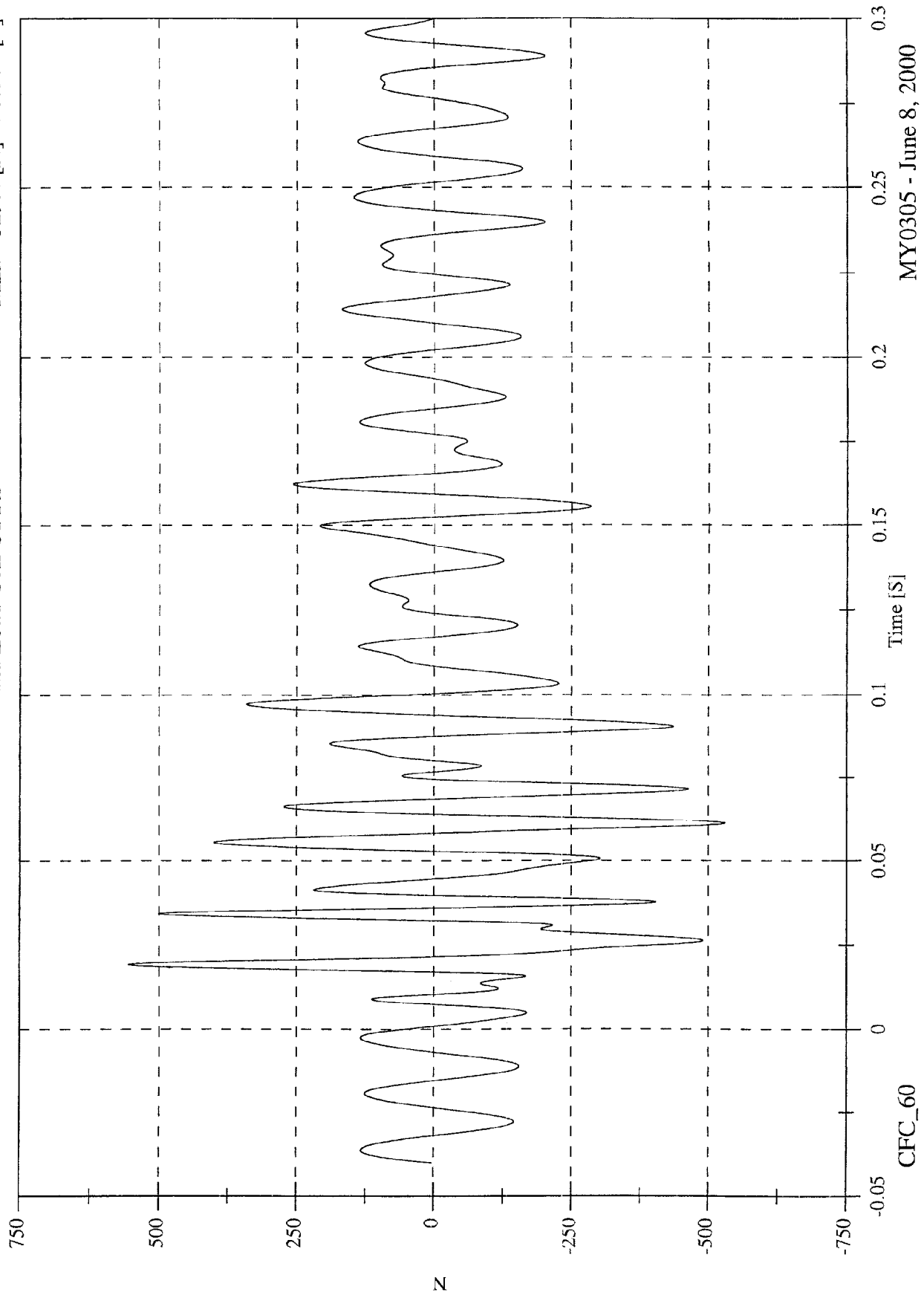


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Crusier

Max: 555.2 [N] at 0.019 [S]
 Min: -529.4 [N] at 0.061 [S]

Barrier Load Cell C1 Fx

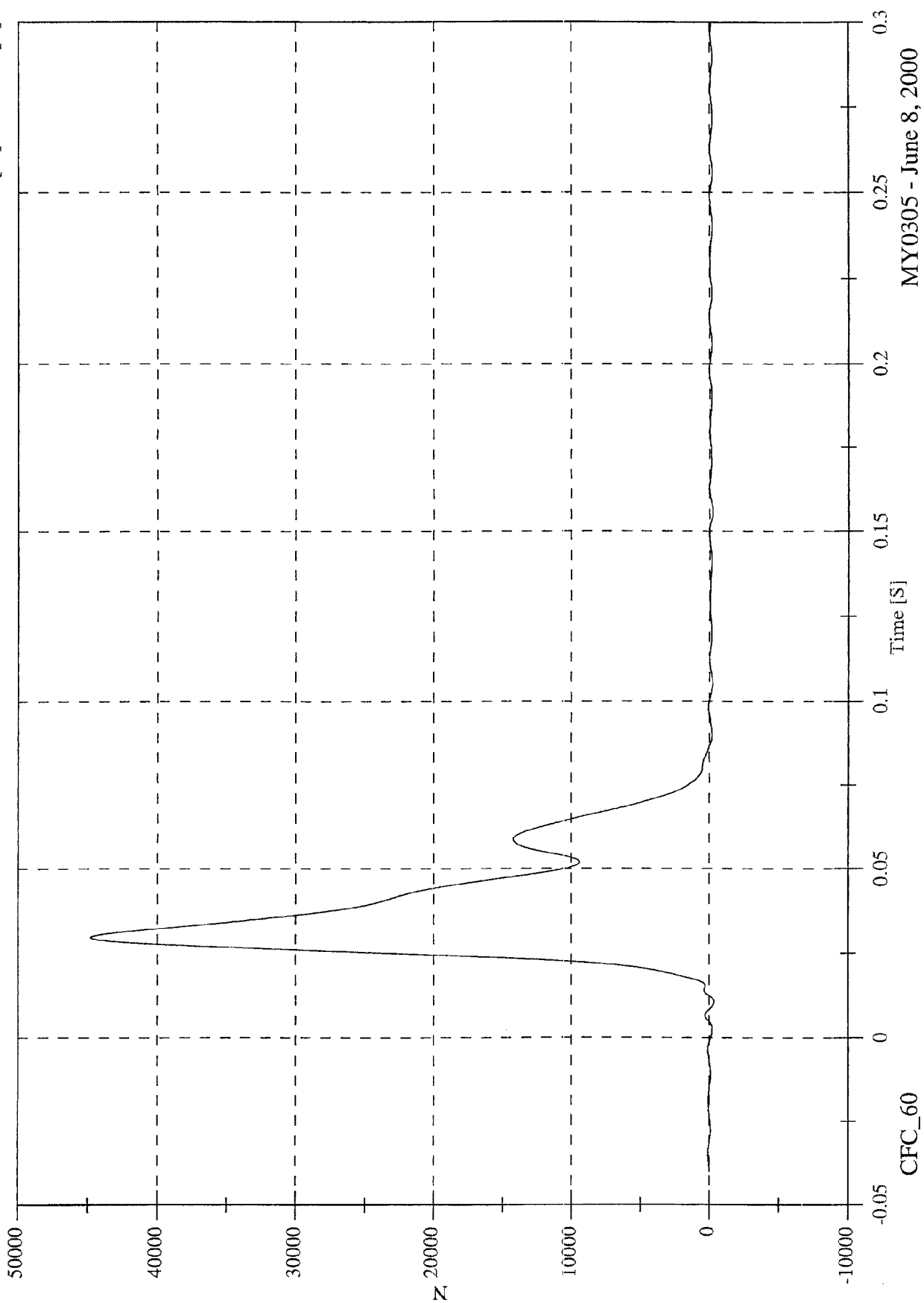


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Crusier

Max: 44807.4 [N] at 0.030 [S]
 Min: -359.7 [N] at 0.011 [S]

Barrier Load Cell C3 Fx

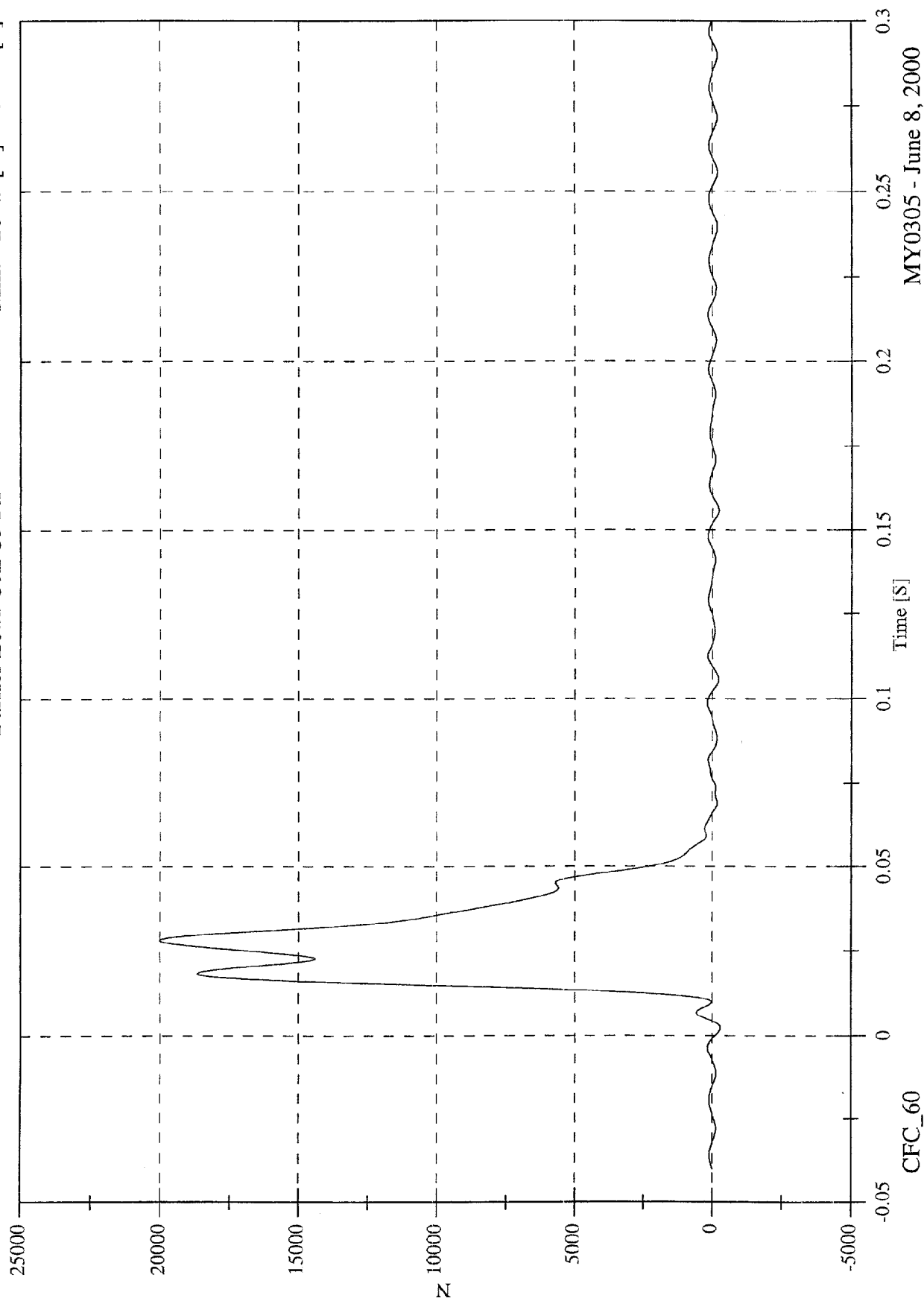


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Crusier

Barrier Load Cell C5 Fx

Max: 20017.4 [N] at 0.028 [S]
Min: -284.9 [N] at 0.002 [S]

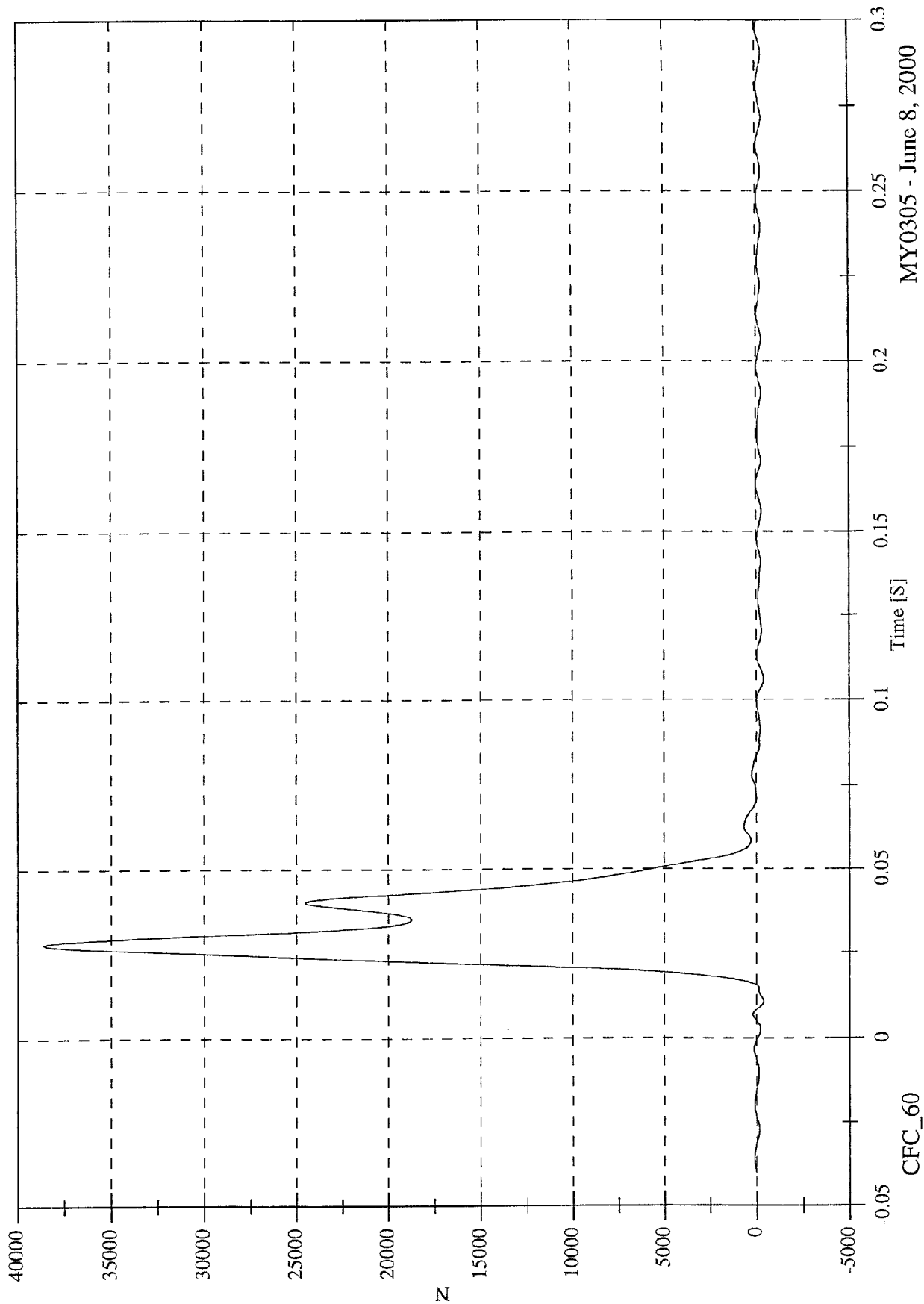


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Cruiser

Max: 38600.1 [N] at 0.027 [S]
Min: -375.0 [N] at 0.106 [S]

Barrier Load Cell C7 Fx

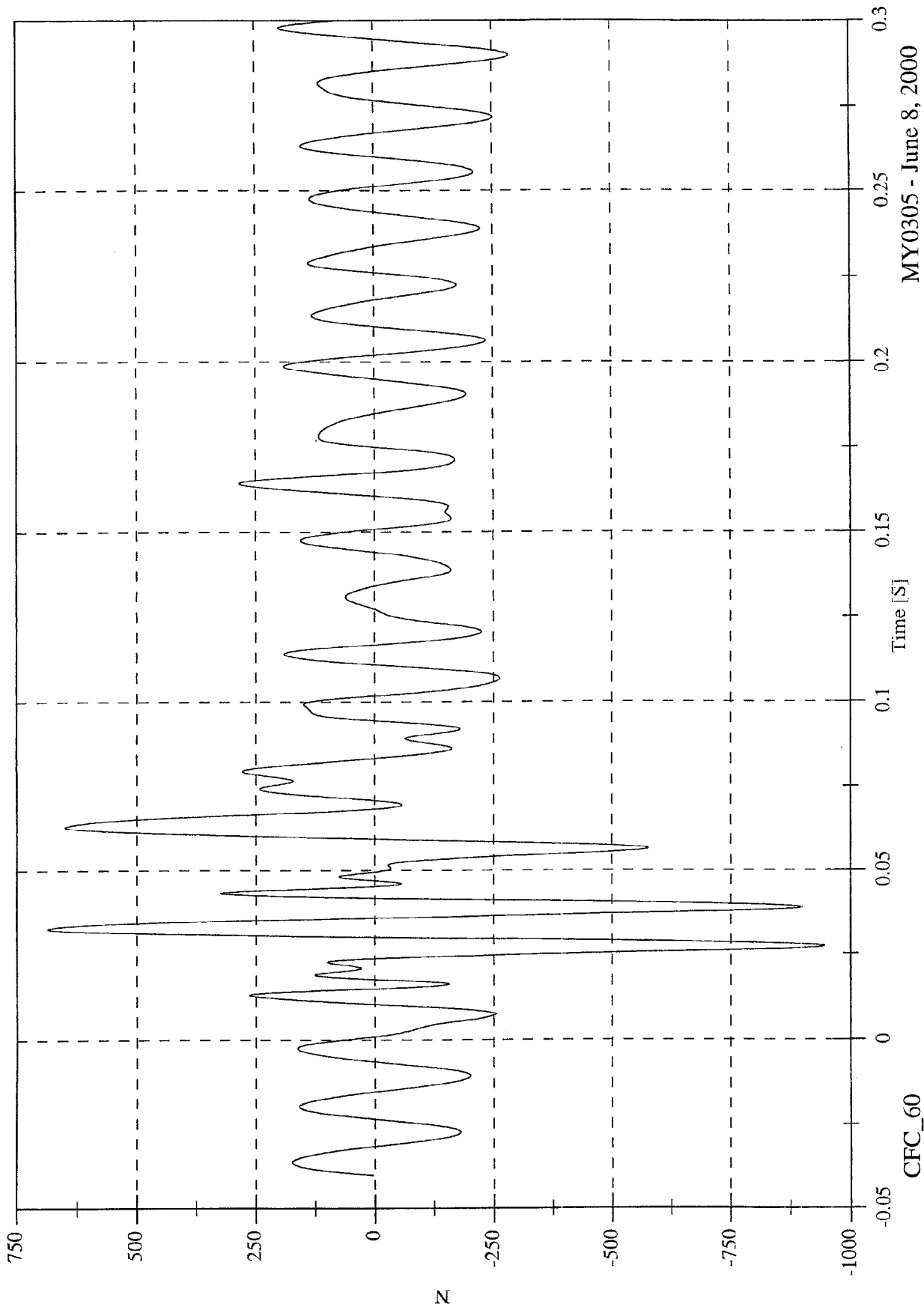


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Crusier

Barrier Load Cell C9 Fx

Max: 685.3 [N] at 0.032 [S]
Min: -945.6 [N] at 0.027 [S]

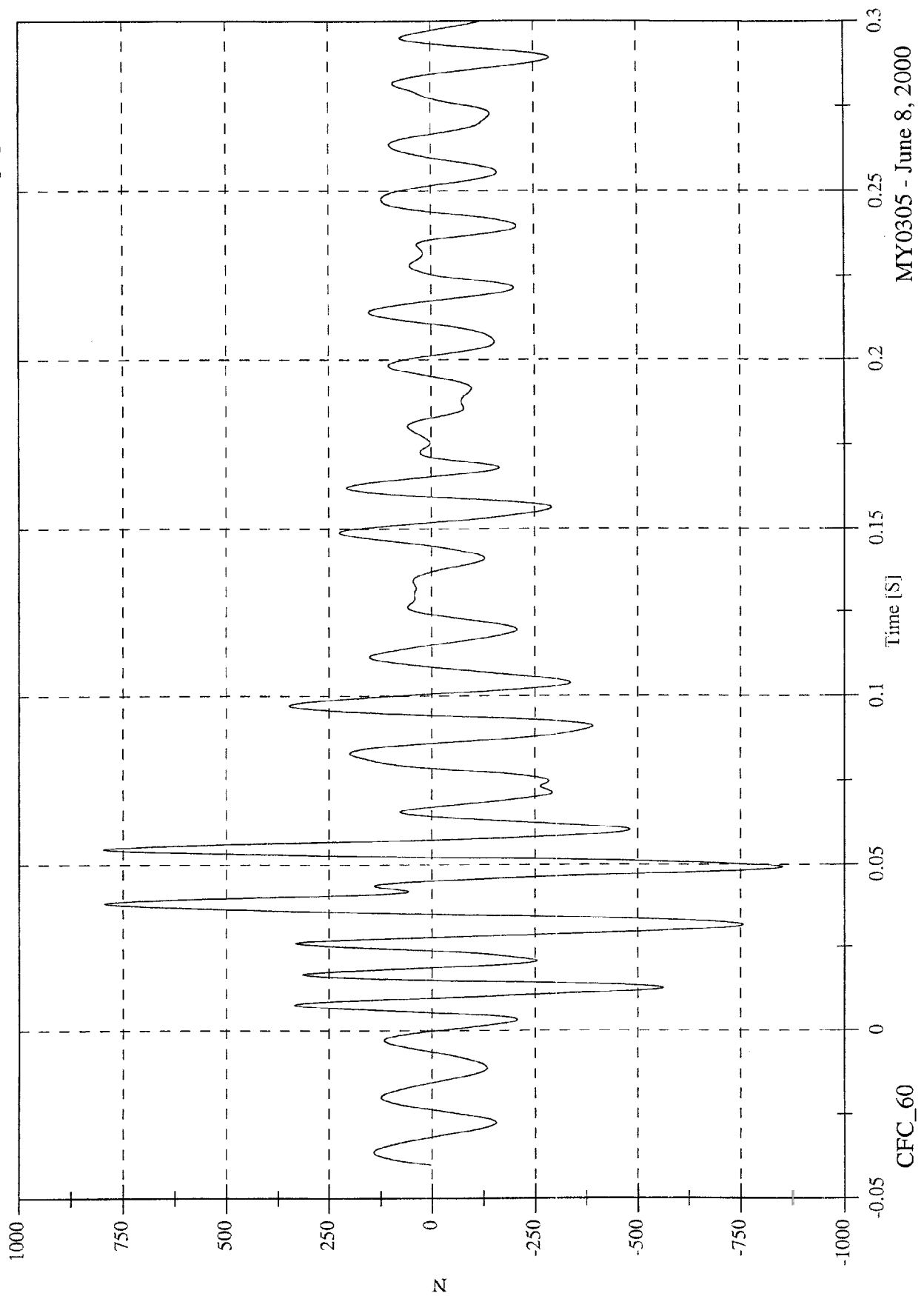


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Crusier

Max: 796.4 [N] at 0.055 [S]
Min: -851.0 [N] at 0.049 [S]

Barrier Load Cell D2 Fx

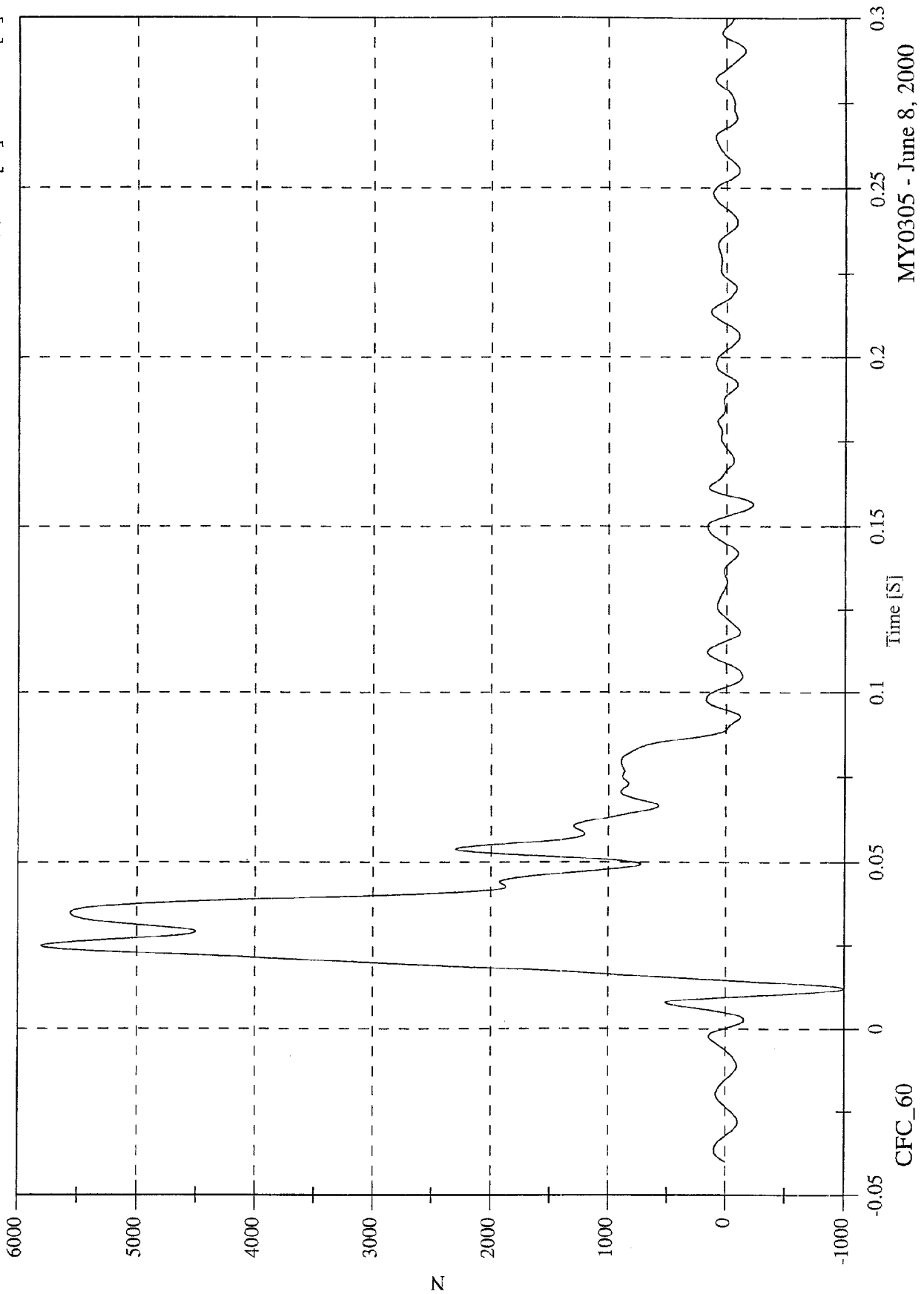


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Crusier

Barrier Load Cell D4 Fx

Max: 5802.4 [N] at 0.025 [S]
Min: -995.3 [N] at 0.012 [S]

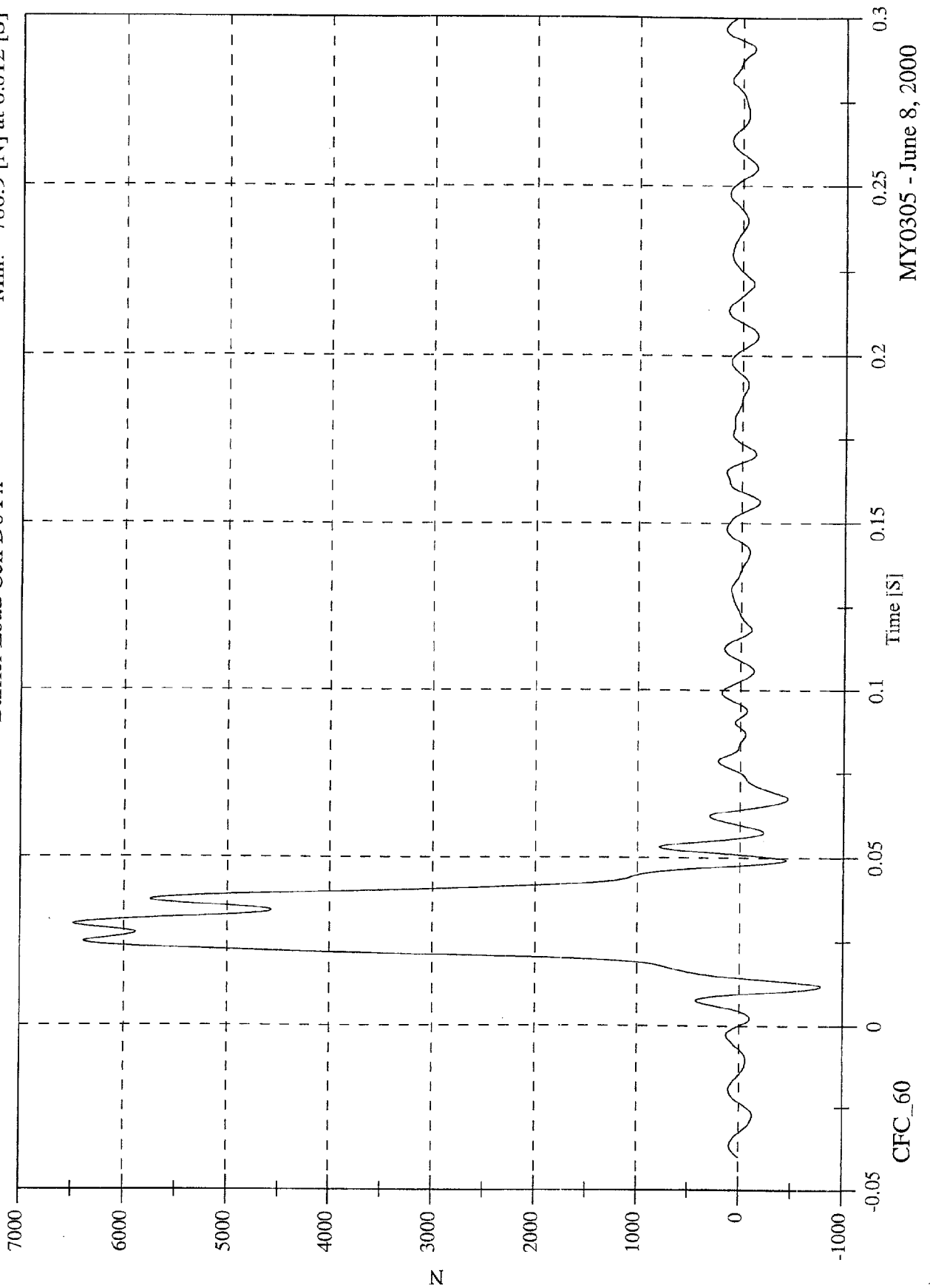


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Crusier

Barrier Load Cell D6 Fx

Max: 6488.4 [N] at 0.030 [S]
Min: -786.9 [N] at 0.012 [S]

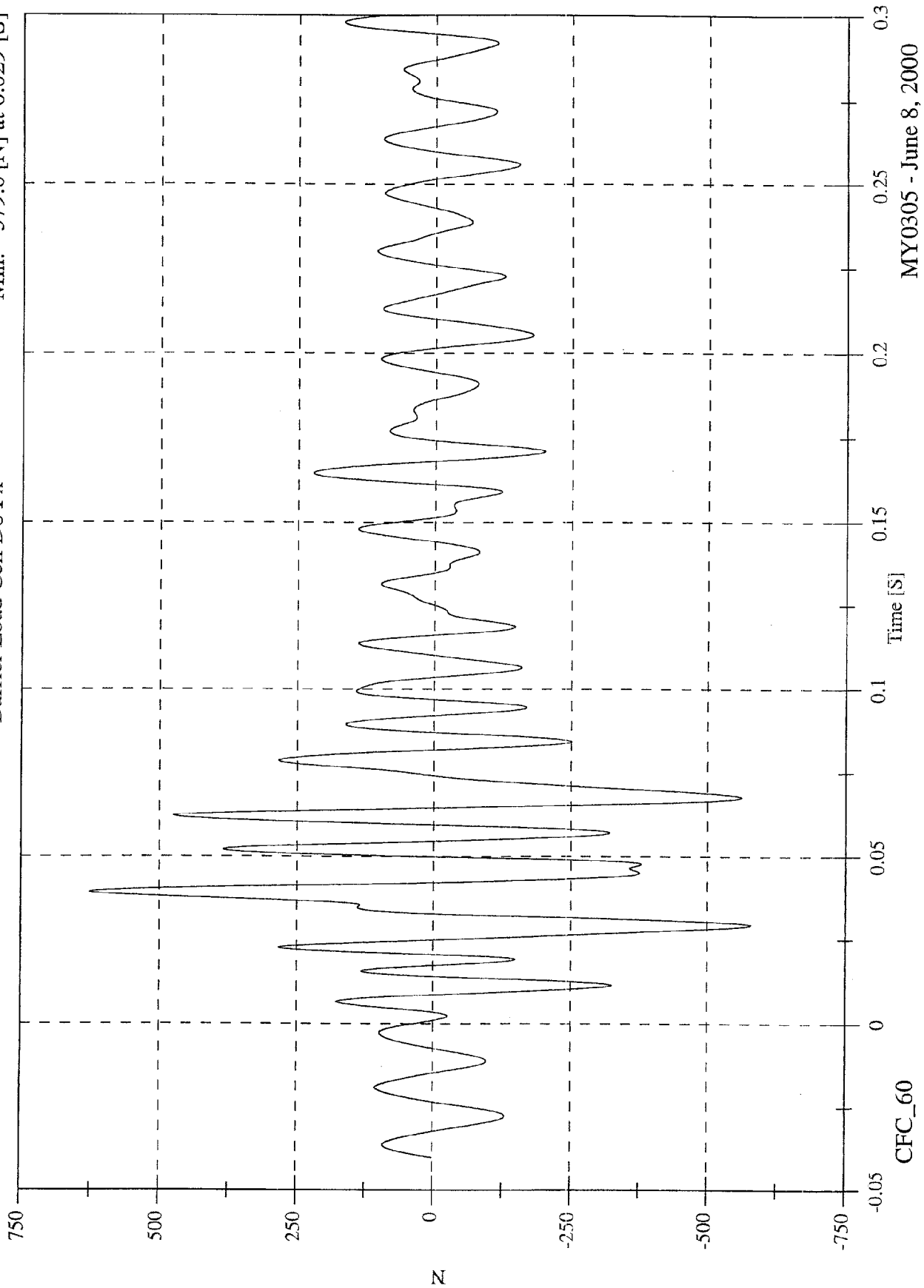


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Crusier

Max: 626.6 [N] at 0.039 [S]
Min: -579.0 [N] at 0.029 [S]

Barrier Load Cell D8 Fx

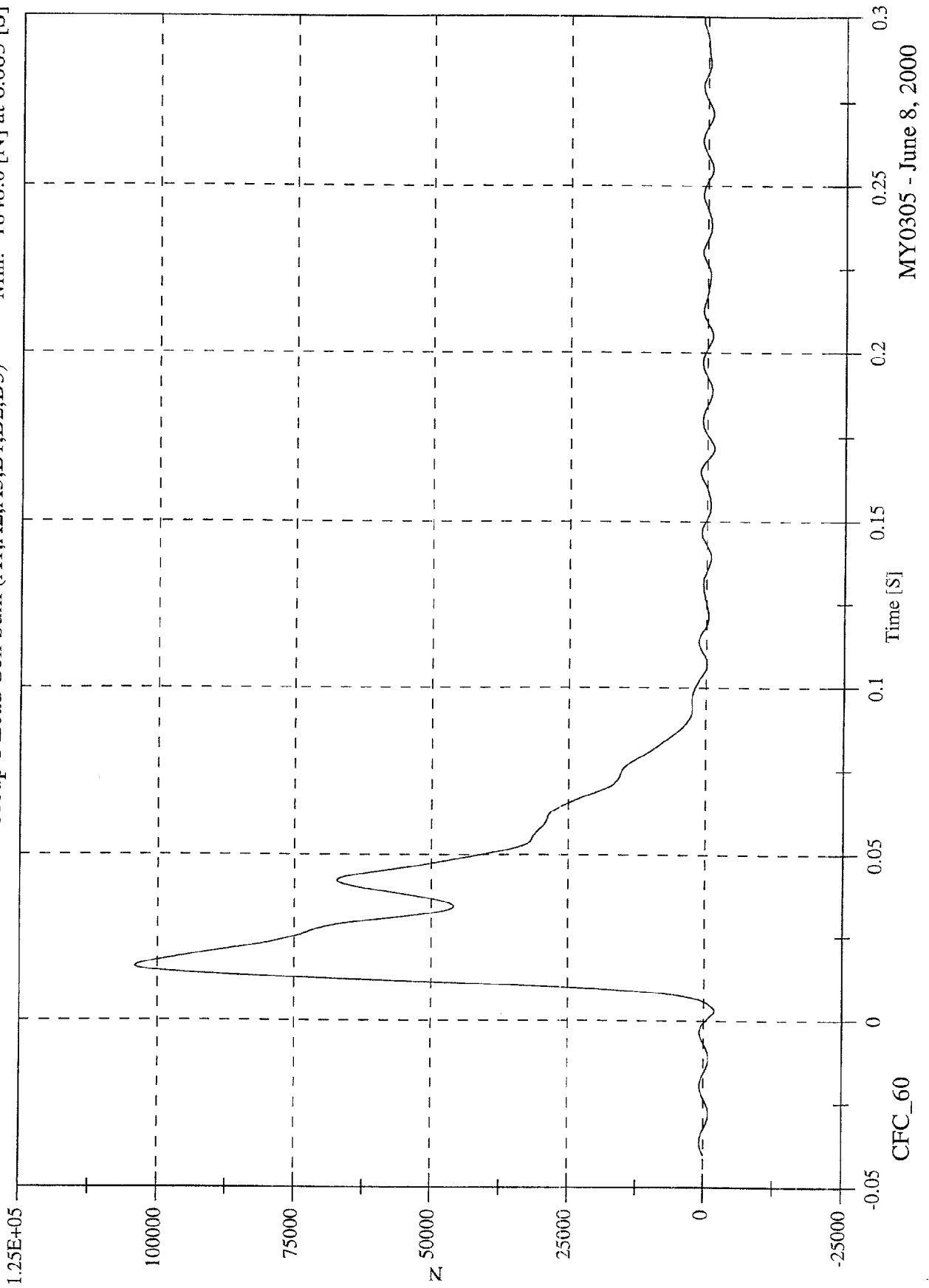


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Crusier

Max: 104129.1 [N] at 0.016 [S]
 Min: -1848.6 [N] at 0.003 [S]

Group 1 Load Cell Sum (A1,A2,A3,B1,B2,B3)

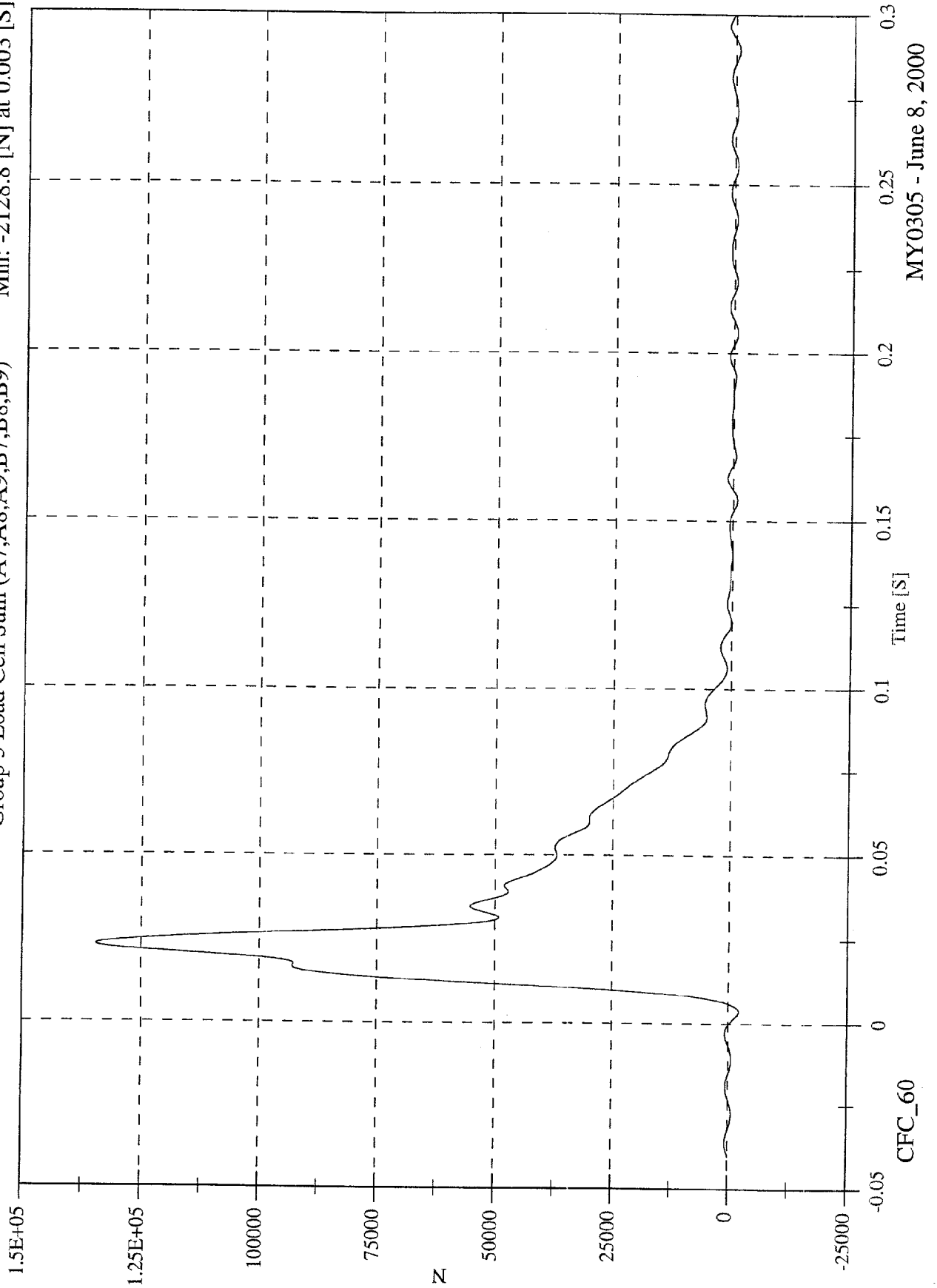


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Cruiser

Max: 134556.3 [N] at 0.023 [S]
 Min: -2128.8 [N] at 0.003 [S]

Group 3 Load Cell Sum (A7,A8,A9,B7,B8,B9)

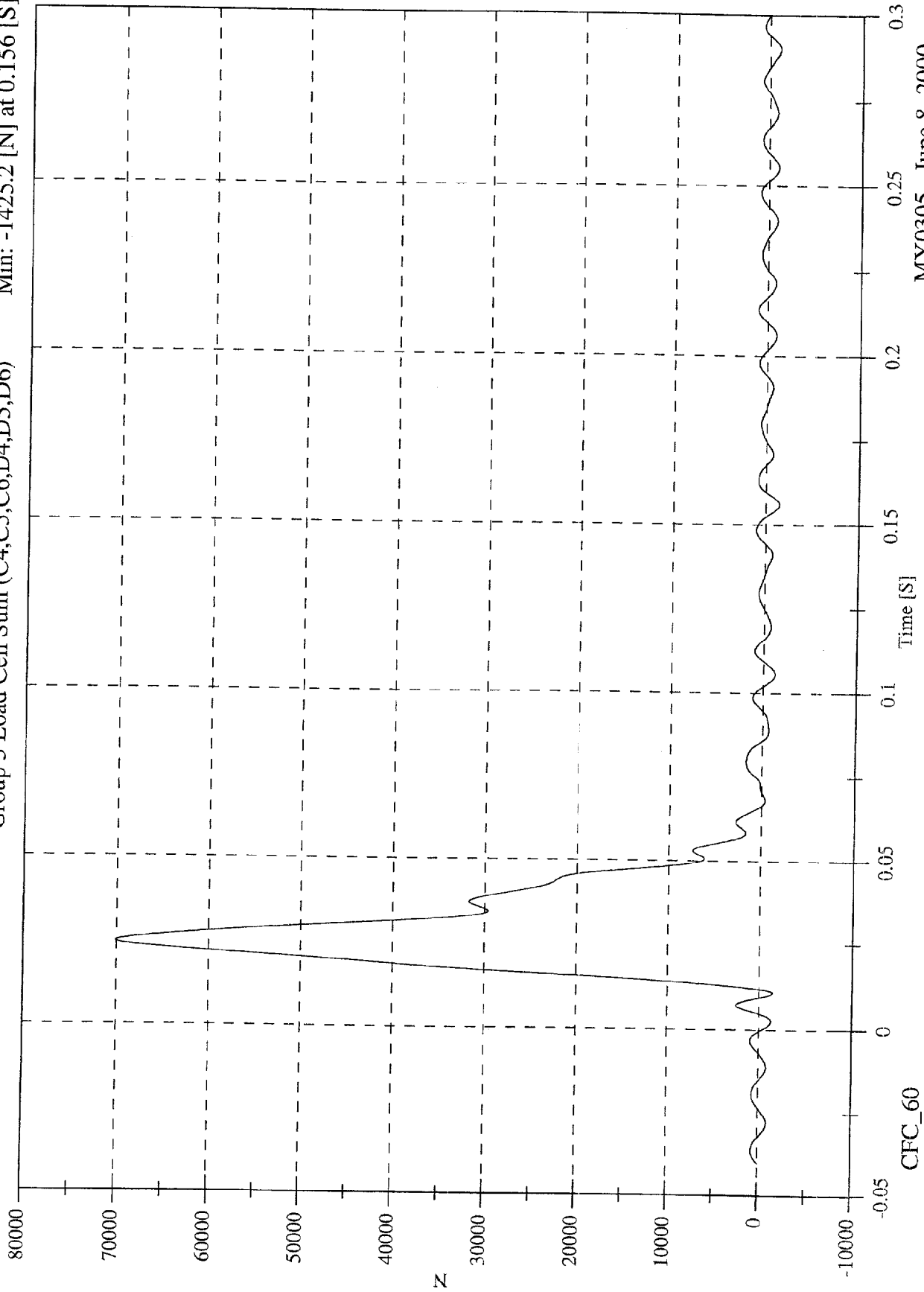


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Cruiser

Group 5 Load Cell Sum (C4,C5,C6,D4,D5,D6)

Max: 70062.4 [N] at 0.024 [S]
Min: -1425.2 [N] at 0.156 [S]

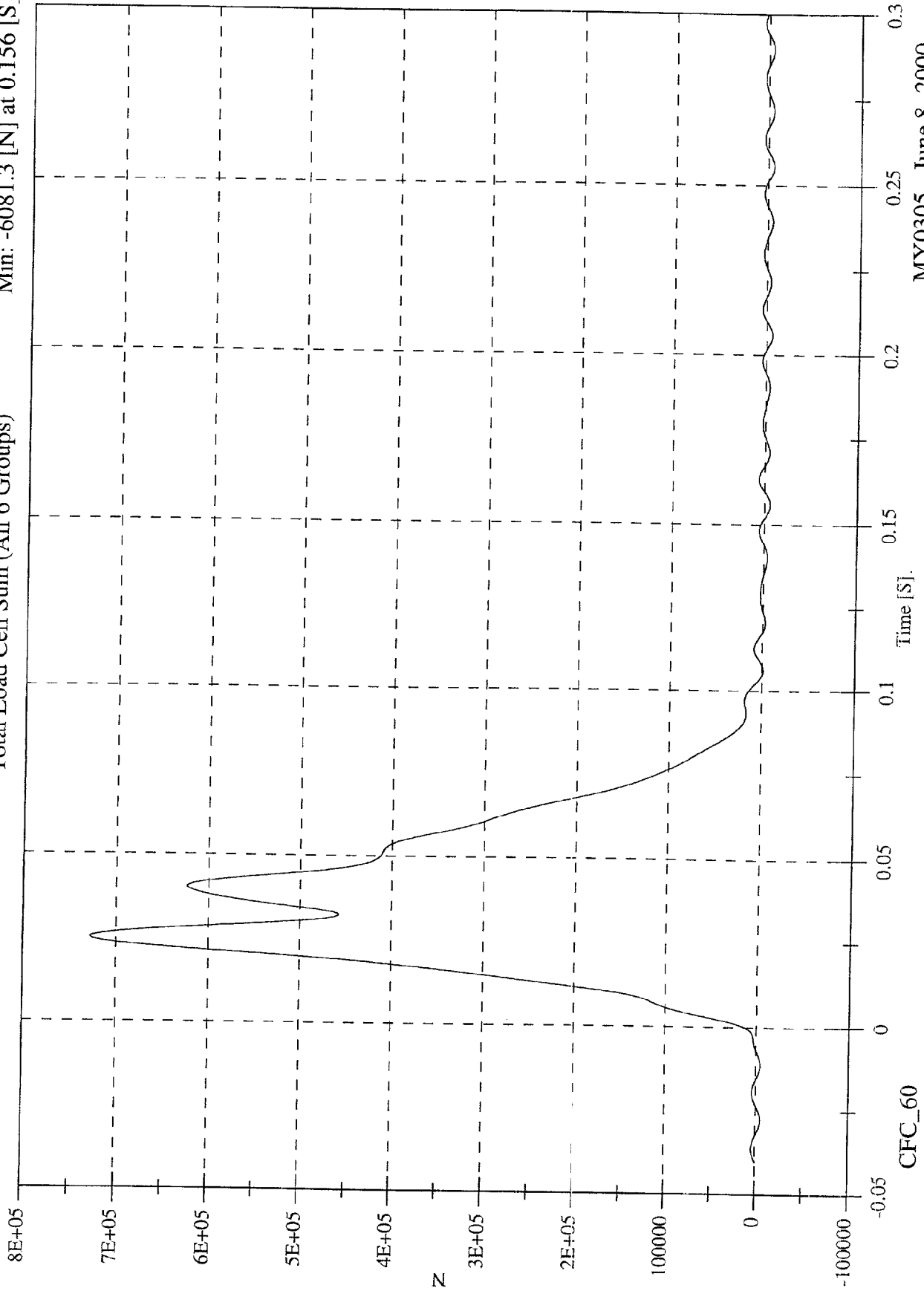


MY0305 - June 8, 2000

NCAP Test #18 - 2001 Chrysler PT Cruiser

Max: 728130.0 [N] at 0.025 [S]
 Min: -6081.3 [N] at 0.156 [S]

Total Load Cell Sum (All 6 Groups)



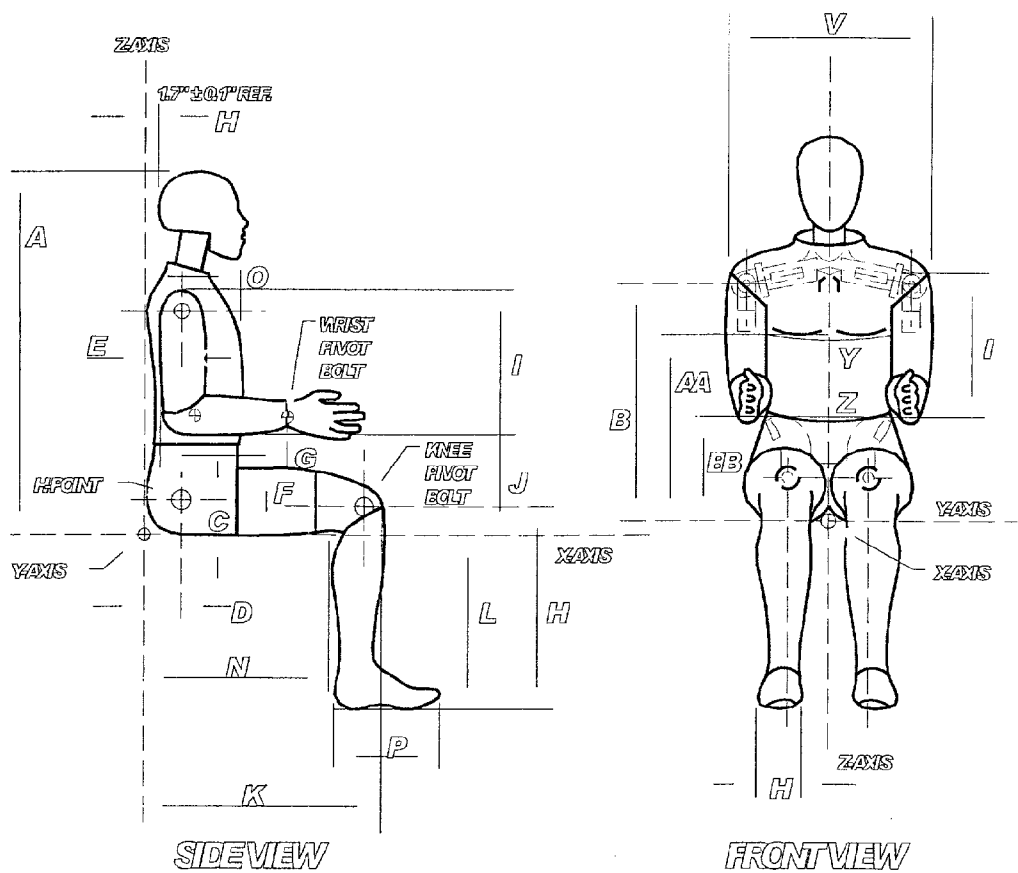
MY0305 - June 8, 2000

APPENDIX C

PART 572B/E DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA SHEETS

DUMMY CONFIGURATION DIMENSIONS

EXTERNAL DIMENSIONS SPECIFICATIONS



NOTE Figure is referenced to the erect seated position. The curved lumbar does not allow the Hybrid III to be positioned in a perfect erect attitude. (REF: S57231(A)(6))

PART 572E
NECK FLEXION TEST

Dummy Serial Number 245
Sequential Test Number 2
Date 2/18/2000
Workfile 245200.nfl

6 Axis Neck Transducer

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		69-72 Deg F	70
Relative Humidity		10% - 70%	31
Impact Velocity		22.60 - 23.40 Ft/s	22.83
Pendulum Deceleration	10 ms	22.50 - 27.50 G's	22.71
	20 ms	17.60 - 22.60 G's	19.67
	30 ms	12.50 - 18.50 G's	15.65
Max Pendulum G's Above 30 ms		29 G's Max	15.65
Deceleration - Time Curve Decay Time to 5 G's		34 - 42 ms	40.50
D Plane Rotation	Max	64 - 78 Deg	71.41
	Time	57 - 64 ms	59.13
Moment About Occipital Condyle	Max	65 - 80 Ft-Lbs	71.02
	Time	47 - 58 ms	54.25
Rotation Angle - Time Curve Decay Time to Zero		113 - 128 ms	127.88
Positive Moment - Time Curve Decay Time to Zero		97 - 107 ms	99.00

Remarks:

Laboratory Technician: B. Swiecicki

PART 572E
THORAX IMPACT TEST

Dummy Serial Number 245
Sequential Test Number 2
Date 2/22/2000
Workfile 245200.th3

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	69-72 Deg F	71
Relative Humidity	10% - 70%	30
Pendulum Velocity	21.6 - 22.4 Ft/s	21.76
Maximum Deflection	2.50 - 2.86 in	2.83
Maximum Resistive Force	1160 - 1325 Lbs	1240.24
Internal Hysteresis	69 - 85 %	70.78

Remarks:

Laboratory Technician: B. Swiecicki

PART 572E
EXTERNAL DIMENSIONS

Dummy Serial Number 245
Sequential Test Number 2
Date 2/22/2000

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature			70
Relative Humidity			30
Location for Chest Circumference	AA	16.9 - 17.1 in	17.0
Location for Waist Circumference	BB	8.9 - 9.1 in	9.0
Chest Circumference (With Jacket)	Y	38.2 - 39.4 in	39.0
Waist Circumference	Z	32.9 - 34.1 in	33.7
Chest Depth	O	8.4 - 9.0 in	8.4
H-Point Height	C	3.3 - 3.5 in	3.4
H-Point from Backline	D	5.3 - 5.5 in	5.4
Skull Cap to Backline	H	1.6 - 1.8 in	1.7
Total Sitting Height	A	34.6 - 35.0 in	34.9
Thigh Clearance	F	5.5 - 6.1 in	6.0
Buttock Knee Length	K	22.8 - 23.8 in	23.4
Buttock Popliteal Length	N	17.8 - 18.8 in	18.3
Popliteal Height	L	16.9 - 17.9 in	17.5
Knee Pivot Height	M	19.1 - 19.7 in	19.2
Foot Length	P	9.9 - 10.5 in	10.2
Foot Breadth	W	3.6 - 4.2 in	3.8
Shoulder Pivot from Backline	E	3.3 - 3.7 in	3.6
Shoulder Breadth	V	16.6 - 17.2 in	16.8
Shoulder Pivot Height	B	19.9 - 20.5 in	20.2
Elbow Rest Height	J	7.5 - 8.3 in	8.0
Shoulder - Elbow Length	I	13.0 - 13.6 in	13.2
Back of Elbow to Wrist Pivot	G	11.4 - 12.0 in	11.6

Remarks:

Laboratory Technician: B. Swiecicki

PART 572E
NECK FLEXION TEST

Dummy Serial Number 064
Sequential Test Number 3
Date 5/31/2000
Workfile 064300.nfl

6 Axis Neck Transducer

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature		69-72 Deg F	70.0
Relative Humidity		10% - 70%	32
Impact Velocity		22.60 - 23.40 Ft/s	22.75
Pendulum Deceleration	10 ms	22.50 - 27.50 G's	22.66
	20 ms	17.60 - 22.60 G's	18.27
	30 ms	12.50 - 18.50 G's	14.25
Max Pendulum G's Above 30 ms		29 G's Max	14.25
Deceleration - Time Curve Decay Time to 5 G's		34 - 42 ms	41.38
D Plane Rotation	Max	64 - 78 Deg	77.85
	Time	57 - 64 ms	62.50
Moment About Occipital Condyle	Max	65 - 80 Ft-Lbs	76.87
	Time	47 - 58 ms	55.00
Rotation Angle - Time Curve Decay Time to Zero		113 - 128 ms	123.00
Positive Moment - Time Curve Decay Time to Zero		97 - 107 ms	104.88

Remarks:

Laboratory Technician: B. Swiecicki

PART 572E
THORAX IMPACT TEST

Dummy Serial Number 064
Sequential Test Number 3
Date 6/1/2000
Workfile 0643.th3

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature	69-72 Deg F	71.0
Relative Humidity	10% - 70%	31.0
Pendulum Velocity	21.6 - 22.4 Ft/s	21.9
Maximum Deflection	2.50 - 2.86 in	2.72
Maximum Resistive Force	1160 - 1325 Lbs	1234.48
Internal Hysteresis	69 - 85 %	73.98

Remarks:

Laboratory Technician: B. Swiecicki

PART 572E
EXTERNAL DIMENSIONS

Dummy Serial Number 064
Sequential Test Number 3
Date 6/1/2000

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature			71.0
Relative Humidity			31.0
Location for Chest Circumference	AA	16.9 - 17.1 in	17.0
Location for Waist Circumference	BB	8.9 - 9.1 in	9.0
Chest Circumference (With Jacket)	Y	38.2 - 39.4 in	38.8
Waist Circumference	Z	32.9 - 34.1 in	33.4
Chest Depth	O	8.4 - 9.0 in	8.6
H-Point Height	C	3.3 - 3.5 in	3.4
H-Point from Backline	D	5.3 - 5.5 in	5.4
Skull Cap to Backline	H	1.6 - 1.8 in	1.7
Total Sitting Height	A	34.6 - 35.0 in	34.8
Thigh Clearance	F	5.5 - 6.1 in	6.0
Buttock Knee Length	K	22.8 - 23.8 in	23.6
Buttock Popliteal Length	N	17.8 - 18.8 in	18.4
Popliteal Height	L	16.9 - 17.9 in	17.3
Knee Pivot Height	M	19.1 - 19.7 in	19.4
Foot Length	P	9.9 - 10.5 in	10.1
Foot Breadth	W	3.6 - 4.2 in	3.8
Shoulder Pivot from Backline	E	3.3 - 3.7 in	3.6
Shoulder Breadth	V	16.6 - 17.2 in	16.8
Shoulder Pivot Height	B	19.9 - 20.5 in	20.4
Elbow Rest Height	J	7.5 - 8.3 in	8.0
Shoulder - Elbow Length	I	13.0 - 13.6 in	13.3
Back of Elbow to Wrist Pivot	G	11.4 - 12.0 in	11.6

Remarks:

Laboratory Technician: B. Swiecicki

APPENDIX D

DUMMY, VEHICLE AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENT CALIBRATION FOR DRIVER DUMMY

(6 Month Calibration Minimum)

DRIVER DUMMY (S/N 245)		Manufacturer	Serial #	Calibration	
				Last	Next
Left Femur Load Cell		GSE	LC-723	06/01/00	12/01/00
Right Femur Load Cell		GSE	LC-419	06/01/00	12/01/00
Left Upper Tibia	Mx	DENTON	LC-045Mx	04/03/00	10/03/00
	My	DENTON	LC-045My	04/03/00	10/03/00
Left Lower Tibia	Fz	DENTON	LC-125Mx	04/03/00	10/03/00
	Mx	DENTON	LC-125My	04/03/00	10/03/00
	My	DENTON	LC-125Fz	04/03/00	10/03/00
Right Upper Tibia	Mx	DENTON	LC-038Mx	04/03/00	10/03/00
	My	DENTON	LC-038My	04/03/00	10/03/00
Right Lower Tibia	Fz	DENTON	LC-124Mx	04/03/00	10/03/00
	Mx	DENTON	LC-124My	04/03/00	10/03/00
	My	DENTON	LC-124Fz	04/03/00	10/03/00
Left Foot Rear	X	ENDEVCO	AC-J32176	06/05/00	12/05/00
	Z	ENDEVCO	AC-J31042	06/05/00	12/05/00
Left Foot Front	Z	ENDEVCO	AC-J31009	06/05/00	12/05/00
Right Foot Rear	X	ENDEVCO	AC-J31050	06/05/00	12/05/00
	Z	ENDEVCO	AC-J31060	06/05/00	12/05/00
Right Foot Front	Z	ENDEVCO	AC-J32143	06/05/00	12/05/00
Lap Belt Load Cells		LEBOW	LC-706	06/01/00	12/01/00
Shoulder Belt Load Cells		-	-	-	-
Spool-Out Potentiometer		-	-	-	-
Belt Stretch Transducer		-	-	-	-

INSTRUMENT CALIBRATION FOR PASSENGER DUMMY

(6 Month Calibration Minimum)

PASSENGER DUMMY (S/N 064)		Manufacturer	Serial #	Calibration	
				Last	Next
Left Femur Load Cell		GSE	LC-954	06/01/00	12/01/00
Right Femur Load Cell		GSE	LC-955	06/01/00	12/01/00
Left Upper Tibia	Mx	DENTON	LC-016Mx	04/03/00	10/03/00
	My	DENTON	LC-016My	04/03/00	10/03/00
Left Lower Tibia	Fz	DENTON	LC-123Mx	04/03/00	10/03/00
	Mx	DENTON	LC-123My	04/03/00	10/03/00
	My	DENTON	LC-123Fz	04/03/00	10/03/00
Right Upper Tibia	Mx	DENTON	LC-023Mx	04/03/00	10/03/00
	My	DENTON	LC-023My	04/03/00	10/03/00
Right Lower Tibia	Fz	DENTON	LC-111Mx	04/03/00	10/03/00
	Mx	DENTON	LC-111My	04/03/00	10/03/00
	My	DENTON	LC-111Fz	04/03/00	10/03/00
Left Foot Rear	X	ENDEVCO	AC-J32184	06/05/00	12/05/00
	Z	ENDEVCO	AC-J31011	06/05/00	12/05/00
Left Foot Front	Z	ENDEVCO	AC-J32185	06/05/00	12/05/00
Right Foot Rear	X	ENDEVCO	AC-J31101	06/05/00	12/05/00
	Z	ENDEVCO	AC-J31020	06/05/00	12/05/00
Right Foot Front	Z	ENDEVCO	AC-J31059	06/05/00	12/05/00
Lap Belt Load Cells		LEBOW	LC-711	06/01/00	12/01/00
Shoulder Belt Load Cells		-	-	-	-
Spool-Out Potentiometer		-	-	-	-
Belt Stretch Transducer		-	-	-	-