

**NEW CAR ASSESSMENT PROGRAM
FRONTAL BARRIER IMPACT TEST**

**NISSAN MOTOR COMPANY
2004 NISSAN MAXIMA 3.5 SE
4 DOOR SEDAN**

NHTSA NUMBER: M45200

**PREPARED BY:
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9270 HOLLY ROAD
ADELANTO, CALIFORNIA 92301**



9/3/03

FINAL REPORT

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16. Abstract A 35 mph (56.3 km/h) frontal barrier impact was conducted on a 2004 Nissan Maxima 3.5 SE 4 Door Sedan at Karco Engineering, LLC on 9/3/03. This test was conducted to obtain data indicant of FMVSS 208, 212, 219 (partial), 301, and footwell intrusion performance. The impact velocity is 55.82 km/h. The ambient temperature at the barrier face at the time of impact is 33.3 degrees Celcius. The vehicle's maximum post test static crush is 491 mm at the vehicle centerline. The test vehicle is equipped with a 3-point continuous belt system and second generation supplemental airbags in both front outboard seating positions. With respect to FMVSS 208 "Occupant Crash Protection", the occupant injury criteria summary is as follows:					
Measurement Description		Units	Threshold	Driver ATD	Passenger ATD
Head Injury Criteria (HIC)		N/A	10000	272.1	636.6
Max. Chest Accel. (3 msec Clip)		Gs	60	44.1	44.5
Left Femur Force		Newtons	10008	-1227.5	-2294.1
Right Femur Force		Newtons	10008	-925.5	-361.9
17. Key Words 56.3 km/h NCAP Frontal Barrier Impact Test New Car Assessment Program (NCAP) 2004 Nissan Maxima 3.5 SE 4 Door Sedan NHTSA No. M45200				18. Distribution of Statement Copies of this report available from: NHTSA Technical Reference Division National Highway Traffic Safety Admin. 400 Seventh St., SW, Room 5108 Washington, D.C. 20590	
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SECTION 1

PURPOSE AND SUMMARY OF TEST M45200

1.1 PURPOSE

This 35 mph (56.3 km/h) 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. DTNH22-01-D-02005. 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 30 mph (48.3 km/h) requirements.

The 35 mph (56.3 km/h) frontal barrier impact test was conducted in accordance with the Office of Crashworthiness Standards Laboratory Test procedure.

1.2 SUMMARY

A load cell barrier consisting of 36 load cells was impacted by a 2004 Nissan Maxima 3.5 SE 4 Door Sedan at a velocity of 55.82 km/h. The test was performed at Karco Engineering, LLC on September 3, 2003.

One real-time and 22 high-speed cameras were used to document the frontal barrier impact event. 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 head (primary and redundant), chest (primary and redundant) and pelvis triaxial accelerometers, chest displacement potentiometers, six-axis upper neck transducers, right/left femur load cells, and lower leg instrumentation. Seat belt load cells were also placed 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. 35) and the right-front passenger (position 2) ATD (Serial No. 34) were calibrated previous to this test.

Ninety seven (97) channels of data were recorded using an on-board data acquisition system. Appendix A contains Pre and Post-Test Photographs, Appendix B contains the vehicle and dummy response data traces. Appendix C contains Load Cell Barrier information. Appendix D contains the Instrumentation Data Channel assignments. Appendix E contains the Dummy Calibration data and Appendix F contains the Child Restraint System (CRS).

There was 100 percent windshield retention and no intrusion into the protected zone of the windshield during the impact event. There was no Stoddard solvent leakage after the event or during any phase of the static rollover.

The maximum static crush of the vehicle was 491 mm and both the driver and the passenger side doors remained closed during the impact event and were operable after the impact.

The driver's visible contact points were as follows: The driver ATD head and chest contacted the airbag and the abdomen had no contact. Both knees contacted the knee bolster.

The passenger's visible contact points were as follows: The passenger ATD head contacted the airbag, side header and B-Pillar. The chest and abdomen contacted the airbag. Both knees contacted the glove box and airbag.

Occupant injury data is contained in table below.

OCCUPANT DATA SUMMARY

ATD Position	HIC	Clip (g)	Chest Disp. (mm)	Left Femur (N)	Right Femur (N)	Belt Spool (mm)
Driver	272.1	44.1	-20.5	-1227.5	-925.5	114.8
Passenger	636.6	44.5	-24.6	-2294.1	-361.9	197.3

SECTION 2
OCCUPANT AND VEHICLE INFORMATION/DATA SHEETS

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03

CONVERSION FACTORS USED IN THIS REPORT*

Quantity	Typical Application	Std Units	Metric Unit	Multiply By
Mass	Vehicle Weight	lb	kg	0.4536
Linear Velocity	Impact Velocity	mile/h	km/h	1.609
Length or Distance	Measurements	in	mm	25.4
Volume	Fuel Systems	gal	liter	3.785
Volume	Small Fluids	oz	mL	29.573
Pressure	Tire Pressures	lbf/in ²	kPa	7.0
Volume	Liquid	gal	liter	3.785
Temperature	General Use	°F	°C	=(tf -32)/1.8
Force	Dynamic Forces	lbf	N	4.448
Moment	Torque	lbf/ft	Nm	1.355

* Based on the Recommended Practice in SAE J916, May 85

DATA SHEET NO. 1
CRASH TEST SUMMARY

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03

PRIMARY IMPACT DATA

Measured Parameter	Units	Value
Velocity at Impact	km/h	55.82
Test Weight	kg	1808
Impact Angle	degrees	0
Average Rebound	mm	1790
Maximum Static Crush	mm	491

DOOR OPENING AND SEAT TRACK INFORMATION

Description	Driver	Passenger
Front Door opening	Remained closed, opened w/o tools	Remained closed, opened w/o tools
Rear Door Opening	Remained closed, opened w/o tools	Remained closed, opened w/o tools
Seat Track Shift (mm)	None	4 Forward
Seat Back Failure	None	None

TEST DUMMY INFORMATION

Description	Driver	Passenger
Dummy Type/ Serial No.	50% Male Hybrid III No. 35	50% Male Hybrid III No. 34
Head Contact	Airbag	Airbag/Side Header/B-Pillar
Chest Contact	Airbag	Airbag
Abdomen Contact	None	Airbag
Left Knee Contact	Knee Bolster	Airbag/Glovebox
Right Knee Contact	Knee Bolster	Airbag/Glovebox

16mm MOVIE COVERAGE

High Speed	22
Real Time	1
Total	23

DATA CHANNELS

Driver ATD Sensors	40
Passenger ATD Sensors	40
Belt Assessment Sensors	6
Vehicle Structure Accelerometers	9
Rigid Barrier Load Cells	36
Total	131

DATA SHEET NO. 2
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan
 Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200
 Test Date: 9/3/03

TEST VEHICLE INFORMATION AND OPTIONS

NHTSA No.	M45200	Anti-Lock Brakes	Yes
Make	Nissan	All Wheel Drive	No
Model	Maxima	Power Steering	Yes
Body Style	4-Door	Driver Front Airbag	Yes
Vin No.	1N4BA41E44C841028	Driver Side Airbag	Yes
Color	Copper	Driver Head Airbag	Yes
Delivery Date	8/25/2003	Driver Curtain Airbag	No
Odometer	11	Pass. Airbag	Yes
Dealer	Empire Nissan	Pass. Side Airbag	No
Transmission	4 Speed Automatic	Pass. Head Airbag	No
Final Drive	Front	Pass. Curtain Airbag	No
Type/No. Cyl.	V-6	Pre-Tensioners	Yes
Engine Disp. (L)	3.5	Load Limiters	Yes
Engine Placement	Transverse	Bucket Seats	Yes
Roof Rack	No	Air. Cond.	Yes
Sunroof/T-Top	Yes	AM/FM Cassette	Yes
Tinted Glass	No	Tilt Steering	Yes
Traction Control	No	Power Door Locks	Yes
Power Brakes	Yes	Power Windows	Yes
Front Disc	Yes	Power Seats	Yes
Rear Disc	Yes	Other	None

DATA FROM CERTIFICATION LABEL

Manufactured By	Nissan Motor Company	GVWR (kg)	2107
Date of Manufacture	Jul-03	GAWR Front (kg)	1122
		GAWR Rear (kg)	953

VEHICLE SEATING AND CAPACITY WEIGHT INFORMATION

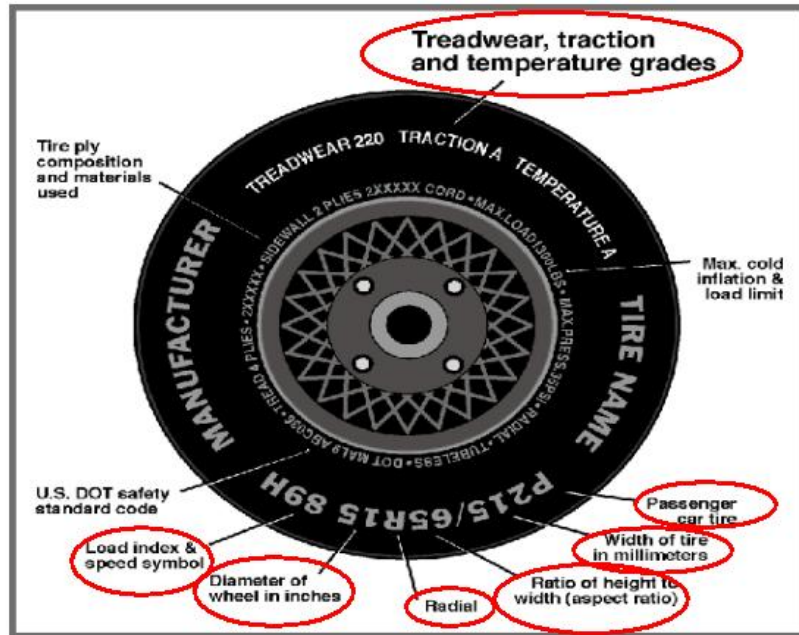
Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Bucket	None	
Number of Occupants	2	3		5
Capacity Weight (VCW) (kg)				390
Cargo Weight (RCLW) (kg)				60

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

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan
 Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200
 Test Date: 9/3/03

Collect year, make, model, VIN, items circled in red, and tire manufacturer and tire name.



TIRE INFORMATION

Measured Parameter	Front	Rear
Max. Tire Pressure (kpg)	308	308
Cold Pressure (kpg)	220	220
Recommended Tire Size	P245/45R18	P245/45R18
Tire Size on Vehicle	P245/45R18	P245/45R18
Tire Manufacturer	Goodyear	Goodyear
Treadwear	260	260
Traction	A	A
Temperature Grades	A	A
Tire Plies Sidewall	2	2
Tire Plies Body	6	6
Load Index/Speed Symbol	110	110
Tire Material	Polyester/Steel/Nylon	Polyester/Steel/Nylon
DOT Safety Code Right	M6A9CMWR2903	M6A9CMWR2903
DOT Safety Code Left	M6A9CMWR2903	M6A9CMWR2903

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

NHTSA No.: M45200

Test Date: 9/3/03

TEST VEHICLE WEIGHTS

	Units	As Delivered Weights (UVW)			As Tested Weights (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	495	318		541	383	
Right	kg	479	314		511	373	
Ratio	%	60.7	39.3		58.2	41.8	
Totals	kg	974	632	1606	1052	756	1808

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1606
Weight of 2 P572 ATD's	kg	152
Rated Cargo/Luggage Wt. (RCLW)	kg	60
Calculated Vehicle Target Wt. (TVTW)	kg	1818

TEST VEHICLE ATTITUDE AND CG

	Units	LF	RF	LR	RR	CG (aft of front axle)
As Delivered	mm	744	744	712	713	1113
As Tested	mm	730	732	690	685	1182

Vehicle Wheel Base (mm)	2829
-------------------------	------

Weight of Ballast Secured in cargo area (kg)	0
--	---

Vehicle Components Removed	Rear Deck lid, Rear Windows and 2/3 solvent.
----------------------------	--

* Ballast weight does not include cameras, instrumentation and brake abort system.

FUEL SYSTEM DATA

Fuel System Capacity From Owners Manual (L)	75.71
---	-------

Usable Capacity Furnished by COTR (L)	75.71
---------------------------------------	-------

Actual Test Volume with entire fuel System Filled (L)	70.41
---	-------

1/3 of Usable Capacity (L)	8.33
----------------------------	------

Test Fluid Type: Stoddard Solvent

Kinematic Viscosity: as per ASTM Standard D484-71 Purple

Is Vehicle Fuel Pump Electric or Mechanical? Electric

If electric, does pump operate with ignition switch "On" & engine "OFF" Yes

Fuel System Particulars:

DATA SHEET NO. 3
POST TEST IMPACT DATA

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan
Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200
Test Date: 9/3/03

SPEED TRAP DATA

Measured Parameter	Units	Requirement	Value
Trap No.1 Velocity (Primary)	km/h	55.51 to 57.12	55.82
Trap No. 1 Entry Distance	mm	<1524	1524
Trap No.1 Exit Distance	mm	<1524	305
Trap No.2 Velocity (Redun.)	km/h	55.51 to 57.12	55.84
Trap No.2 Entry Distance	mm	<1524	1524
Trap No.2 Exit Distance	mm	<1524	305

VEHICLE STATIC CRUSH

Measured Parameter	Units	Pre-Test	Post-Test	Difference
Left Side	mm	4766	4351	-415
Center	mm	4901	4410	-491
Right Side	mm	4766	4330	-436

VEHICLE REBOUND FROM BARRIER

Measured Parameter	Units	Value
Left Side	mm	1795
Center	mm	1735
Right Side	mm	1840
Average	mm	1790

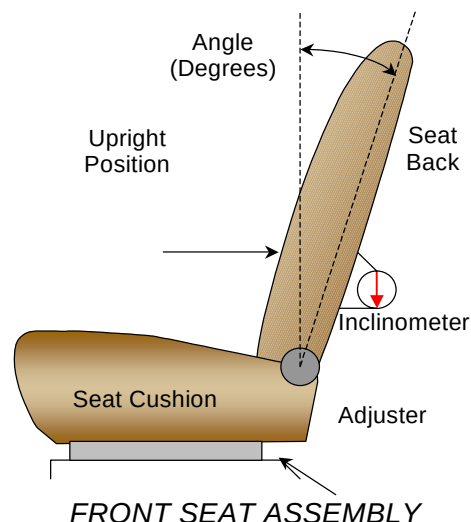
DATA SHEET NO. 4 TEST VEHICLE INFORMATION

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan
 Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200
 Test Date: 9/3/03

NOMINAL DESIGN RIDING POSITION

The driver and passenger seat backs are positioned to the manufacturers designated angle. The procedure is as follows: A special application tool with pointed probes is inserted through the fabric to make contact with the rigid portion of the lower seat frame assembly, approximately 13 inches above the pivot point of the seat back. An inclinometer is placed against the flat surface of the tool and the seat back angle is measured directly from the dial face.



SEAT BACK ANGLES

	Deg.
Driver w/seated dummy	11.7
Passenger w/seated Dummy	11.7

SEAT FORE/AFT POSITIONS

The first or forward most position is counted as number one (1). The fore/aft position is set aft of the middle position for both the driver and passenger.

SEAT FORE/AFT POSITIONING

	Total Fore/Aft Travel	Placed in Position #
Driver Seat	236mm	118mm
Passenger Seat	236mm	118mm

SEAT BELT UPPER ANCHORAGE

Position number one (1) is the uppermost position.

SEAT BELT UPPER ANCHORAGE

	Total # of Positions	Placed in Position #
Driver Seat	4	Uppermost
Passenger Seat	4	Uppermost

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

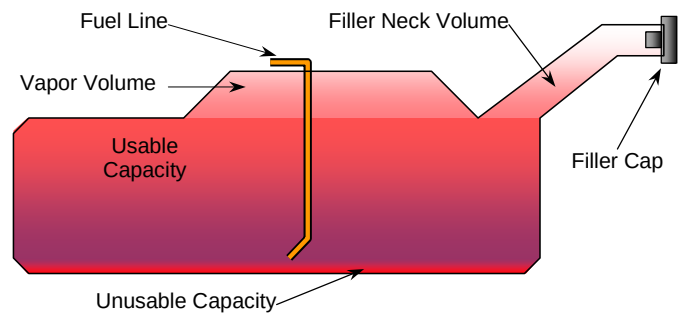
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan
 Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200
 Test Date: 9/3/03

FUEL TANK CAPACITY

	Liters
Usable Capacity of "Standard Tank"	75.7
Usable Capacity of "Optional" Tank	N/A
Usable Capacity used for FMVSS 301	69.65 to 71.17
Actual Amount of Solvent used	70.4
1/3 of Usable Capacity	8.3

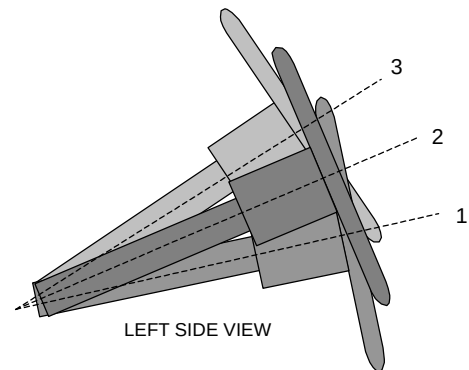
The test vehicle is equipped with an electric fuel pump. The fuel pump operates for approximately two seconds after the ignition is placed in the "ON" position, after which the fuel pump automatically shuts off. The fuel filler door is located on the left rear fender. The standard fuel tank occupies the area under the rear seat.



VEHICLE FUEL TANK ASSEMBLY

STEERING COLUMN ADJUSTMENT

Steering wheel and column adjustments are made so that the steering wheel hub is at the geometric center of the locus it describes when moved through its full range of motion. An aluminum plate is placed across the rim of the steering wheel, an inclinometer is placed on the plate and the angle is measured.



STEERING COLUMN ASSEMBLY

STEERING COLUMN POSITIONS

	Degrees
Lowermost position No. 1	73.0
Geometric center position No. 2	63.2
Uppermost position No. 3	53.5

DATA SHEET NO. 5

DUMMY POSITIONING IN VEHICLE

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan
 Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200
 Test Date: 9/3/03

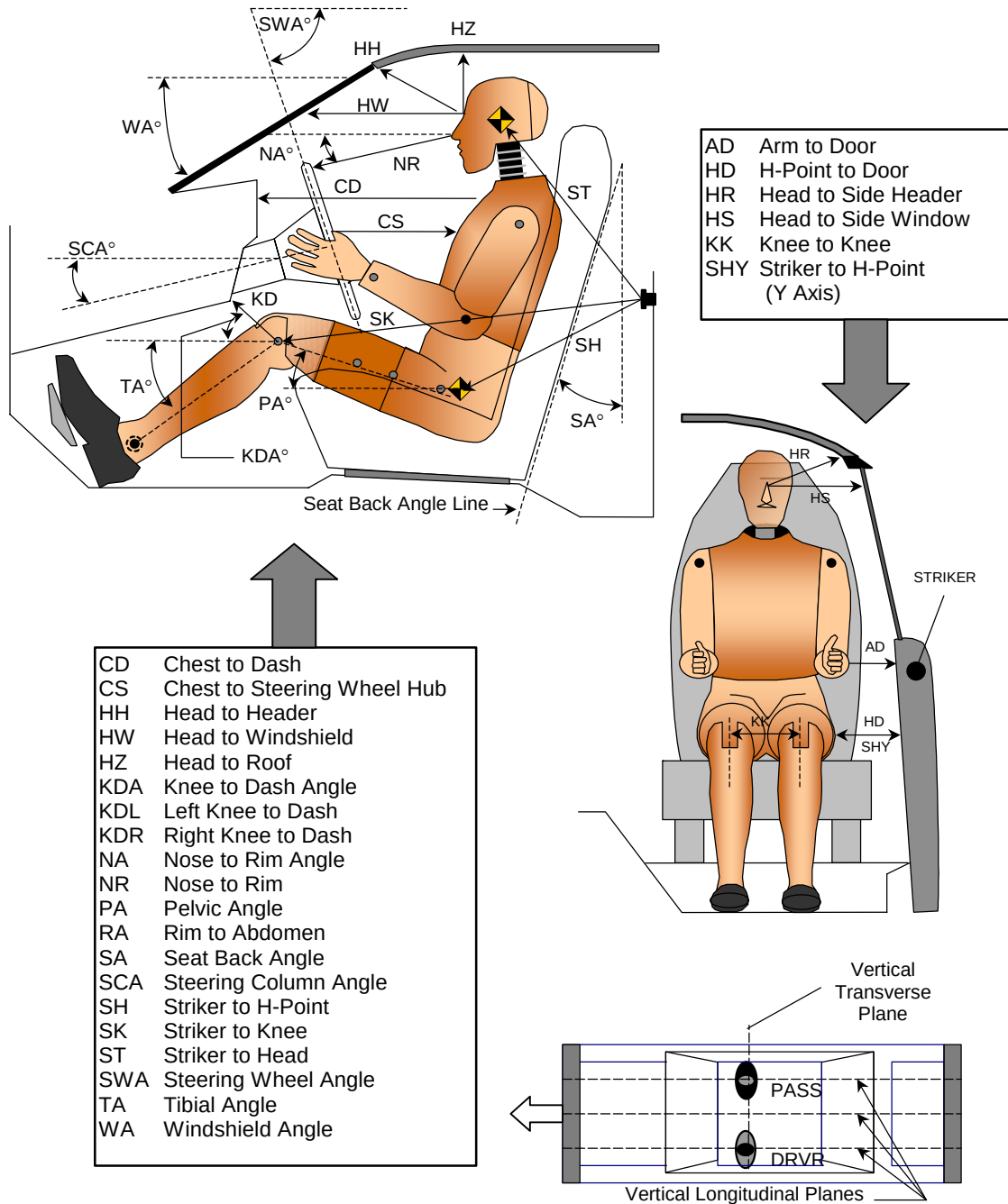
TEST DUMMY POSITION MEASUREMENTS

Code	Measurement Description	Driver		Passenger	
		Length (mm)	Angle (deg)	Length (mm)	Angle (deg)
WA	Windshield Angle		25		
SWA	Steering Wheel Angle		26.8		
SCA	Steering Column Angle		63.2		
SA	Seat Back Angle		11.7		11.7
HZ	Head to Roof (Z)	190	90	190	90
HH	Head to Header	325		335	
HW	Head to Windshield	595		600	
HR	Head to Side Header (Y)	270		240	
NR	Nose to Rim	395	9.5		
CD	Chest to Dash	590		635	
CS	Chest to Steering Hub	300			
RA	Rim to Abdomen	175			
KDL	Left Knee to Dash	210	7	150	
KDR	Right Knee to Dash	165		210	24
PA	Pelvic Angle		23		24
TA	Tibia Angle		47		47
KK	Knee to Knee (Y0	320		272	
ST	Striker to Head	590	2	525	2.5
SK	Striker to Knee	530	78	623	82
SH	Striker to H-Point	265	35	260	29
SHY	Striker to H-Point (Y)	230		230	
HS	Head to Side Window	340		310	
HD	H-Point to Door (Y)	153		146	
AD	Arm to Door (Y)	40		50	

DATA SHEET NO. 5...(CONTINUED) **DUMMY POSITIONING IN VEHICLE**

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan
 Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200
 Test Date: 9/3/03



DUMMY MEASUREMENTS FOR FRONT SEAT OCCUPANTS

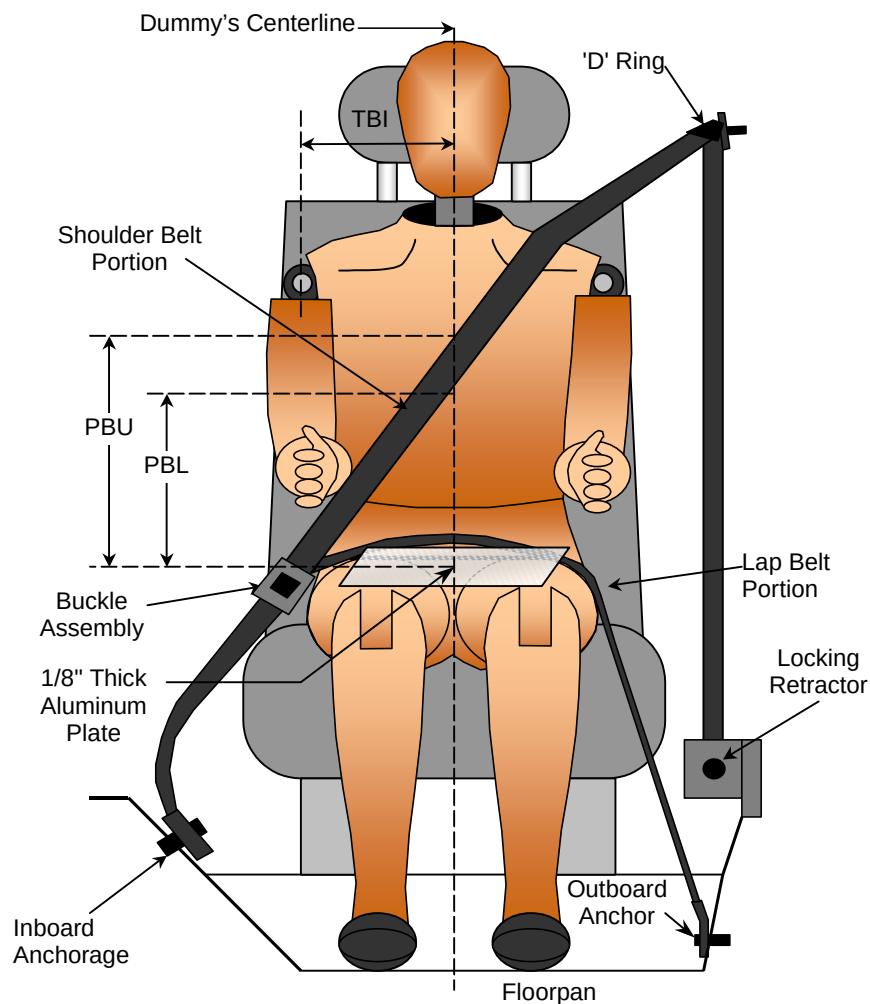
DATA SHEET NO. 6 **SEAT BELT POSITIONING DATA**

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03



SEAT BELT POSITIONING MEASUREMENTS

Measured Parameter	Units	Driver	Passenger
TBI -Dummy C/L to Lap/Shoulder Belt Intersect	mm	230	235
PBU - Top Surface of reference to belt upper edge	mm	330	310
PBL - Top Surface of reference to belt lower edge	mm	265	225
Lap Belt Tension	Newton's	10	10
Shoulder Belt Tension	N/A	Retractor	Retractor

DATA SHEET NO. 7 - VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

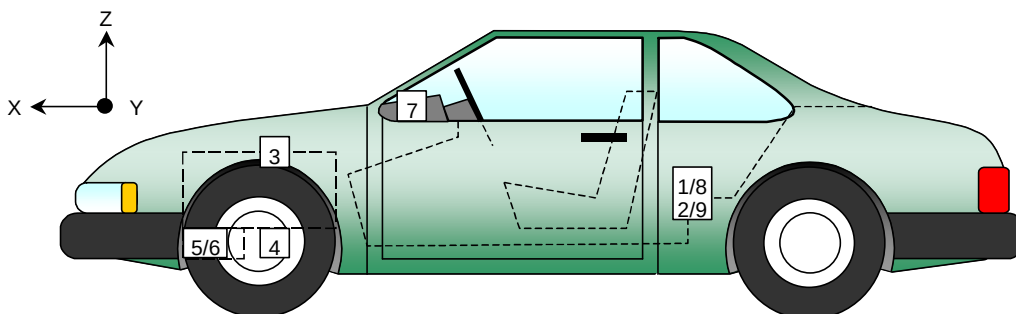
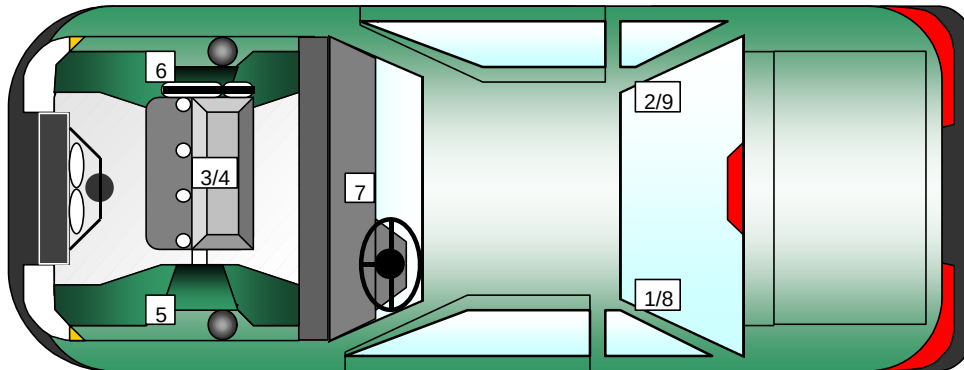
Test Date: 9/3/03

VEHICLE ACCELEROMETER PEAK DATA AND PRE-TEST LOCATIONS

No.	Accelerometer Location	Measurements (mm)			Peak Values				
		X	Y	Z	Units	Max	Time	Min	Time
1	Left Rear X-Member	2090	-655	250	G's	2.3	123.5	-35.5	62.6
2	Right Rear X-Member	2090	655	250	G's	2.4	117.9	-36.8	49.5
3	Engine Top	4030	20	865	G's	49.2	44.4	-160.0	31.8
4	Engine Bottom	4135	230	195	G's	53.3	41.6	-134.9	29.1
5	Left Brake Caliper	4080	-685	250	G's	13.4	101.3	-71.3	39.9
6	Right Brake Caliper	4080	685	250	G's	14.2	67.7	-97.7	42.2
7	Instrument Panel	3310	0	955	G's	6.4	132.8	-59.1	60.5
8	Left Rear X-Member (Z-Axis)	2040	-655	250	G's	8.7	74.1	-8.1	56.4
9	Right Rear X-Member (Z-Axis)	2040	655	250	G's	0.0	0.0	0.0	0.0

Reference Planes: X=From Rear Surface of Vehicle, Y=Vehicle Centerline, Z=Ground Plane

1.) Channel failed, no data



DATA SHEET NO. 8 - HYBRID III ATD INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03

HEAD PRIMARY PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	14.7	257.9	-44.2	67.5	34.2	203.5	-62.9	78.9
Head CG	Y	G's	6.4	51.5	-8.7	57.9	8.2	58.1	-27.3	204.3
Head CG	Z	G's	12.2	47.4	-7.9	84.4	17.1	51.5	-20.3	91.0
Head CG Resultant	N/A	G's	44.6	67.5			63.3	74.9		

CHEST PRIMARY PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Chest CG	X	G's	2.7	132.8	-45.2	66.9	4.5	213.2	-45.1	78.7
Chest CG	Y	G's	5.2	87.6	-2.9	34.8	2.7	36.8	-12.0	94.8
Chest CG	Z	G's	7.0	26.4	-9.1	67.0	6.2	50.8	-9.0	86.8
Chest CG Resultant	N/A	G's	46.1	66.9			45.7	78.8		

FEMUR PEAK FORCES

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Left Femur	Z	Newtons	789.7	72.8	-1227.5	61.4	406.7	37.0	-2294.1	65.2
Right Femur	Z	Newtons	1183.9	52.8	-925.5	63.3	1203.0	55.3	-361.9	39.4

SEAT BELT SENSOR PEAK VALUES

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Shoulder Belt Pullout	N/A	MM	114.8	88.8	-81.3	271.8	197.3	103.7	-19.7	48.2
Shoulder Belt Stretch	N/A	MM/CM	0.00	0.0	0.00	0.0	0.00	0.0	0.00	0.0 ¹
Lap Belt Force	N/A	Newtons	7259.3	64.0	-12.0	154.8	7800.1	65.5	0.8	0.0
Shoulder Belt Force	N/A	Newtons	5374.0	66.3	-6.7	190.8	5231.6	61.7	-21.9	13.6

1.) Not used with pre-tensioners

Location	Driver				Passenger			
	HIC	T ¹	T ²	Avg G	HIC	T ¹	T ²	Avg G
Head CG Primary	272.1	52.9	88.8	35.6	636.6	58.4	94.3	50.0

PRIMARY CHEST CLIP (3MSEC)

Location	Driver			Passenger		
	CLIP	T ¹	T ²	CLIP	T ¹	T ²
Chest CG Primary	44.1	65.5	68.5	44.5	76.9	79.9

DATA SHEET NO. 8...(continued)

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03

PELVIC PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Pelvis	X	G's	4.3	204.8	-49.1	64.1	3.0	127.1	-44.9	66.3
Pelvis	Y	G's	4.4	84.2	-3.5	24.5	3.6	49.8	-7.8	84.9
Pelvis	Z	G's	3.3	211.9	-38.5	65.9	4.9	207.1	-29.5	76.8
Pelvis Resultant	N/A	G's	62.2	65.9			51.5	66.3		

UPPER NECK PEAK FORCES AND MOMENTS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Neck Force	X	Newtons	402.9	69.6	-299.0	129.1	724.4	72.7	-404.5	51.3
Neck Force	Y	Newtons	123.0	113.5	-245.9	60.4	331.7	107.6	-158.1	64.5
Neck Force	Z	Newtons	898.9	58.8	-175.9	144.7	1094.9	58.1	-1129.4	207.4
Neck Force Resultant	N/A	Newtons	954.4	58.8			1258.4	76.1		
Neck Moment	X	N•m	10.7	99.0	-9.1	49.8	13.1	227.6	-20.1	106.6
Neck Moment	Y	N•m	25.7	137.3	-35.5	89.3	49.8	70.8	-40.2	92.7
Neck Moment	Z	N•m	2.6	154.9	-4.8	89.6	32.0	115.5	-9.6	192.5
Neck Moment Resultant	N/A	N•m	36.3	89.3			49.9	70.8		

FOOT PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Left Foot Aft	X	G's	29.3	33.4	-36.1	57.0	16.6	74.8	-129.4	44.5
Left Foot Aft	Z	G's	2.3	230.8	-32.5	35.7	19.8	74.4	-62.0	43.2
Left Foot Fore	Z	G's	8.5	106.0	-40.2	43.7	0.0	0.0	0.0	0.0
Right Foot Aft	X	G's	11.2	93.3	-56.3	46.8	9.9	71.7	-68.5	46.3
Right Foot Aft	Z	G's	6.1	66.3	-62.0	42.0	7.4	71.0	-34.2	40.0
Right Foot Fore	Z	G's	8.8	59.3	-97.9	41.3	20.5	71.7	-48.6	43.0

1.) Channel failed, no data

UPPER AND LOWER TIBIA PEAK FORCES AND MOMENTS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Left Upper Moment	X	N•m	24.3	51.3	-24.2	71.7	12.9	60.6	-43.6	45.8
Left Upper Moment	Y	N•m	16.2	139.7	-93.2	58.3	54.2	62.8	-117.0	44.6
Right Upper Moment	X	N•m	15.6	48.0	-34.2	45.4	13.8	246.6	-30.1	45.0
Right Upper Moment	Y	N•m	0.0	39.1	-45.5	30.2	25.9	134.5	-91.1	81.0
Left Lower Moment	X	N•m	15.4	34.6	-33.4	89.9	33.5	54.8	-28.3	45.6
Left Lower Moment	Y	N•m	38.2	35.1	-37.0	56.5	60.2	54.9	-39.4	43.8
Left Lower Force	Z	Newtons	73.5	291.9	-2422.3	35.1	180.6	153.2	-4171.4	51.1
Right Lower Moment	X	N•m	61.5	47.5	-13.5	43.7	38.3	88.1	-12.3	44.7
Right Lower Moment	Y	N•m	27.4	37.6	-30.0	27.0	10.6	135.4	-31.8	48.2
Right Lower Force	Z	Newtons	112.7	145.9	-1999.3	45.2	207.6	186.2	-2840.5	42.9

1.) Driver channel failed at 39.1 Msec.

DATA SHEET NO. 8...(continued)

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03

CHEST PEAK DISPLACEMENTS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Chest CG	X	MM	0.1	5.4	-20.5	68.7	0.3	3.9	-24.6	73.1

HEAD REDUNDANT PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	15.0	258.7	-43.8	67.6	33.9	204.5	-63.0	73.4
Head CG	Y	G's	7.0	51.1	-9.3	58.1	8.5	58.1	-28.1	204.5
Head CG	Z	G's	11.8	47.6	-7.9	83.6	17.2	51.5	-19.8	91.5
Head CG Resultant	N/A	G's	44.1	68.3			63.3	73.4		

CHEST REDUNDANT PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Chest CG	X	G's	2.7	133.0	-45.2	66.9	4.2	217.2	-45.2	78.6
Chest CG	Y	G's	5.4	87.5	-2.8	34.9	3.2	36.8	-11.5	94.9
Chest CG	Z	G's	6.7	26.5	-9.0	67.0	6.3	206.0	-9.1	86.7
Chest CG Resultant	N/A	G's	46.1	67.0			45.8	78.7		

REDUNDANT HEAD INJURY CRITERIA (HIC)

Location	Driver				Passenger			
	HIC	T ¹	T ²	Avg G	HIC	T ¹	T ²	Avg G
Head CG Redundant	271.8	54.0	89.9	35.6	630.1	58.4	94.3	49.8

REDUNDANT CHEST CLIP (3MSEC)

Location	Driver			Passenger		
	CLIP	T ¹	T ²	CLIP	T ¹	T ²
Chest CG Redundant	43.9	65.6	68.6	44.6	76.9	79.9

DATA SHEET NO. 9
SEATBELT ASSESSMENT TEST DATA

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03

SEAT BELT POSITIONING MEASUREMENTS

Measurement Description	Units	Driver	Passenger
TBI -Dummy C/L to Lap/Shoulder Belt Intersect	mm	230	235
PBU - Top Surface of reference to belt upper edge	mm	330	310
PBL - Top Surface of reference to belt lower edge	mm	265	225
Lap Belt Tension	Newton's	10	10
Shoulder Belt Tension	N/A	Retractor	Retractor

SEAT BELT POSITIONING MEASUREMENTS

Measurement Description	Units	Driver	Passenger
Retractor Reel to "D" ring	mm	645	645
Shoulder Belt length as measured on ATD	mm	890	880
Lap Belt length as measured on ATD	mm	830	900
Remainder of belt on reel	mm	665	725
Total belt length for continuous webbing systems	mm	3030	3150

SHOULDER BELT SPOOL-OFF DATA

Measurement Description	Units	Driver	Passenger
As determined mechanically	mm	N/A	N/A
As determined electronically	mm	114.8	197.3

BELT STRETCH DATA

Measurement Description	Units	Driver	Passenger
Electronically between belt load cell and "D" ring	mm/cm	*	*
Mechanically	mm/cm	N/A	N/A

* Not used with shoulder belt pre-tensioner systems

DATA SHEET NO. 10
SUMMARY OF FMVSS 212 DATA

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03

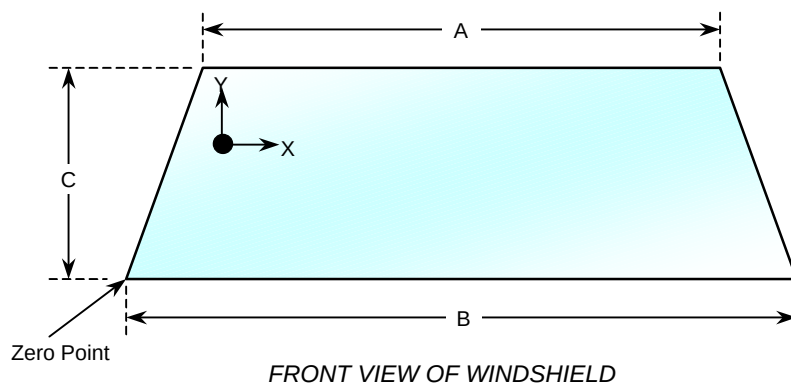
Windshield Mounting Details: Windshield glass is secured to the vehicle frame with a rubber type adhesive. No molding covers the windshield periphery at any point.

The standard requires that the posttest retention measurement be a minimum of 75 percent of the pretest total periphery measurement for vehicles not equipped with occupant passive restraints and 50 percent for each side of the windshield for vehicles that are equipped with occupant passive restraints.

Temperature of windshield molding during test: 21.1 °C

WINDSHIELD PERIPHERY MEASUREMENTS

Measurement	Pre-Test(mm)	Post-Test(mm)	% of Retention
Left Side	2192.5	2192.5	100.0
Right Side	2192.5	2192.5	100.0
Total	4385.0	4385.0	100.0



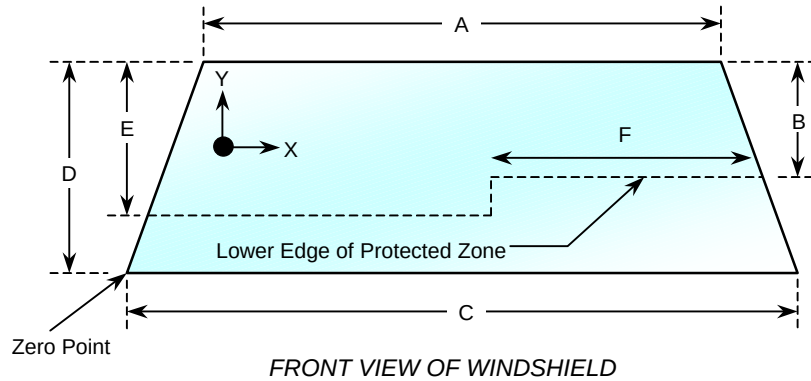
WINDSHIELD DIMENSIONS

Item	Units	Segment Length	Molding Width
A	mm	1205.0	15.0
B	mm	1520.0	10.0
C-Left	mm	830.0	15.0
C-Right	mm	830.0	15.0

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

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan
 Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200
 Test Date: 9/3/03



**WINDSHIELD AND
PROTECTED ZONE**

Item	Units	Value
A	mm	1205
B	mm	605
C	mm	1520
D	mm	830
E	mm	596
F	mm	385

AREA OF PROTECTED ZONE FAILURES

- A. Provide coordinates of the area that the protected zone was penetrated more than 0.25 in. by a vehicle component other than one that is normally in contact with the windshield.

X	Y
N/A	N/A
N/A	N/A
N/A	N/A
N/A	N/A

- B. Provide coordinates of the area beneath the protected zone that the inner surface of the windshield was penetrated by a vehicle component.

X	Y
N/A	N/A
N/A	N/A
N/A	N/A
N/A	N/A

DATA SHEET NO. 12
FMVSS 301 FUEL SYSTEM INTEGRITY POST IMPACT DATA

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan NHTSA No.: M45200
Test Program: 2003 NHTSA 35mph NCAP Test Date: 9/3/03

Test Time: 12:33 PM Temperature: 33.3 Deg. C.

STODDARD SOLVENT SPILLAGE MEASUREMENTS

- A. From impact until vehicle motion ceases: 0.0 oz.
(Maximum Allowable = 1 ounce)
- B. For the 5 minute period after motion ceases: 0.0 oz.
(Maximum Allowable = 5 ounces)
- C. For the following 25 minutes: 0.0 oz.
(Maximum Allowable = 1 oz./minute)
- D. Spillage Location Details: No leakage occurred

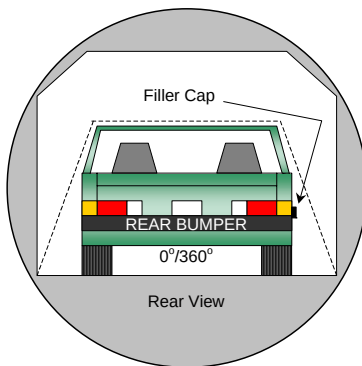
DATA SHEET NO. 13
FMVSS 301 STATIC ROLLOVER DATA

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

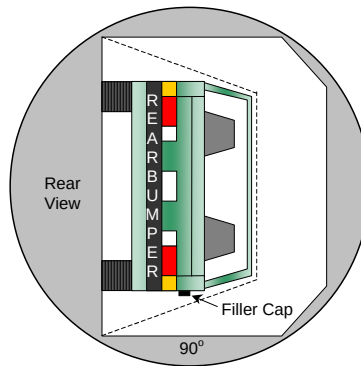
NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

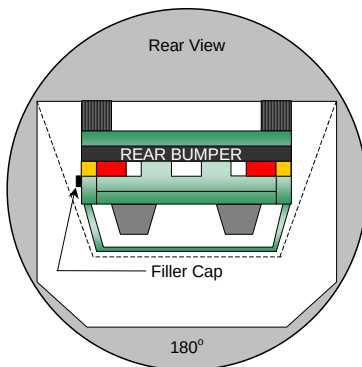
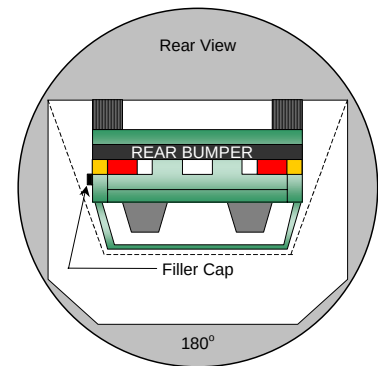
Test Date: 9/3/03



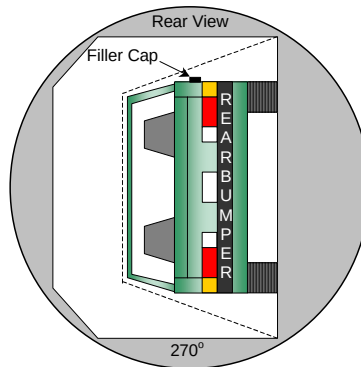
0° to 90°



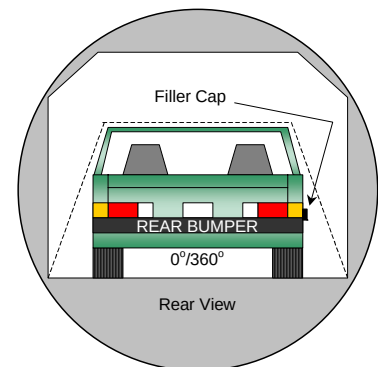
90° to 180°



180° to 270°



270° to 360°



1. The specified fixture rollover rate for each 90° of rotation is 60 to 120 seconds.
2. The position hold time at each position is 300 seconds (minimum).
3. No solvent leakage occurred during rollover.

DATA SHEET NO. 13....(CONTINUED)
FMVSS 301 STATIC ROLLOVER DATA

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03

SOLVENT COLLECTION TIME TABLE IN SECONDS

Test Phase	Rotation Time	Hold Time	Total Time
0° to 90°	83	300	383
90° to 180°	78	300	378
180° to 270°	77	300	377
270° to 360°	80	300	380

FMVSS 301 SPILLAGE TABLE REQUIREMENT (oz.)

First 5 Minutes	5.0
Sixth Minute	1.0
Seventh Minute	1.0
Eighth Minute	1.0

ACTUAL TEST VEHICLE SOLVENT SPILLAGE TABLE (oz.)

Test Phase	First 5 Minutes	Sixth Minute	Seventh Minute	Eighth Minute
0° to 90°	0	0	0	0
90° to 180°	0	0	0	0
180° to 270°	0	0	0	0
270° to 360°	0	0	0	0

SOLVENT SPILLAGE LOCATION TABLE

Test Phase	Spillage Location
0° to 90°	None
90° to 180°	None
180° to 270°	None
270° to 360°	None

DATA SHEET NO. 14
VEHICLE MEASUREMENTS

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan
Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200
Test Date: 9/3/03

VEHICLE MEASUREMENT TABLE

No.	Measurement Description	Units	Pre-Test	Post-Test	Diff.
1	Total length of vehicle at centerline	mm	4901	4410	-491
2	RSOV to front of engine	mm	4420	4252	-168
3	RSOV to firewall centerline	mm	3792	3684	-108
4	RSOV to leading edge of right door	mm	3398	3397	-1
5	RSOV to leading edge of left door	mm	3399	3400	1
6	RSOV to lower leading edge of right door	mm	3417	3410	-7
7	RSOV to lower leading edge of left door	mm	3415	3415	0
8	RSOV to upper trailing edge of right door	mm	2298	2301	3
9	RSOV to upper trailing edge of left door	mm	2300	2300	0
10	RSOV to lower trailing edge of right door	mm	2310	2305	-5
11	RSOV to lower trailing edge of left door	mm	2310	2310	0
12	RSOV to bottom of right 'A' pillar	mm	3420	3416	-4
13	RSOV to bottom of left 'A' pillar	mm	3419	3422	3
14	RSOV to firewall on right side	mm	3789	3766	-23
15	RSOV to firewall on left side	mm	3811	3688	-123
16	RSOV to steering column	mm	2955	2933	-22
17	Center of steering column to left 'A' pillar	mm	405	410	5
18	Center of steering column to headlining	mm	400	390	-10
19	RSOV to right side of front bumper	mm	4766	4330	-436
20	RSOV to left side of front bumper	mm	4766	4351	-415
21	Length of engine block	mm	500	500	0
RD	RSOV to right side of dash panel	mm	3221	3221	0
CD	RSOV to center of dash panel	mm	3115	3221	106
LD	RSOV to left side of dash panel	mm	3211	3212	1

All measurements in millimeters

DATA SHEET NO. 14.....(CONTINUED)
VEHICLE STRUCTURAL MEASUREMENTS

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03

VEHICLE STRUCTURAL MEASUREMENT TABLE

No.	Measurement Description	Units	Pre-Test	Post-Test	Diff.
1	Total length	mm	4901	4410	-491
2	Total width	mm	1826	1822	-4
3	Bumper top height	mm	600	600	0
4	Bumper bottom height	mm	175	215	40
5	Longitudinal member top height	mm	565	530	-35
6	Longitudinal member bottom height	mm	425	385	-40
7	Distance between longitudinal members	mm	930	970	40
8	Longitudinal member width	mm	140	132	-8
9	Engine top height	mm	910	885	-25
10	Engine bottom height	mm	206	181	-25
11	Engine and gear box width	mm	510	510	0
12	Front bumper to engine distance	mm	480	168	-312
13	Front shock absorber fixing width	mm	850	915	65
14	Bonnet leading edge height	mm	735	715	-20
15	Front shock absorber fixing width	mm	1200	1080	-120
16	Front bumper to front axle distance	mm	905	530	-375
17	Front axle to 'A' pillar distance	mm	520	440	-80
18	'A' pillar to 'B' pillar distance	mm	1137	1140	3
19	'B' pillar to rear axle distance	mm	1190	1195	5
20	'B' pillar to 'C' pillar distance	mm	1060	1053	-7
21	Roof sill bottom height	mm	1257	1315	58
22	Roof sill top height	mm	1481	1440	-41
23	Floor sill bottom height	mm	205	227	22
24	Floor sill top height	mm	375	401	26

All measurements in millimeters

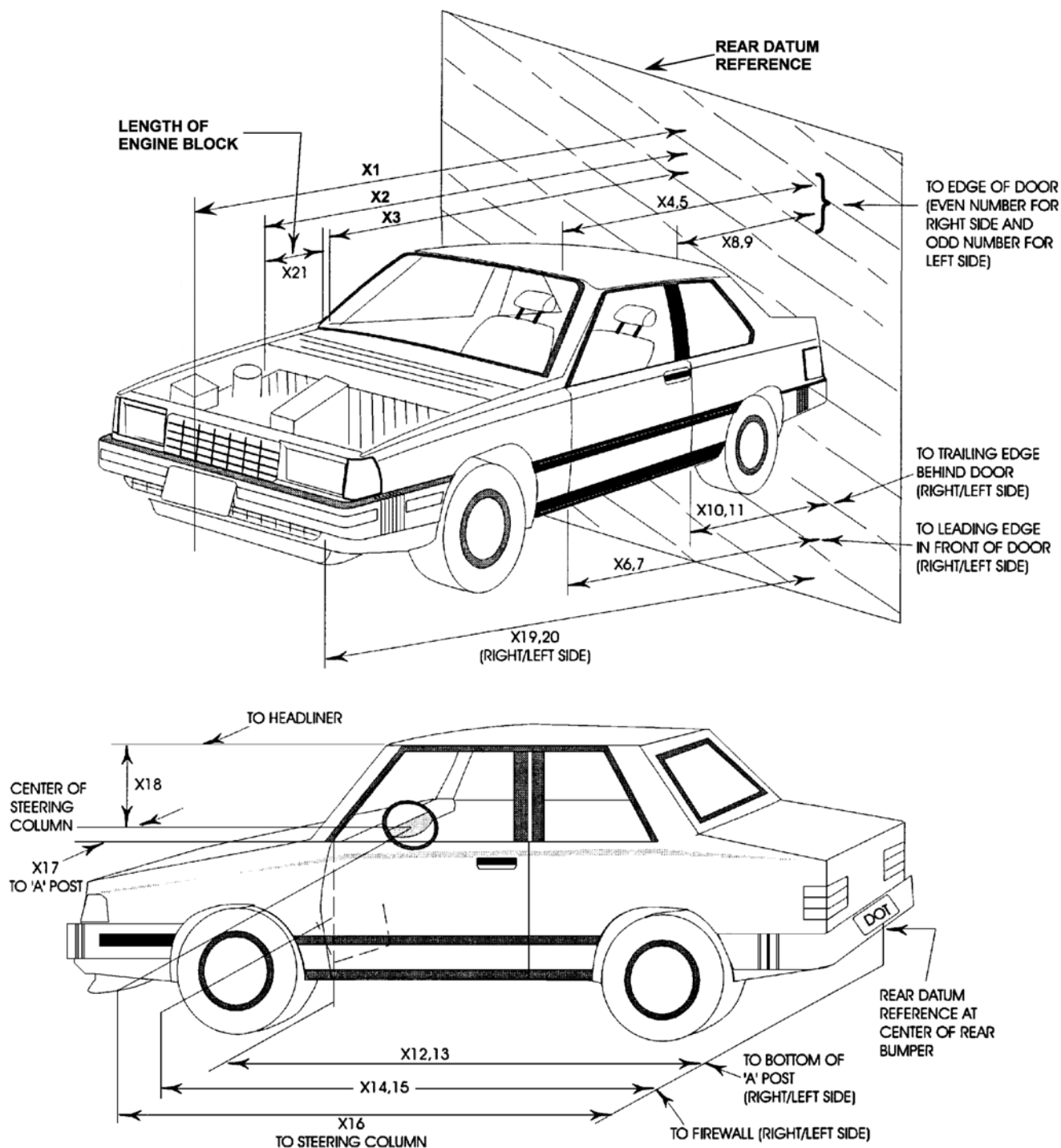
DATA SHEET N. 14...(CONTINUED)
VEHICLE MEASUREMENTS

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03



DATA SHEET NO. 15
CAMERA LOCATIONS

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan
Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200
Test Date: 9/3/03

VEHICLE CAMERA MEASUREMENT TABLE

No.	Camera View	Location (mm)			Angle (deg.)	Film Plane to Head	Lens (mm)	Speed (fps)
		X	Y	Z				
1	Real Time	9144	-6096	1372	0	N/A	N/A	30
2	Driver Overall	1930	8357	1321	4	7785	13	1020
2B	Driver Overall	1626	8230	1092	4	7684	17	No Time
3	Driver Close-up	1727	8230	1600	4	7678	35	1010
4	3/4 Driver	6477	10185	4648	13	10971	105	990
5	Steering Column	1524	8230	3404	20	7976	19	980
6	Steering Column	1524	8230	2997	16	7878	19	1020
7	Driver Side Child	2489	8230	2388	50	7944	6	990
7B	Driver Side Child	2489	8230	1346	50	7848	50	DNR
8	Passenger Overall	2286	-8230	1524	6	7650	13	1100
9	Passenger Close-up	1219	-6096	1524	4	5634	35	970
10	3/4 Passenger	8026	-8941	2997	9	10238	80	950
11	Passenger Door	1626	-8836	1702	4	8295	50	990
12	Passenger Side Child	3048	-8839	2032	20	8459	35-85	1010
12B	Passenger Side Child	2845	-8230	1524	10	7824	50	1100
13	Driver Front	-610	406	2743	40	N/A	13	1010
14	Passenger Front	-610	406	2743	40	N/A	13	1040
15	Overhead	610	0	6172	90	N/A	13	1080
16	Pit Engine	762	0	-1499	90	N/A	9	980
17	Pit Fuel Tank	3658	0	-1499	90	N/A	6	1140
18	Driver Side Digital B/W	1930	9271	1473	5	8700	5.7	500
19	Driver Side Digital B/W	1727	9271	1829	5	8727	13	500
20	Passenger Side Digital B/W	2057	-8611	1524	5	8036	6	500
21	Passenger Side Digital B/W	1676	-8611	1524	5	8060	12	500

X = Barrier Face Y = Monorail Centerline Z = Ground DNR = Did Not Run

DATA SHEET NO. 16
PHOTOGRAPHIC REFERENCE TARGET LOCATIONS

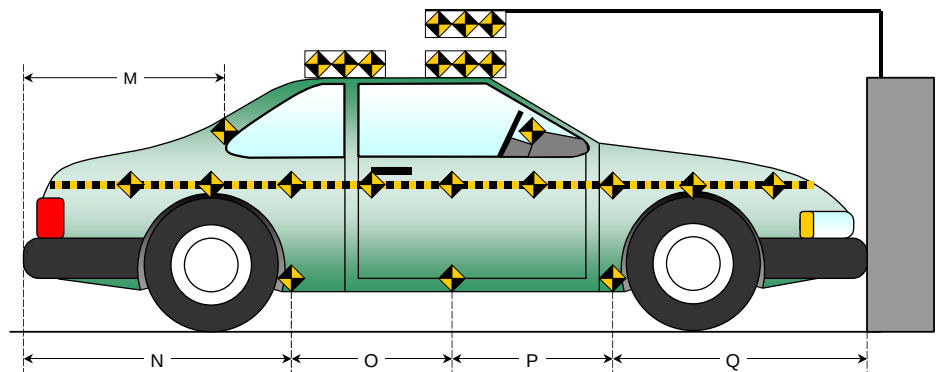
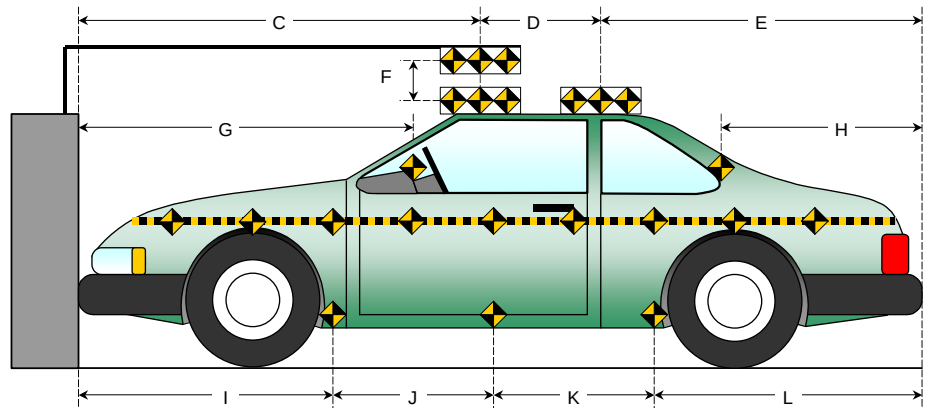
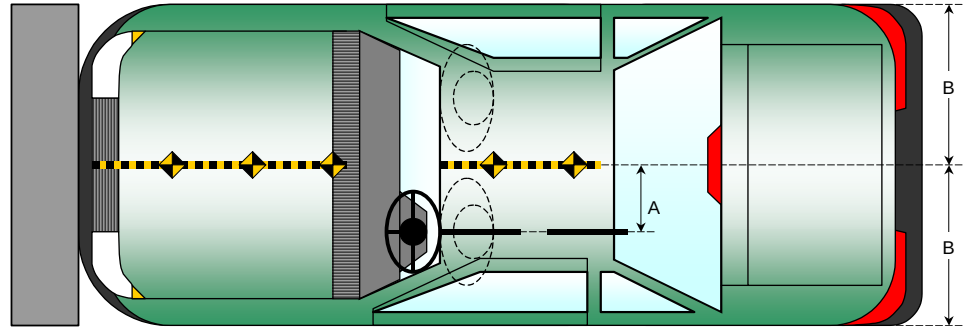
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03

All Dimensions in (mm)	
Item	Value
A	393
B	913
C	2364
D	609
E	1947
F	155
G	1805
H	1134
I	1410
J	962
K	962
L	1574
M	1135
N	1574
O	962
P	962
Q	1410



DATA SHEET NO. 17
VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

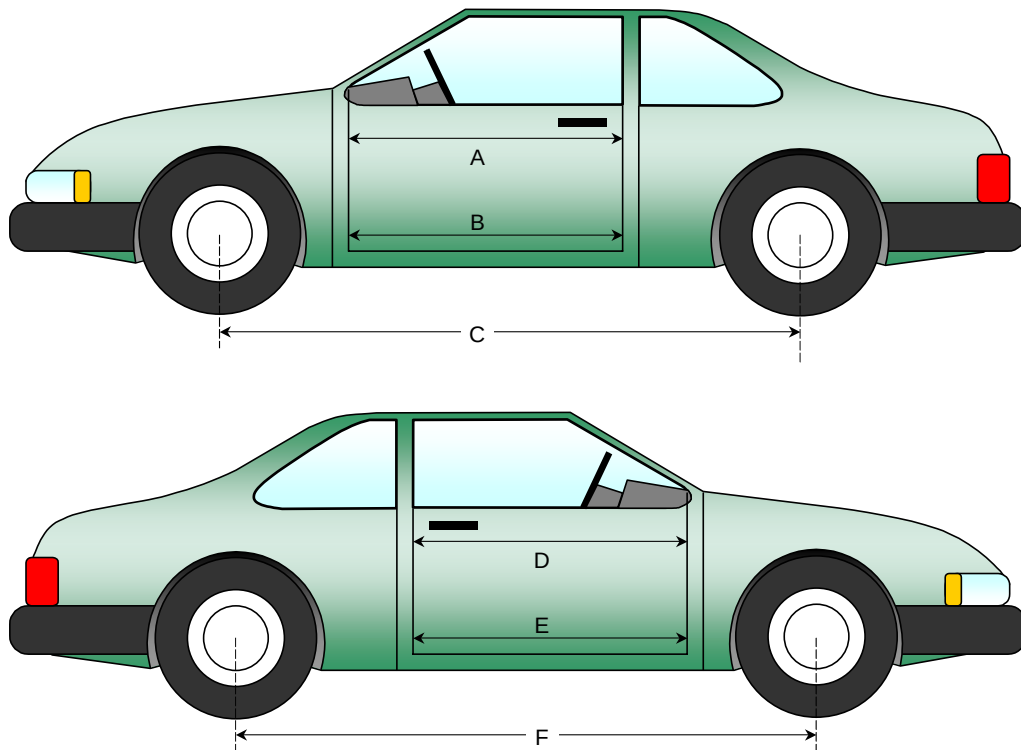
Test Date: 9/3/03

DOOR OPENING WIDTH TABLE

Item	Description	Units	Pre-Test	Post-Test	Diff.
A	Left Side Upper	mm	1050	1044	-6
B	Left Side Lower	mm	960	958	-2
D	Right Side Upper	mm	1047	1048	1
E	Right Side Lower	mm	961	966	5

WHEELBASE MEASUREMENT TABLE

Item	Description	Units	Pre-Test	Post-Test	Diff.
C	Left Side Wheel Base	mm	2829	2748	-81
F	Right Side Wheel Base	mm	2829	2755	-74



DATA SHEET NO. 17...(CONTINUED)
VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

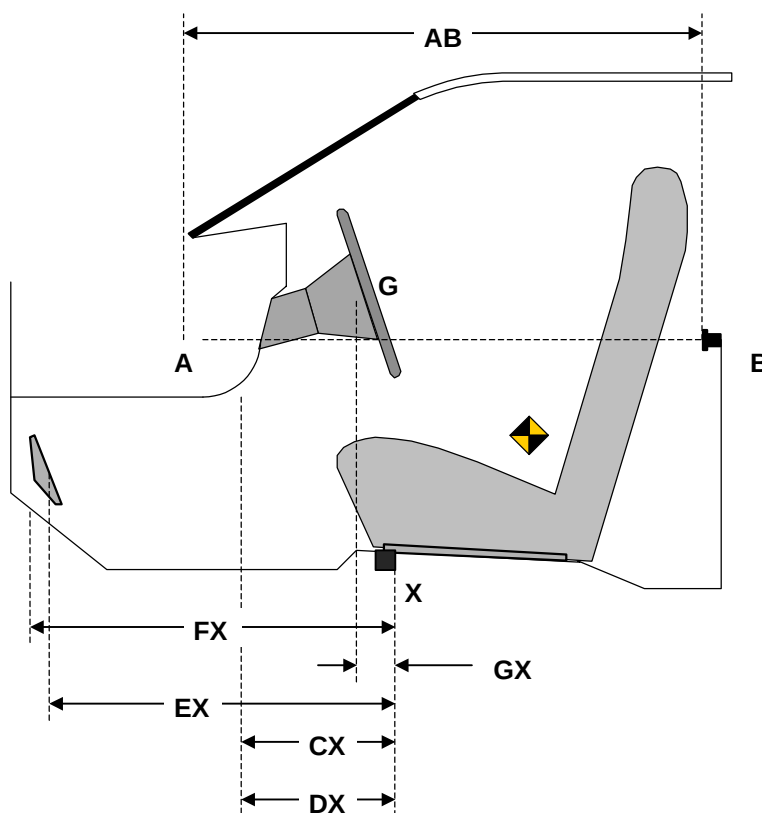
Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03

DRIVER COMPARTMENT INTRUSION TABLE

Item	Description	Units	Pre-Test	Post-Test	Diff.
AB	Door Opening (Inside window jam)	mm	1050	1044	-6
CX	Left Knee Bolster to X	mm	274	262	-12
DX	Right Knee Bolster to X	mm	267	255	-12
EX	Brake Pedal to X	mm	581	475	-106
FX	Foot Rest to X	mm	573	540	-33
GX	Center of Steering Wheel Hub to X	mm	89	40	-49

X = Left Front Seat Outboard Anchor Bolt Head



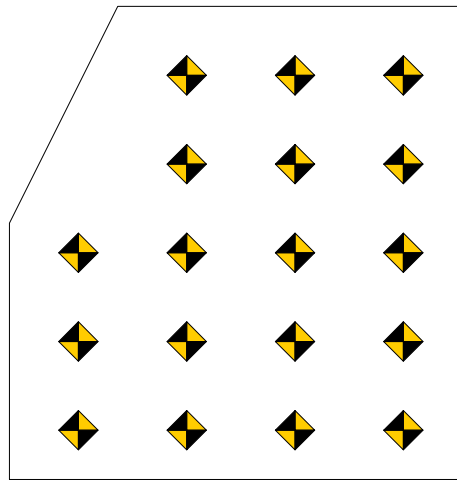
DATA SHEET NO. 17...(CONTINUED)
VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03



A B C D

1 Measurement reference point for X and Z-axis is the forward outboard seat mounting bolt.

2 Columns A through D are evenly spaced.

3 Rows 1 and 2 are on the toe kick portion of the floor pan. Rows 3,4 and 5 are located on the most level portion of the floor pan.

Row 3 will be at the intersection of the toe kick and the level sections of the floor pan.

DRIVER FLOOR PAN X-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1		690	689	705		634	591	580		-56	-98	-125
2		591	589	600		567	522	529		-24	-67	-71
3	487	488	486	490	466	476	460	449	-21	-12	-26	-41
4	387	388	386	387	368	377	365	350	-19	-11	-21	-37
5	284	286	284	287	265	275	263	250	-19	-11	-21	-37

DRIVER FLOOR PAN Z-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1		-45	-51	-46		-23	0	-5		22	51	41
2		-98	-102	-119		-86	-61	-90		12	41	29
3	-125	-110	-115	-100	-121	-104	-106	-73	4	6	9	27
4	-126	-119	-120	-105	-131	-111	-114	-88	-5	8	6	17
5	-125	-114	-118	-100	-130	-111	-111	-84	-5	3	7	16

DATA SHEET NO. 17...(CONTINUED)
VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan
 Test Program: 2003 NHTSA 35mph NCAP

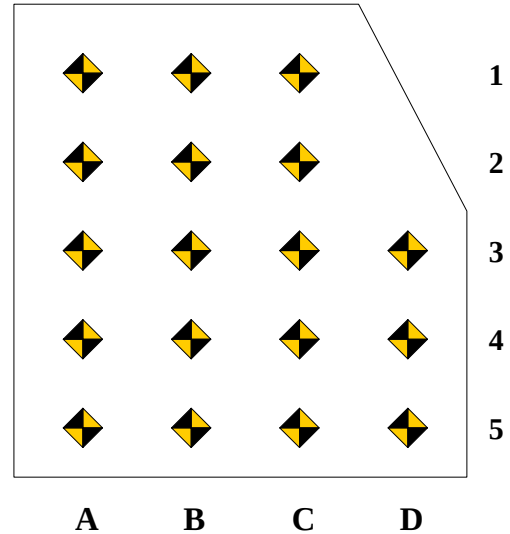
NHTSA No.: M45200
 Test Date: 9/3/03

Measurement reference point for X and Z axis is the forward outboard seat mounting bolt.

Columns A through D are evenly spaced.

Rows 1 and 2 are on the toe kick portion of the floor pan. Rows 3,4, and 5 are located on the most level portion of the floor pan.

Row 3 will be at the intersection of the toe kick and the level sections of the floor pan.



PASSENGER FLOOR PAN Z-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	686	683	684		575	478	598		-111	-205	-86	
2	588	583	584		523	428	550		-65	-155	-34	
3	478	479	481	478	443	368	468	472	-35	-111	-13	-6
4	378	379	381	377	343	268	368	372	-35	-111	-13	-5
5	279	276	286	277	245	265	268	270	-34	-11	-18	-7

PASSENGER FLOOR PAN Z-AXIS

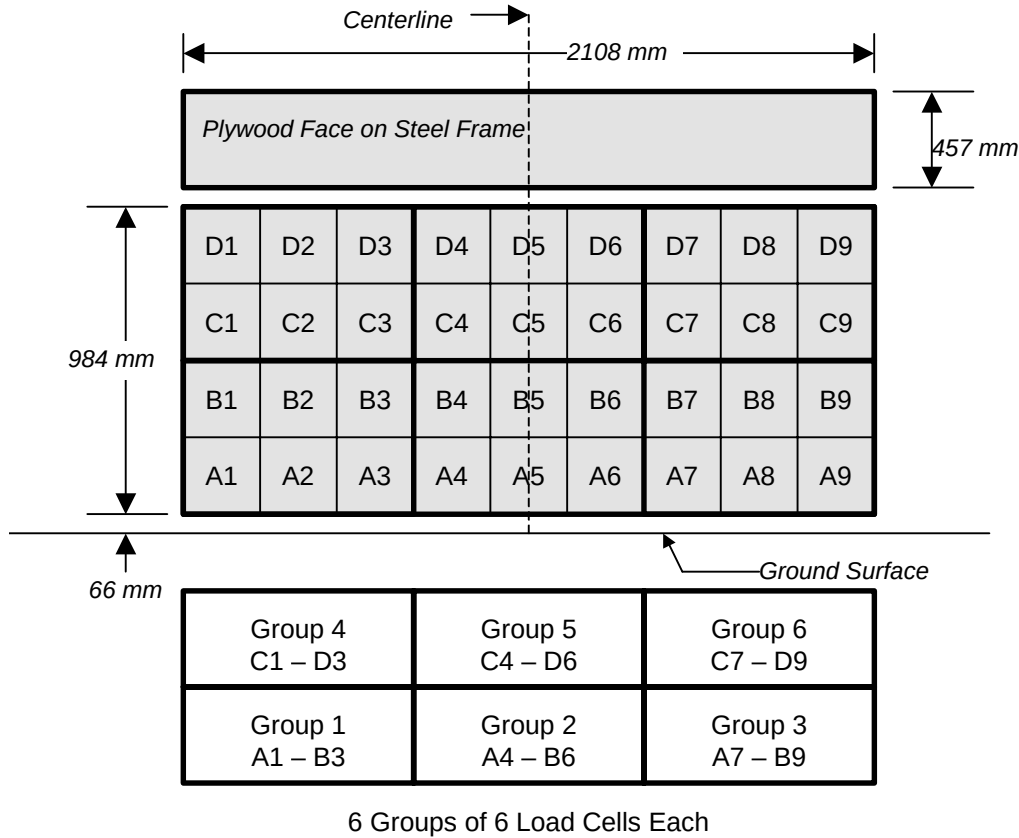
	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	-69	-47	-48		-39	-33	-36		30	14	12	
2	-132	-102	-99		-119	-113	-127		13	-11	-28	
3	-107	-111	-108	-114	-115	-120	-118	-131	-8	-9	-10	-17
4	-106	-112	-114	-123	-110	-121	-120	-131	-4	-9	-6	-8
5	-98	-110	-114	-120	-110	-128	-132	-138	-12	-18	-18	-18

DATA SHEET NO. 18
FIXED BARRIER LOAD CELL LOCATIONS

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan
 Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200
 Test Date: 9/3/03

36 Load Cell Rigid Barrier (NHTSA Standard)
Load Cell Locations on Fixed Barrier



The Data is presented in Appendix C with the following requirements:

- 1.) Data from 36 individual load cells
- 2.) Sum data from 6 groupings shown above (6 cells/group)
- 3.) Total or sum of all 36 individual load cells
- 4.) Sum of all 36 individual load cells vs. vehicle dynamic crush

DATA SHEET NO. 19
ACCIDENT INVESTIGATION DIVISION DATA

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan
 Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200
 Test Date: 9/3/03

VEHICLE INFORMATION

VIN: 1N4BA41E44C841028
 Vehicle Size Category: 4-Door

Wheel base (mm): 2829
 Test Weight (kg): 1808

ACCELEROMETER DATA

Accelerometer Location: Left rear floor pan
 Cal. Procedure/Interval: 6 months / drop test
 Integration Algorithm: NHTSA Standard
 Impact Velocity (km/h): 55.82
 Velocity Change (km/h): 66.45

Linearity: Good

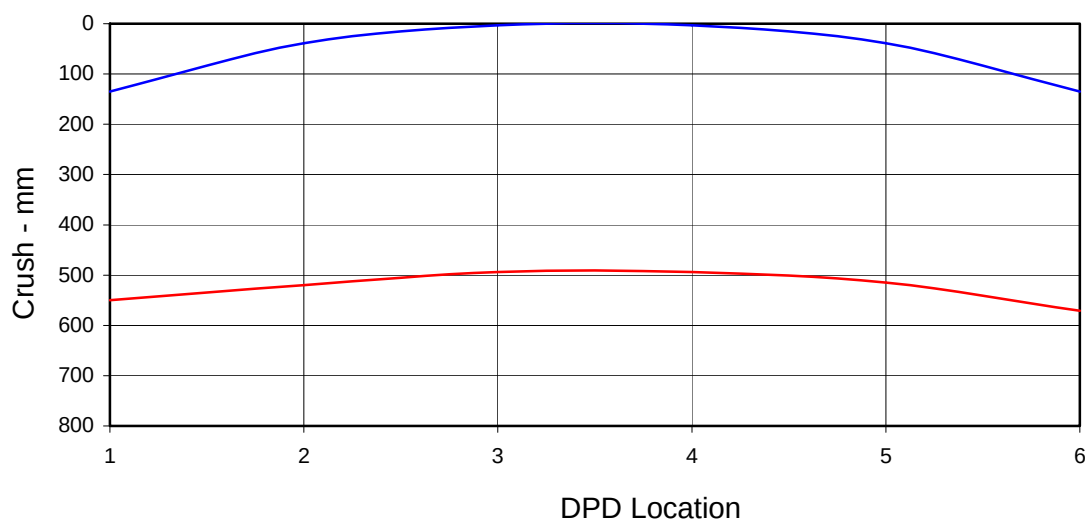
Time of Separation (msec): 72.2

CRUSH PROFILE

Collision Deformation Classification: 12FDEW6
 Damage Region Length (mm): 1375

Midpoint of Damage: Vehicle Centerline
 Impact Mode: Full Frontal

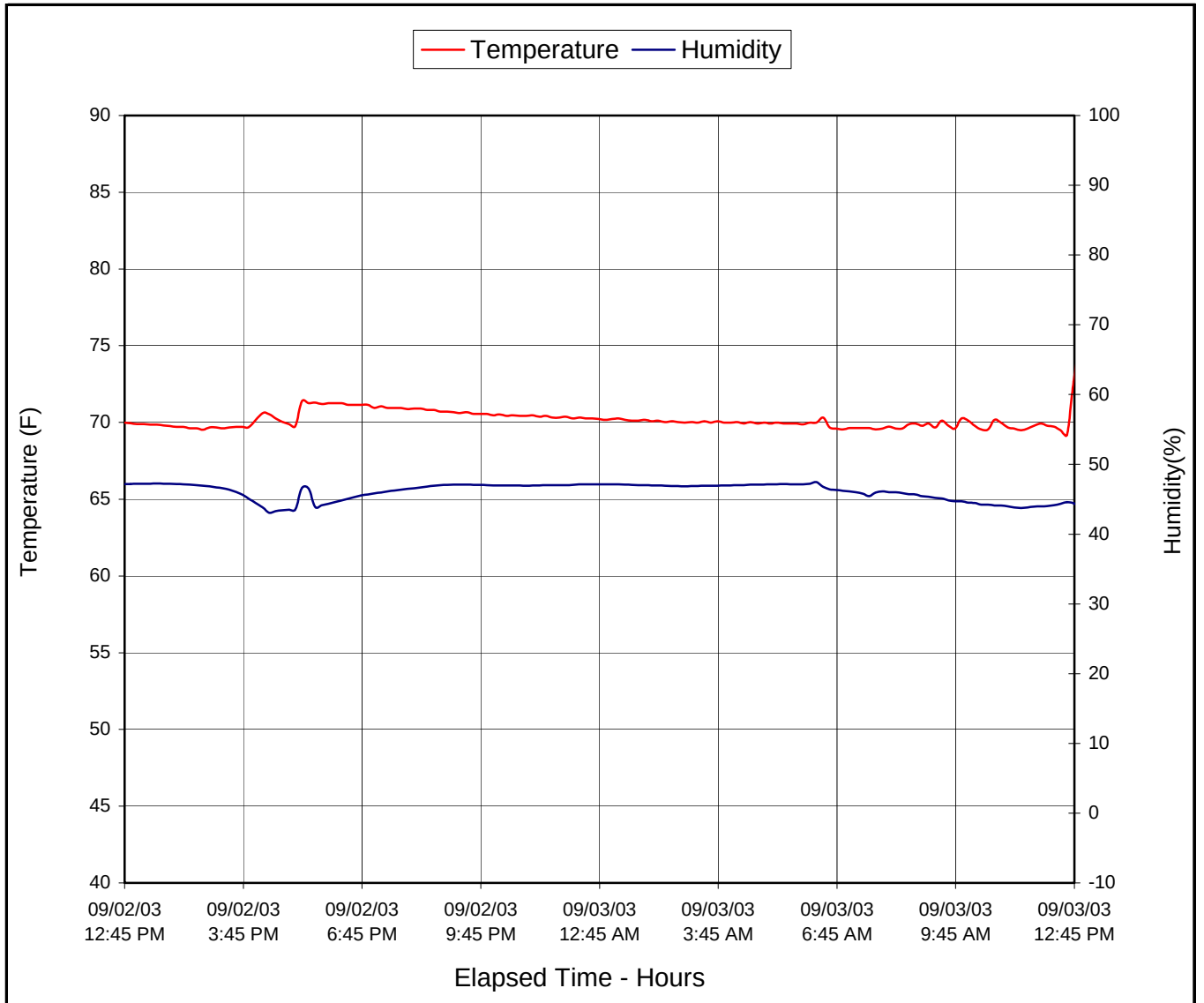
No.	Measurement Description	Units	Pre-Test	Post-Test	Difference
C1	Crush zone 1 at left side	mm	135	550	-415
C2	Crush zone 2 on left side	mm	39	520	-481
C3	Crush zone 3 on left side	mm	3	494	-491
C4	Crush zone 4 on right side	mm	3	494	-491
C5	Crush zone 5 on right side	mm	39	515	-476
C6	Crush zone 6 at right side	mm	135	571	-436



DATA SHEET NO. 20
DUMMY/VEHICLE TEMPERATURE STABILIZATION

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan
Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200
Test Date: 9/3/03



APPENDIX A
PHOTOGRAPHS

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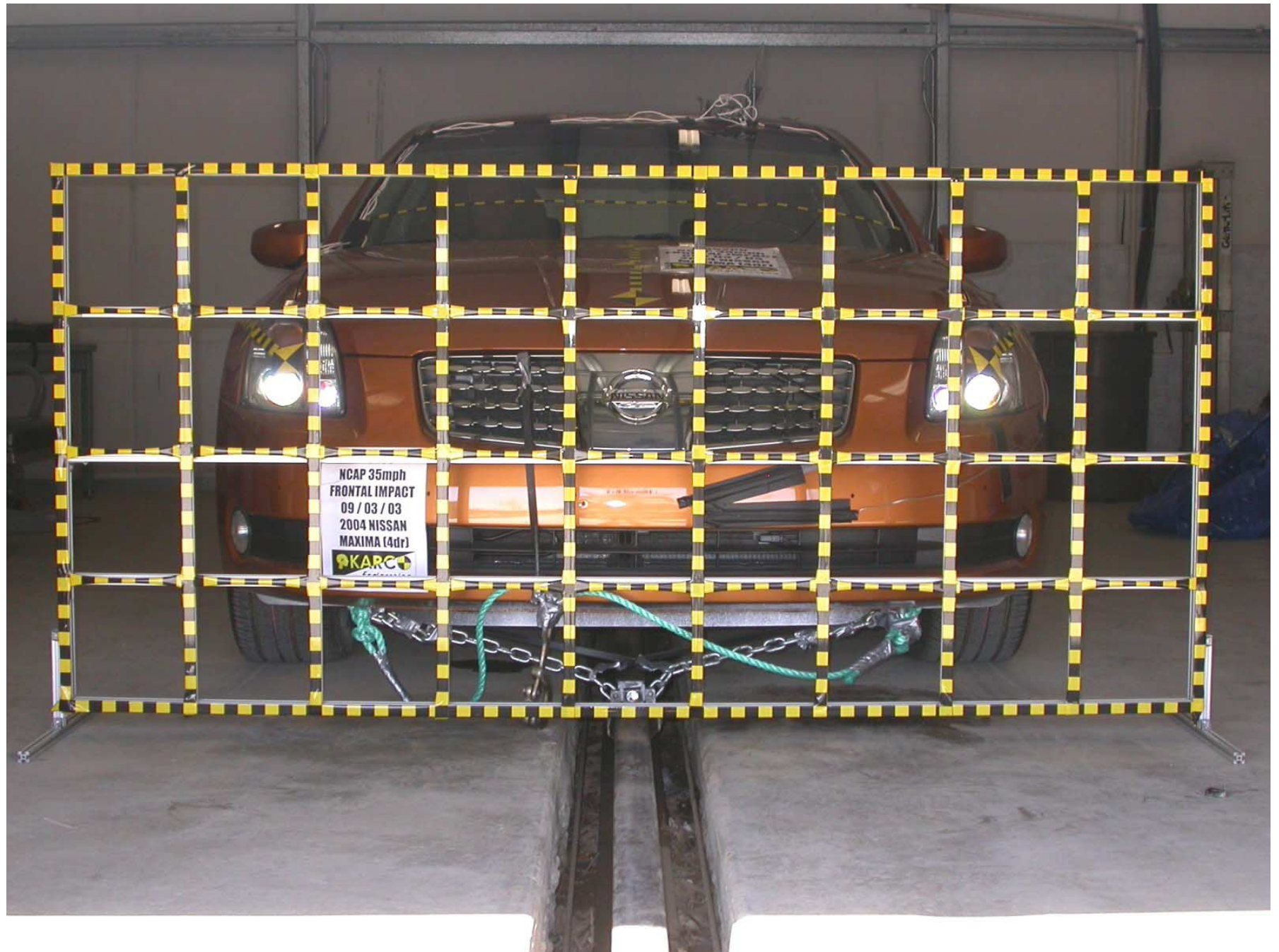


Figure A-1: Load Cell Location

MANUFACTURED BY NISSAN MOTOR CO., LTD.

DATE 07/03 GVWR 4546 LB
GAWR FR. 2469 LB GAWR RR. 2097 LB

THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR
VEHICLE SAFETY, BUMPER AND THEFT PREVENTION STANDARDS
IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.
SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION.

VIN: 1N4BA41E44C841028 PASSENGER CAR

COLOR	TRIM	TRANS	AXLE	ENGINE
A19	G	RE5F22A	GA24	VQ35DE 3498CC

MODEL: BLJALVN-EU5 118 02000



1N4BA41E44C841028

Figure A-2: Vehicle Certification Label

VEHICLE CAPACITY WEIGHT	860 lbs	SEATING CAPACITY	FRONT AVANT 2	TOTAL TOTAL	SPARE TIRE ROUE DE SECOURS	kPa (psi)
POIDS UTILE DU VEHICULE	390 kg	NOMBRE DE PLACES	REAR ARRIERE 3	5	T145/80R17 T145/80D17	420 (60)
RECOMMENDED COLD TIRE INFLATION PRESSURE. PRESSION DE GONFLAGE RECOMMANDEE DES PNEUS FROIDS.					DO NOT USE IN EXCESS OF 50 MPH, 80 km/h. SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION. UTILISATION A UNE VITESSE MAX 50 MPH, 80 km/h. POUR LES DETAILS SE REFERER AU MANUEL DU CONDUCTEUR.	
TIRE SIZE DIMENSIONS	FRONT kPa AVANT (psi)		REAR kPa ARRIERE (psi)			
P245/45R18 96V	220 (32)		220 (32)			

7Y015

7Y015

Figure A-3: Vehicle Tire Label



Figure A-4: Right Front $\frac{3}{4}$ View, As Received



Figure A-5: Left Rear $\frac{3}{4}$ View, as Received



Figure A-6: Pre-Test Front View

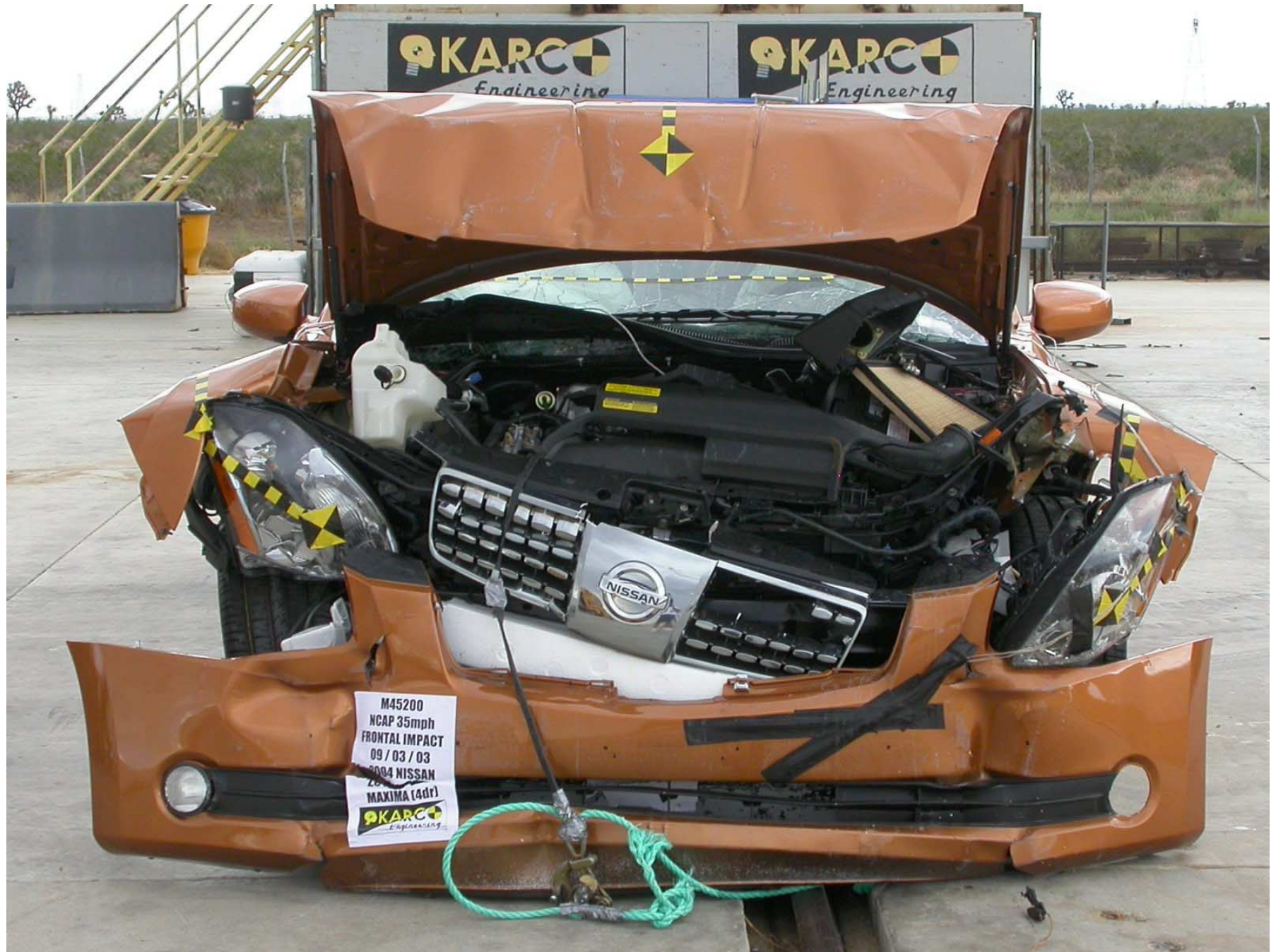


Figure A-7: Post-Test Front View (Vehicle Moved)



Figure A-8: Pre-Test Left Side View



Figure A-9: Post-Test Left Side View



Figure A-10: Pre-Test Right Side View



Figure A-11: Post-Test Right Side View



Figure A-12: Pre-Test Right Front $\frac{3}{4}$ View



Figure A-13: Post-Test Right Front ¾ View (Vehicle Moved)



Figure A-14: Pre-Test Left Rear $\frac{3}{4}$ View



Figure A-15: Post-Test Left Rear $\frac{3}{4}$ View



Figure A-16: Left Rear $\frac{3}{4}$ View of Doors After Impact



Figure A-17: Right Rear ¾ View of Doors After Impact



Figure A-18: Pre-Test Windshield View



Figure A-19: Post-Test Windshield View



Figure A-20: Pre-Test Engine Compartment



Figure A-21: Post-Test Engine Compartment (Vehicle Moved)



Figure A-22: Pre-Test Fuel Cap



Figure A-23: Post-Test Fuel Cap



Figure A-24: Pre-Test Front Underbody View

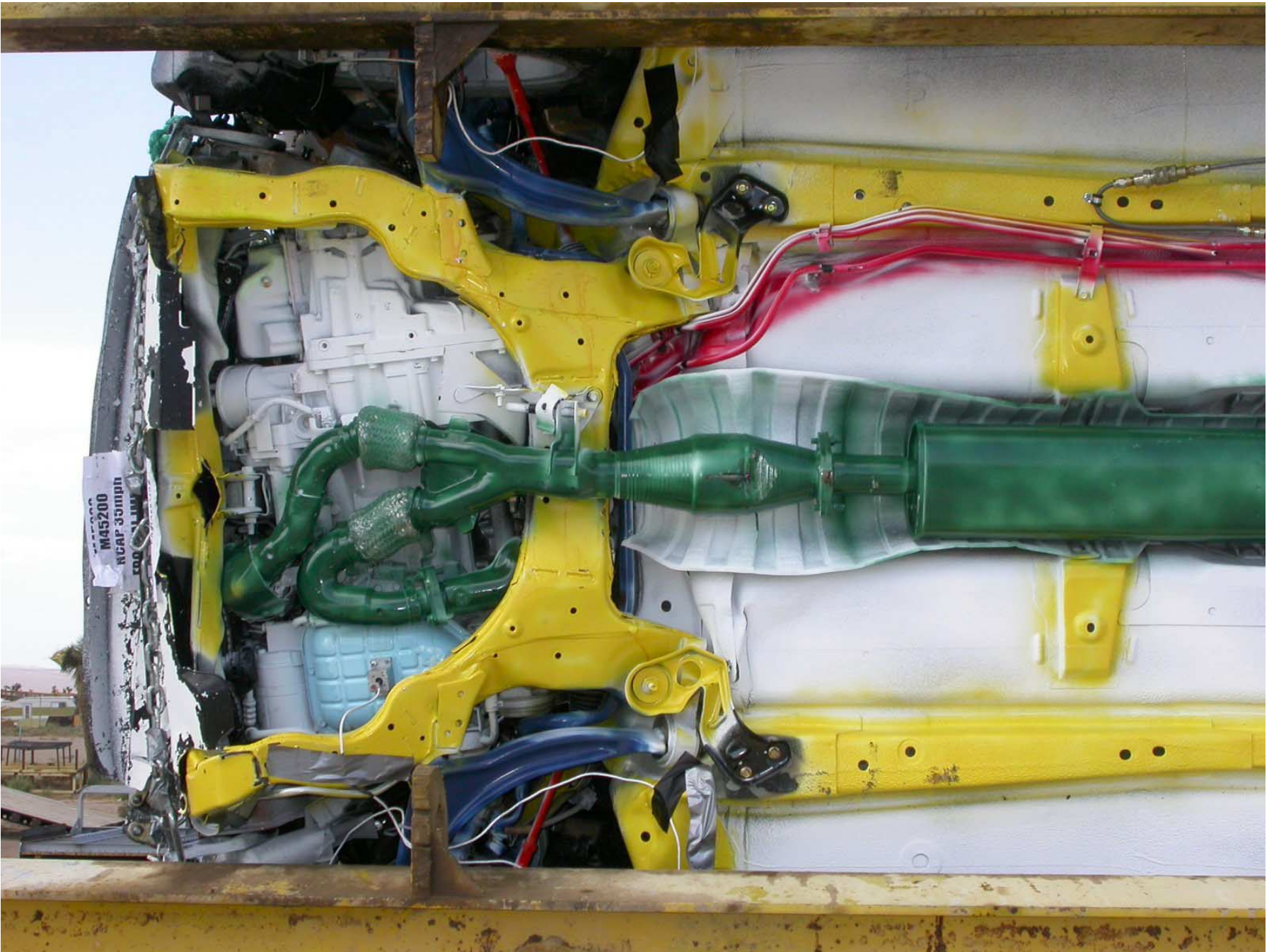


Figure A-25: Post-Test Front Underbody View



Figure A-26: Pre-Test Mid Underbody View

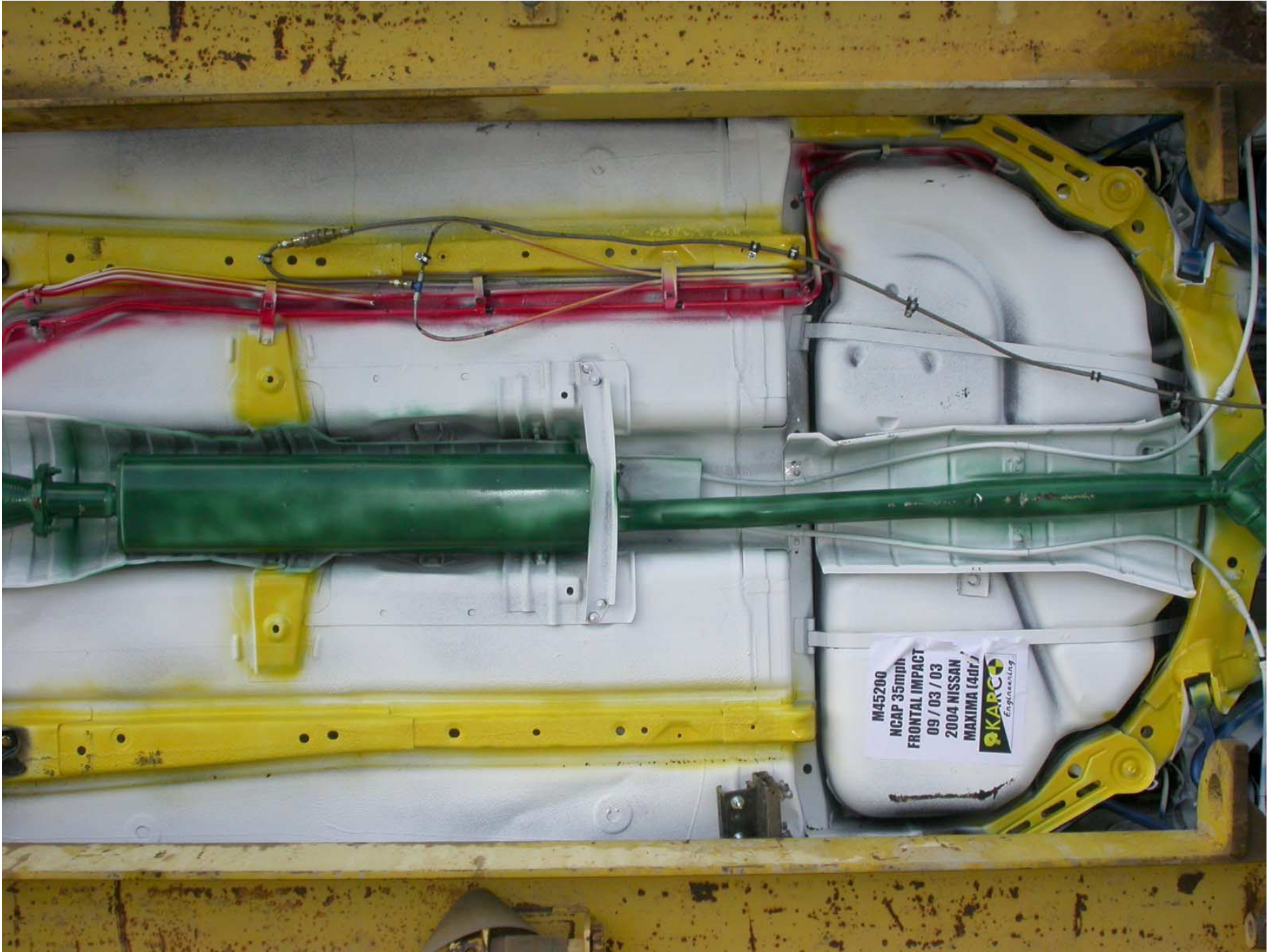


Figure A-27: Post-Test Mid Underbody View



Figure A-28: Pre-Test Rear Underbody View

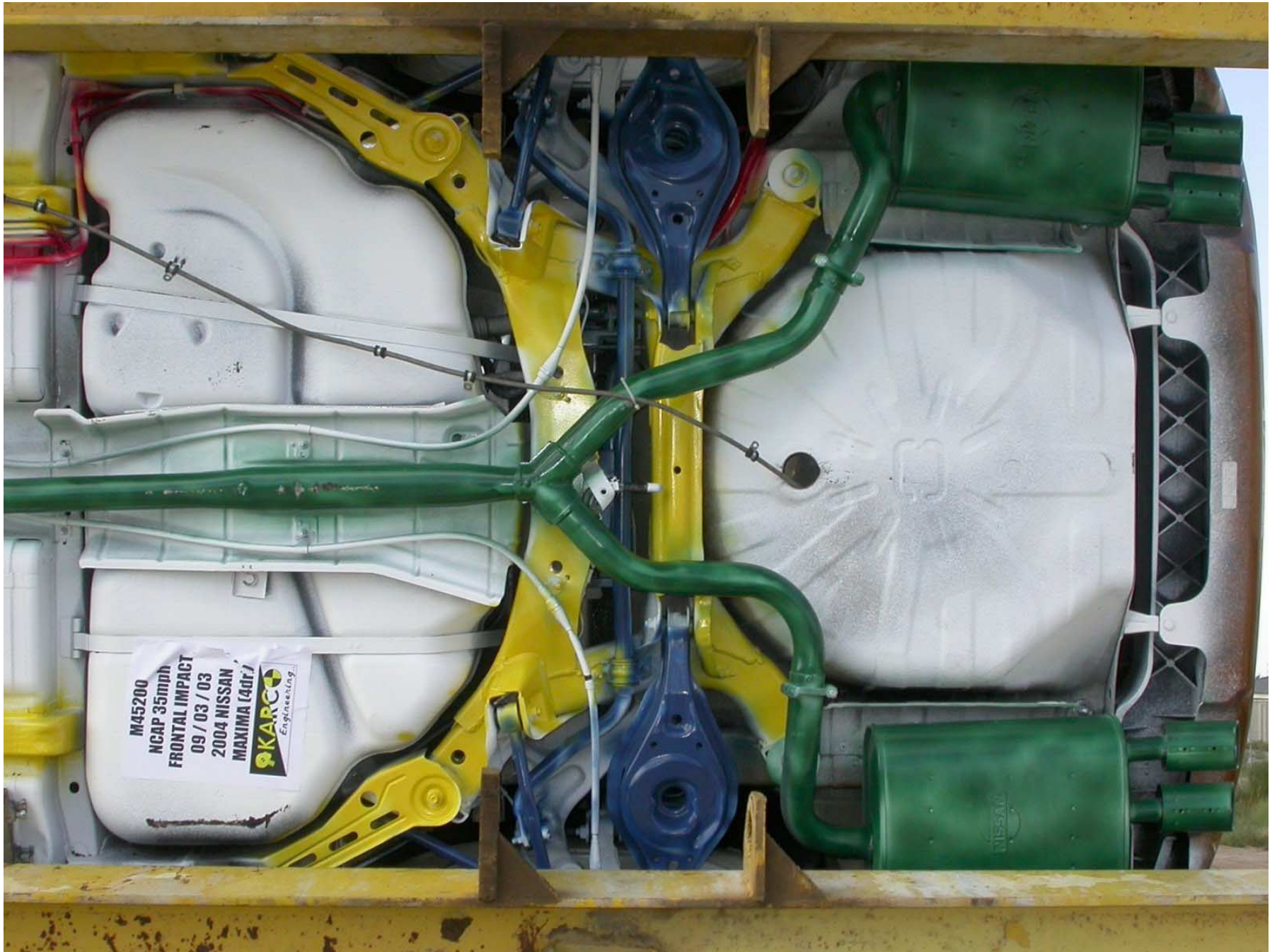


Figure A-29: Post-Test Rear Underbody View



Figure A-30: Pre-Test Driver Dummy Front View (Head Position)



Figure A-31: Post-Test Driver Dummy Front View (Head Position)



Figure A-32: Pre-Test Driver Dummy Front Through Window



Figure A-33: Post-Test Driver Dummy Front Through Window



Figure A-34: Pre-Test Driver Dummy Door Open



Figure A-35: Post-Test Driver Dummy Door Open



Figure A-36: Pre-Test Driver Dummy Feet



Figure A-37: Post-Test Driver Dummy Feet



Figure A-38: Pre-Test Driver Side Knee Bolster



Figure A-39: Post-Test Driver Side Knee Bolster

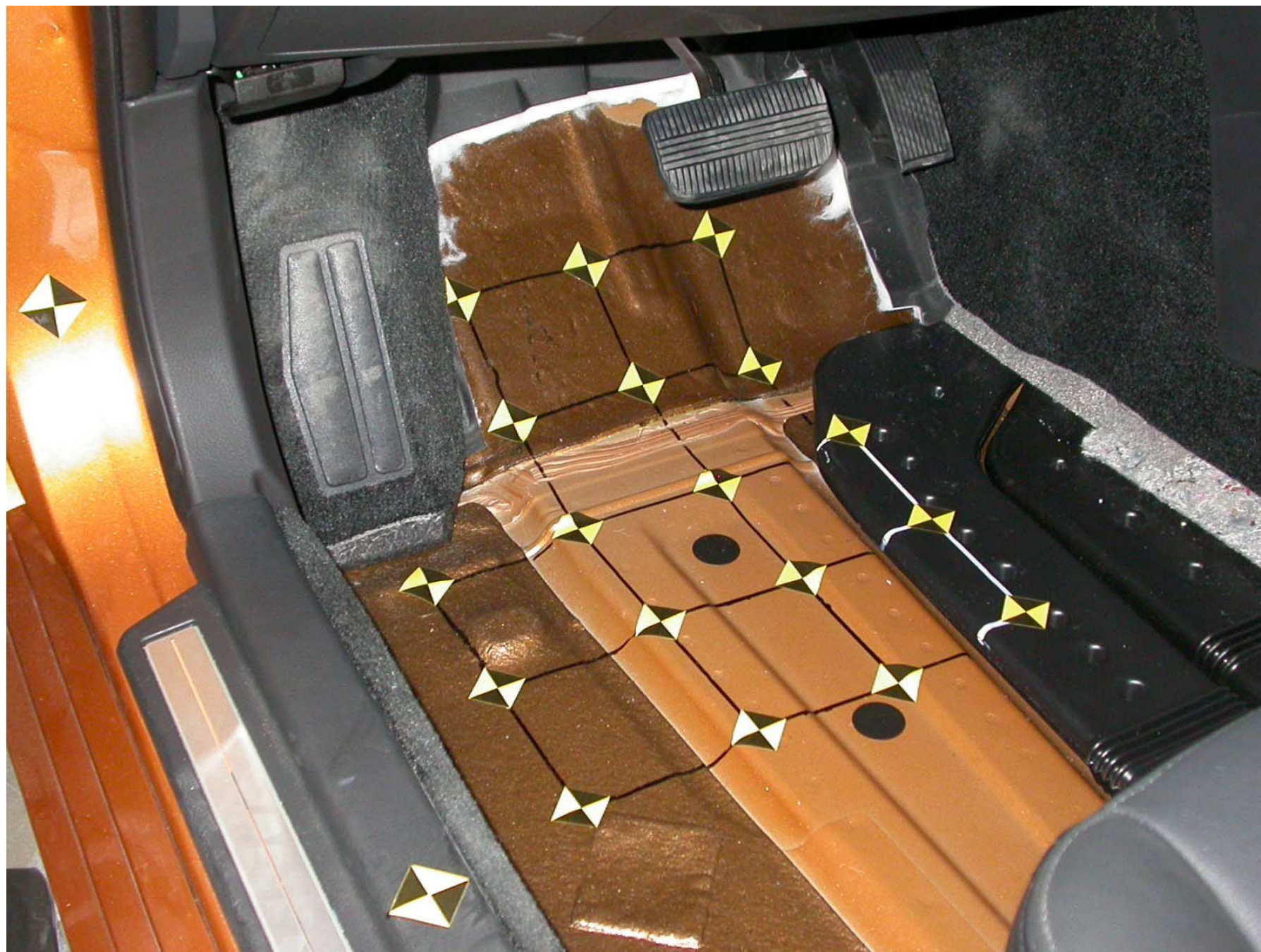


Figure A-40: Pre-Test Driver Side Floor Pan



Figure A-41: Post-Test Driver Side Floor Pan



Figure A-42: Post-Test Driver Dummy Head



Figure A-43: Post-Test Driver Dummy Contact to Air Bag



Figure A-44: Pre-Test Passenger Dummy Front View (Head Position)



Figure A-45: Post-Test Passenger Dummy Front View (Head Position)



Figure A-46: Pre-Test Passenger Dummy Front Through Window



Figure A-47: Post-Test Passenger Dummy Front Through Window



Figure A-48: Pre-Test Passenger Dummy Door Open



Figure A-49: Post-Test Passenger Dummy Door Open



Figure A-50: Pre-Test Passenger Dummy Feet



Figure A-51: Post-Test Passenger Dummy Feet



Figure A-52: Pre-Test Passenger Side Floor Pan

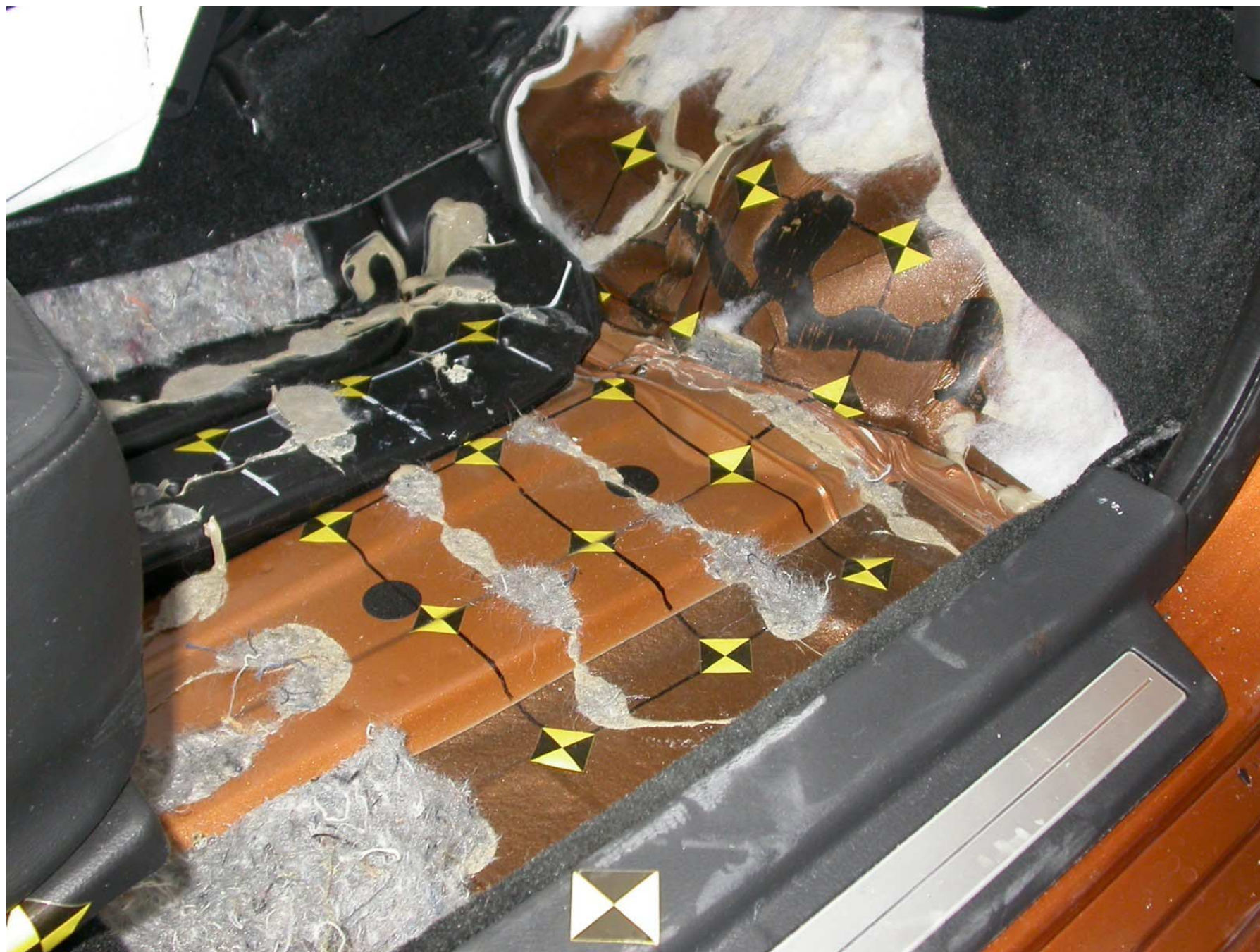


Figure A-53: Post-Test Passenger Side Floor Pan



Figure A-54: Pre-Test Passenger Side Knee Bolster



Figure A-55: Post-Test Passenger Side Knee Bolster



Figure A-56: Post-Test Passenger Dummy Head



Figure A-57: Post-Test Passenger Dummy Contact to Air Bag



Figure A-58: Vehicle on Rollover Device



Figure A-59: Vehicle During Impact

APPENDIX B
DATA PLOTS

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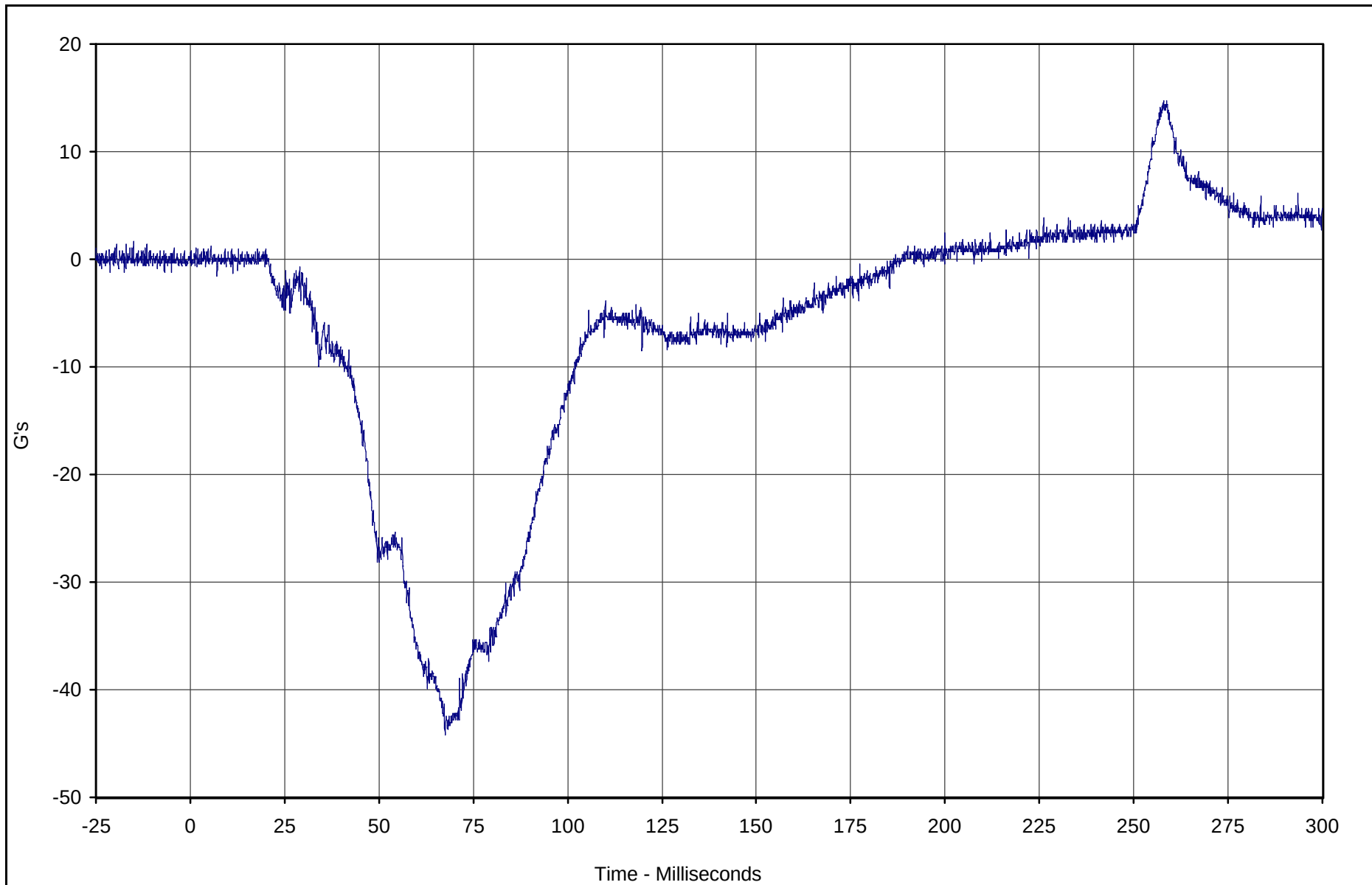
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Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Primary X	001	FIL	G's	14.7	257.9	-44.2	67.5	1000

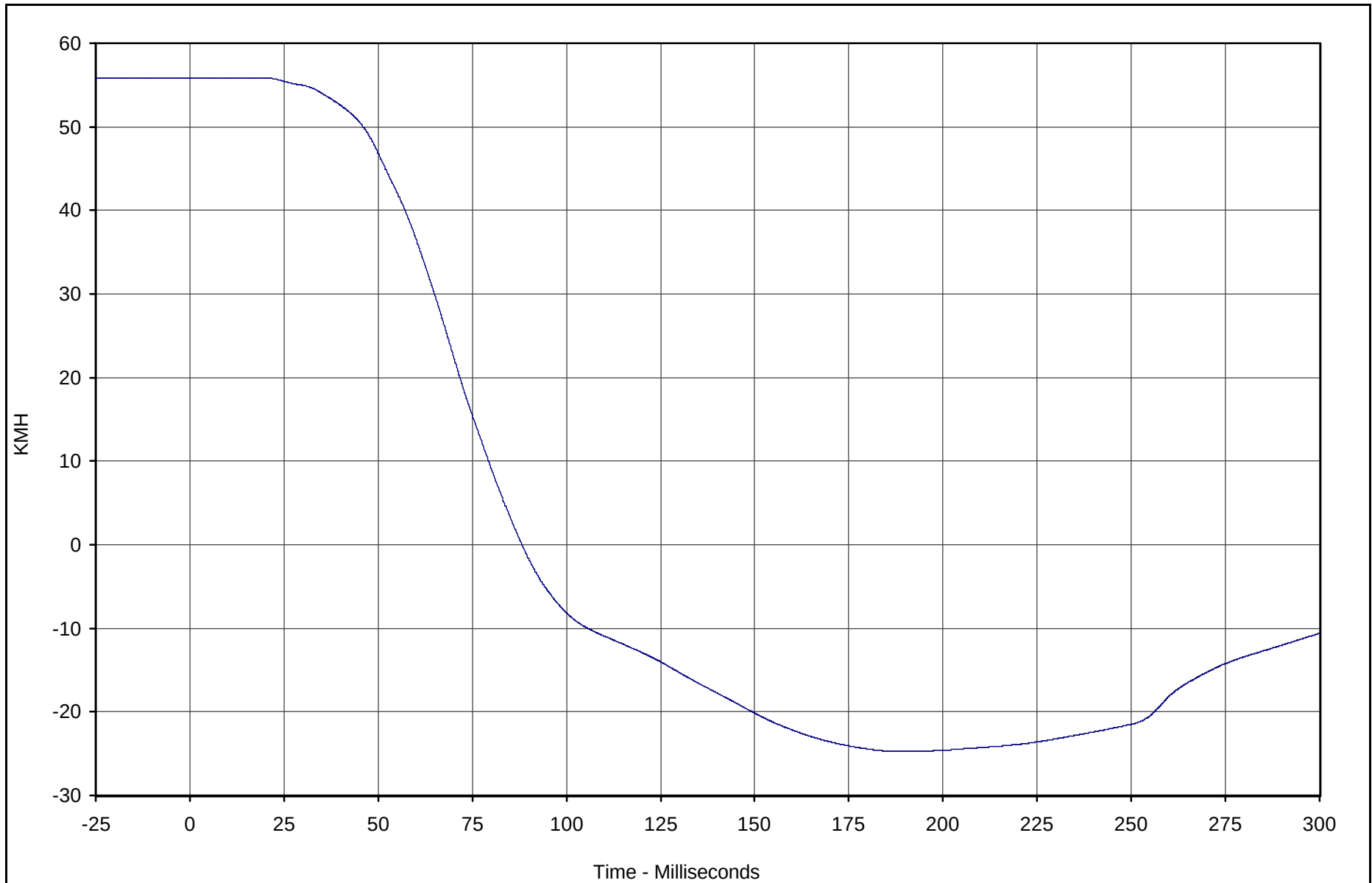


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Primary X Velocity	001	IN1	KMH	55.8	6.3	-24.8	188.5	180

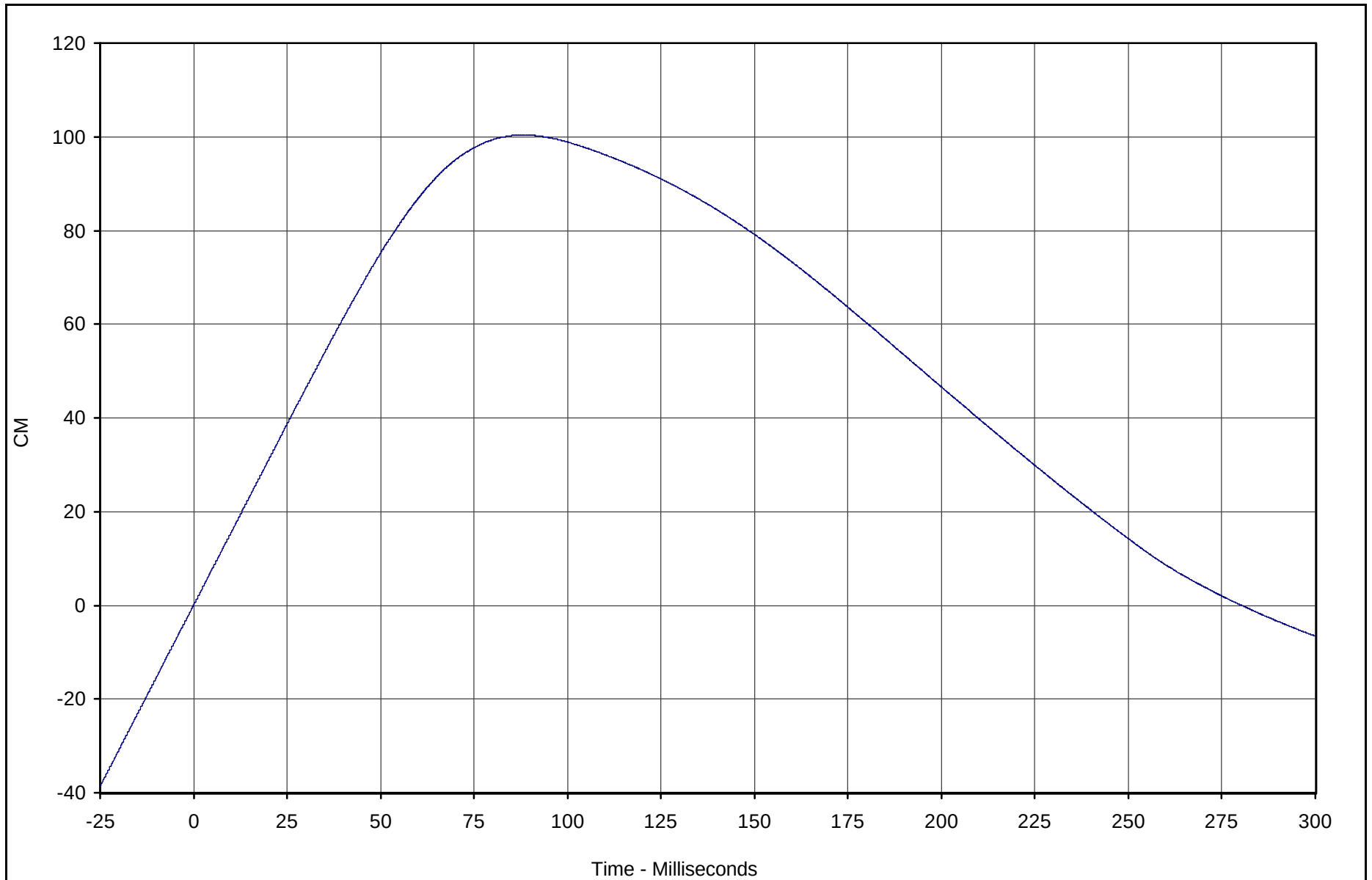


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Primary X Displ.	001	IN2	CM	100.4	88.2	-6.5	299.9	180

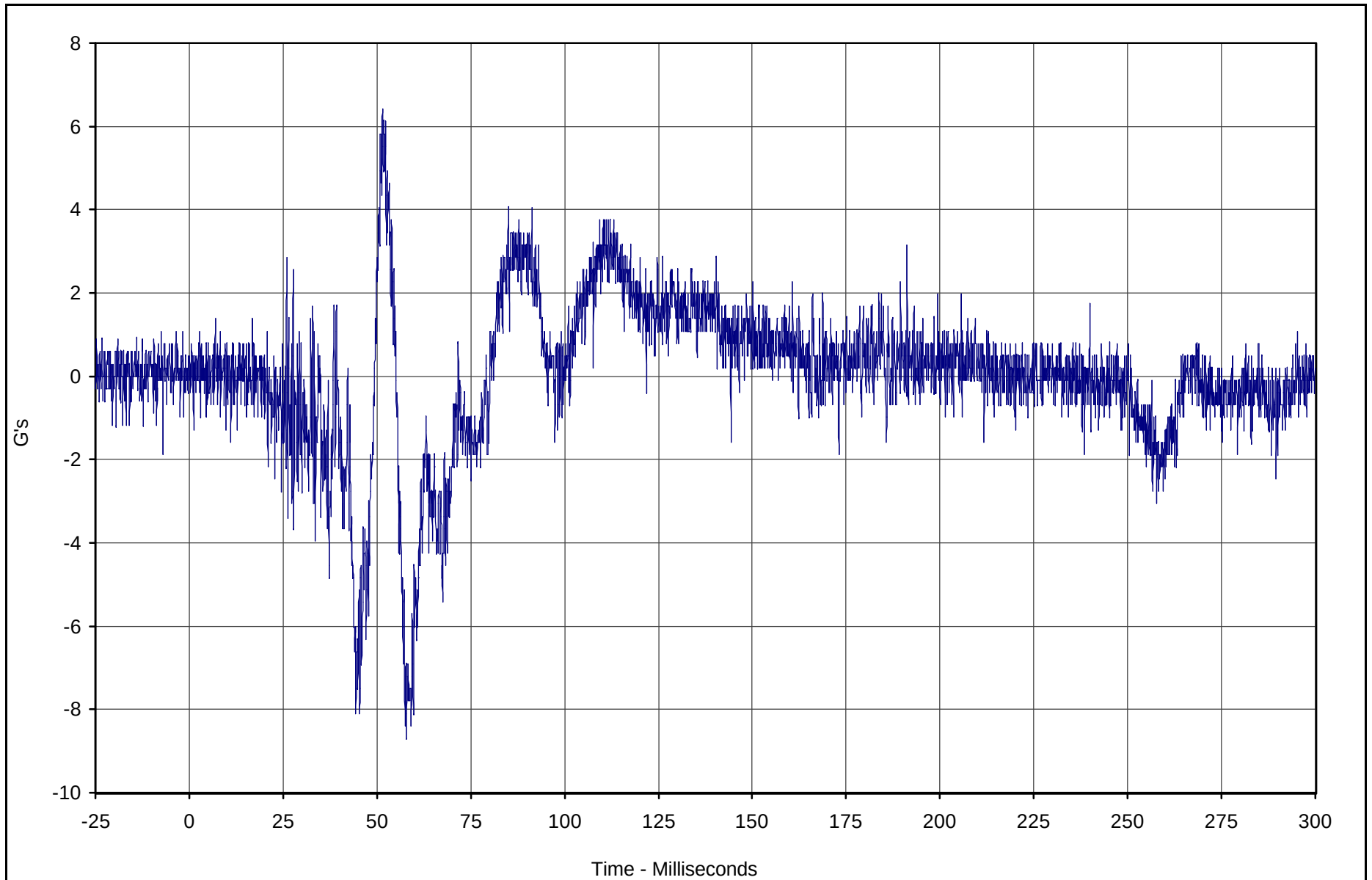


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Primary Y	002	FIL	G's	6.4	51.5	-8.7	57.9	1000

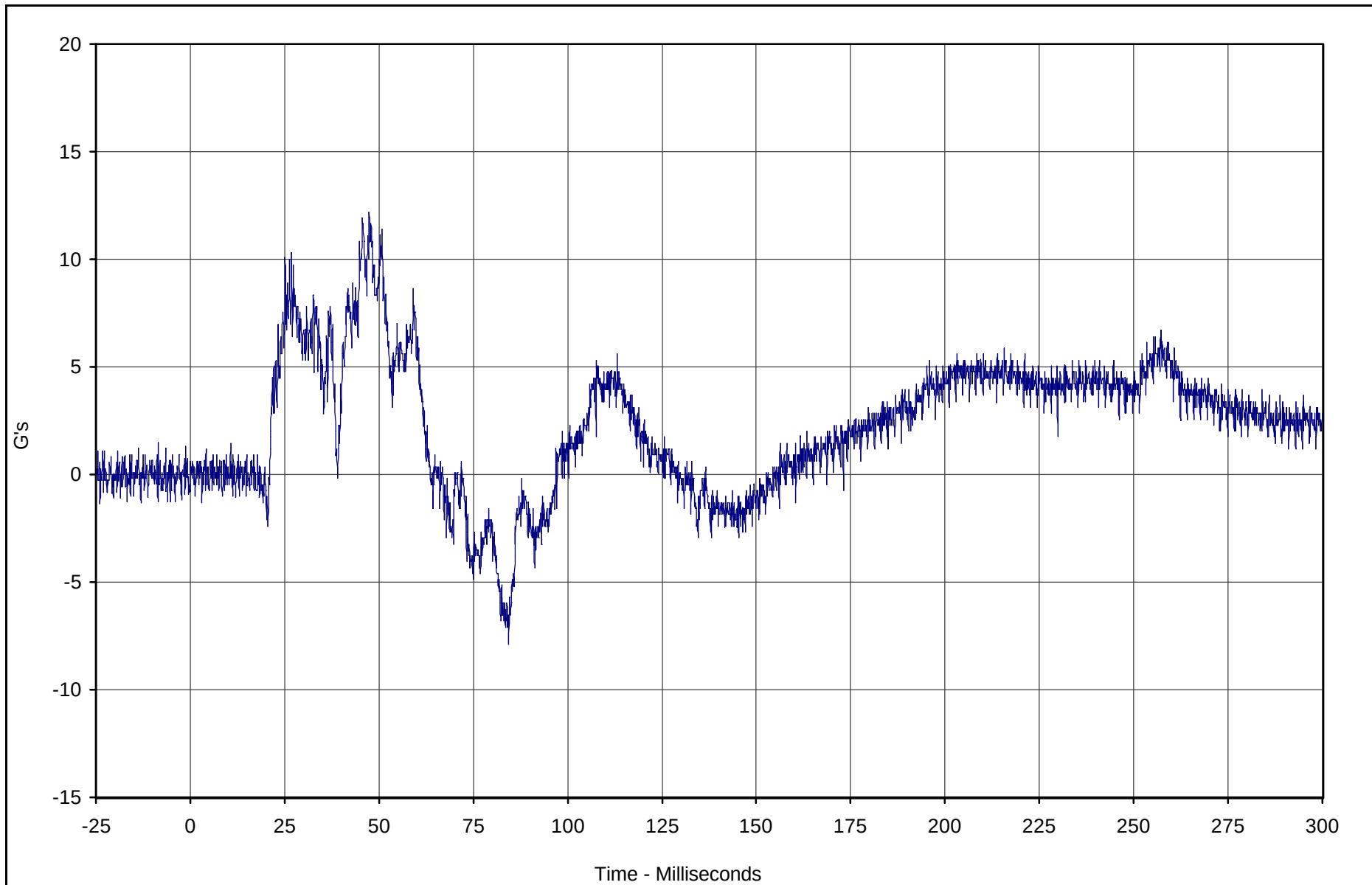


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Primary Z	003	FIL	G's	12.2	47.4	-7.9	84.4	1000

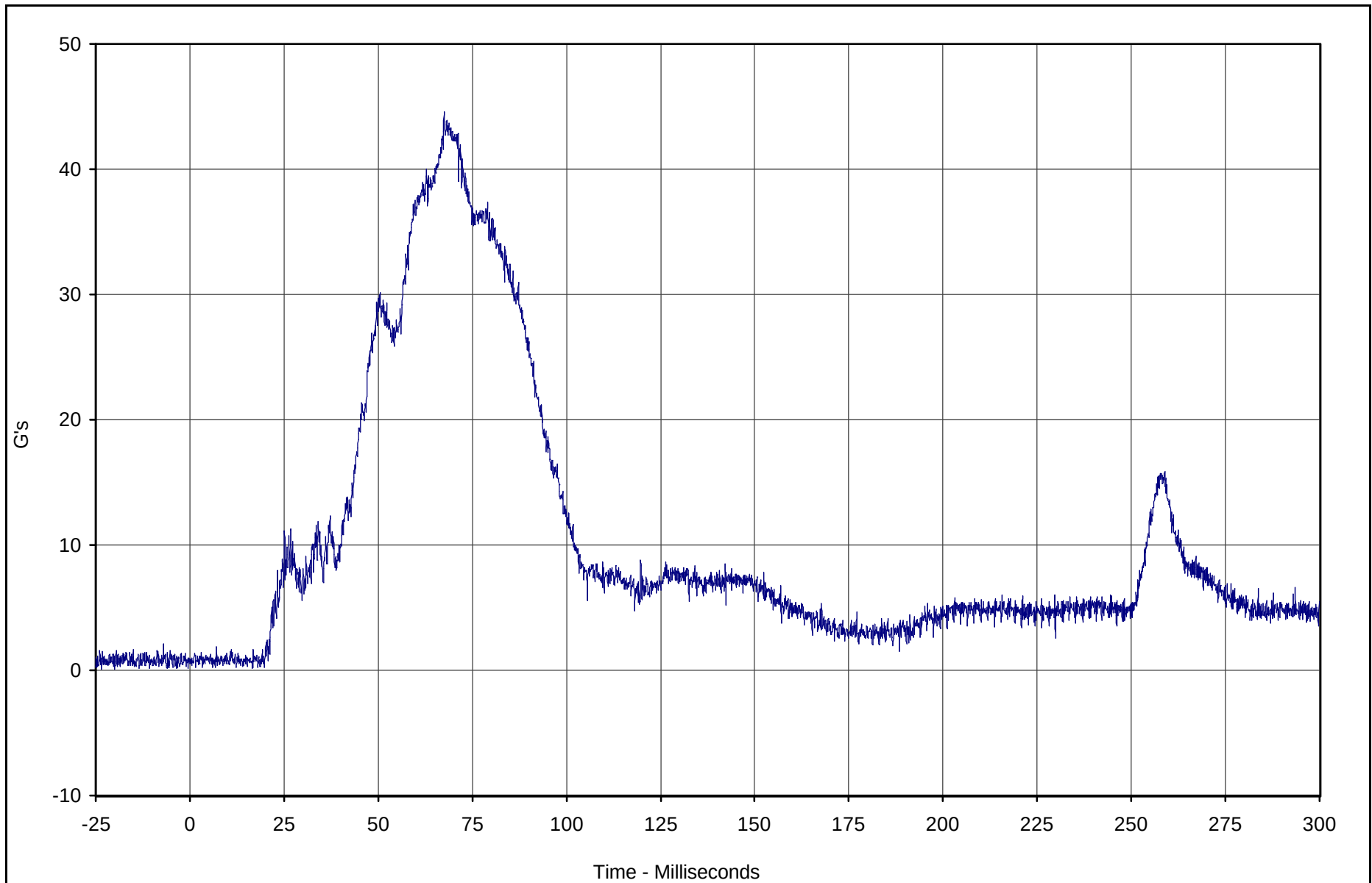


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Resultant Primary	001	RES	G's	44.6	67.5	0.2	16.6	1000

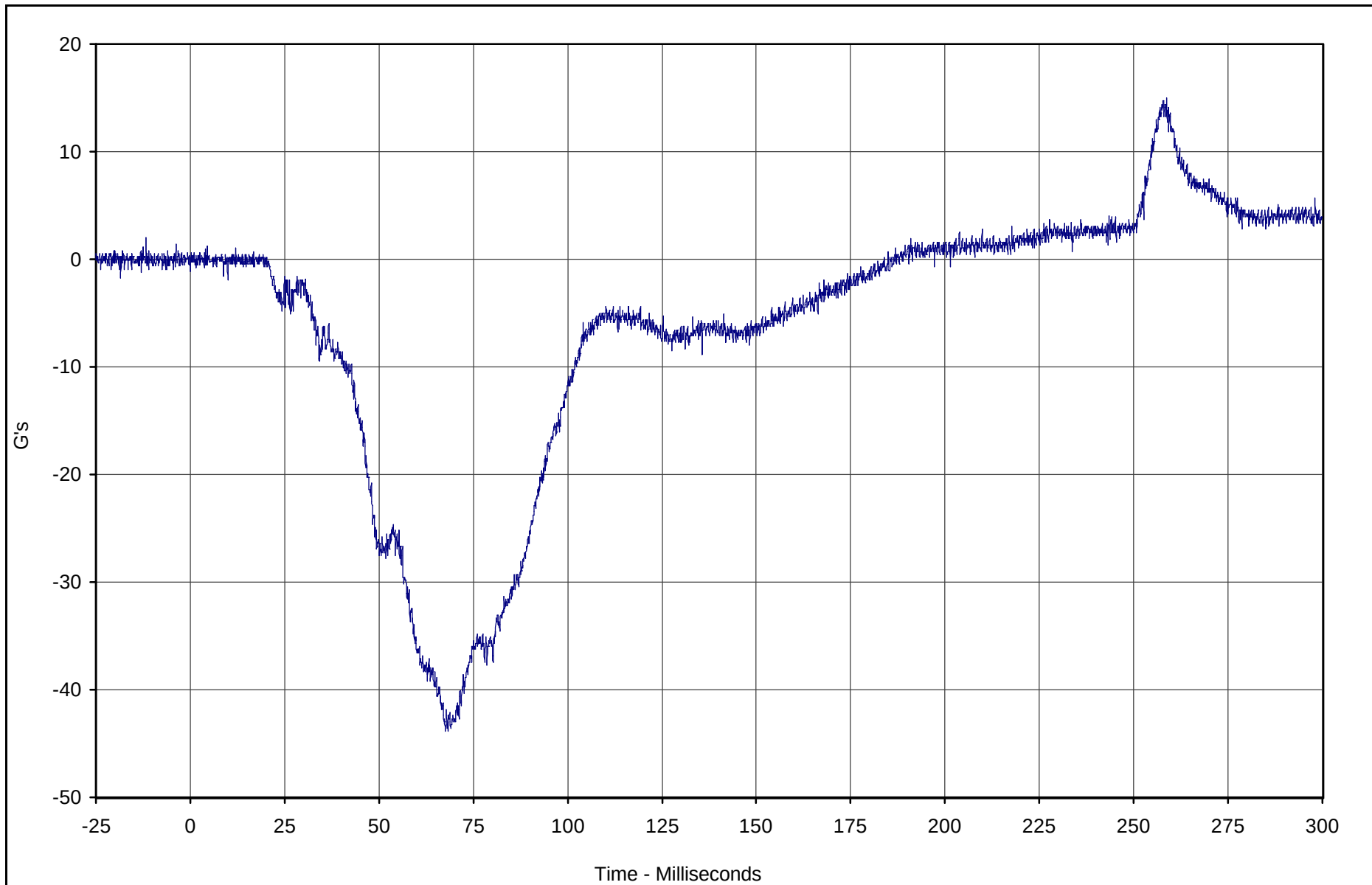


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Redundant X	004	FIL	G's	15.0	258.7	-43.8	67.6	1000

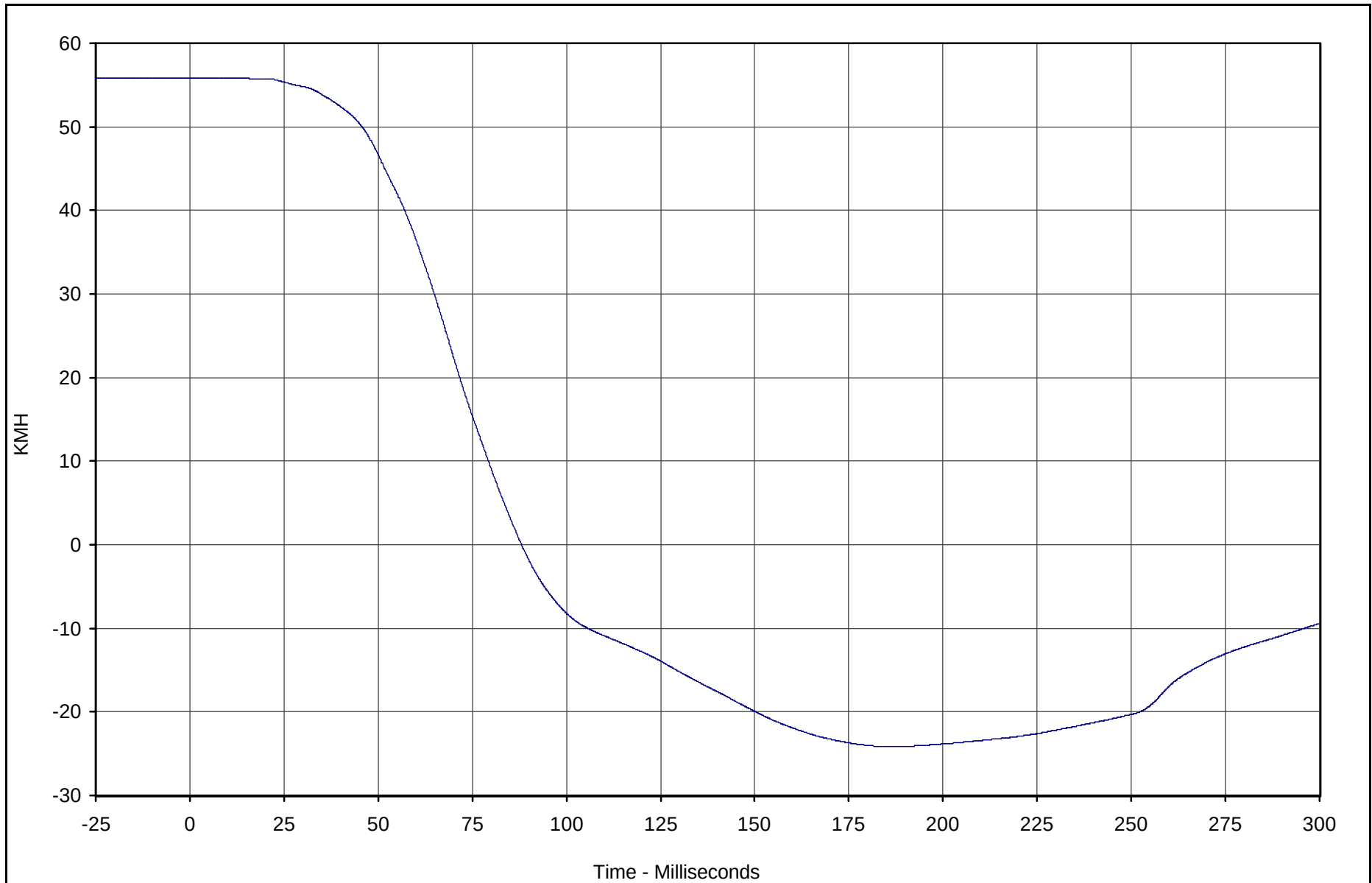


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Redundant X Velocity	004	IN1	KMH	55.8	0.0	-24.2	186.5	180

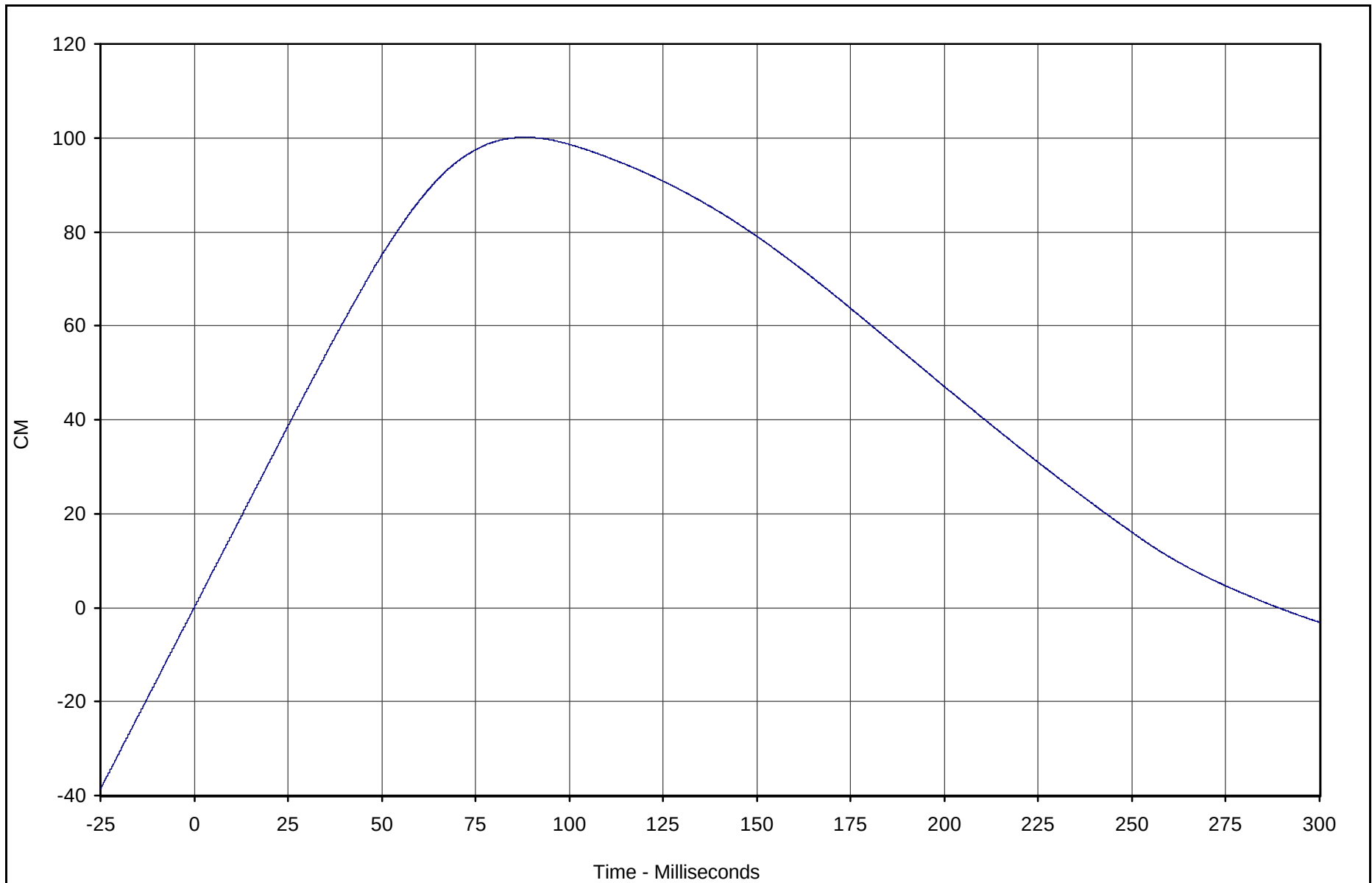


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Redundant X Displ.	004	IN2	CM	100.2	88.1	-3.1	299.9	180

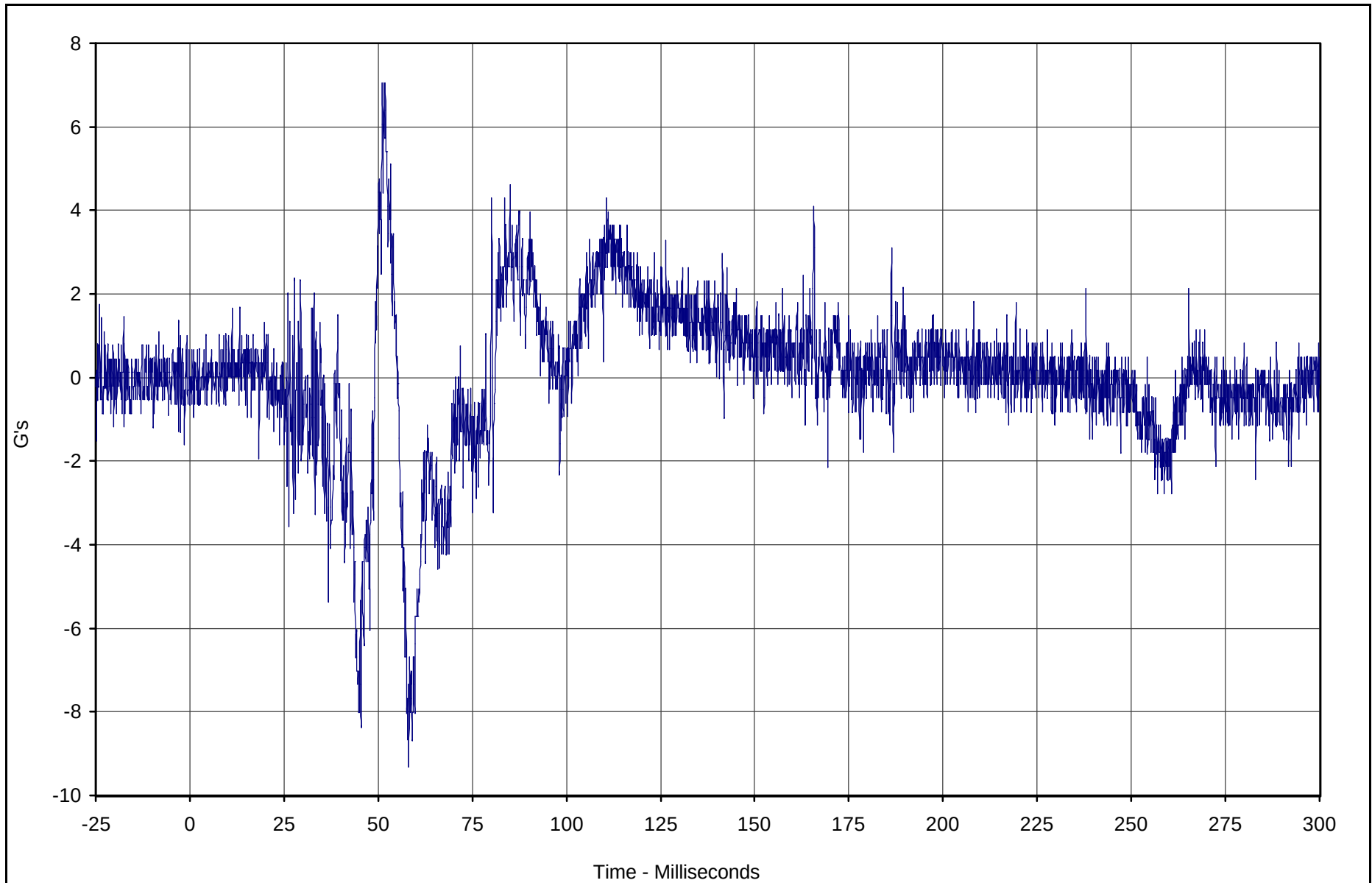


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Redundant Y	005	FIL	G's	7.0	51.1	-9.3	58.1	1000

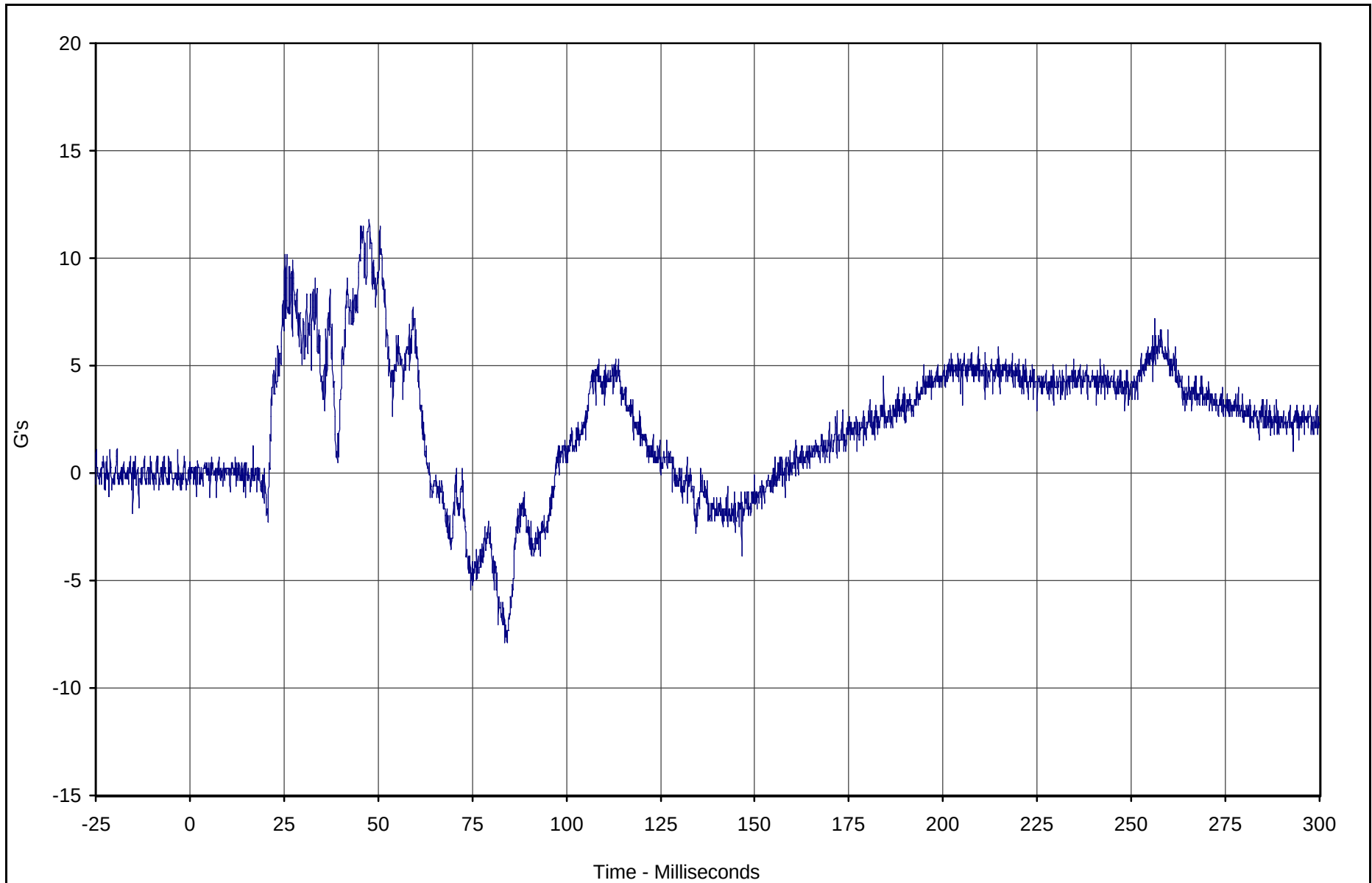


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Redundant Z	006	FIL	G's	11.8	47.6	-7.9	83.6	1000

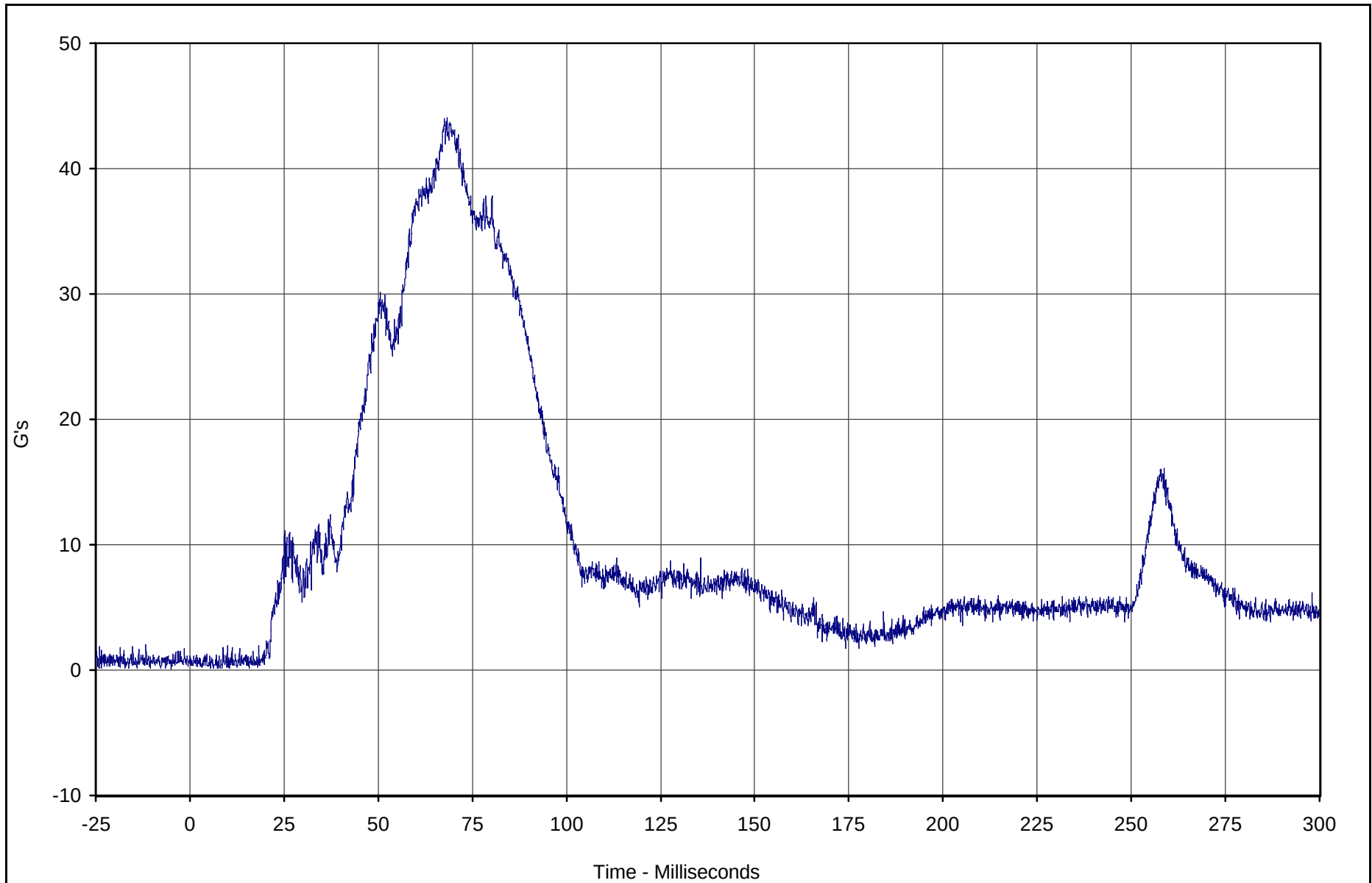


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Head Resultant Redundant	004	RES	G's	44.1	68.3	0.2	5.4	1000

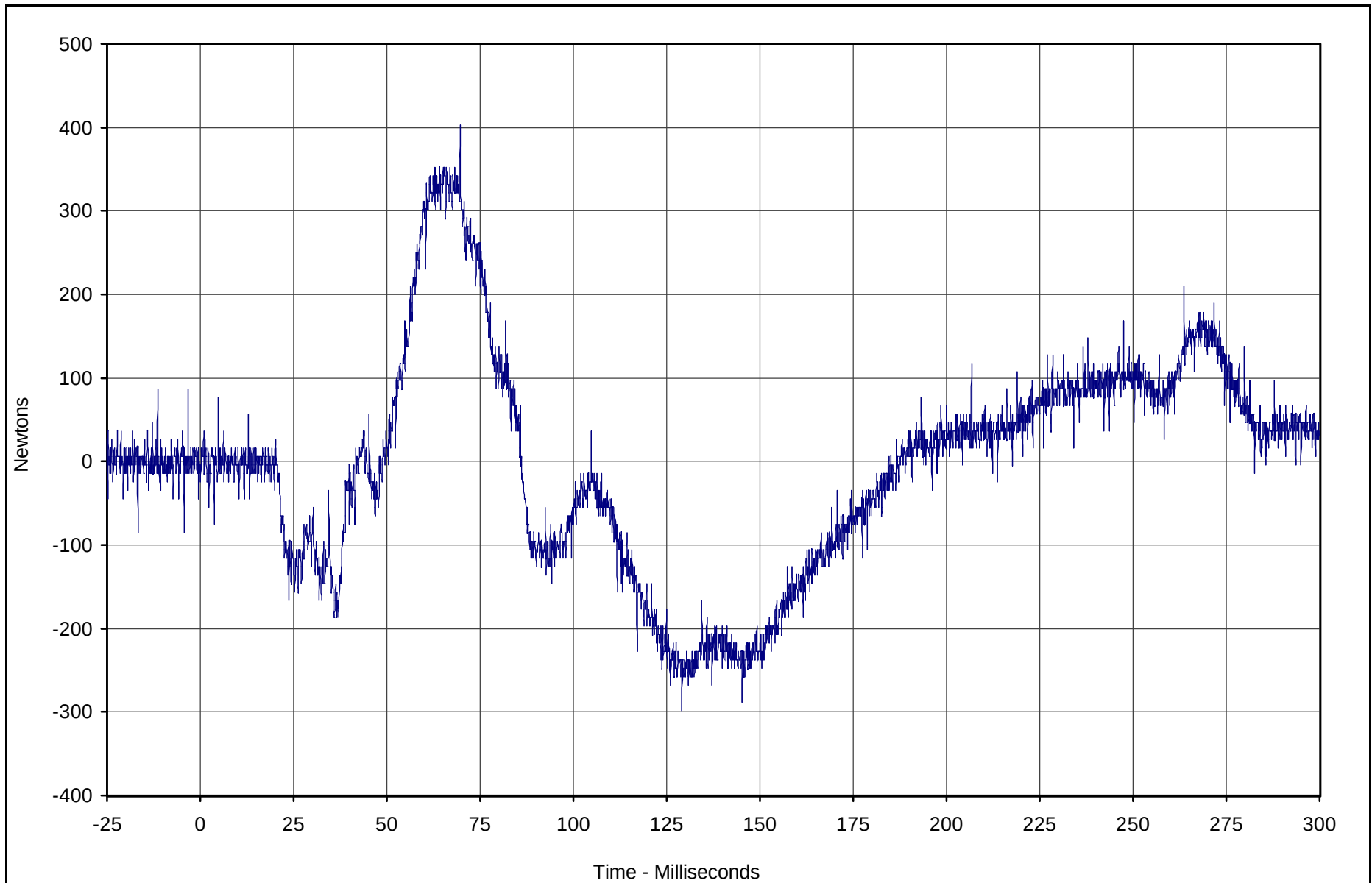


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Neck Force X	007	FIL	Newtons	402.9	69.6	-299.0	129.1	1000

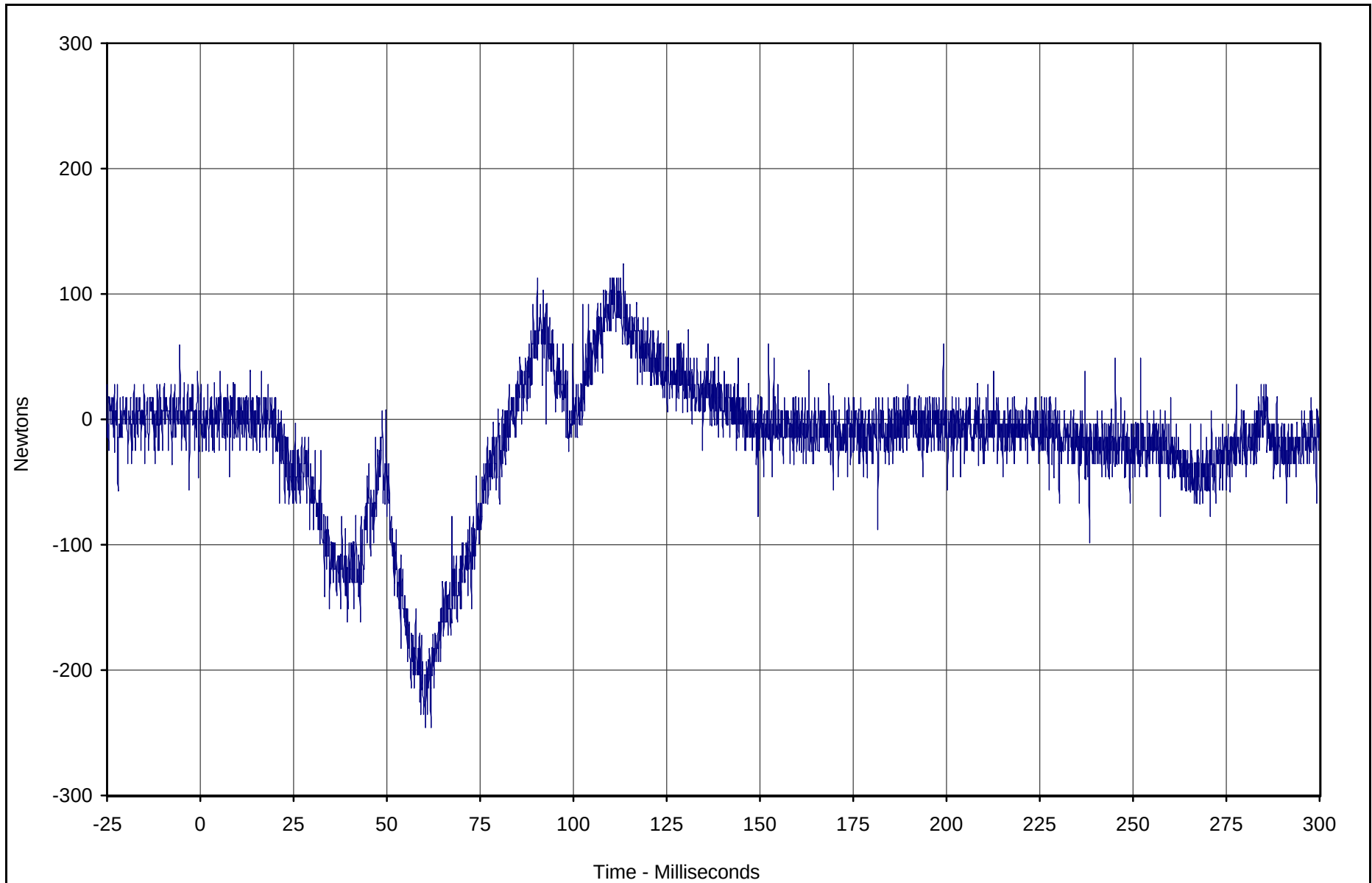


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Neck Force Y	008	FIL	Newtons	123.0	113.5	-245.9	60.4	1000

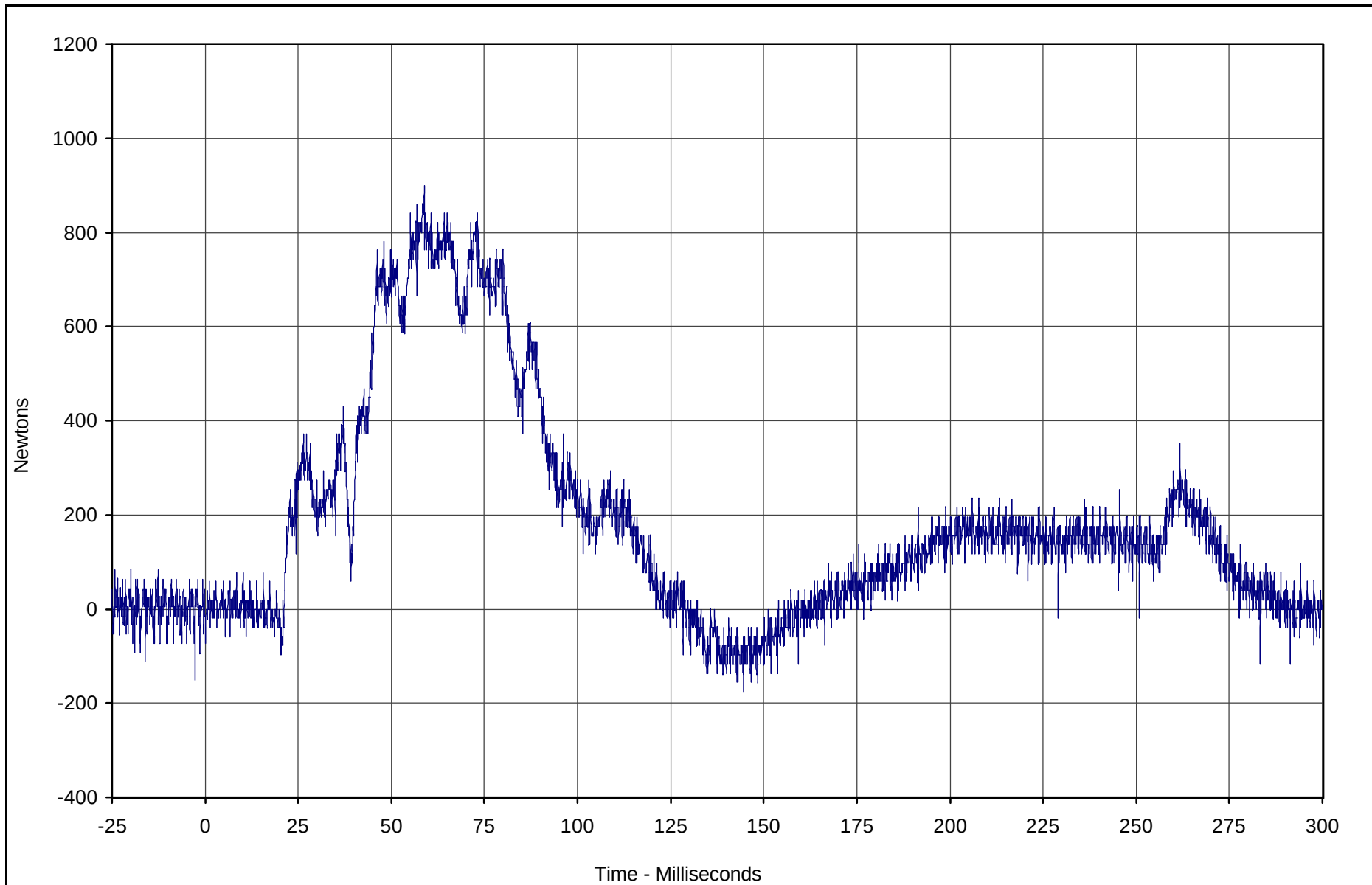


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Neck Force Z	009	FIL	Newtons	898.9	58.8	-175.9	144.7	1000

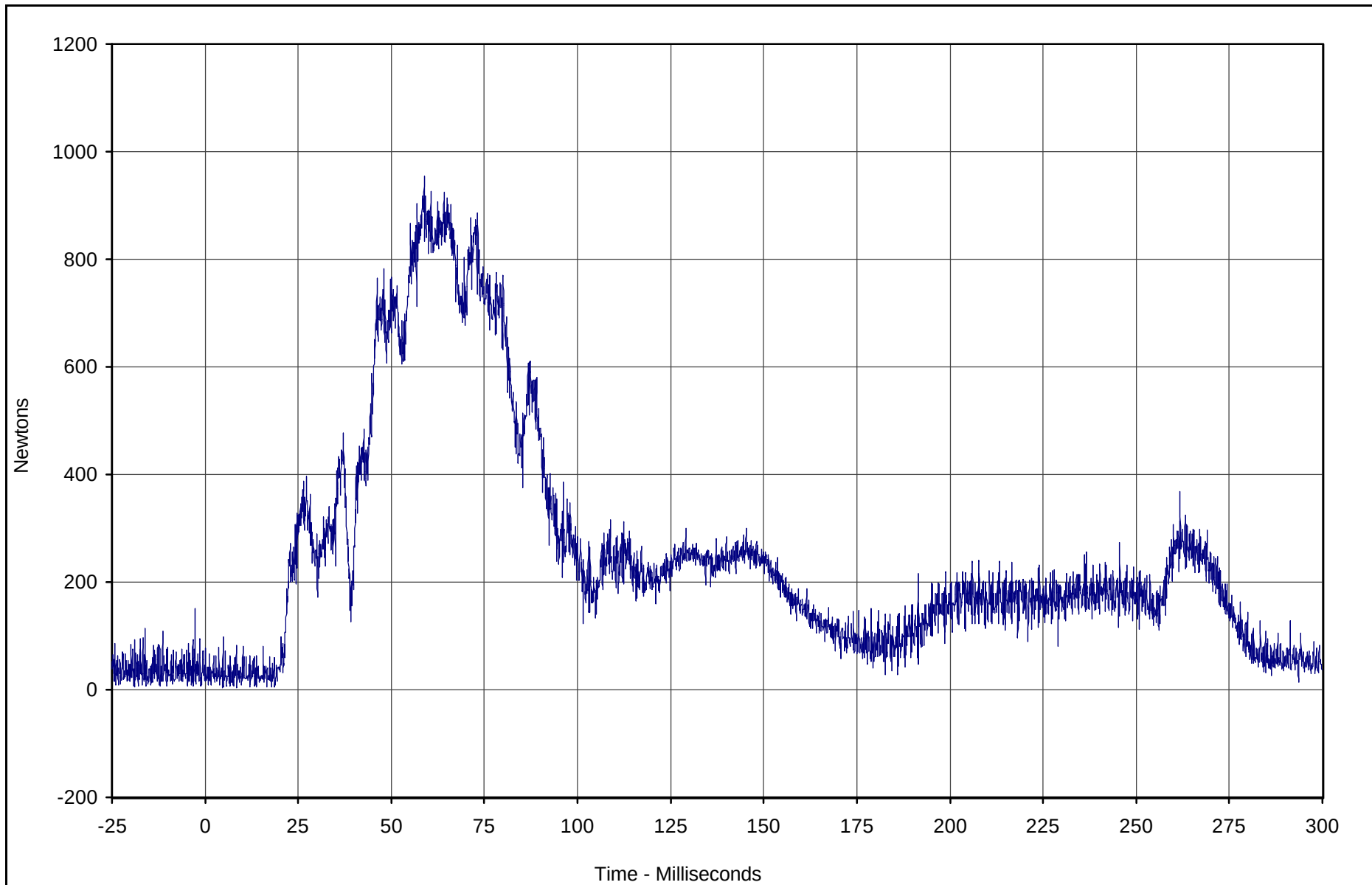


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Neck Force Resultant	007	RES	Newtons	954.4	58.8	5.3	4.7	1000

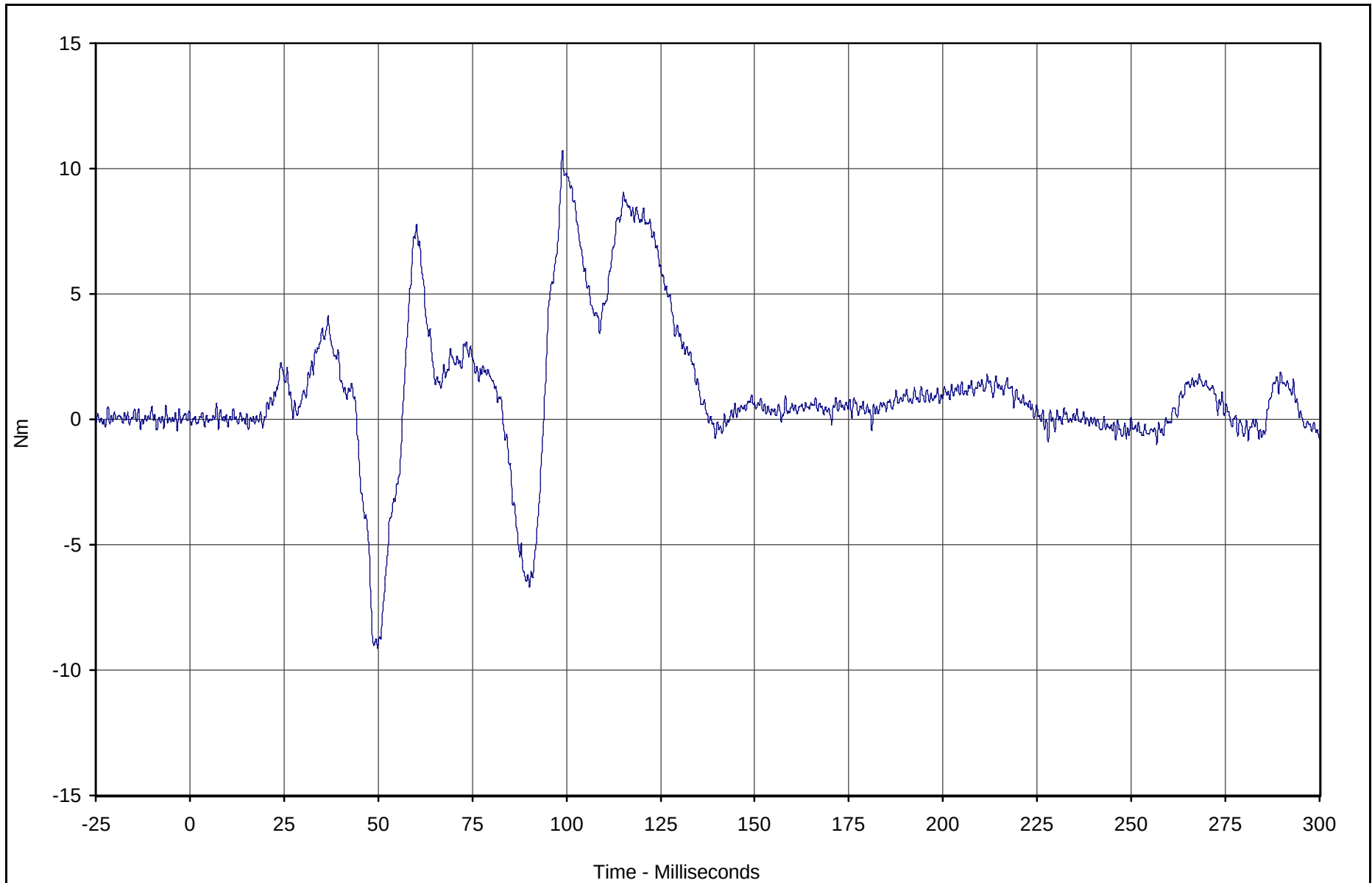


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Neck Moment X	010	FIL	Nm	10.7	99.0	-9.1	49.8	600

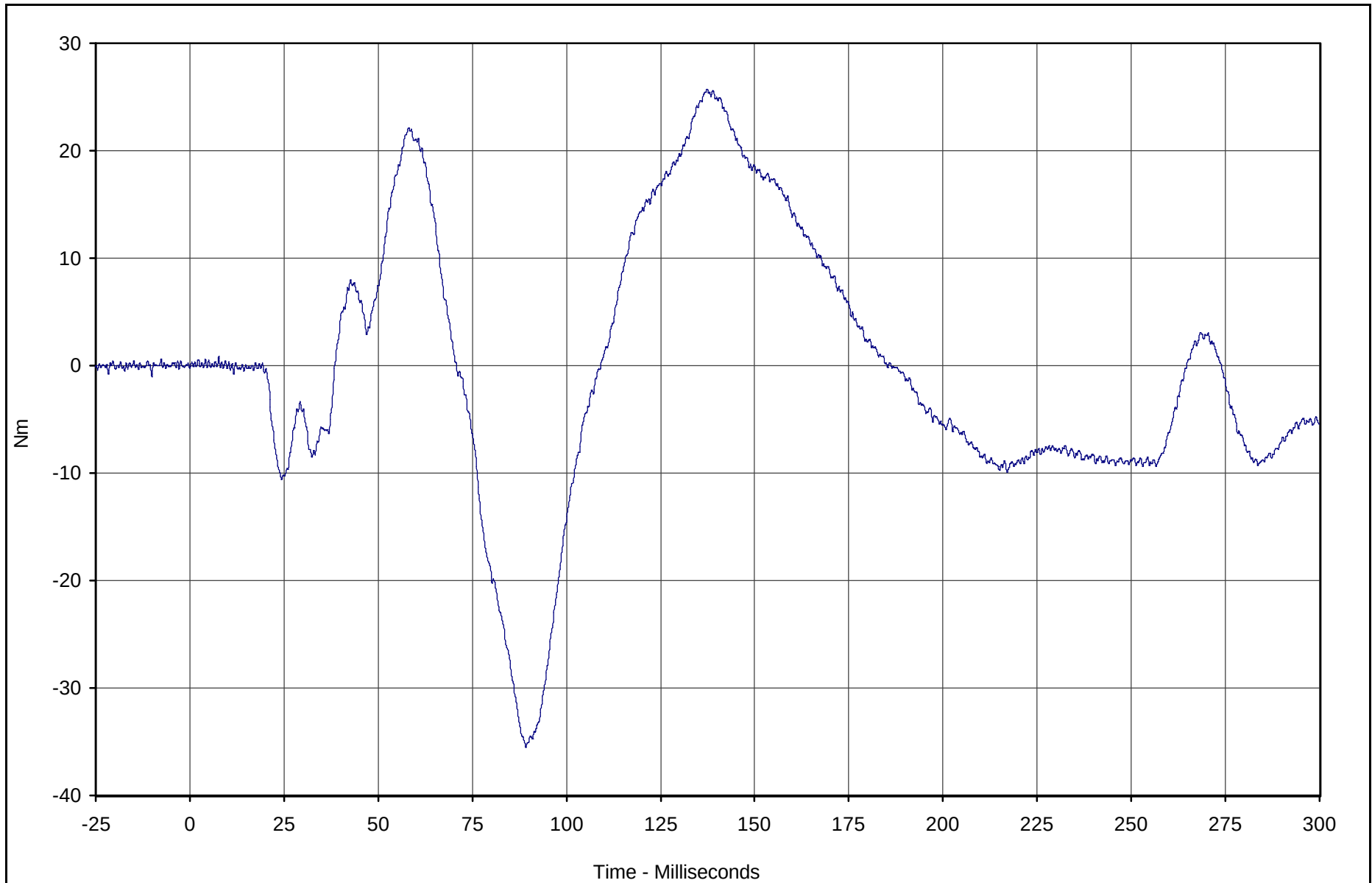


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Neck Moment Y	011	FIL	Nm	25.7	137.3	-35.5	89.3	600

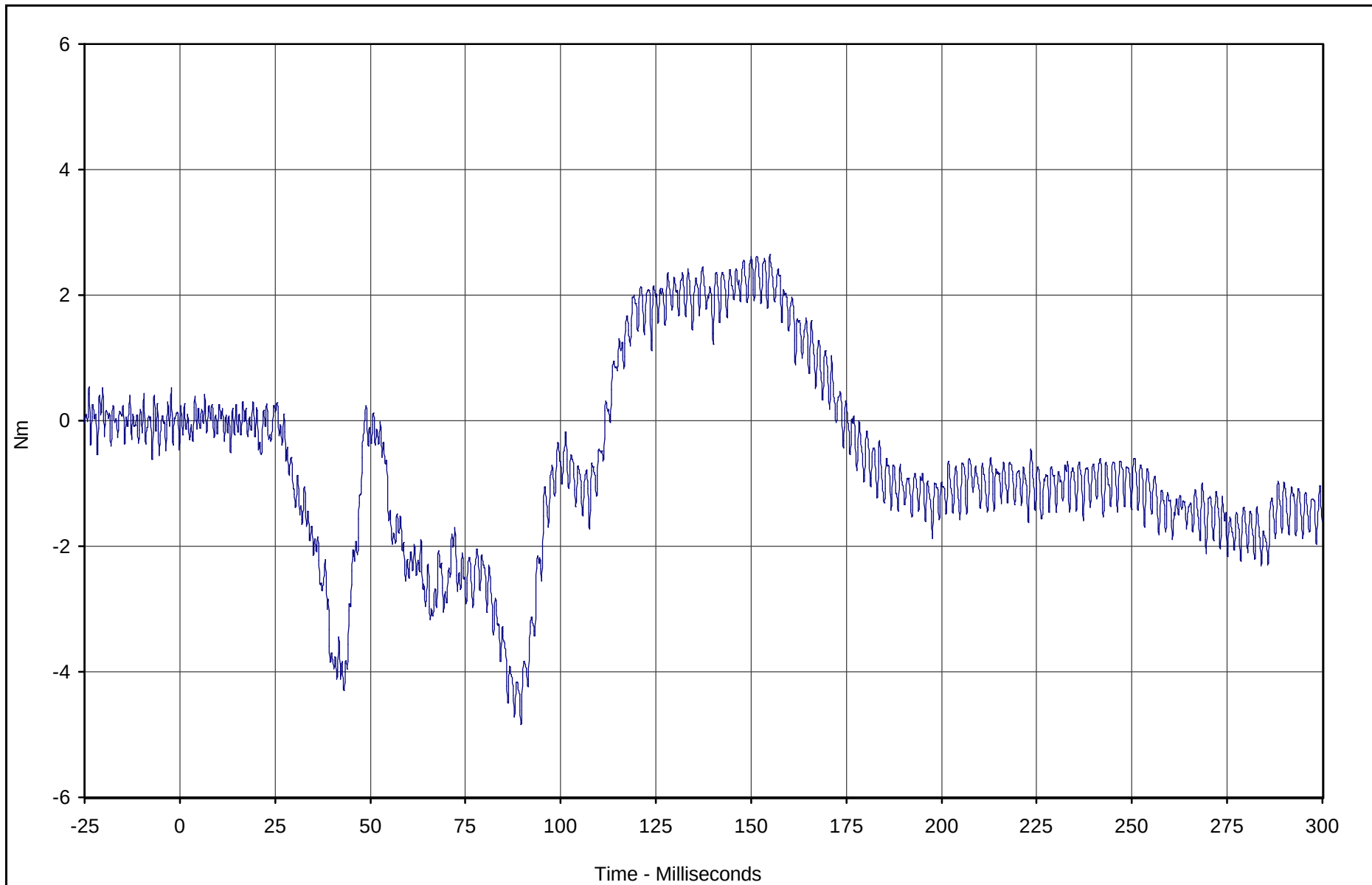


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Neck Moment Z	012	FIL	Nm	2.6	154.9	-4.8	89.6	600

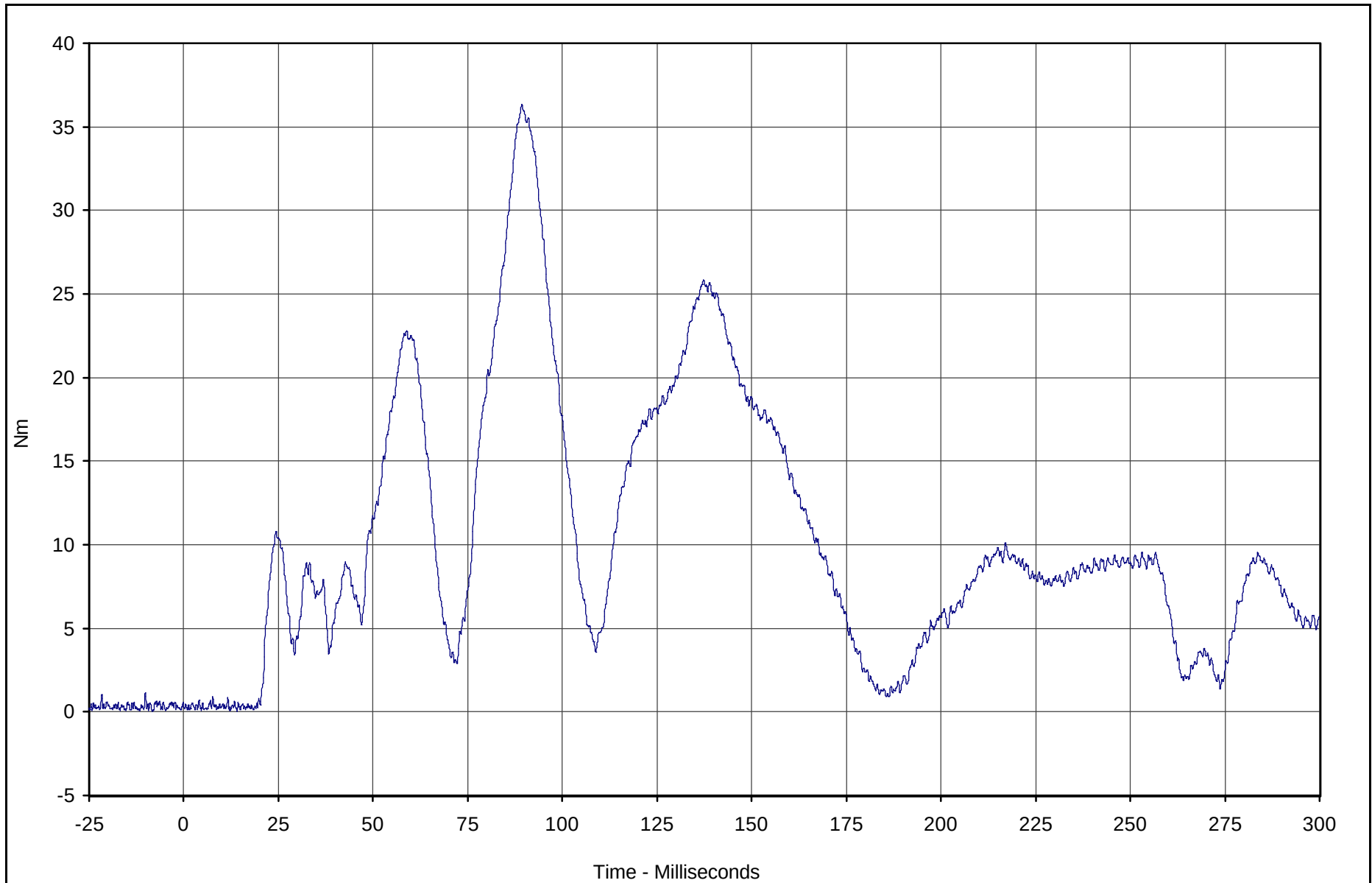


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Neck Moment Resultant	010	RES	Nm	36.3	89.3	0.0	14.1	600

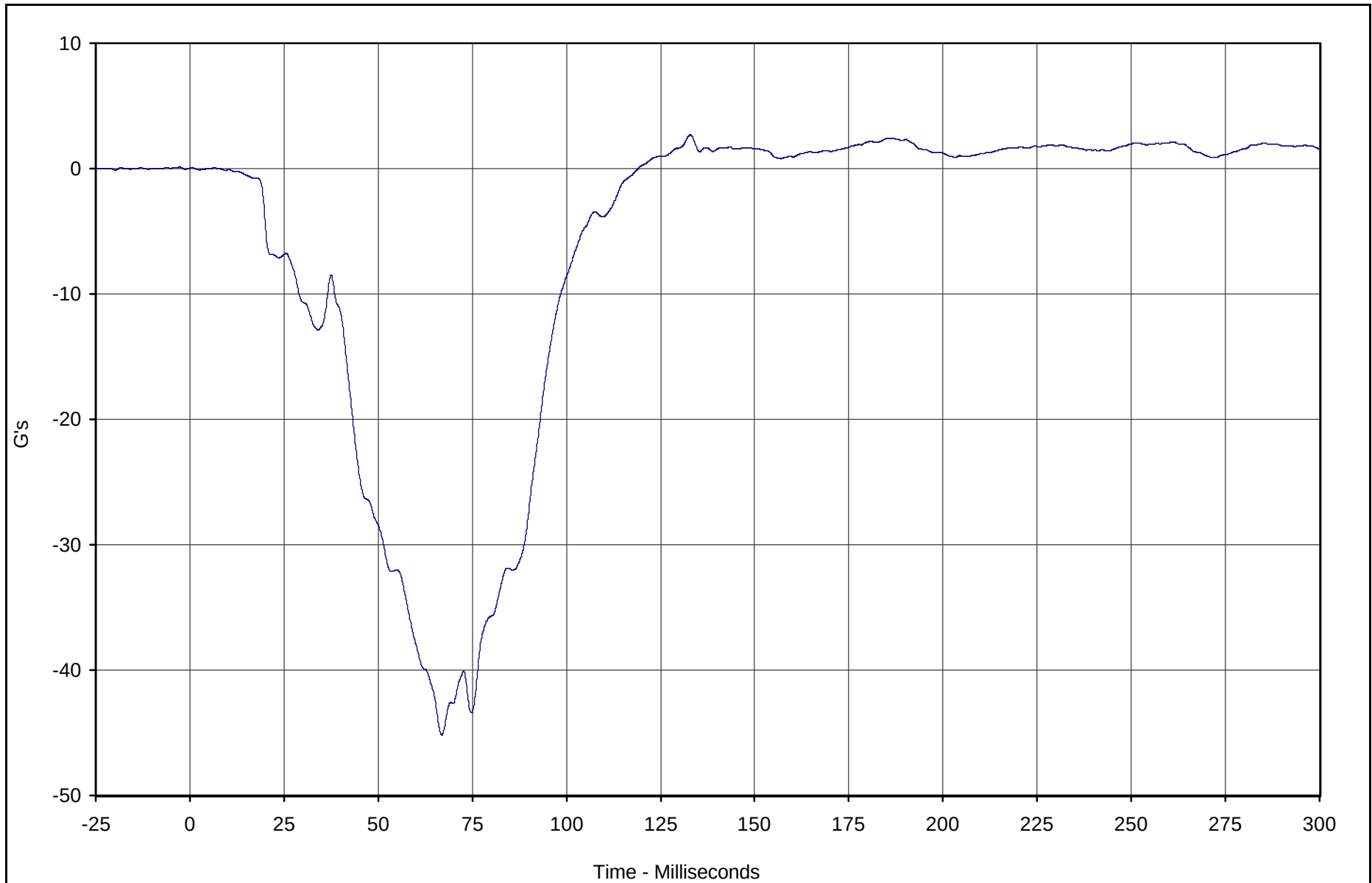


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Chest Primary X	013	FIL	G's	2.7	132.8	-45.2	66.9	180

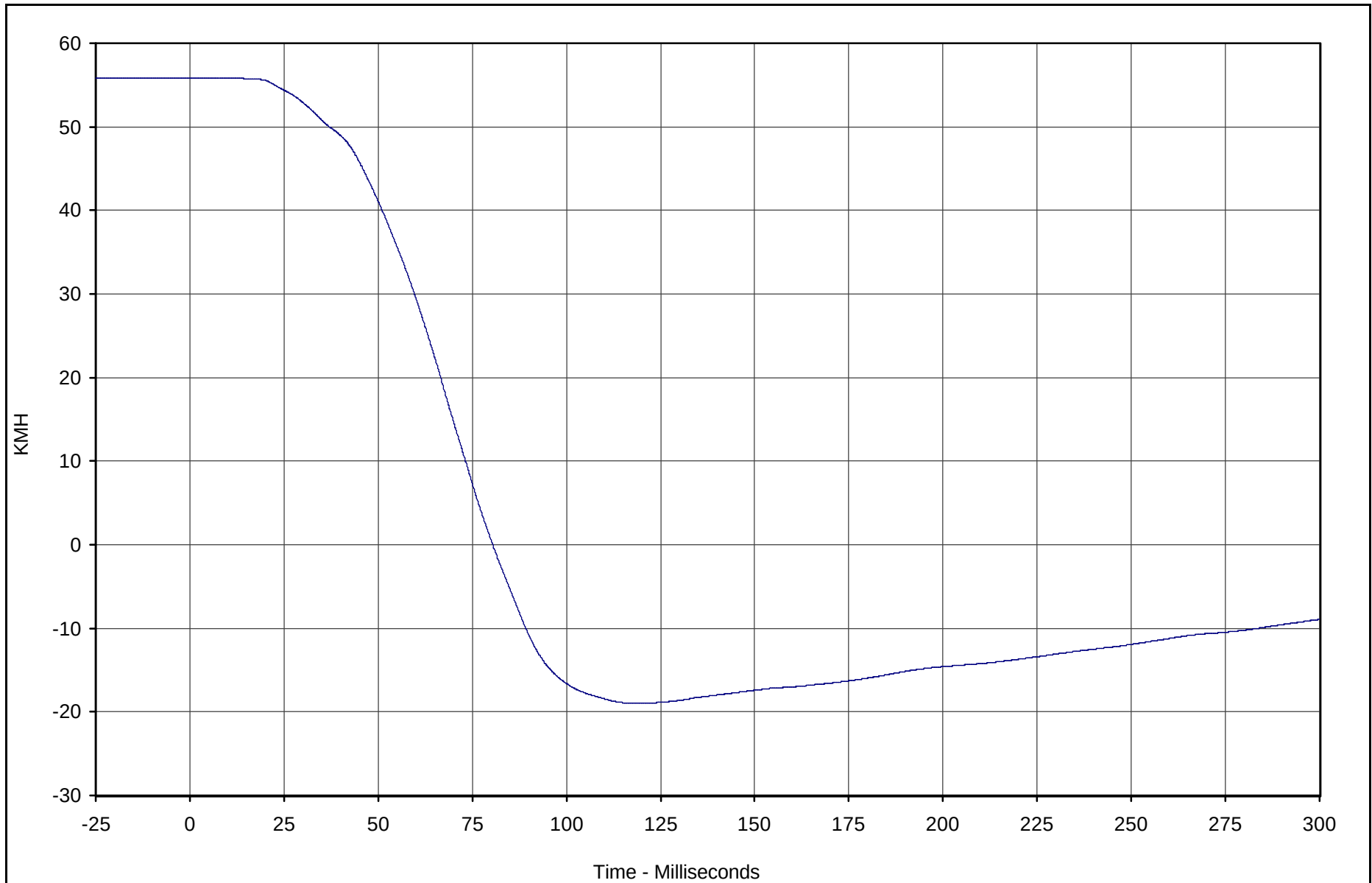


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Chest Primary X Velocity	013	IN1	KMH	55.8	1.3	-19.0	119.0	180

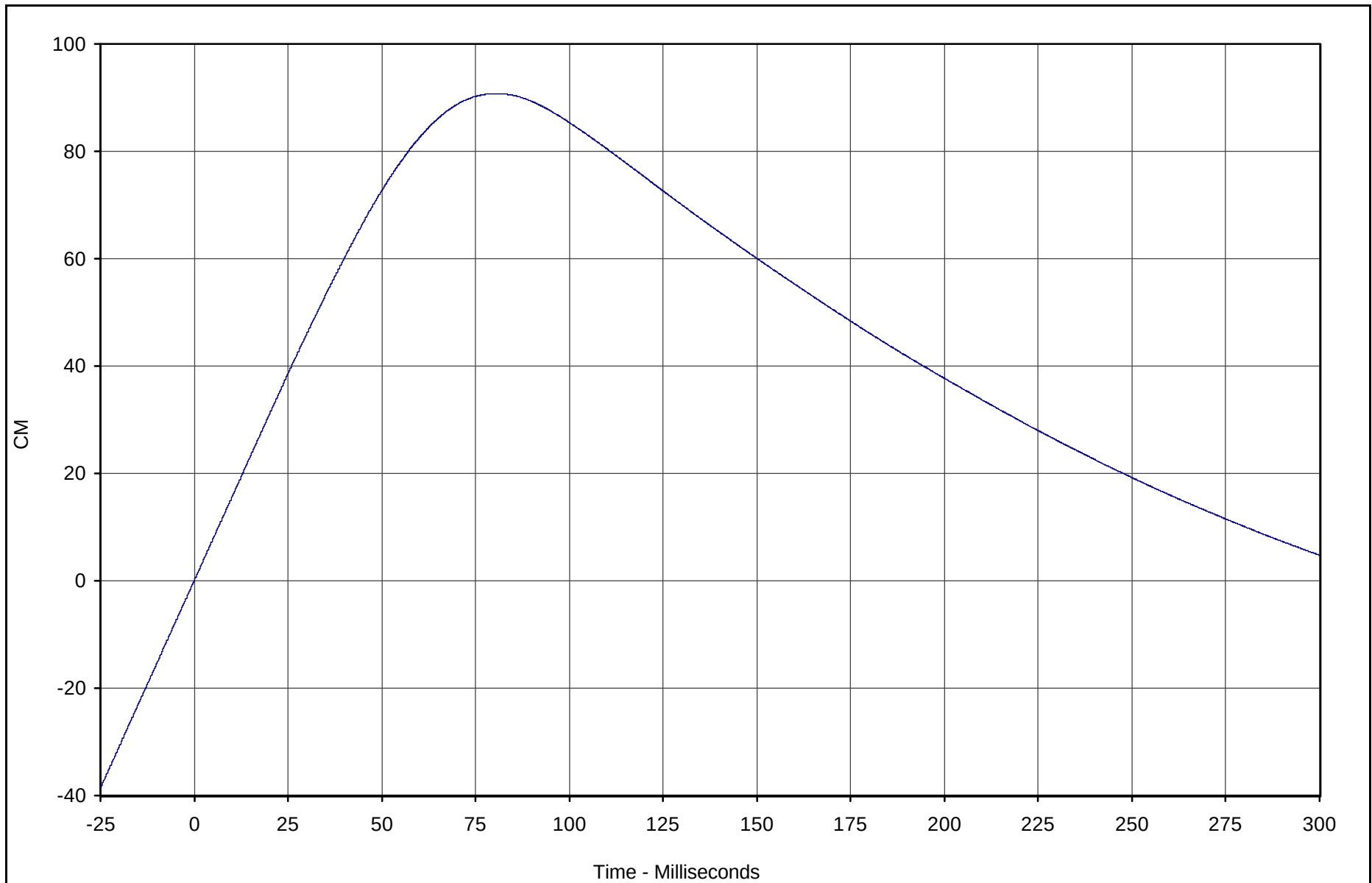


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Chest Primary X Displ.	013	IN2	CM	90.8	80.5	0.0	0.0	180

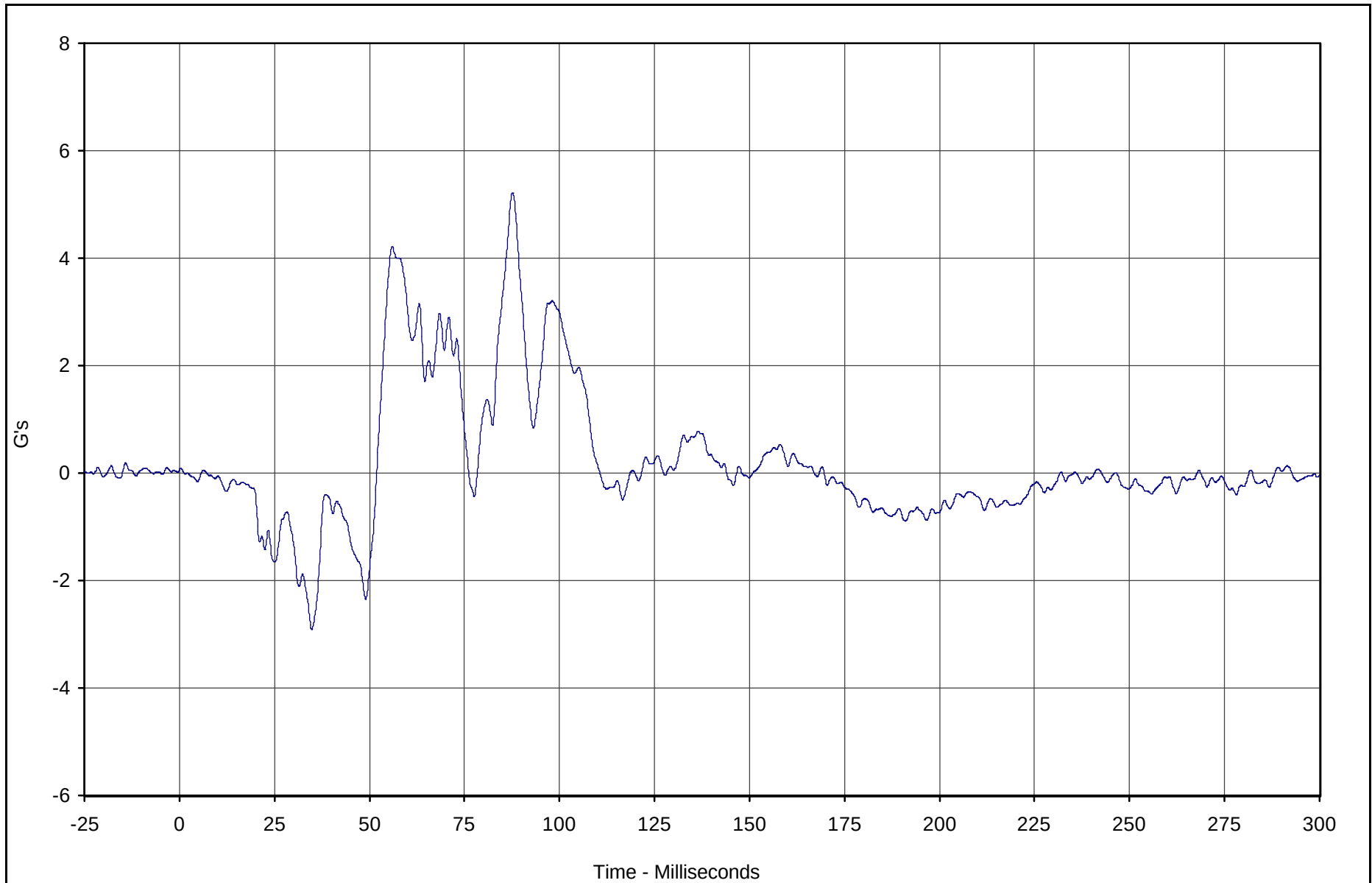


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Chest Primary Y	014	FIL	G's	5.2	87.6	-2.9	34.8	180

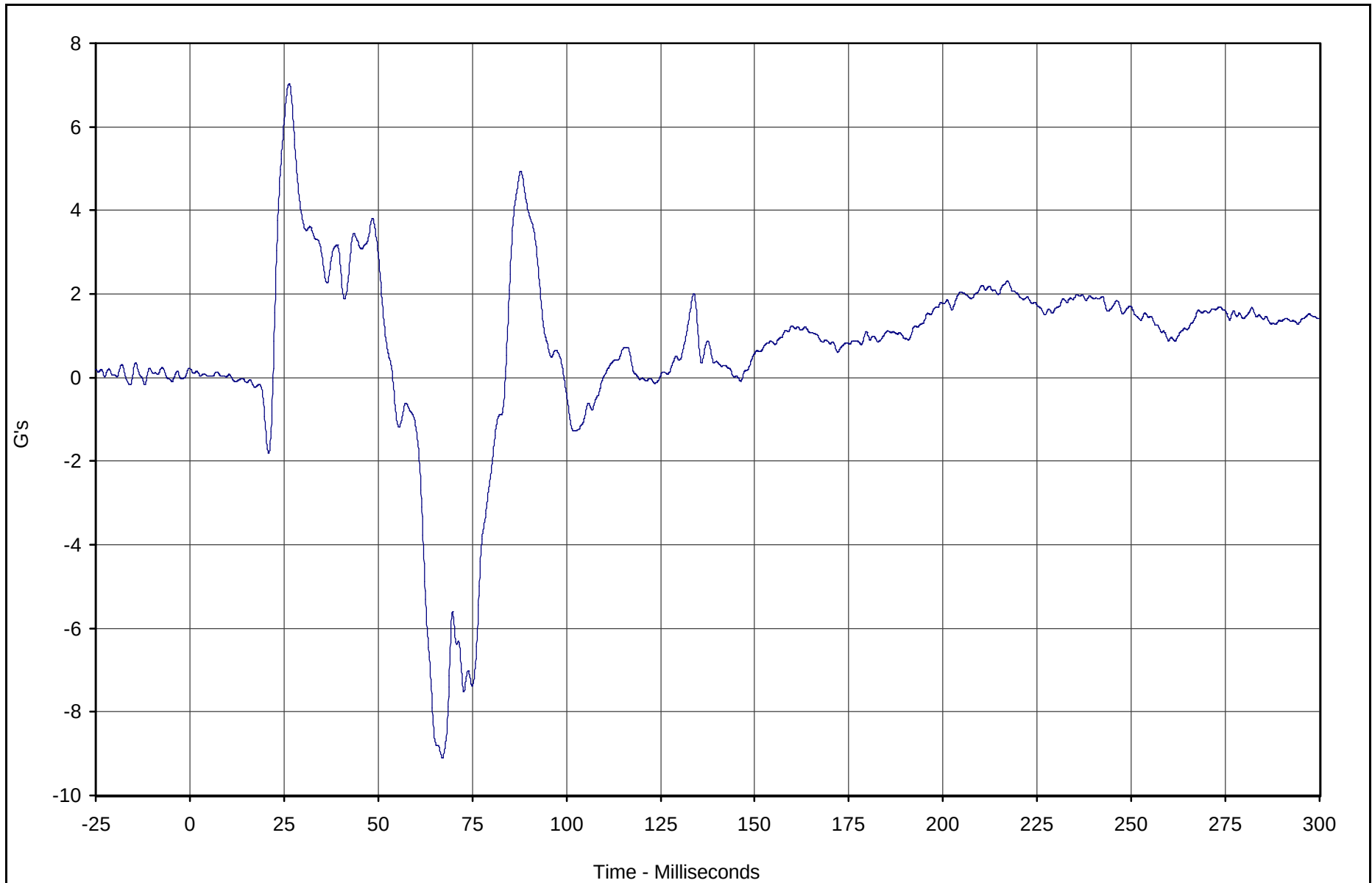


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Chest Primary Z	015	FIL	G's	7.0	26.4	-9.1	67.0	180

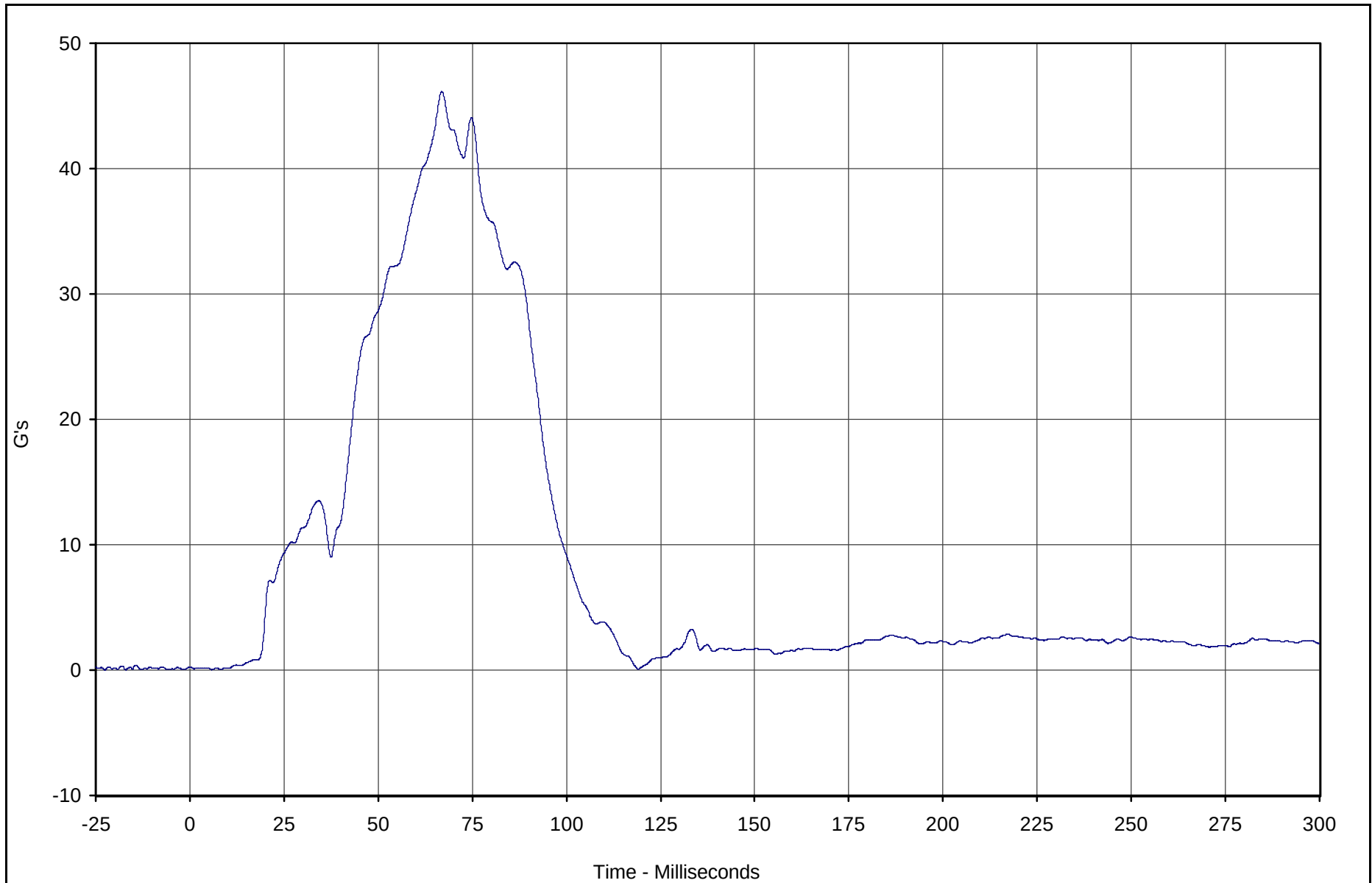


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Chest Resultant Primary	013	RES	G's	46.1	66.9	0.0	5.8	180

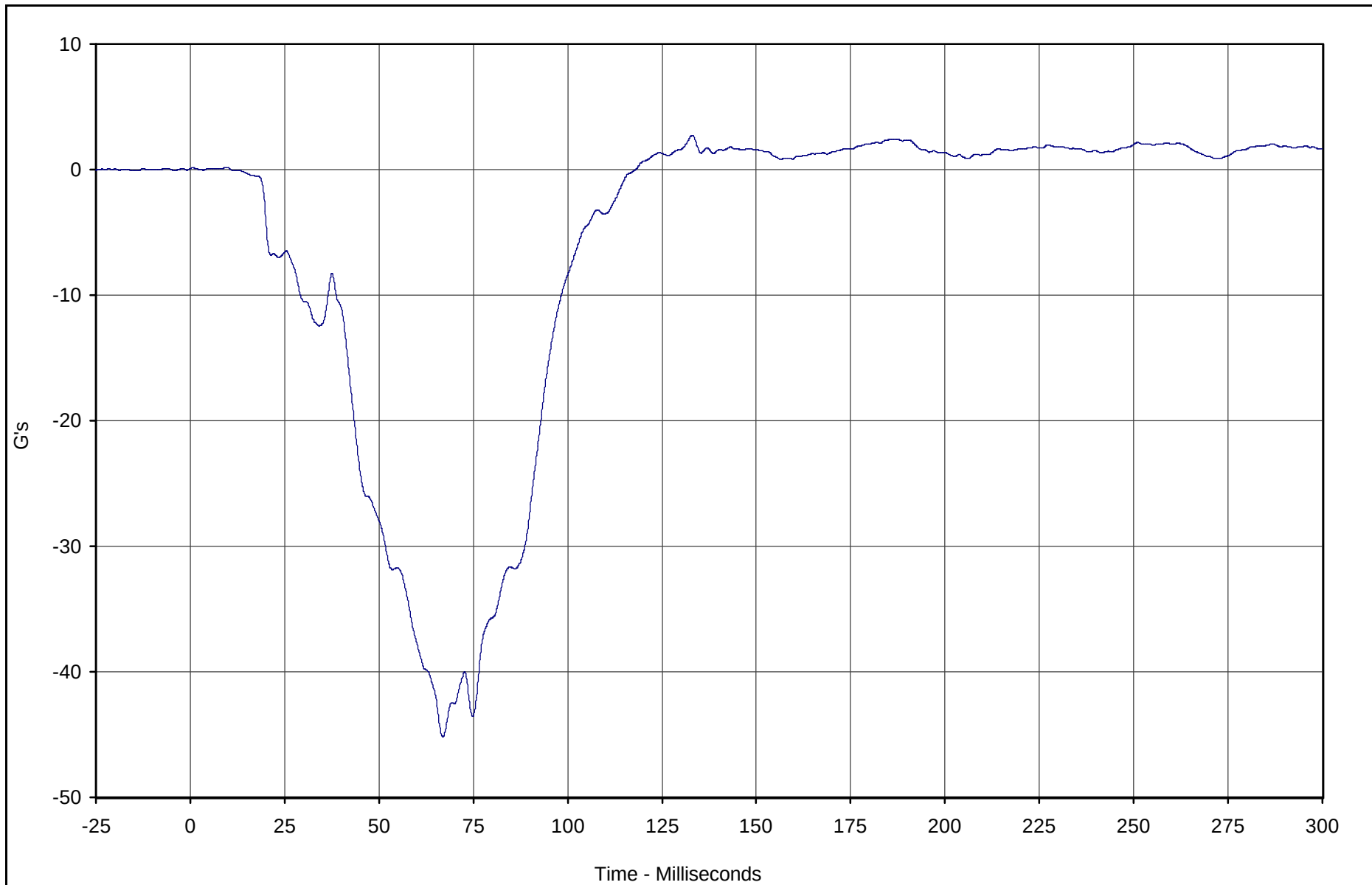


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Chest Redundant X	016	FIL	G's	2.7	133.0	-45.2	66.9	180

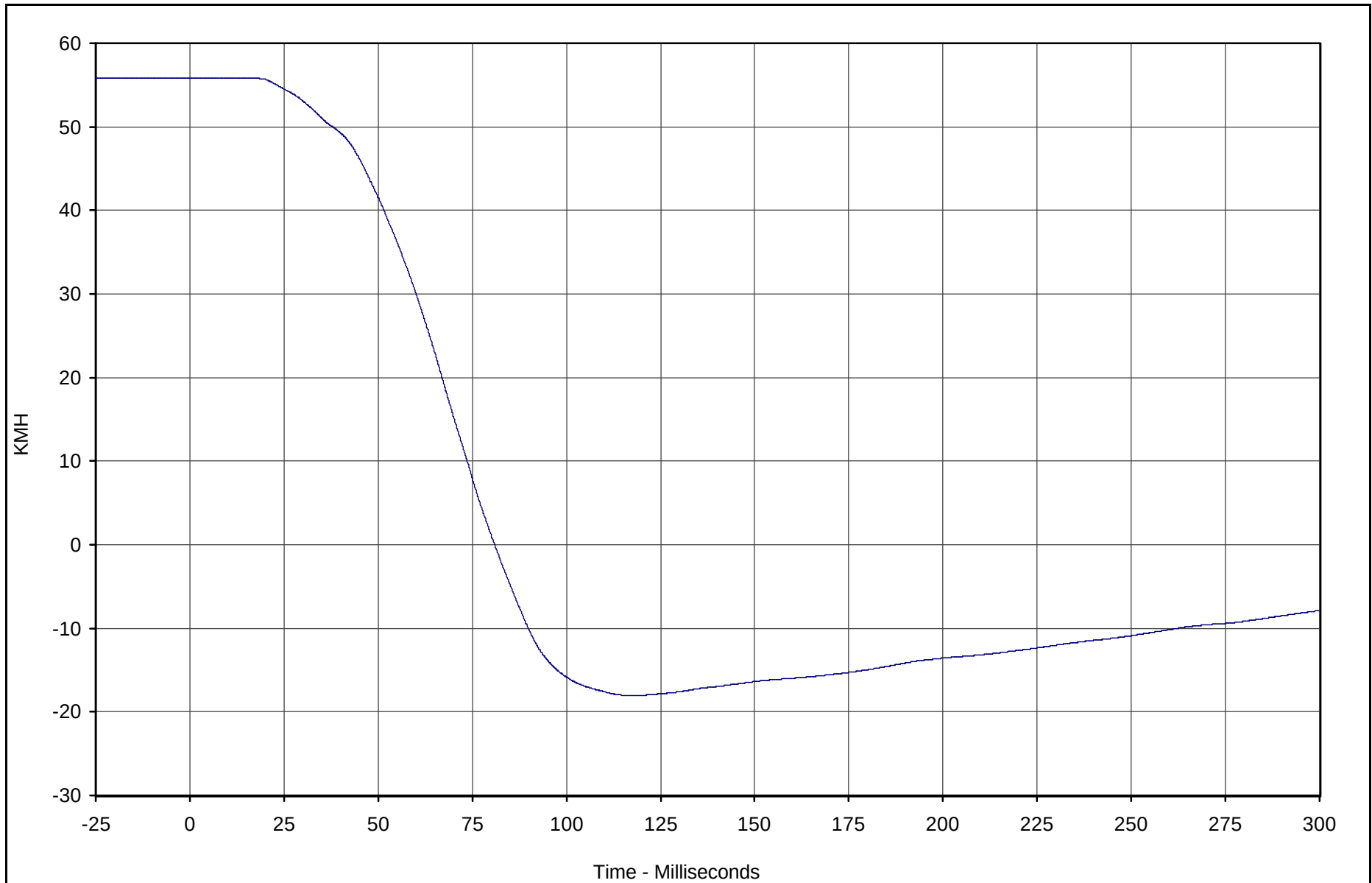


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Chest Redundant X Velocity	016	IN1	KMH	55.8	10.7	-18.0	118.0	180

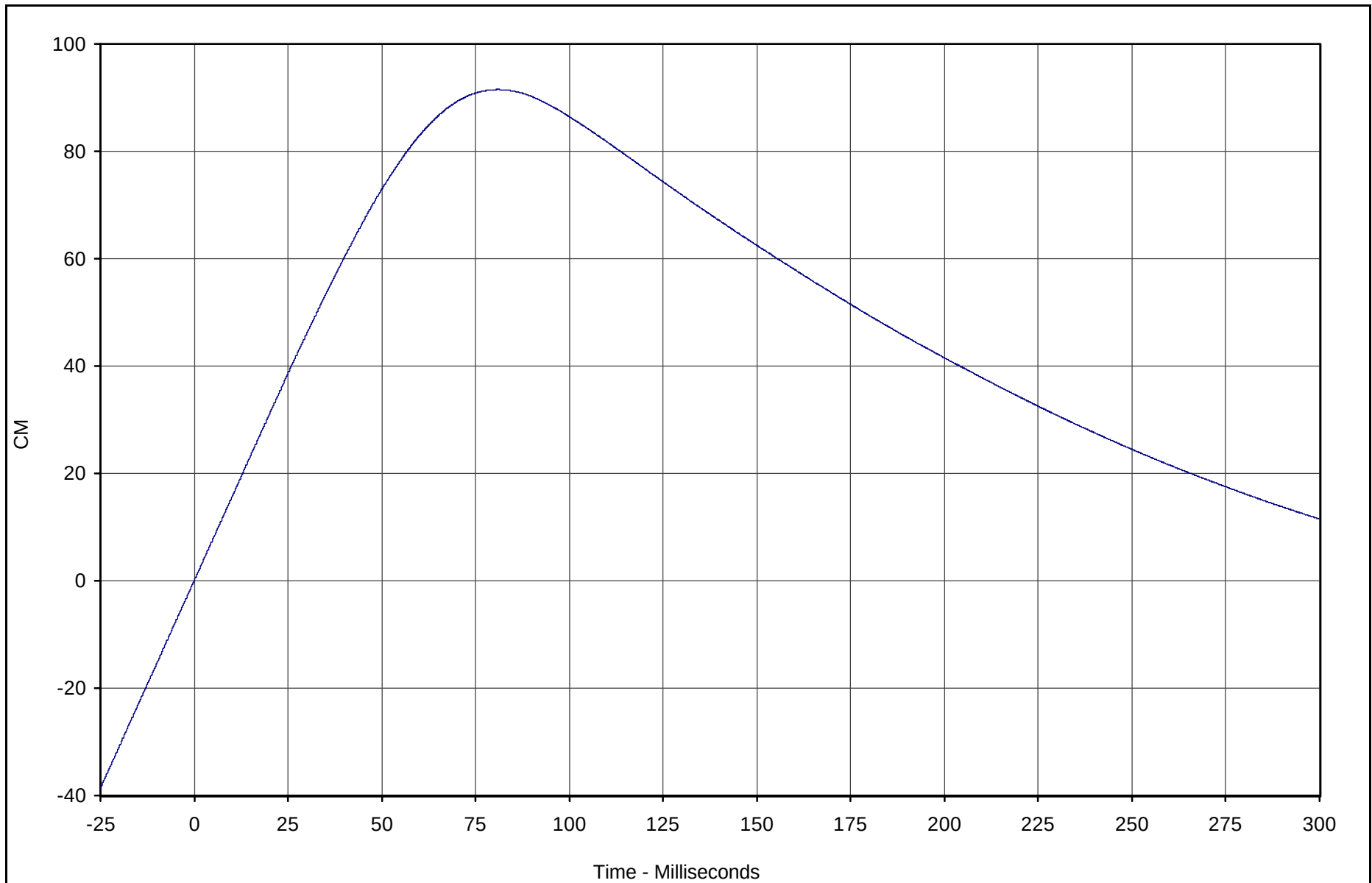


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Chest Redundant X Displ.	016	IN2	CM	91.5	81.0	0.0	0.0	180

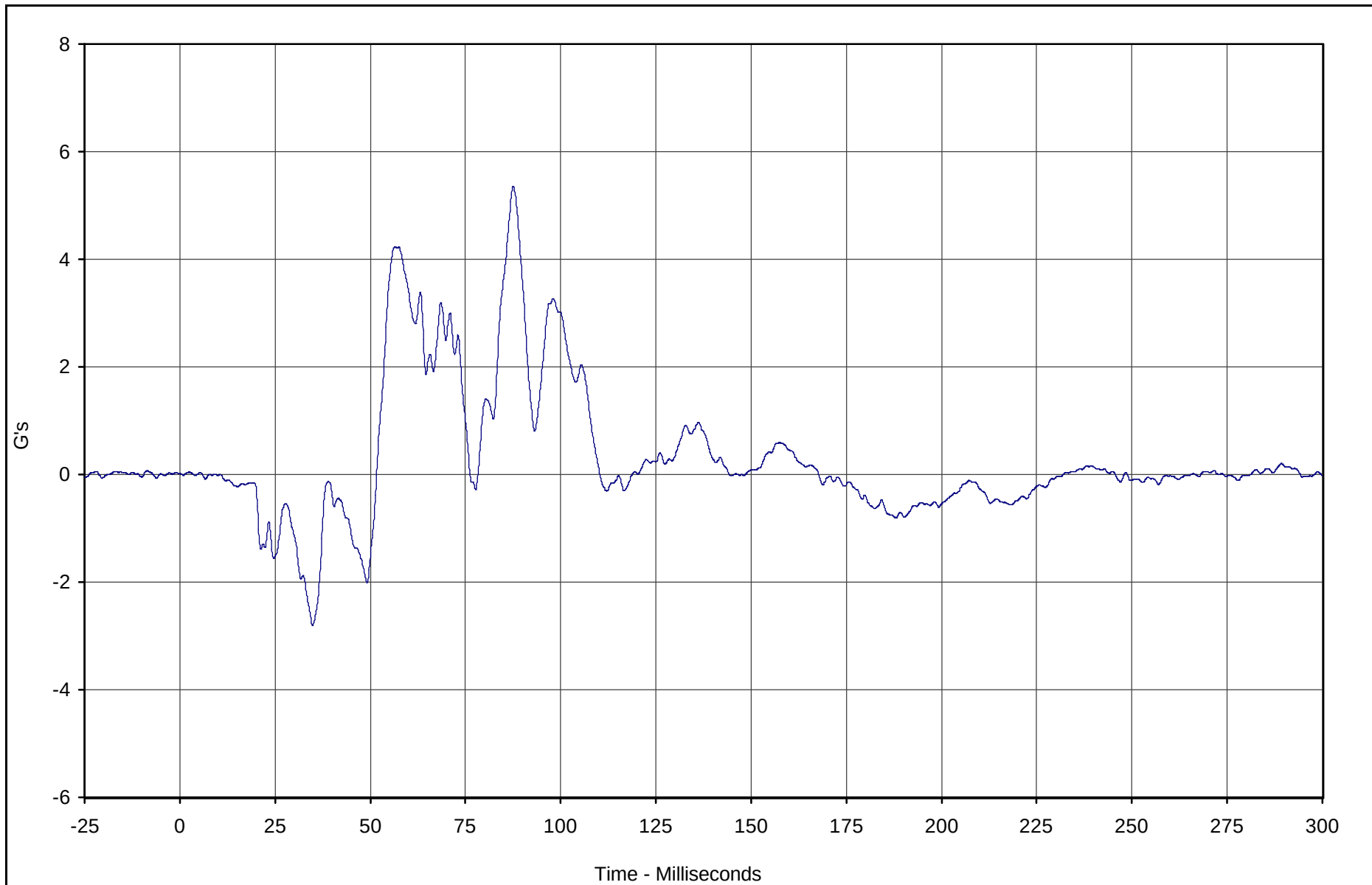


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Chest Redundant Y	017	FIL	G's	5.4	87.5	-2.8	34.9	180

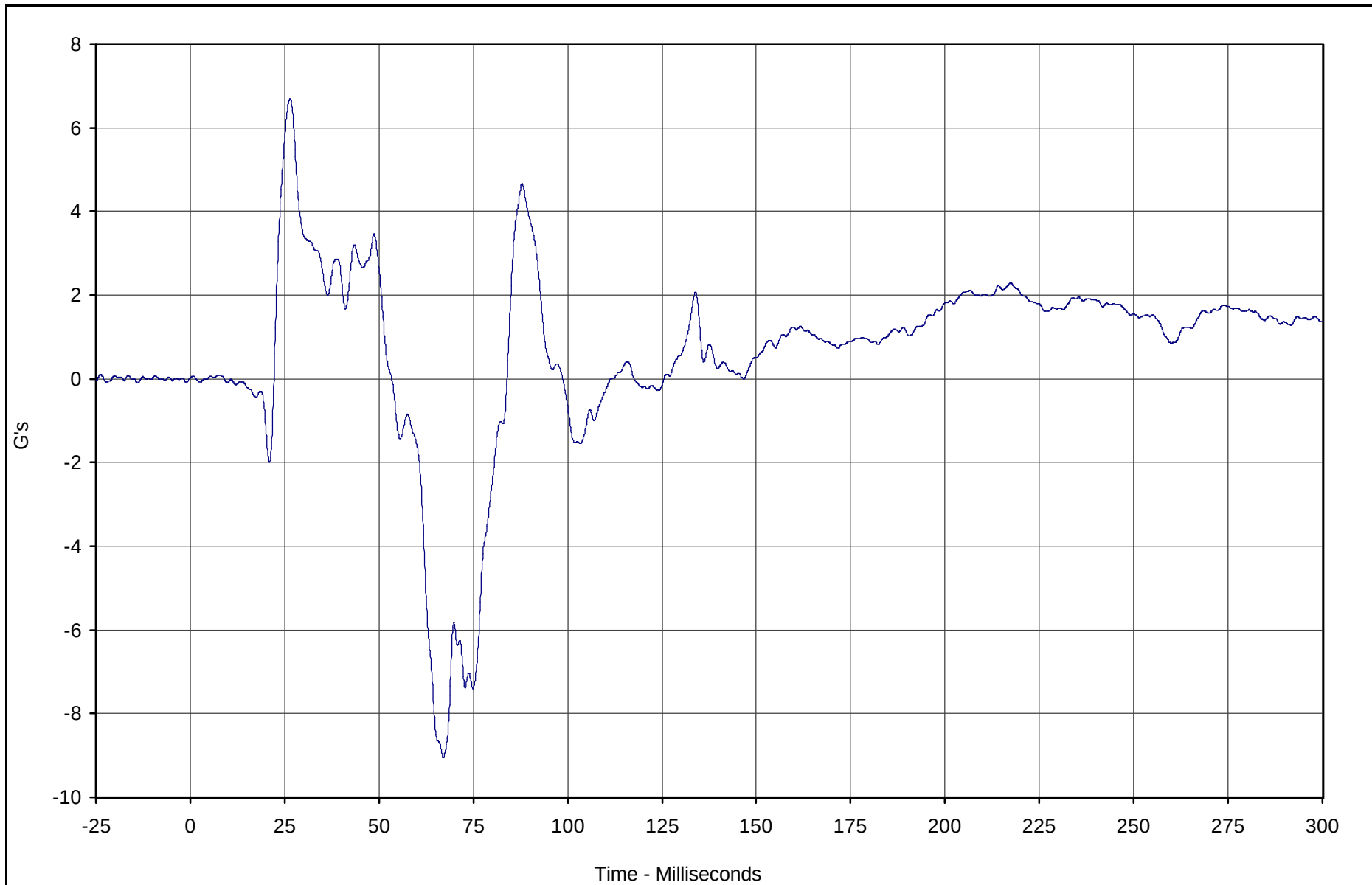


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Chest Redundant Z	018	FIL	G's	6.7	26.5	-9.0	67.0	180

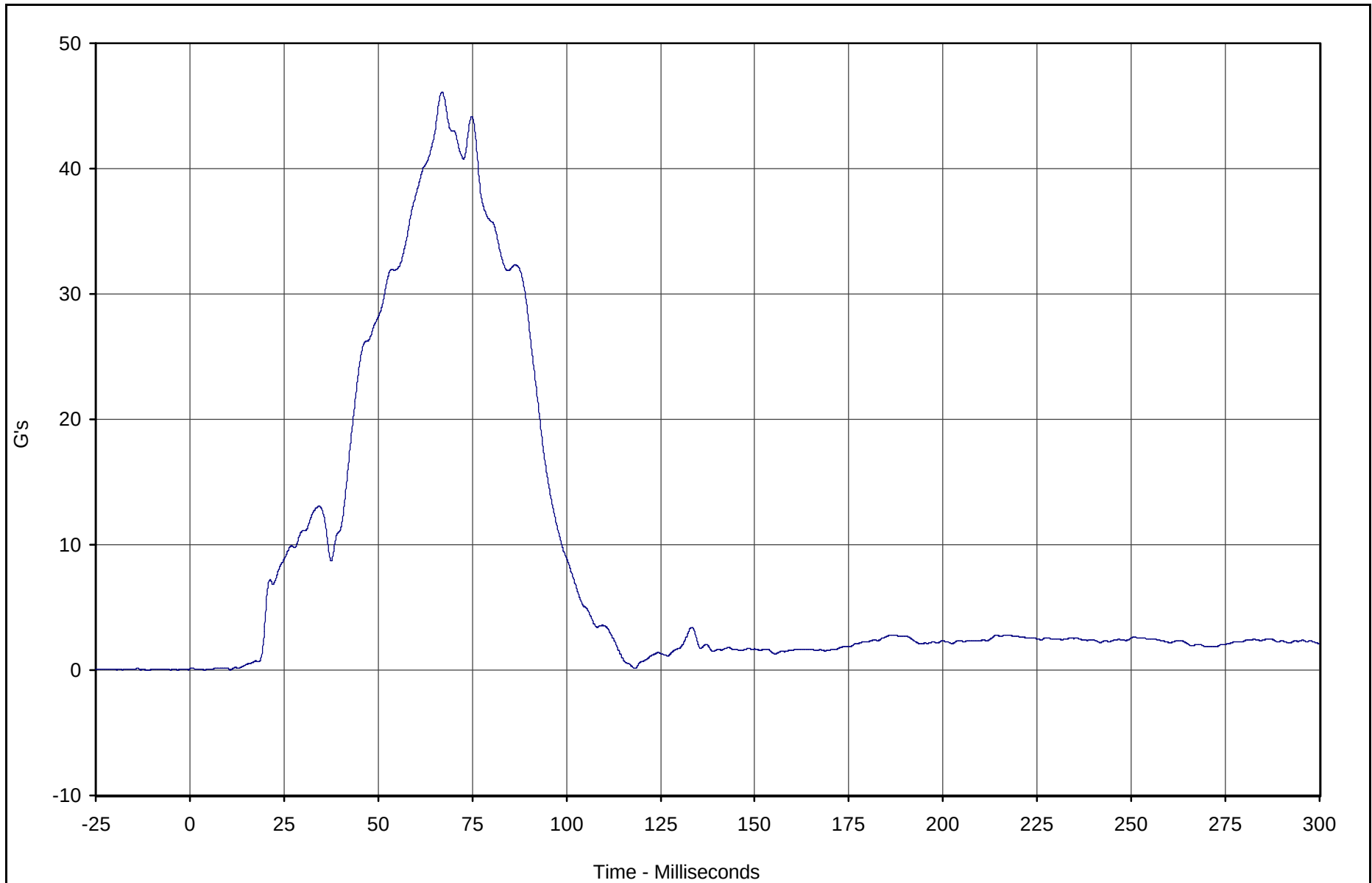


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Chest Resultant Redundant	016	RES	G's	46.1	67.0	0.0	10.7	180

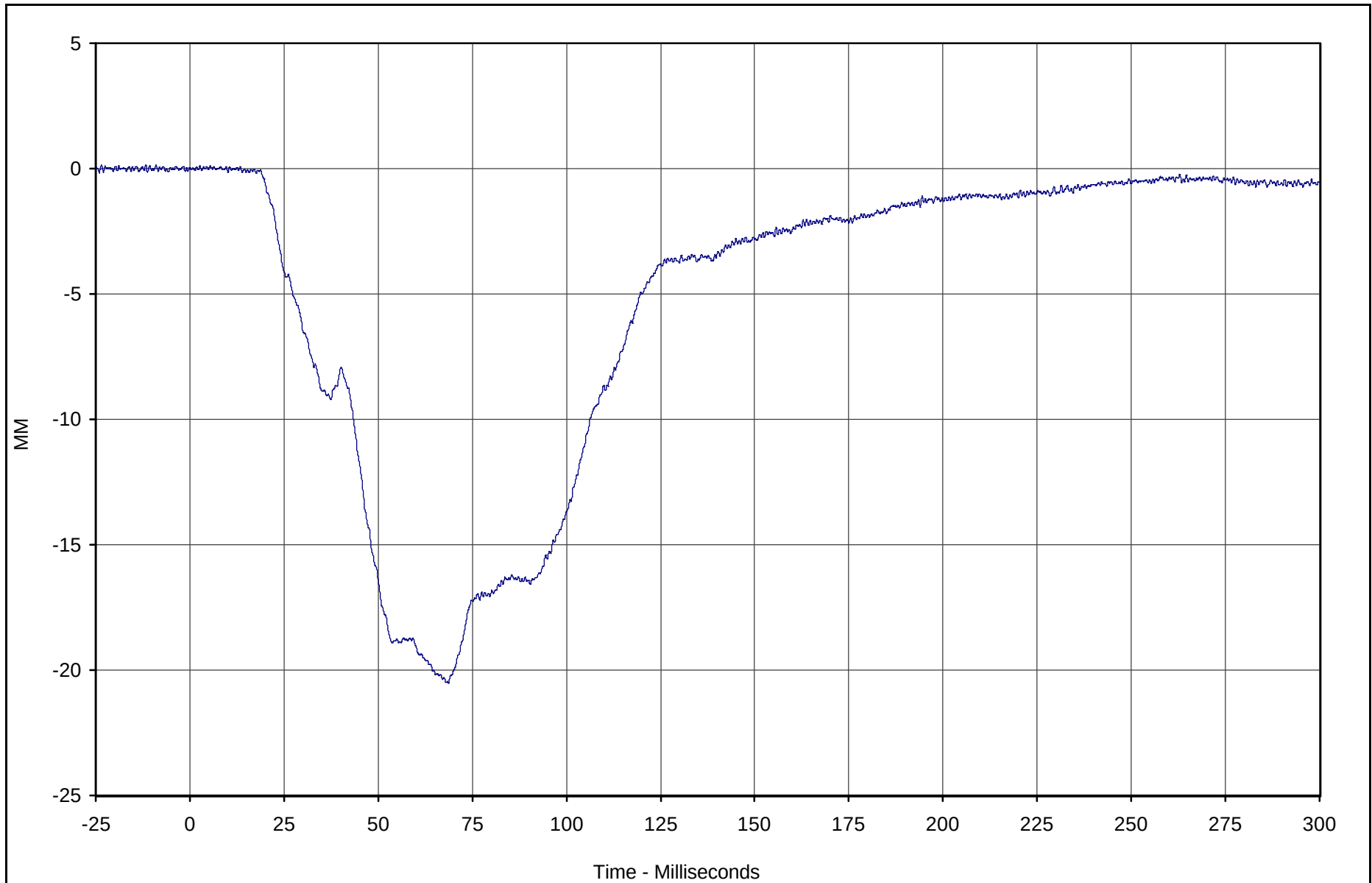


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Chest Displacement X	019	FIL	MM	0.1	5.4	-20.5	68.7	600

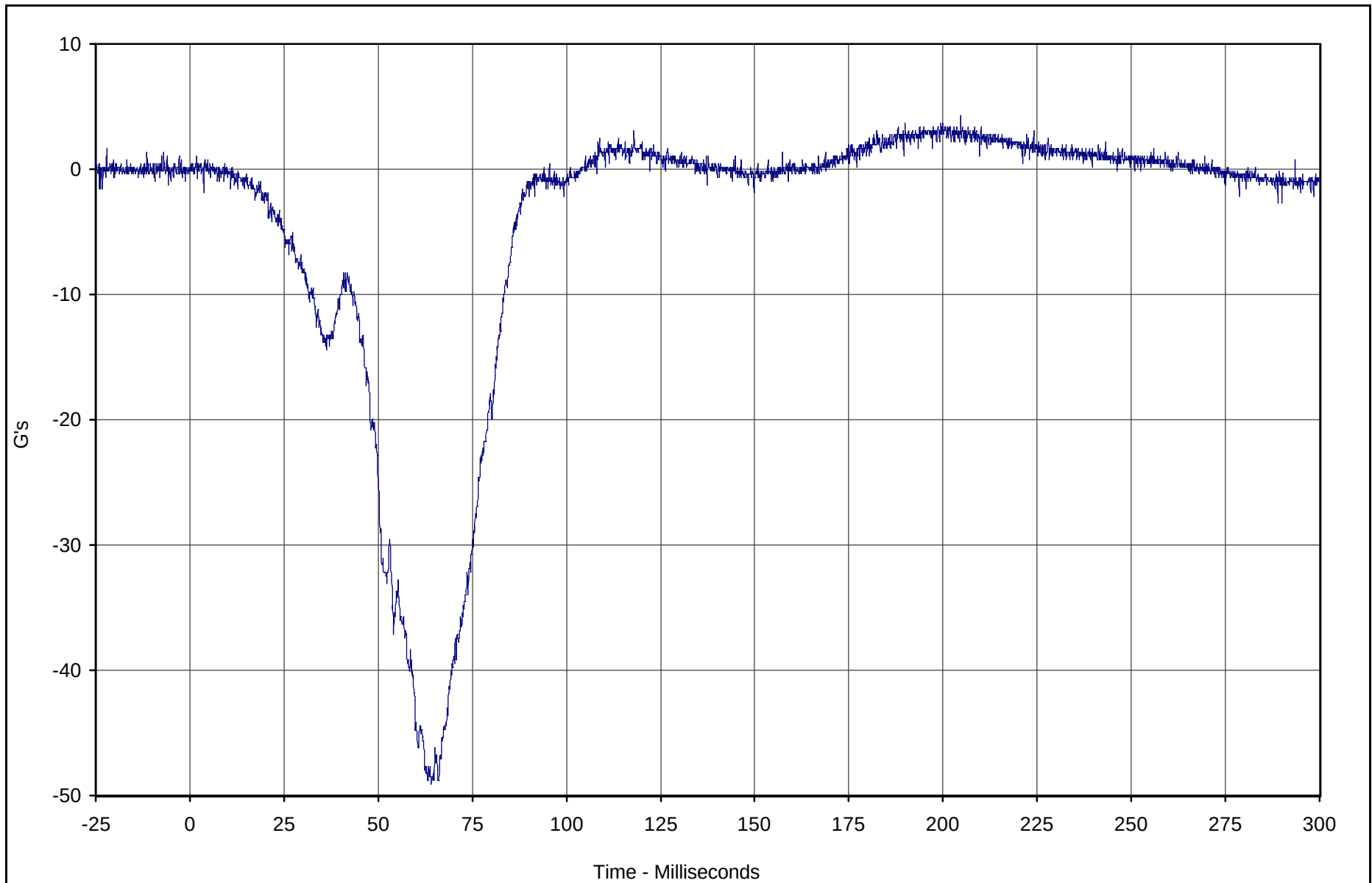


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Pelvis X	020	FIL	G's	4.3	204.8	-49.1	64.1	1000

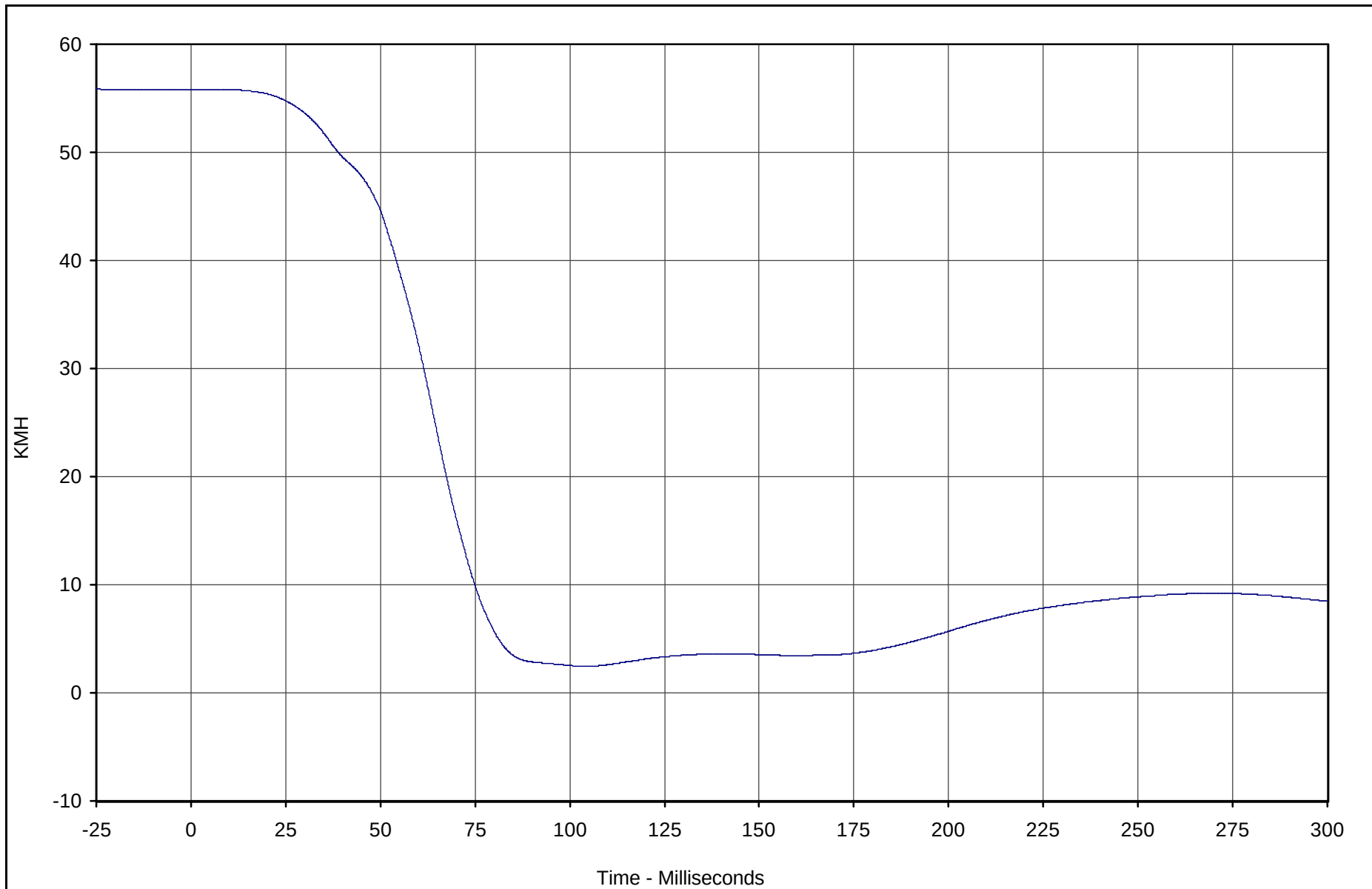


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Pelvis X Velocity	020	IN1	KMH	55.8	6.1	2.4	104.0	180

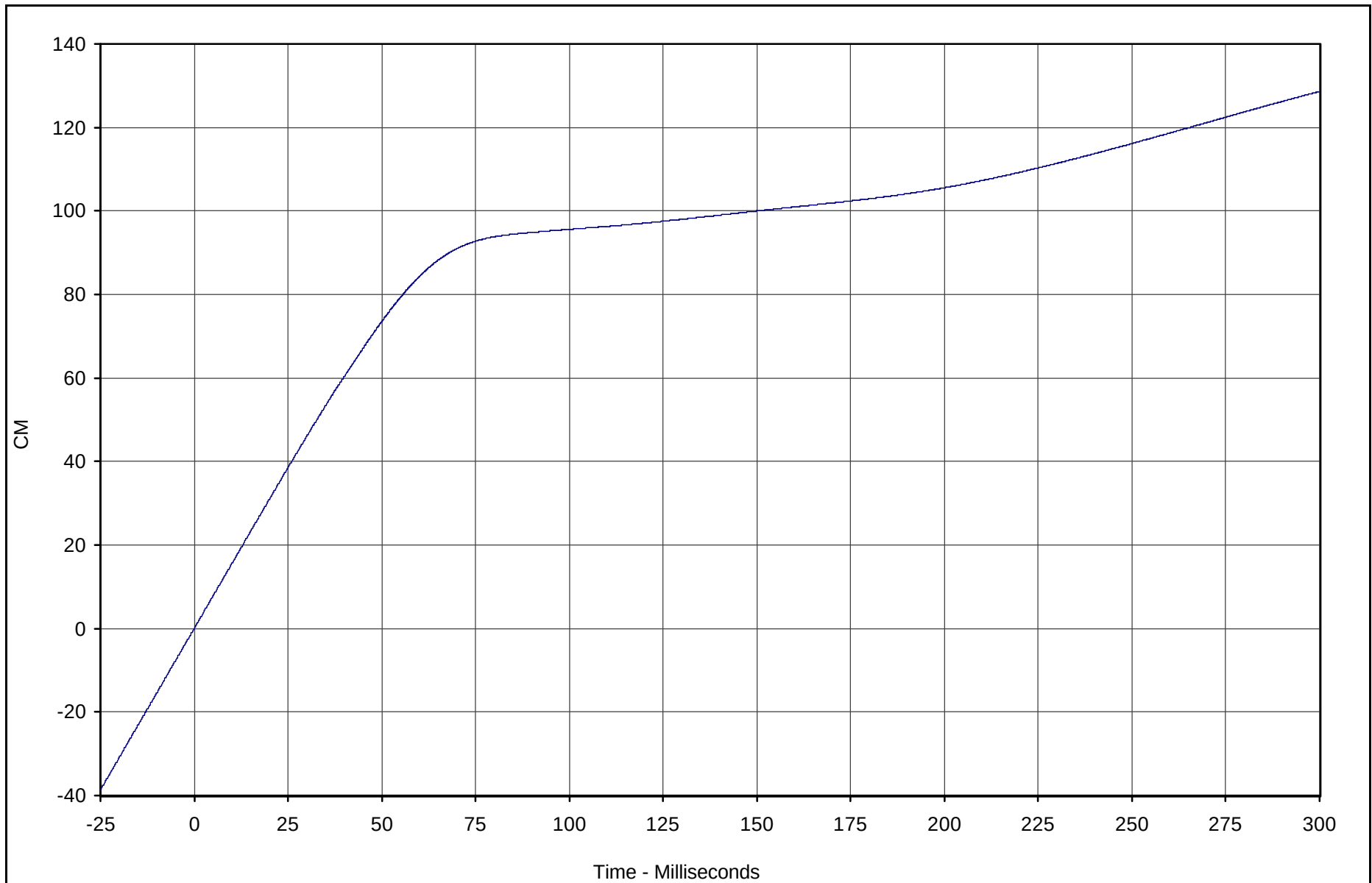


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Pelvis X Displ.	020	IN2	CM	128.6	299.9	0.0	0.0	180

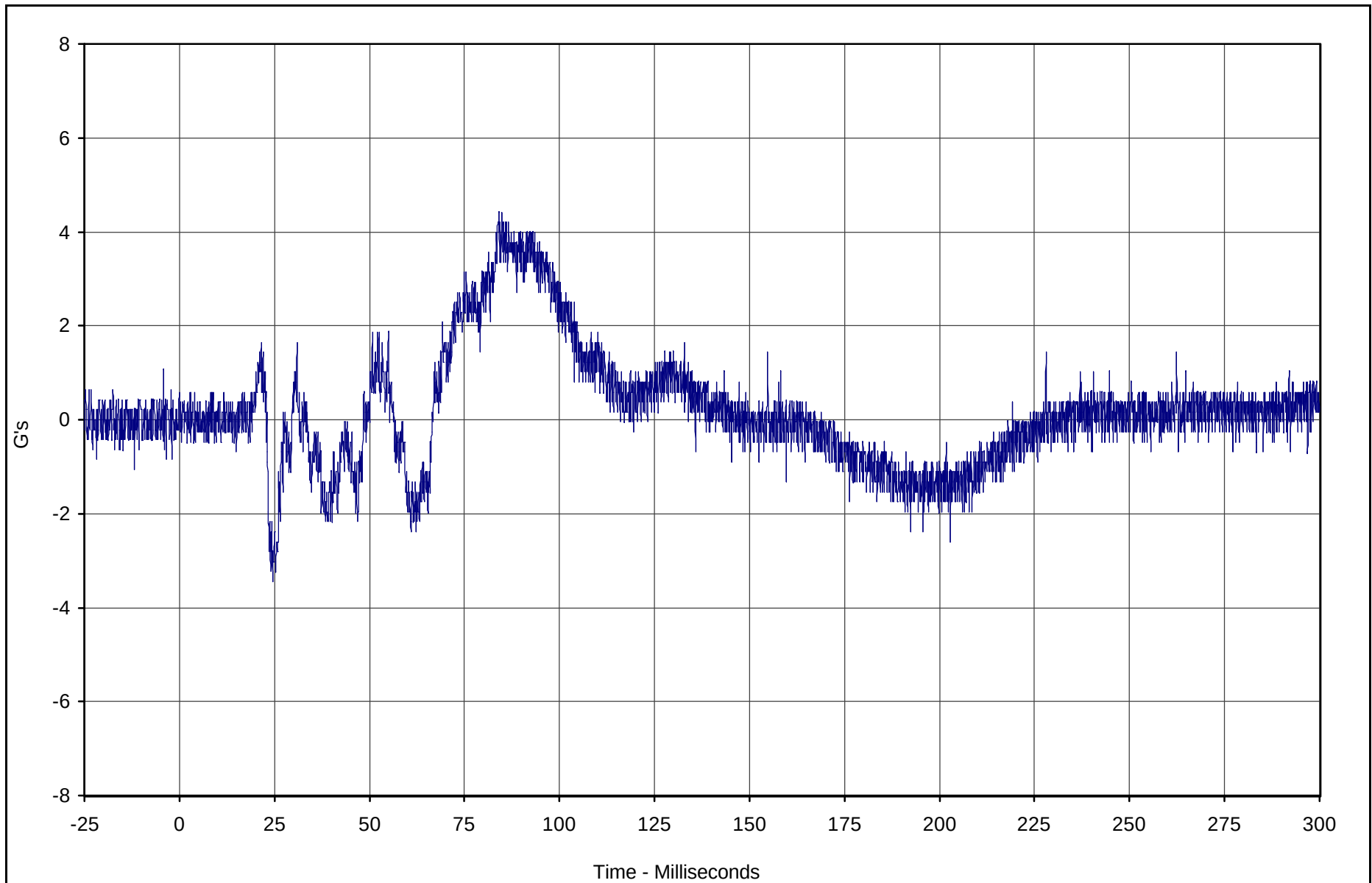


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Pelvis Y	021	FIL	G's	4.4	84.2	-3.5	24.5	1000

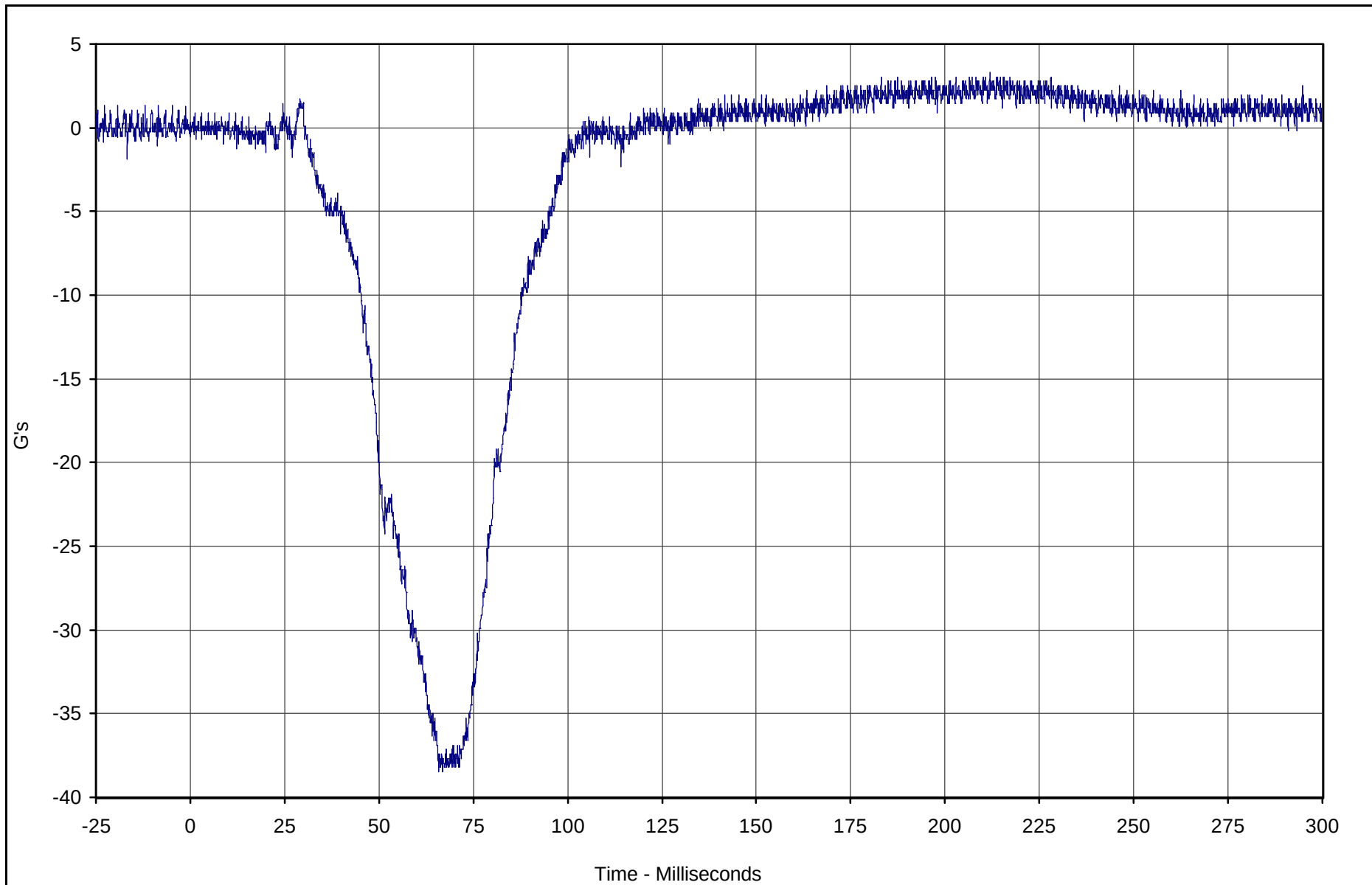


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Pelvis Z	022	FIL	G's	3.3	211.9	-38.5	65.9	1000

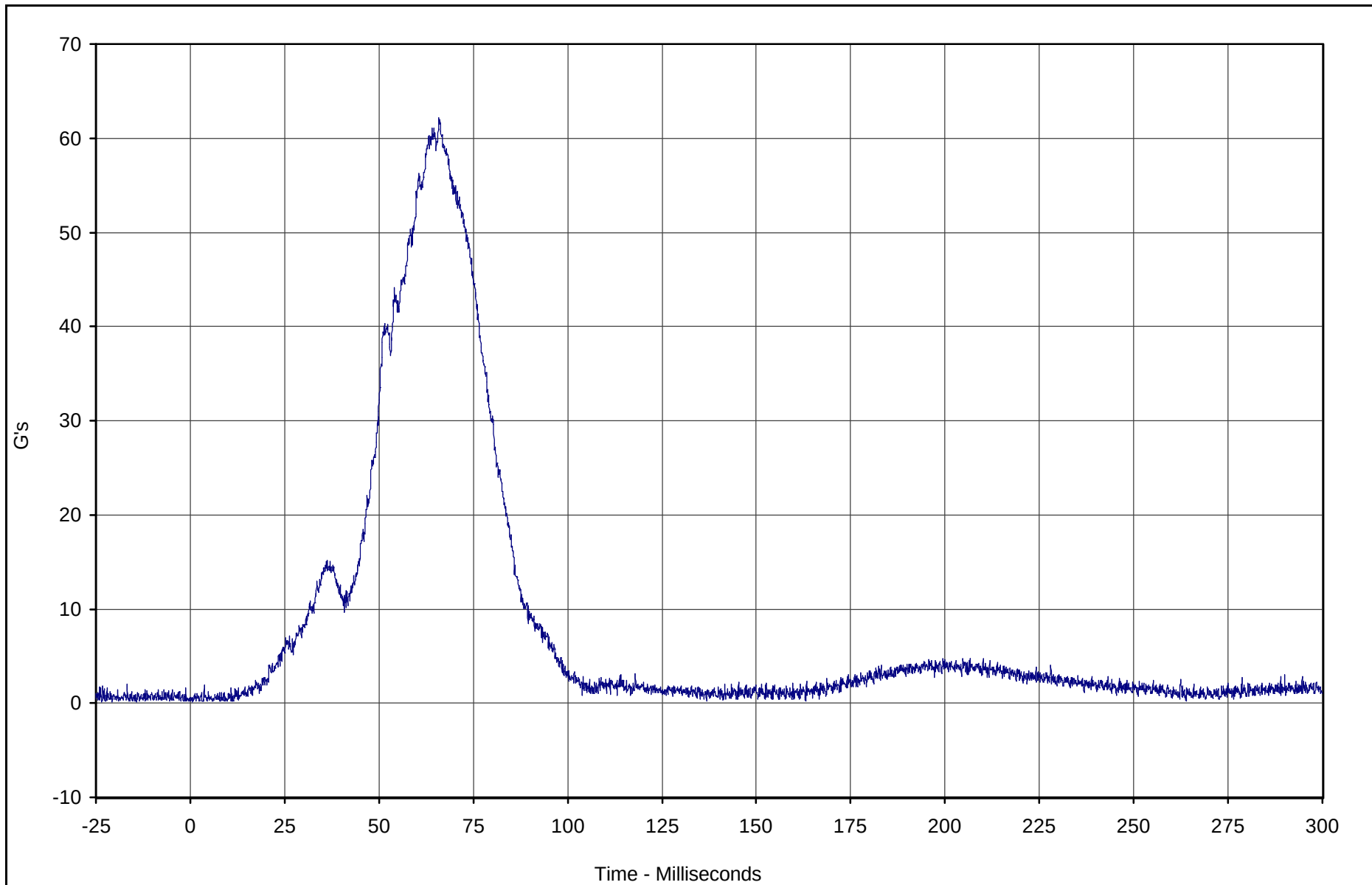


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Pelvis Resultant	023	RES	G's	62.2	65.9	0.1	0.5	1000

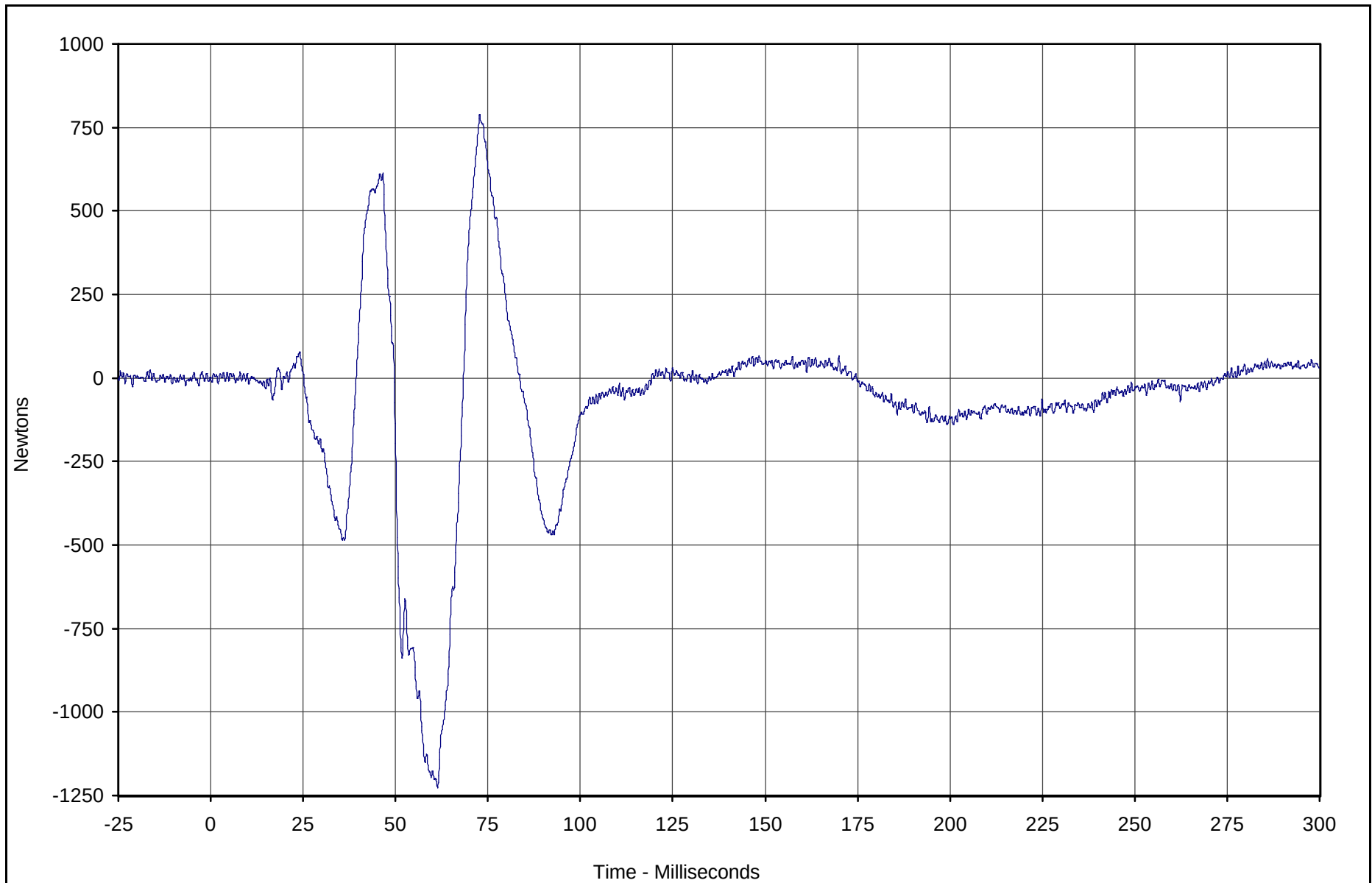


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Left Femur Force	023	FIL	Newtons	789.7	72.8	-1227.5	61.4	600

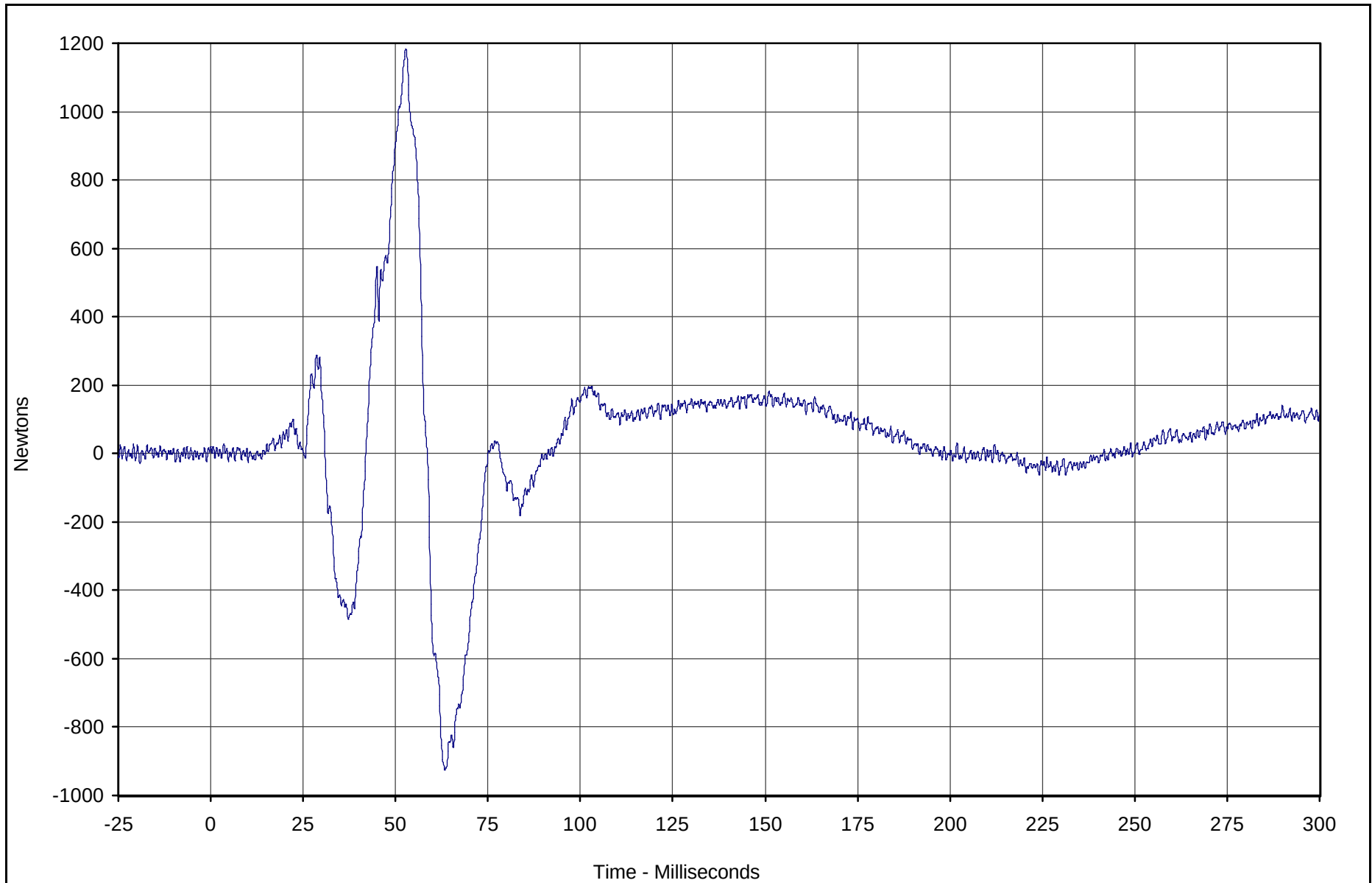


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Right Femur Force	024	FIL	Newtons	1183.9	52.8	-925.5	63.3	600

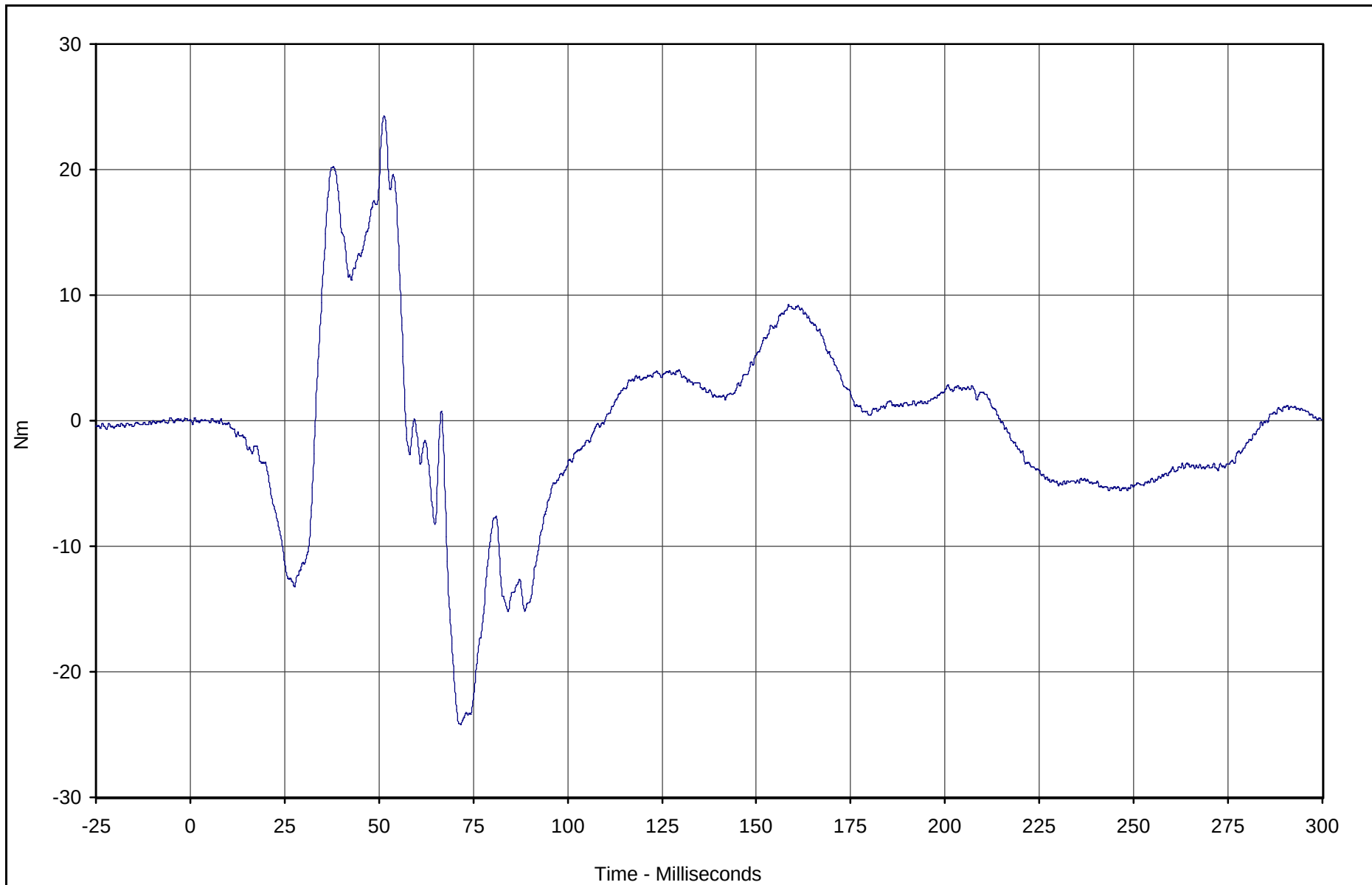


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Left Upper Tibia Moment X	025	FIL	Nm	24.3	51.3	-24.2	71.7	600

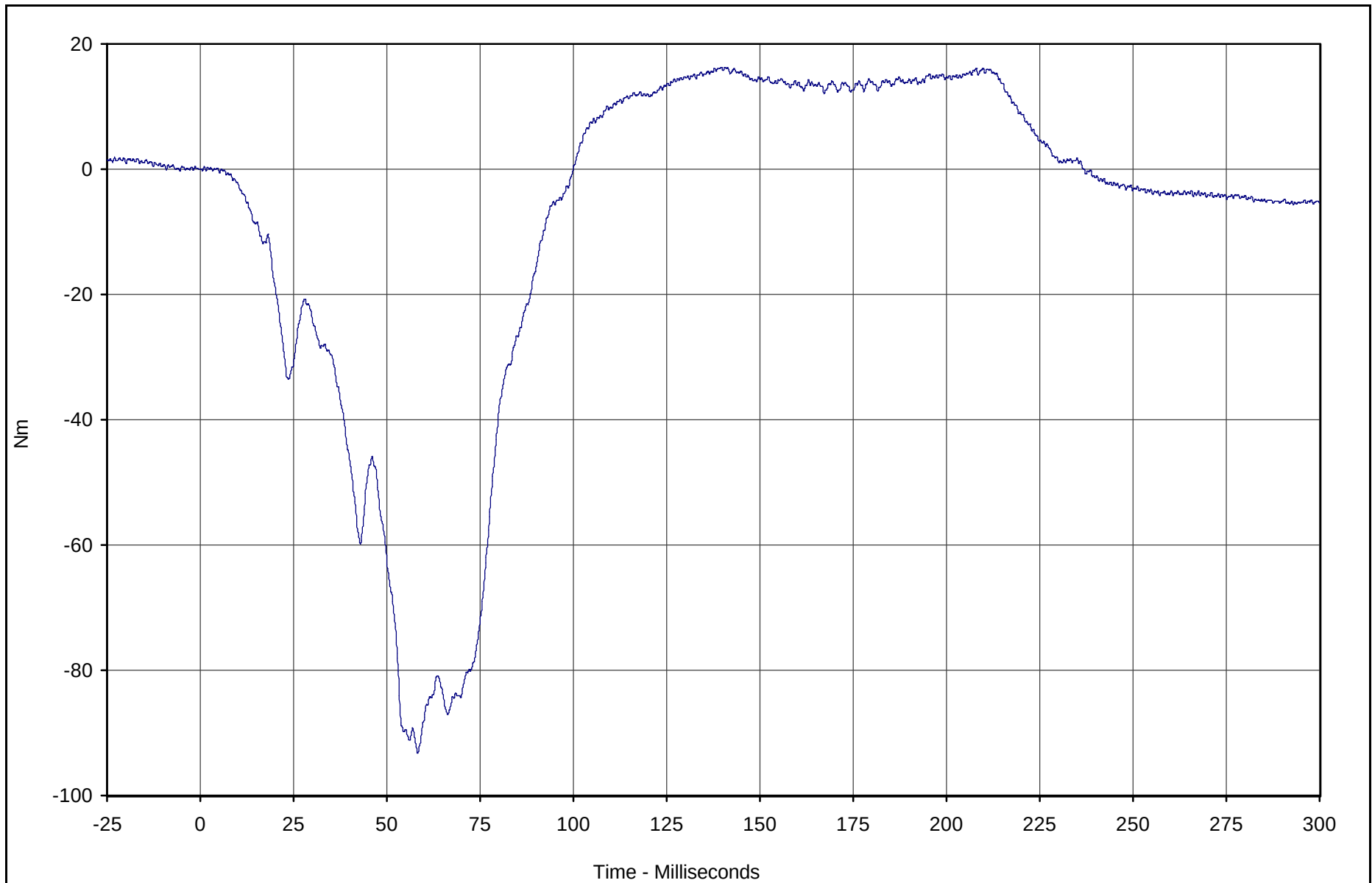


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Left Upper Tibia Moment Y	026	FIL	Nm	16.2	139.7	-93.2	58.3	600

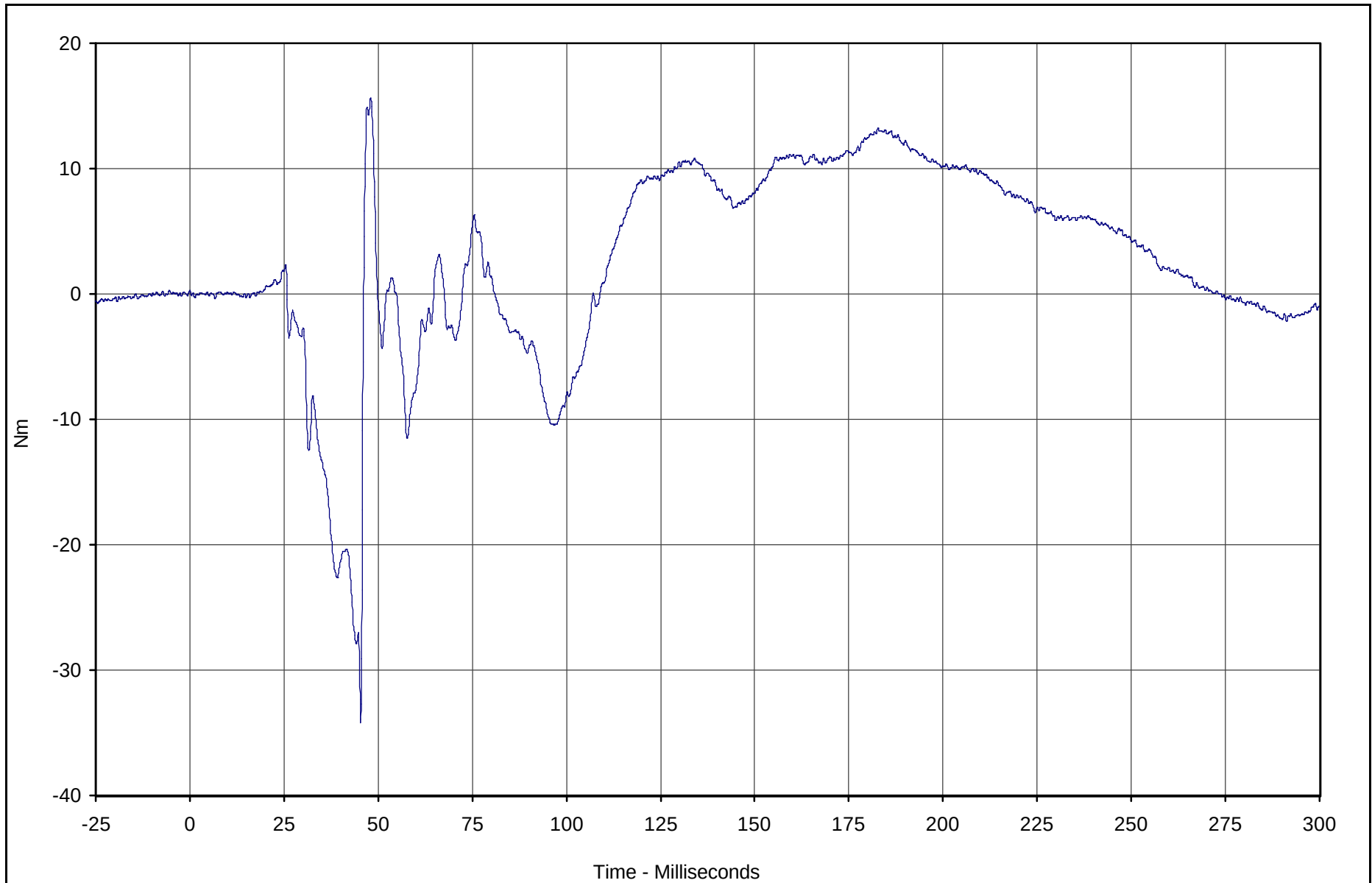


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Right Upper Tibia Moment X	027	FIL	Nm	15.6	48.0	-34.2	45.4	600

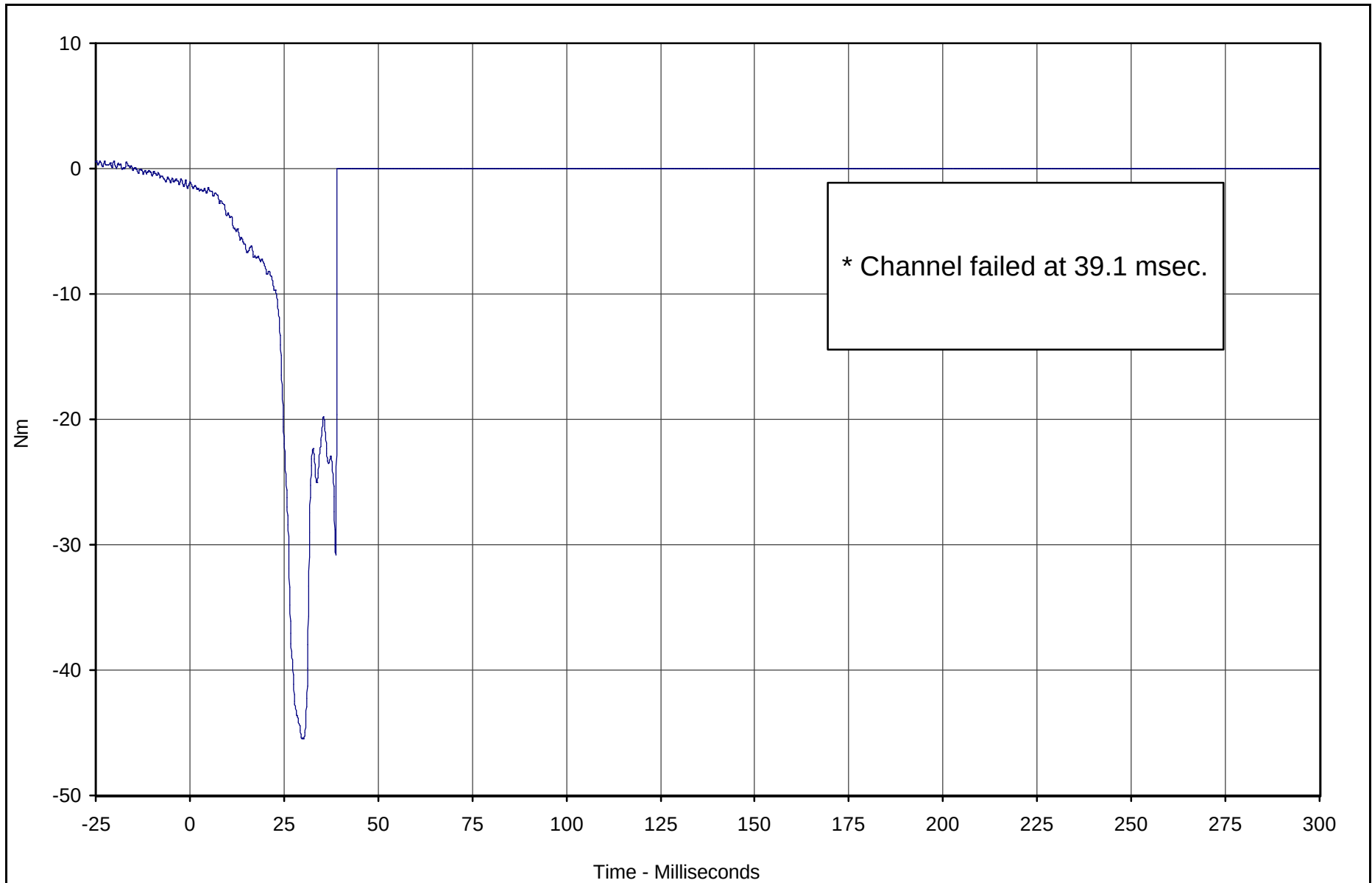


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Right Upper Tibia Moment Y	028	FIL	Nm	0.0	39.1	-45.5	30.2	600

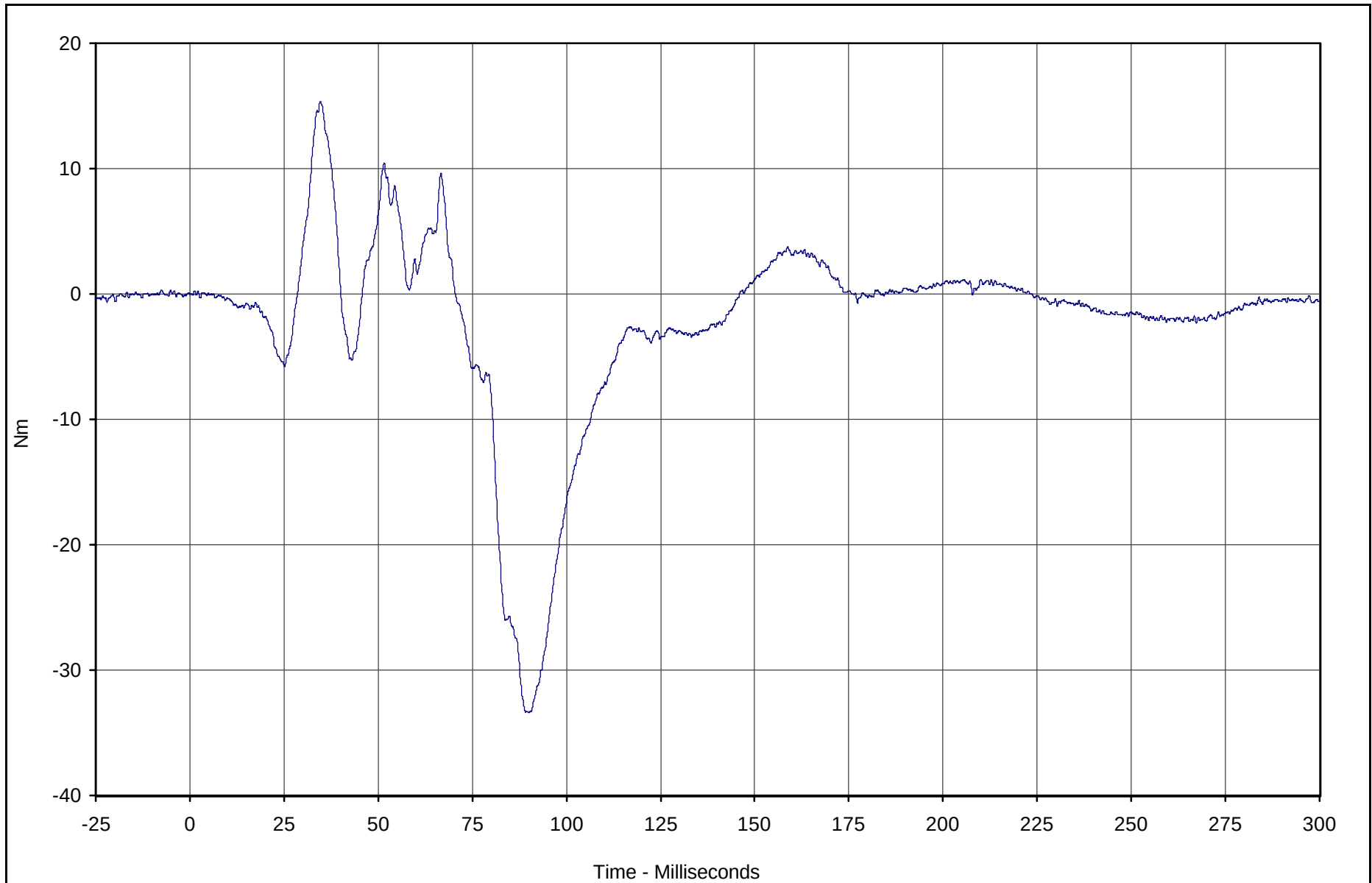


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Left Lower Tibia Moment X	029	FIL	Nm	15.4	34.6	-33.4	89.9	600

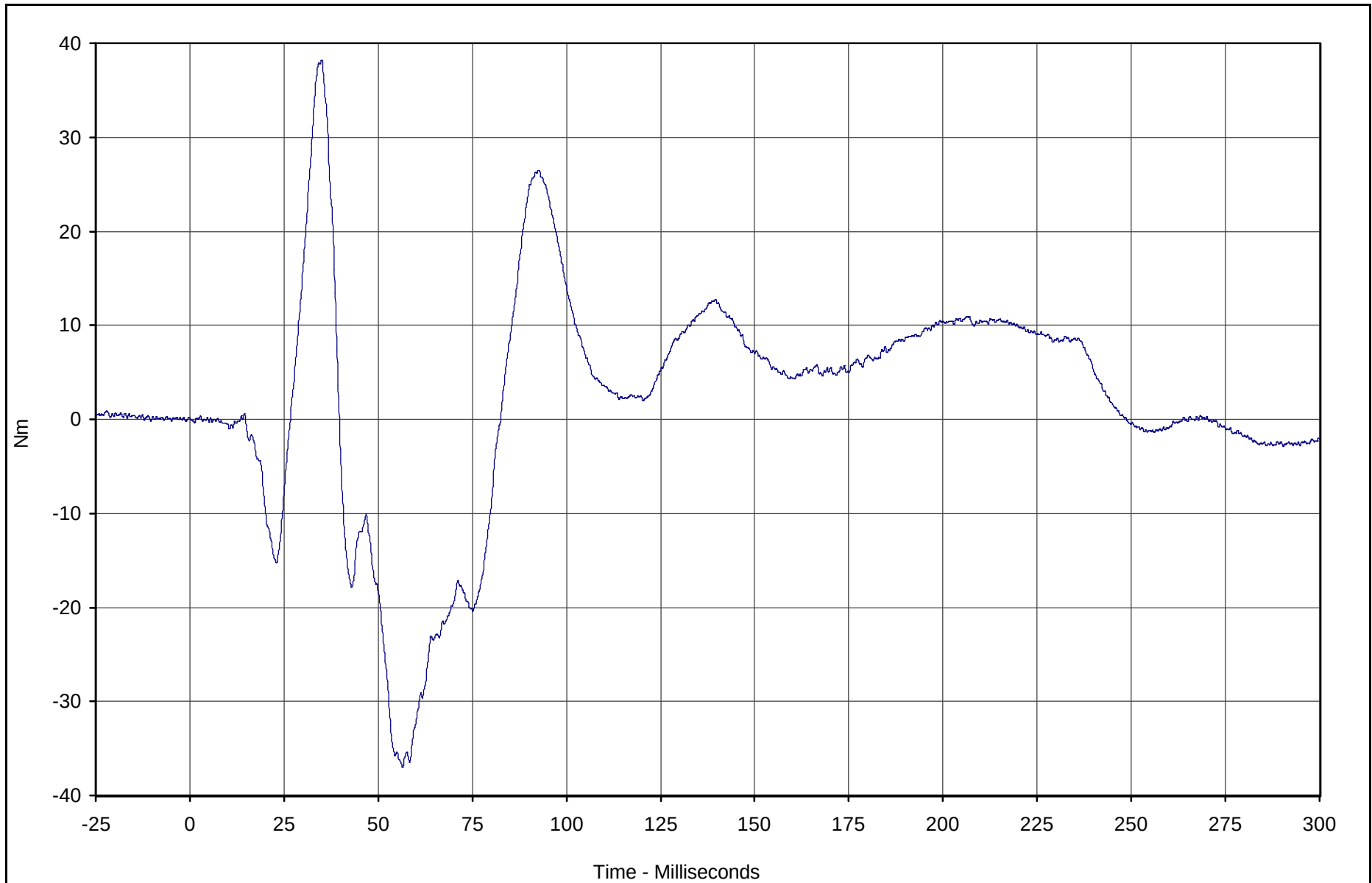


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Left Lower Tibia Moment Y	030	FIL	Nm	38.2	35.1	-37.0	56.5	600

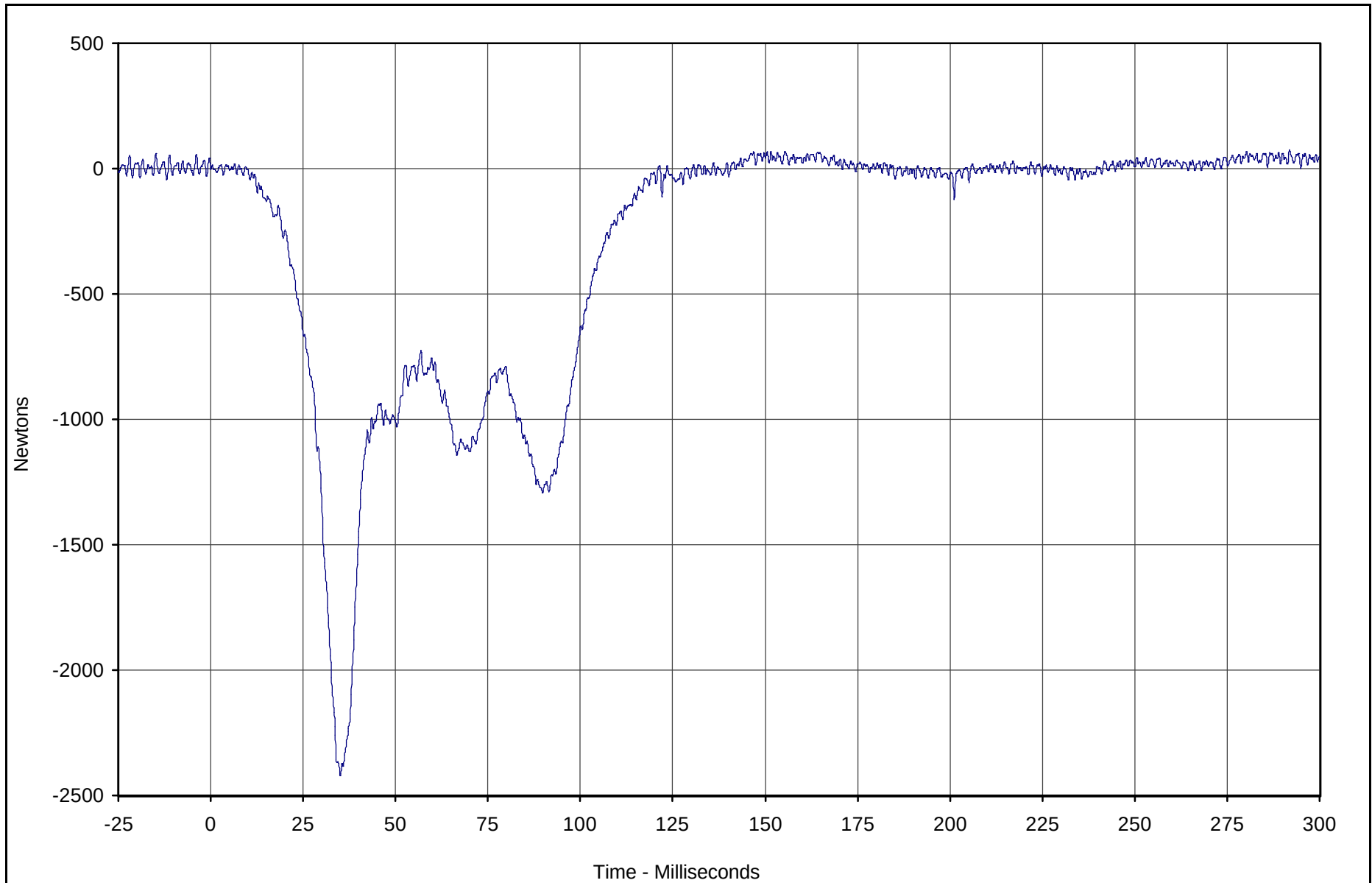


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Left Lower Tibia Force Z	031	FIL	Newtons	73.5	291.9	-2422.3	35.1	600

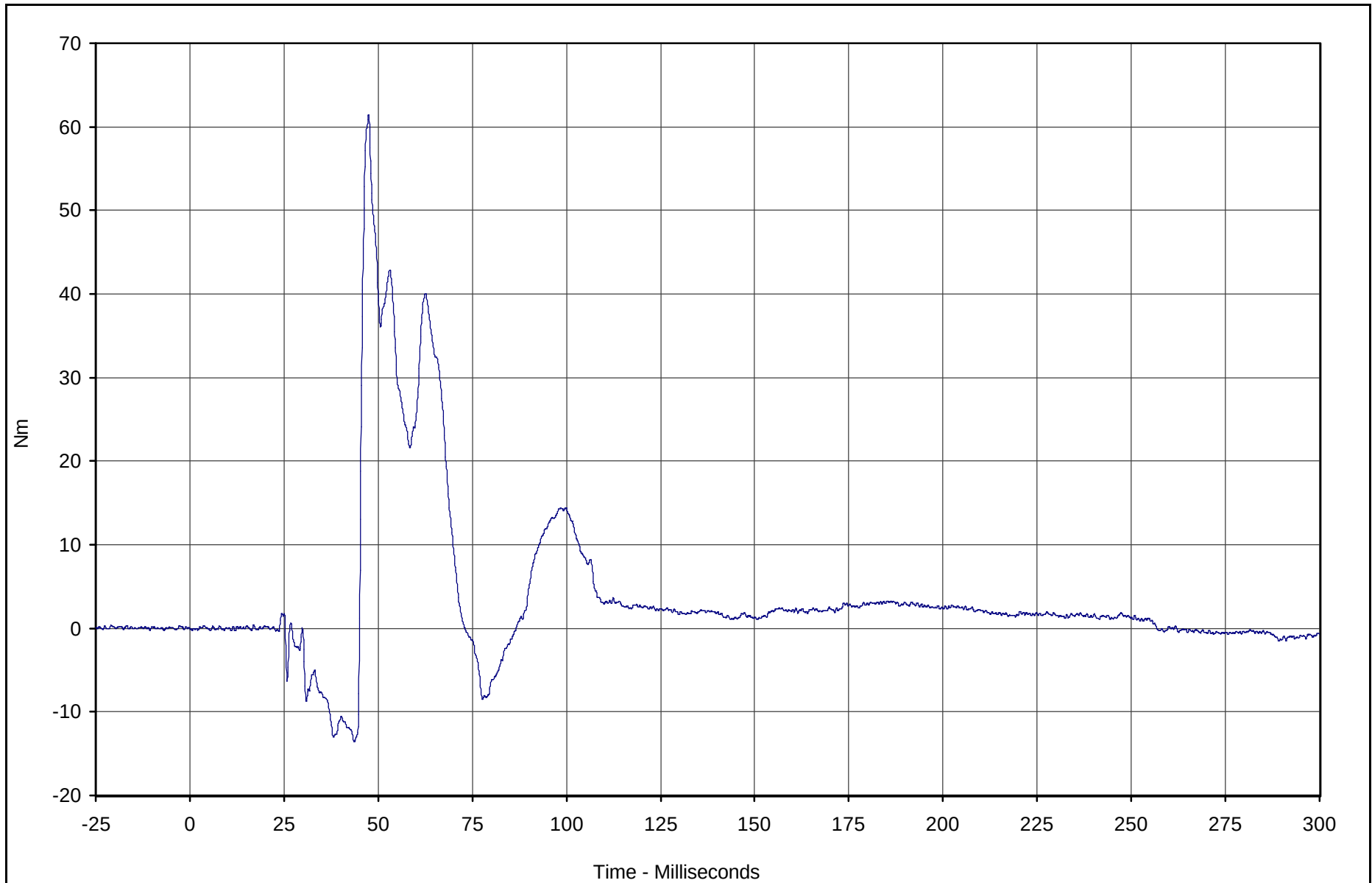


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Right Lower Tibia Moment X	032	FIL	Nm	61.5	47.5	-13.5	43.7	600

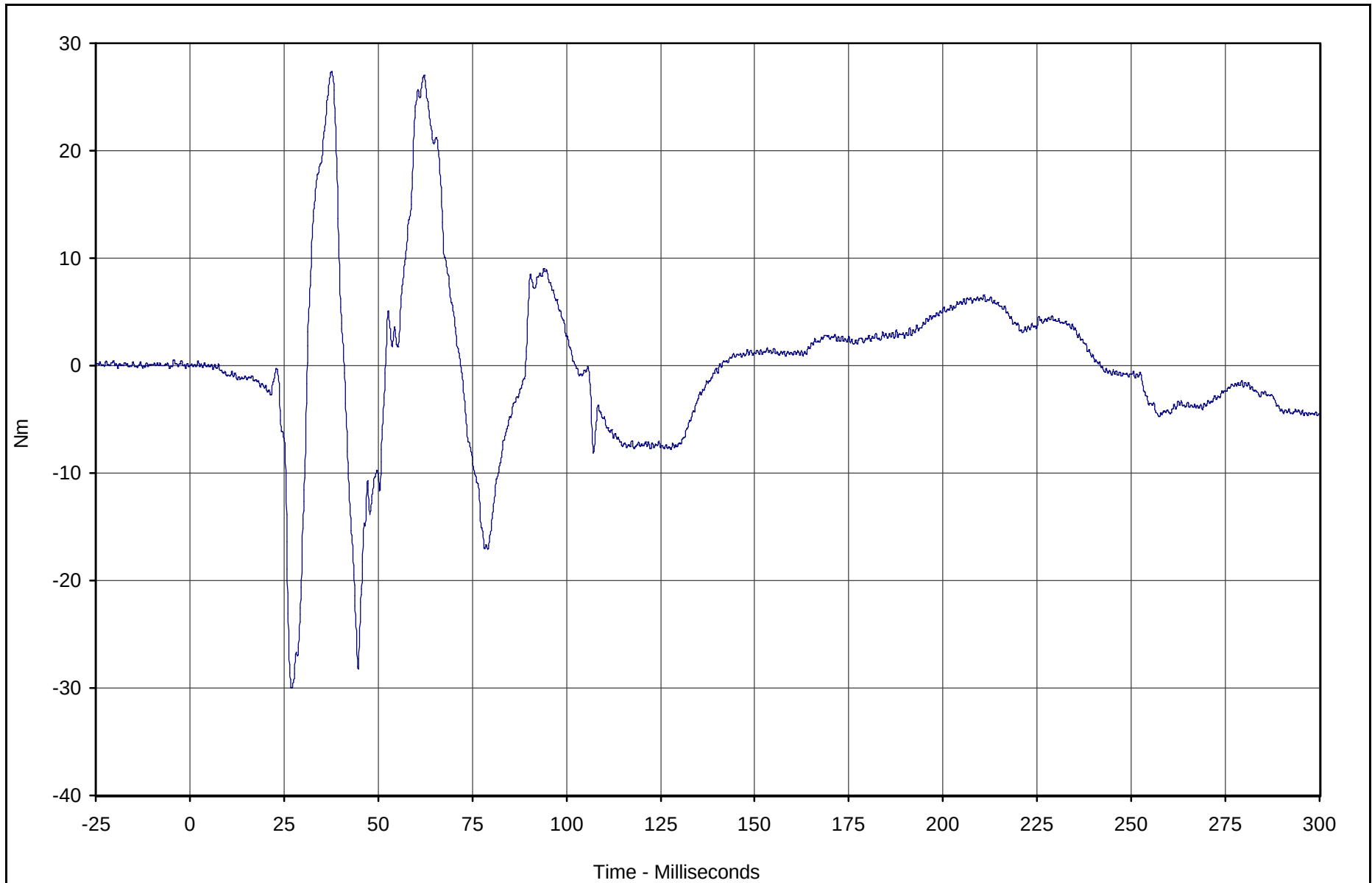


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Right Lower Tibia Moment Y	033	FIL	Nm	27.4	37.6	-30.0	27.0	600

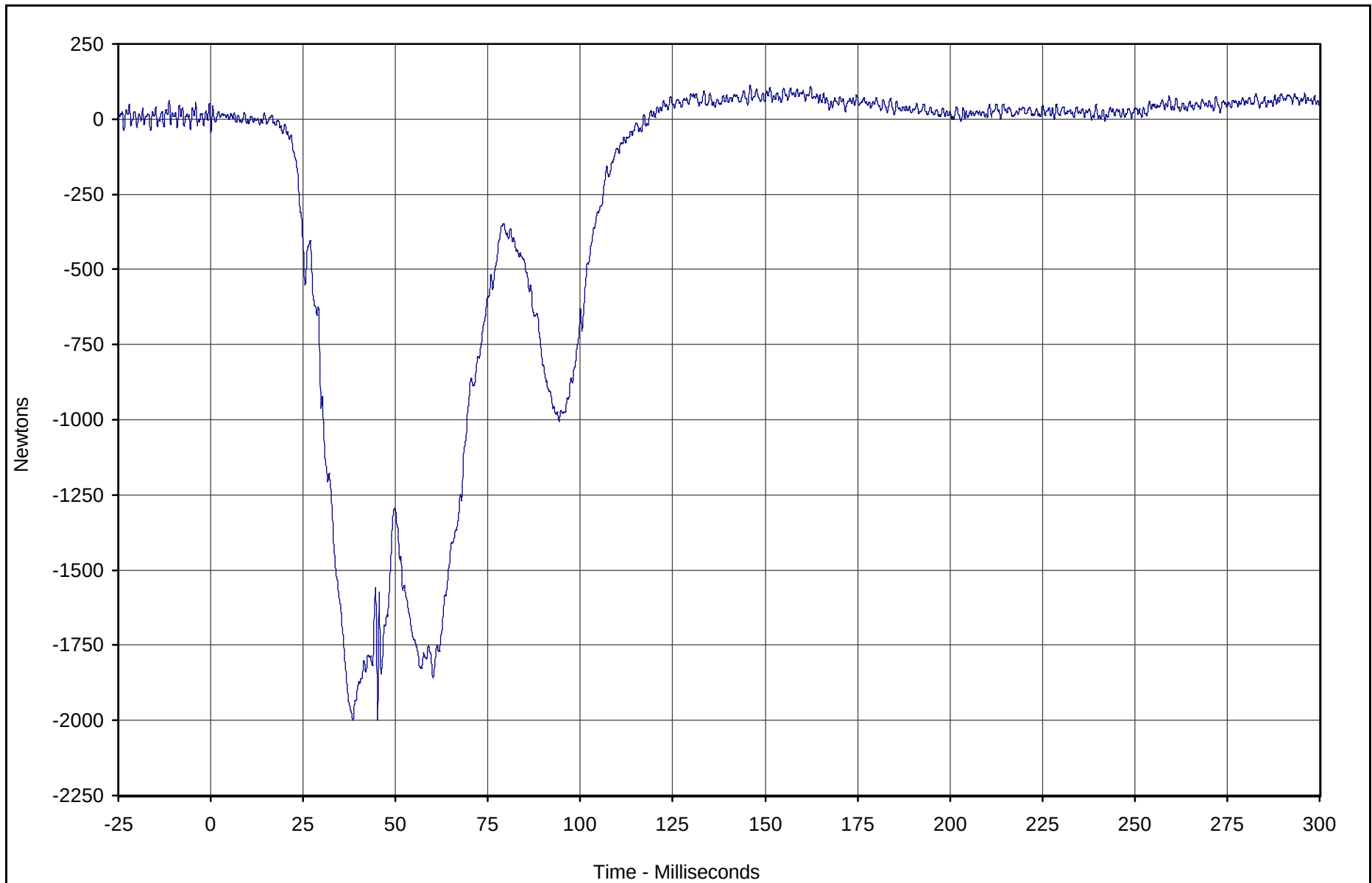


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Right Lower Tibia Force Z	034	FIL	Newtons	112.7	145.9	-1999.3	45.2	600

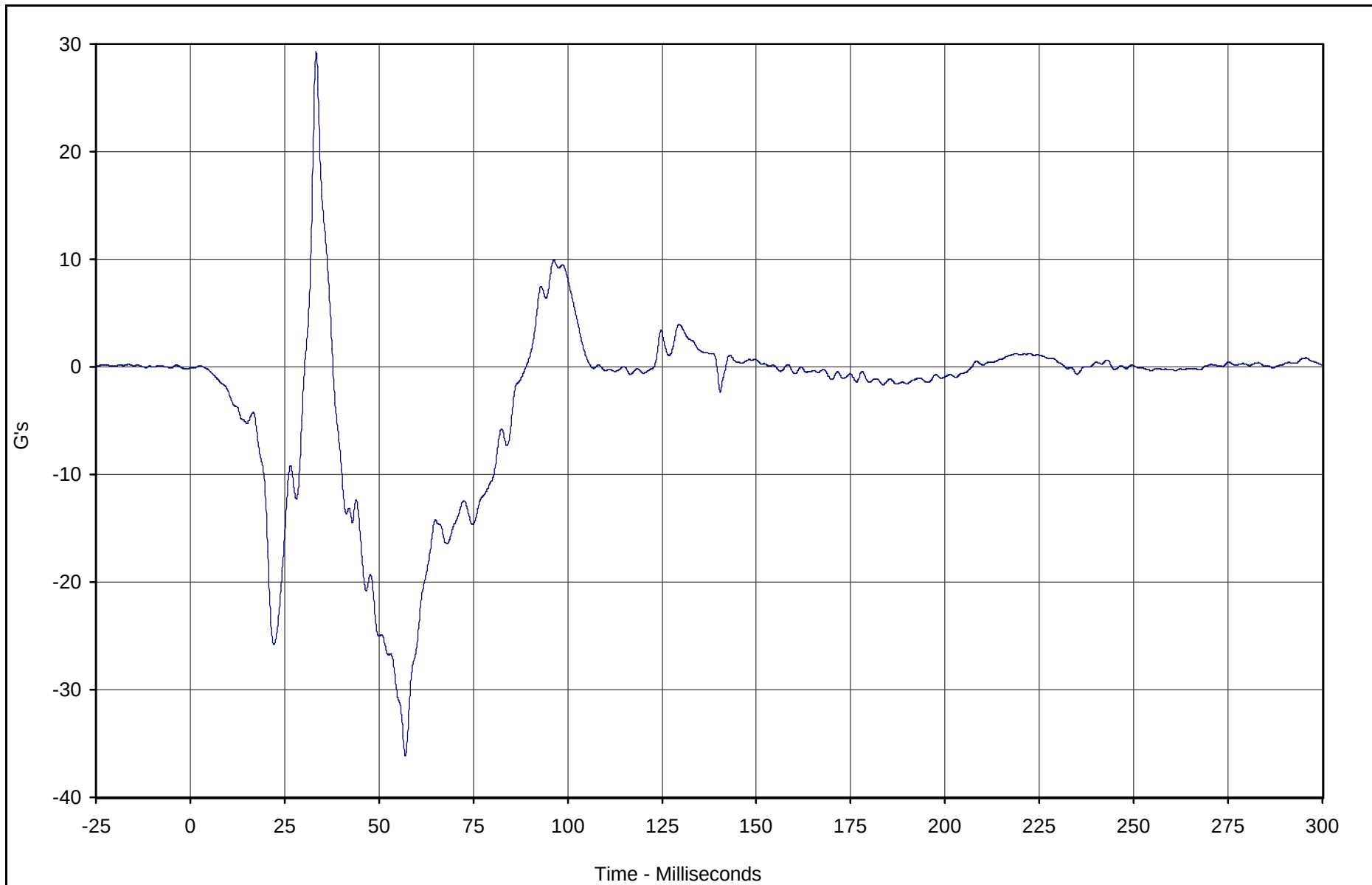


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Left Foot Aft X	035	FIL	G's	29.3	33.4	-36.1	57.0	180

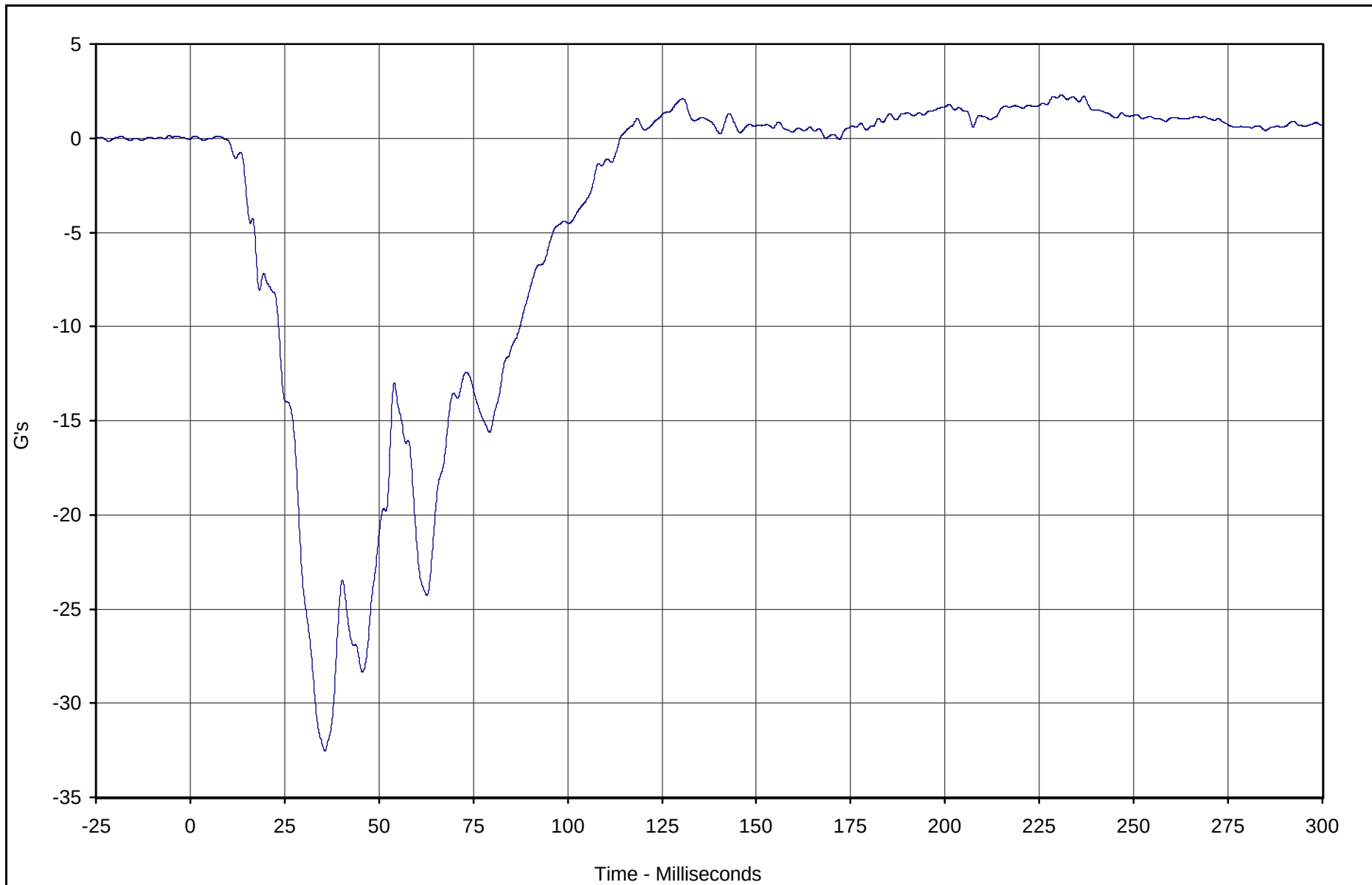


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Left Foot Aft Z	036	FIL	G's	2.3	230.8	-32.5	35.7	180

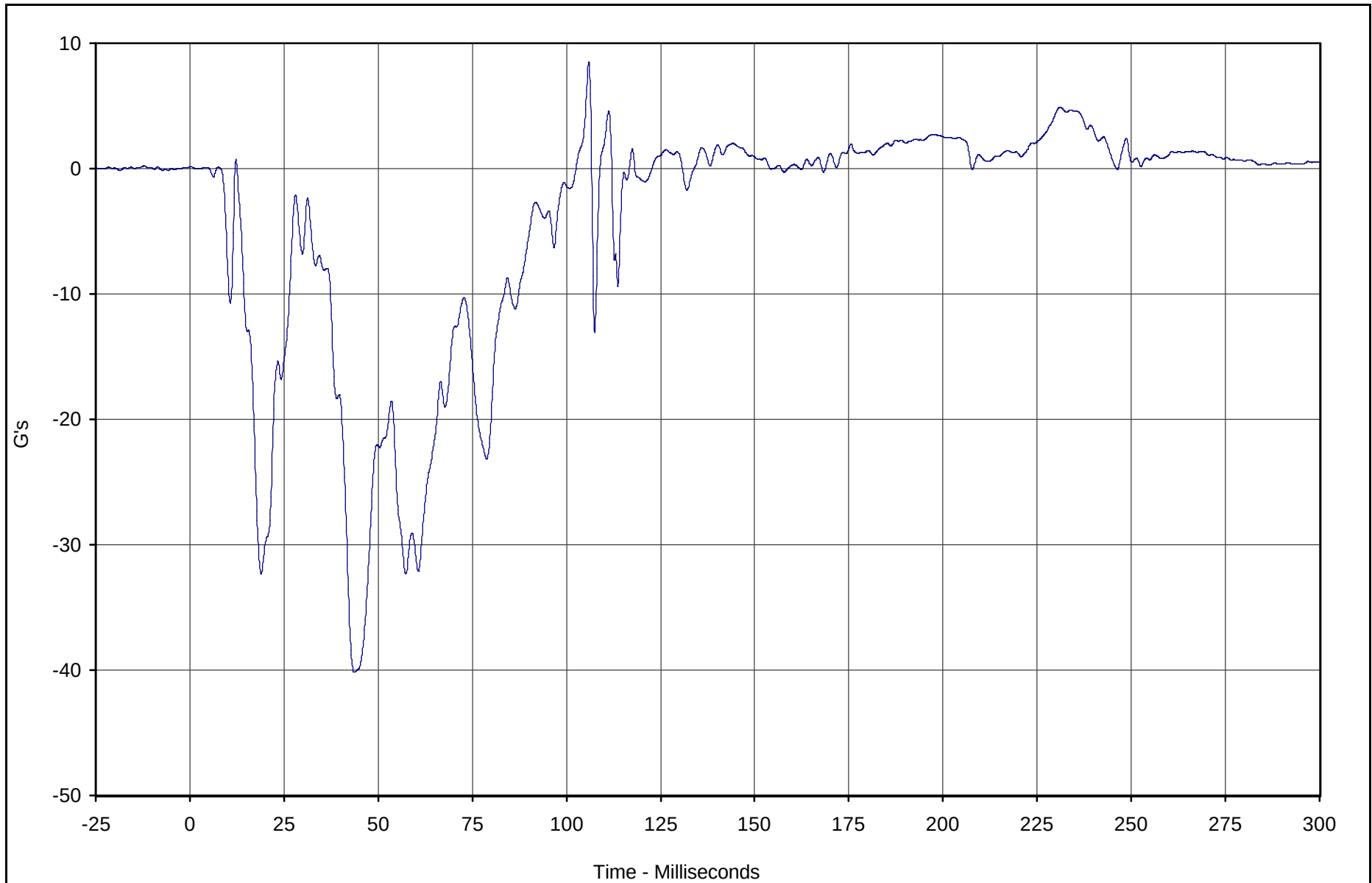


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Left Foot Fore Z	037	FIL	G's	8.5	106.0	-40.2	43.7	180

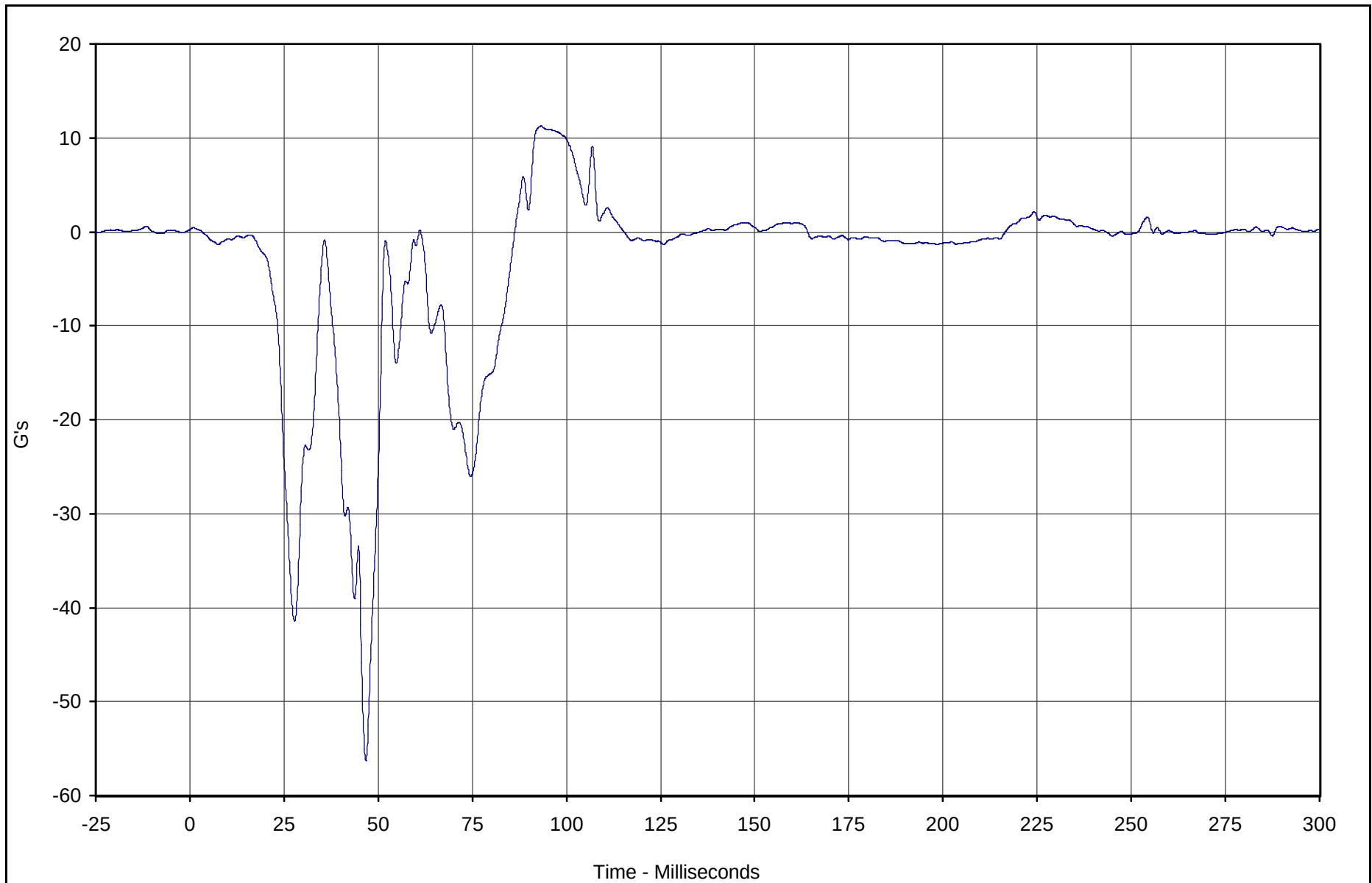


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Right Foot Aft X	038	FIL	G's	11.2	93.3	-56.3	46.8	180

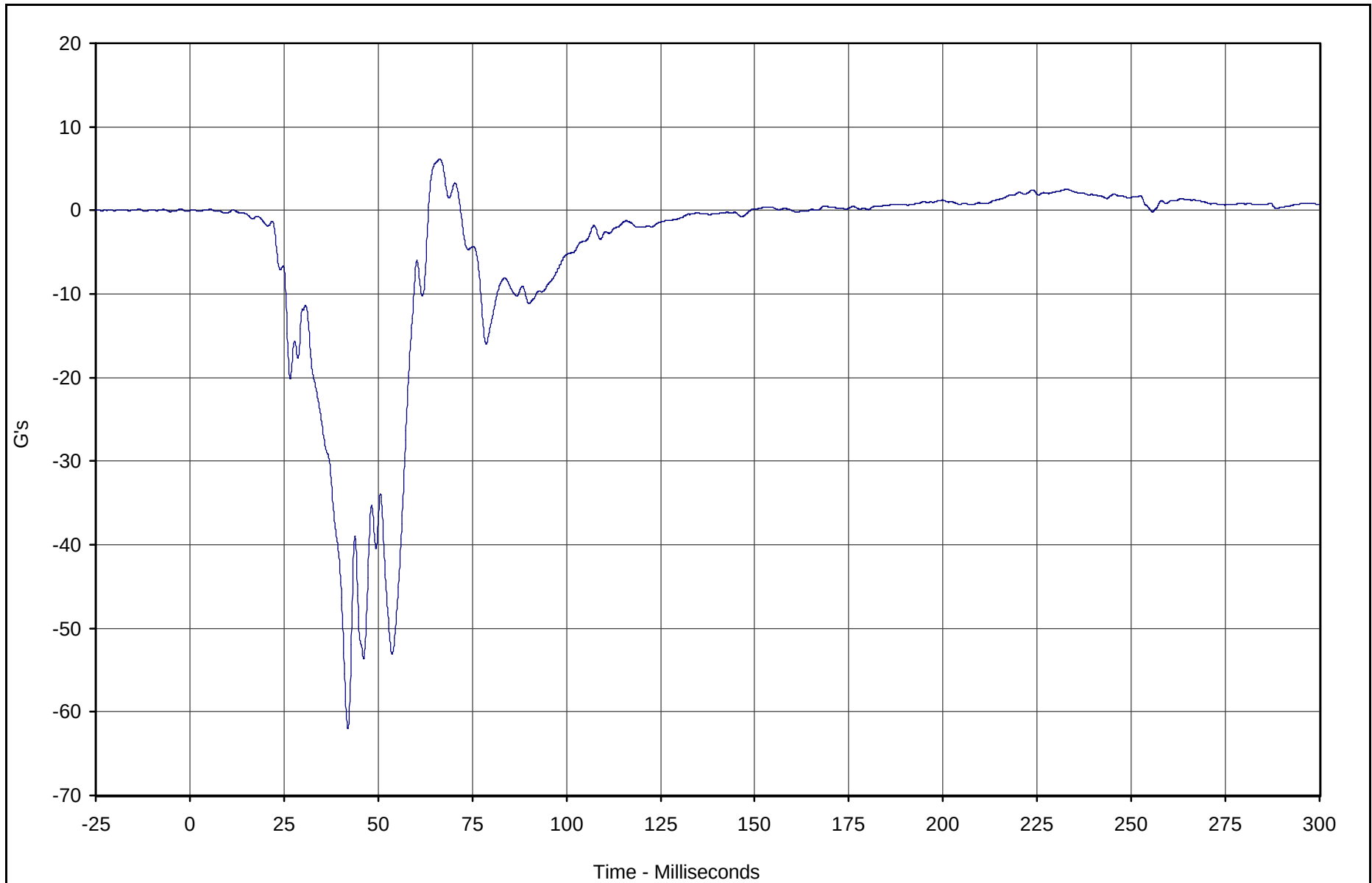


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Right Foot Aft Z	039	FIL	G's	6.1	66.3	-62.0	42.0	180

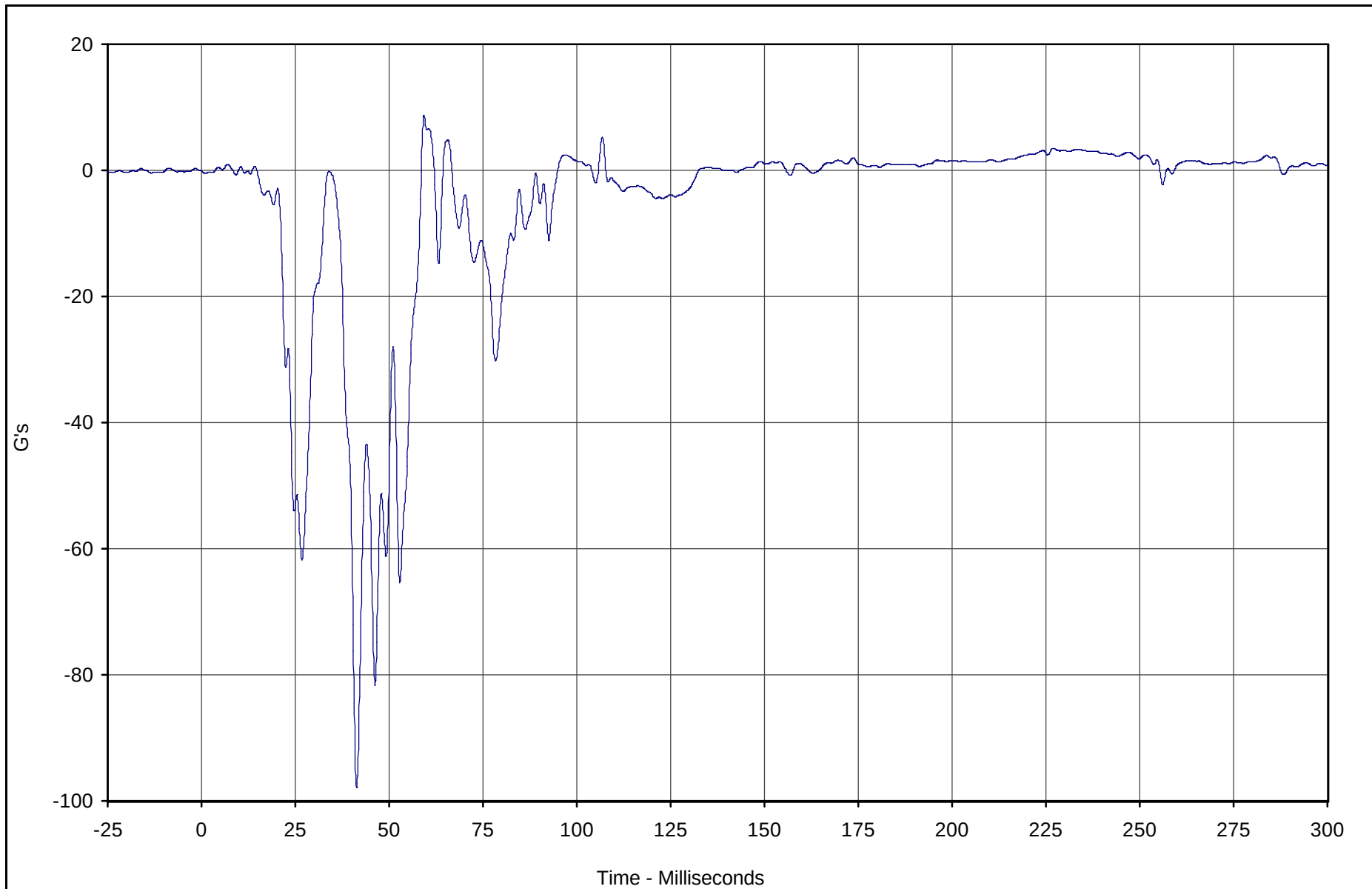


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Right Foot Fore Z	040	FIL	G's	8.8	59.3	-97.9	41.3	180

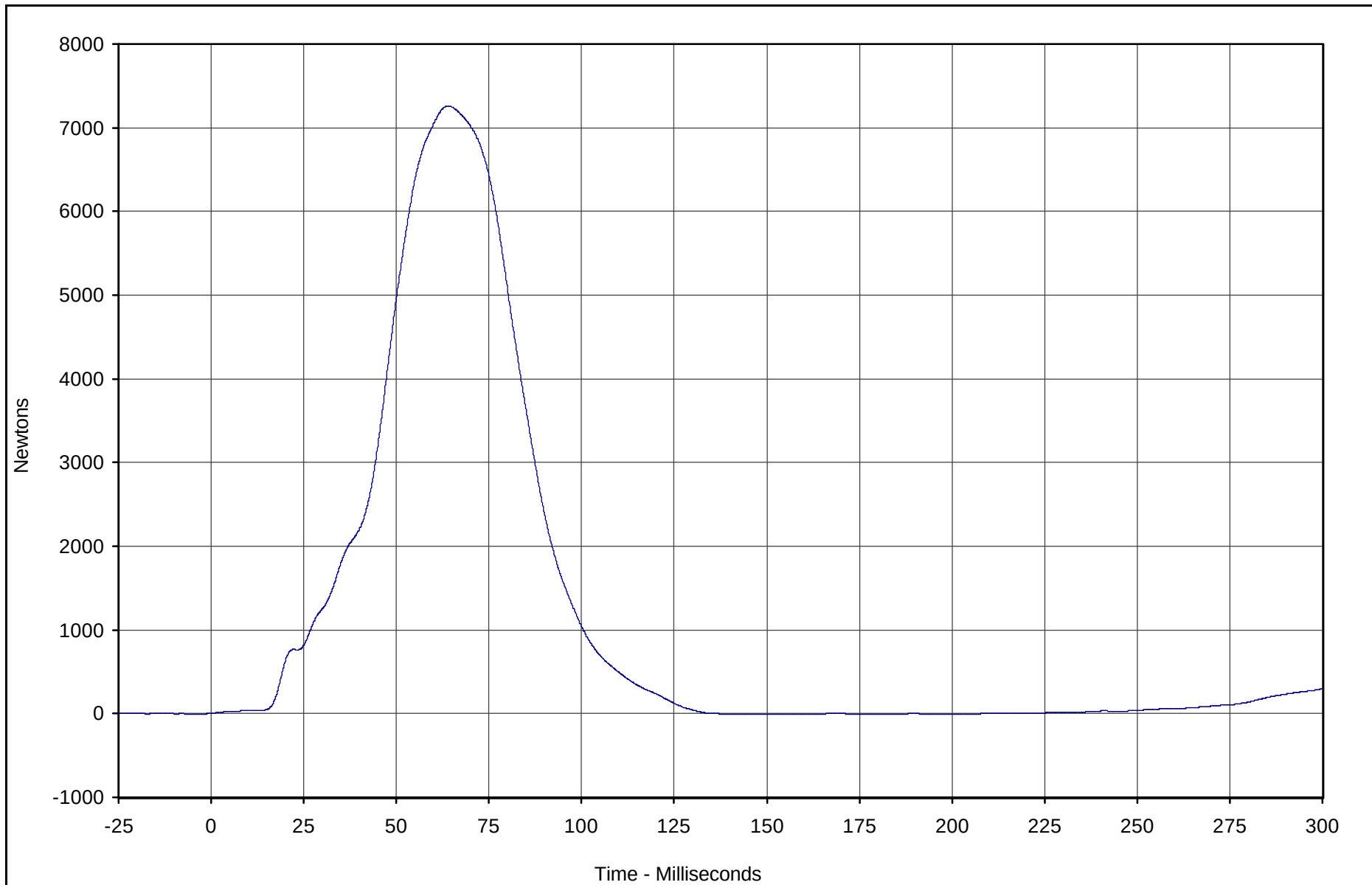


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Lap Belt Force	041	FIL	Newtons	7259.3	64.0	-12.0	154.8	60

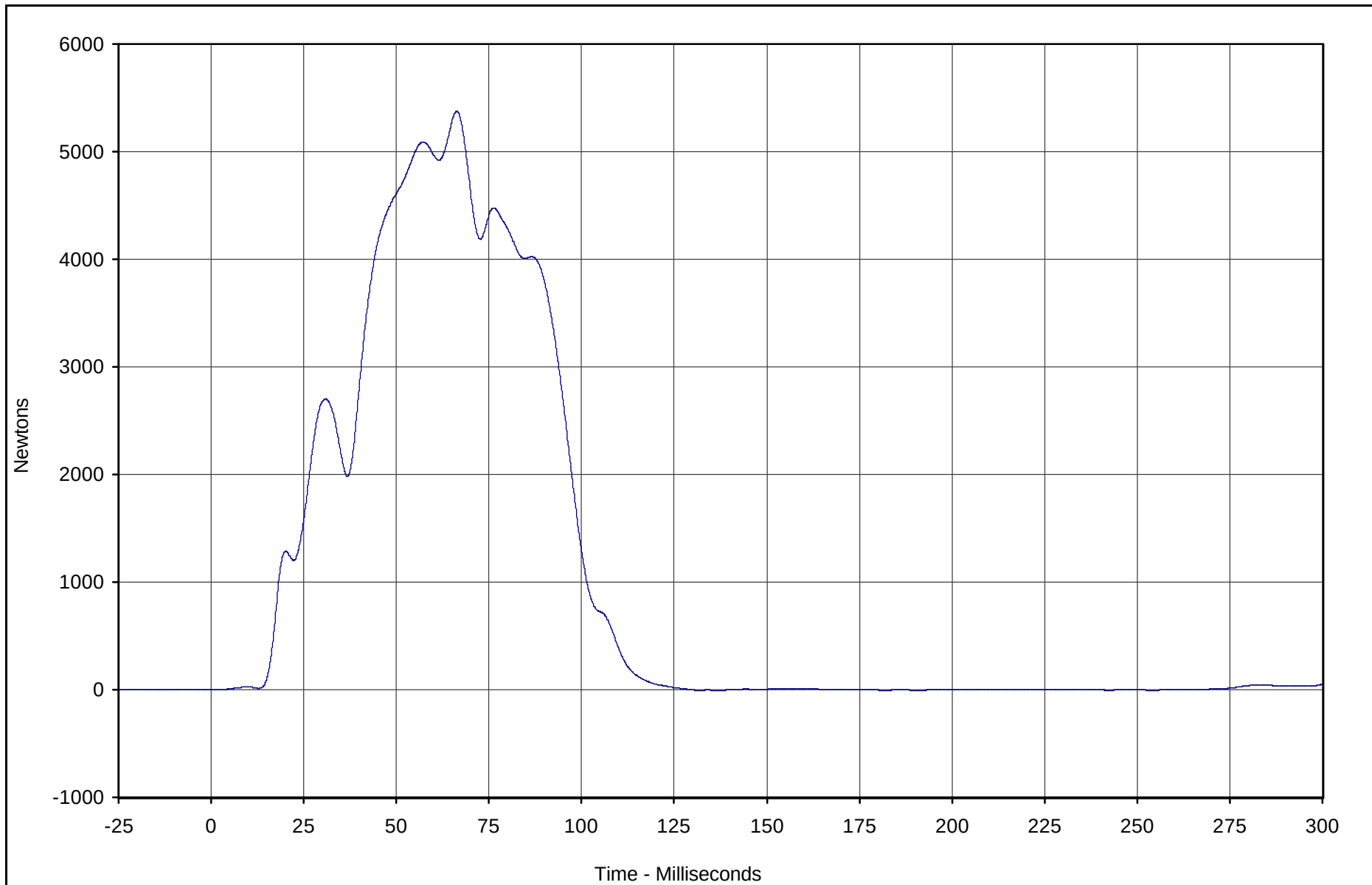


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Shoulder Belt Force	042	FIL	Newtons	5374.0	66.3	-6.7	190.8	60

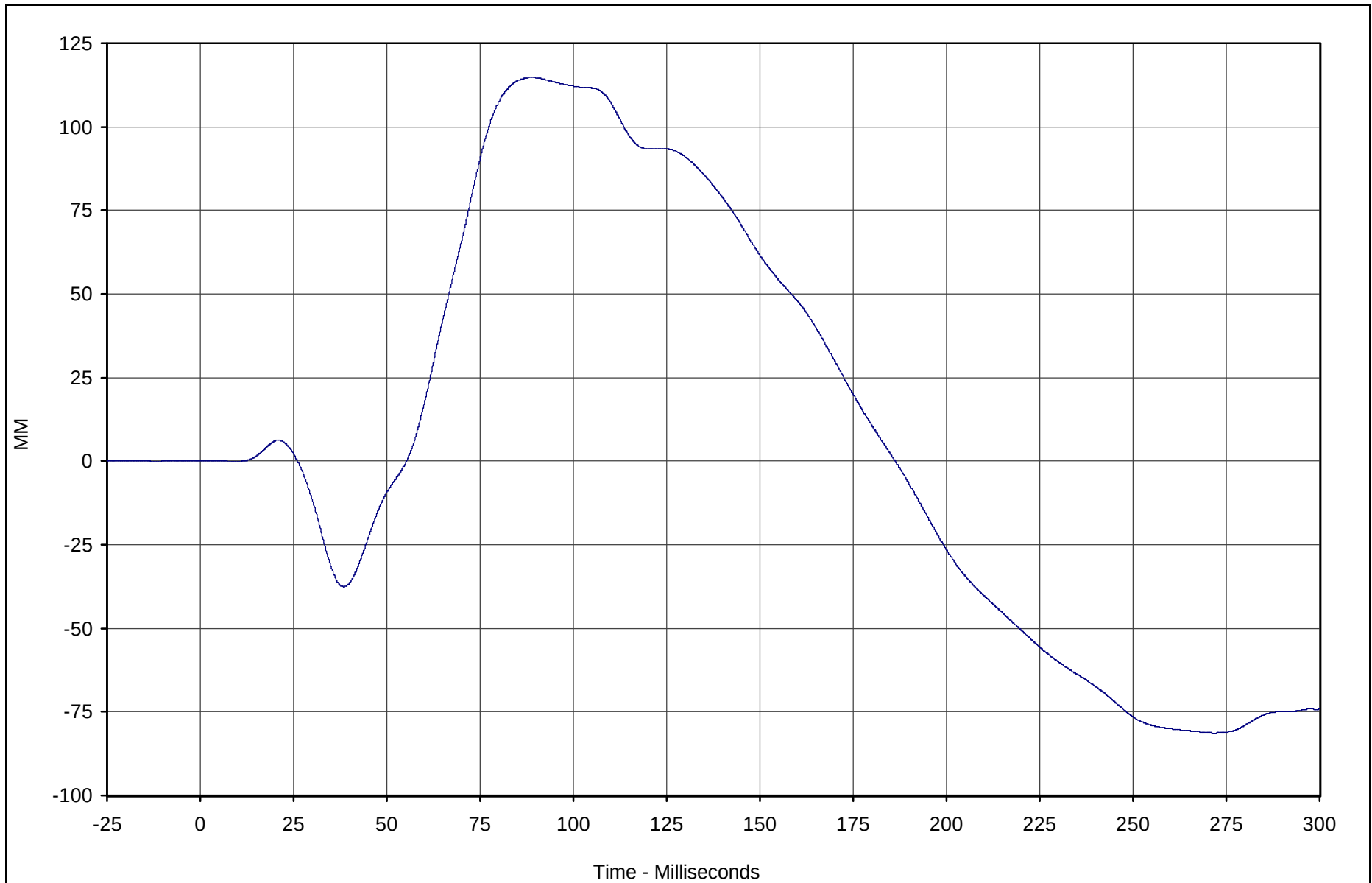


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Shoulder Belt Pullout	043	FIL	MM	114.8	88.8	-81.3	271.8	60

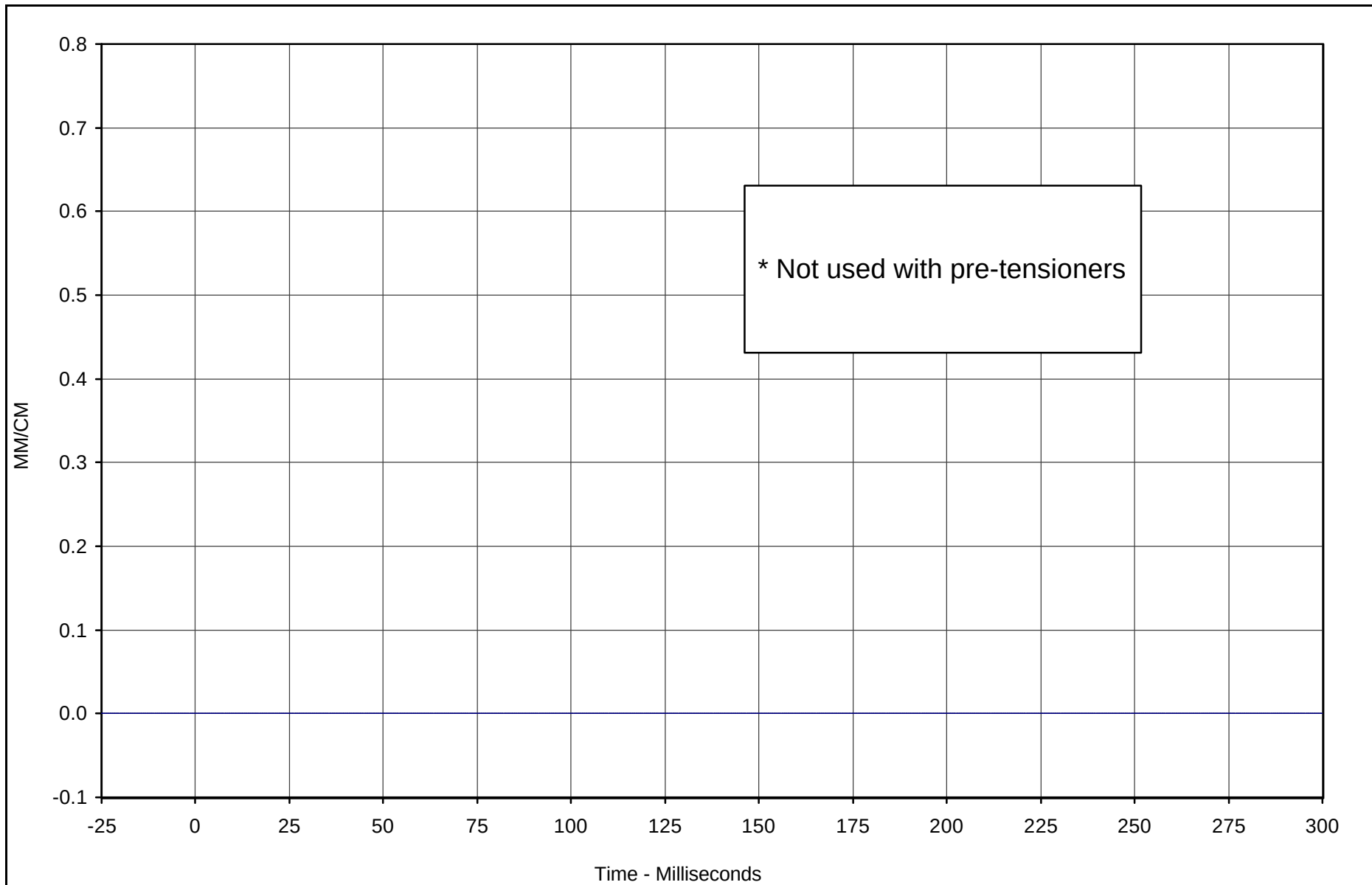


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Driver Shoulder Belt Elongation	044	FIL	MM/CM	0.00	0.0	0.00	0.0	60

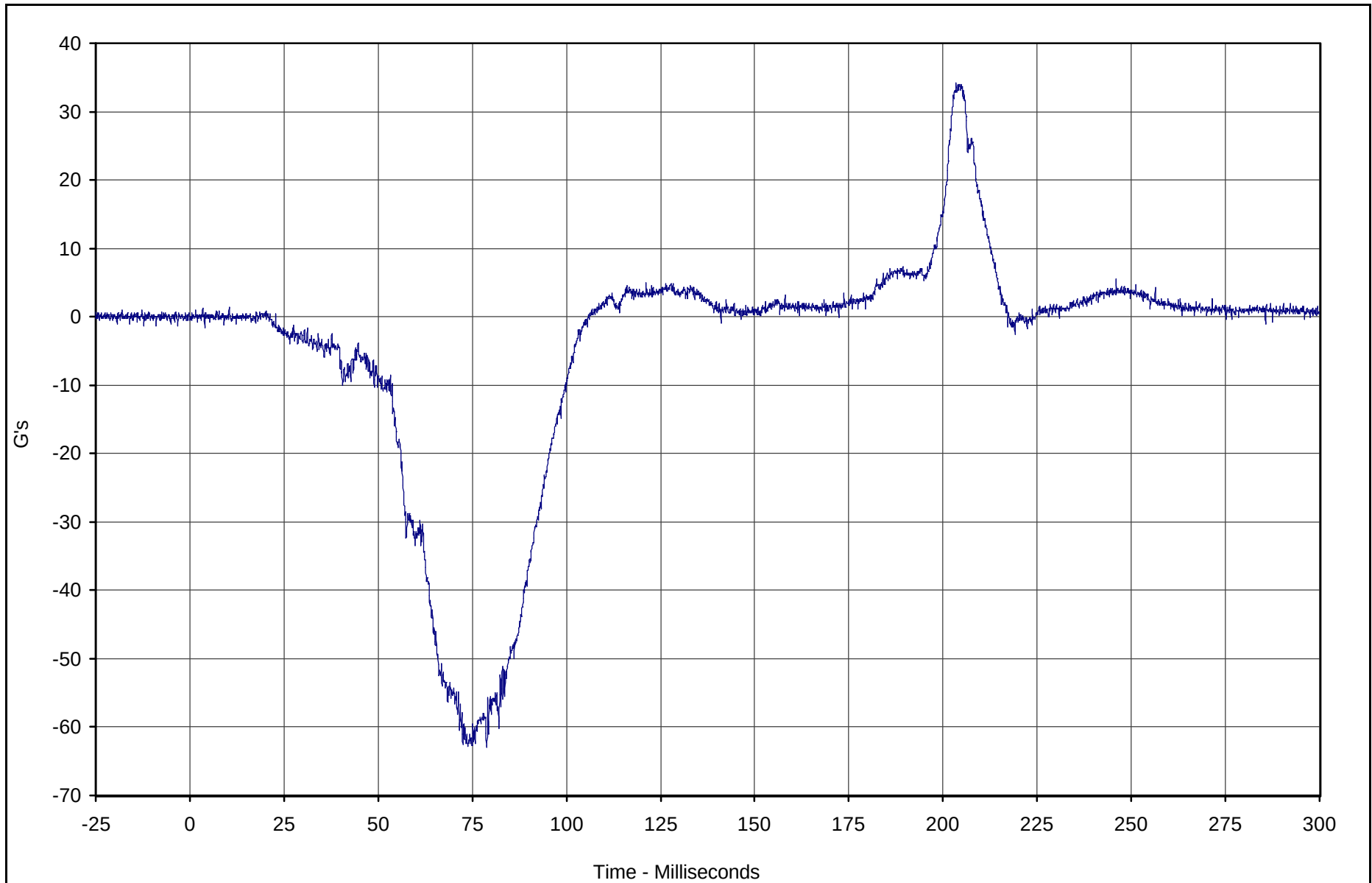


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Head Primary X	045	FIL	G's	34.2	203.5	-62.9	78.9	1000

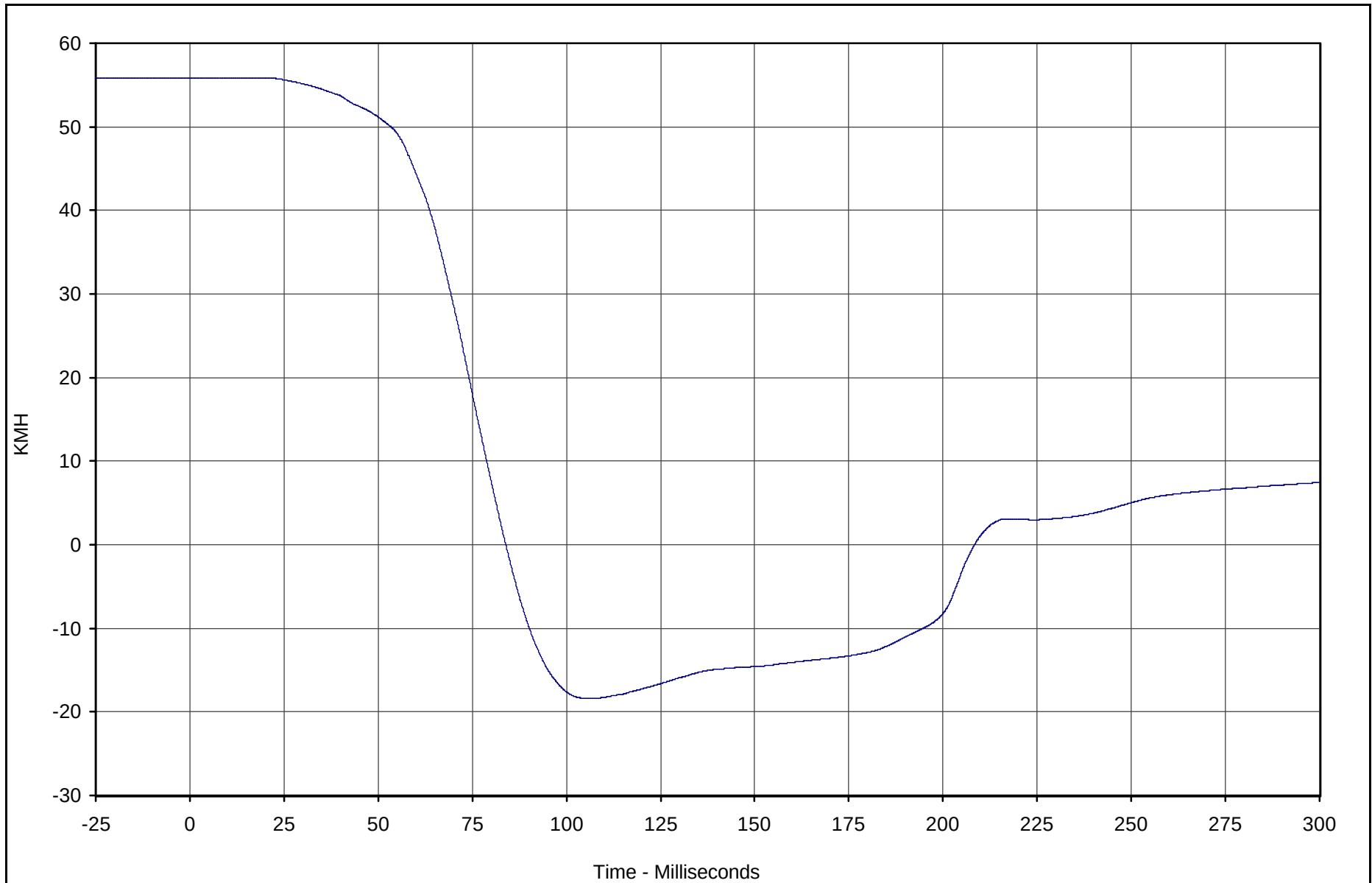


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Head Primary X Velocity	045	IN1	KMH	55.8	11.2	-18.4	106.1	180

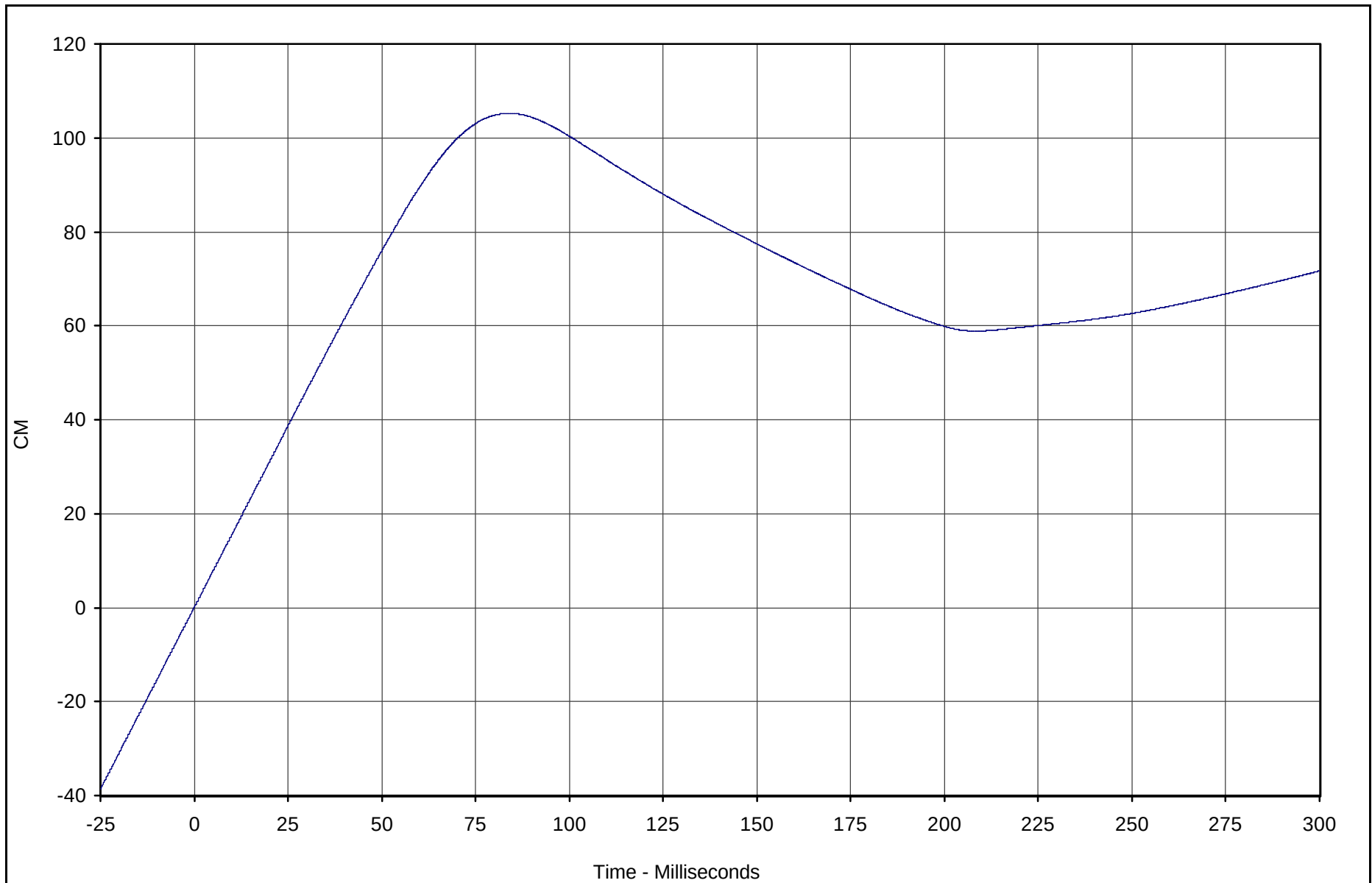


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Head Primary X Displ.	045	IN2	CM	105.2	83.9	0.0	0.0	180

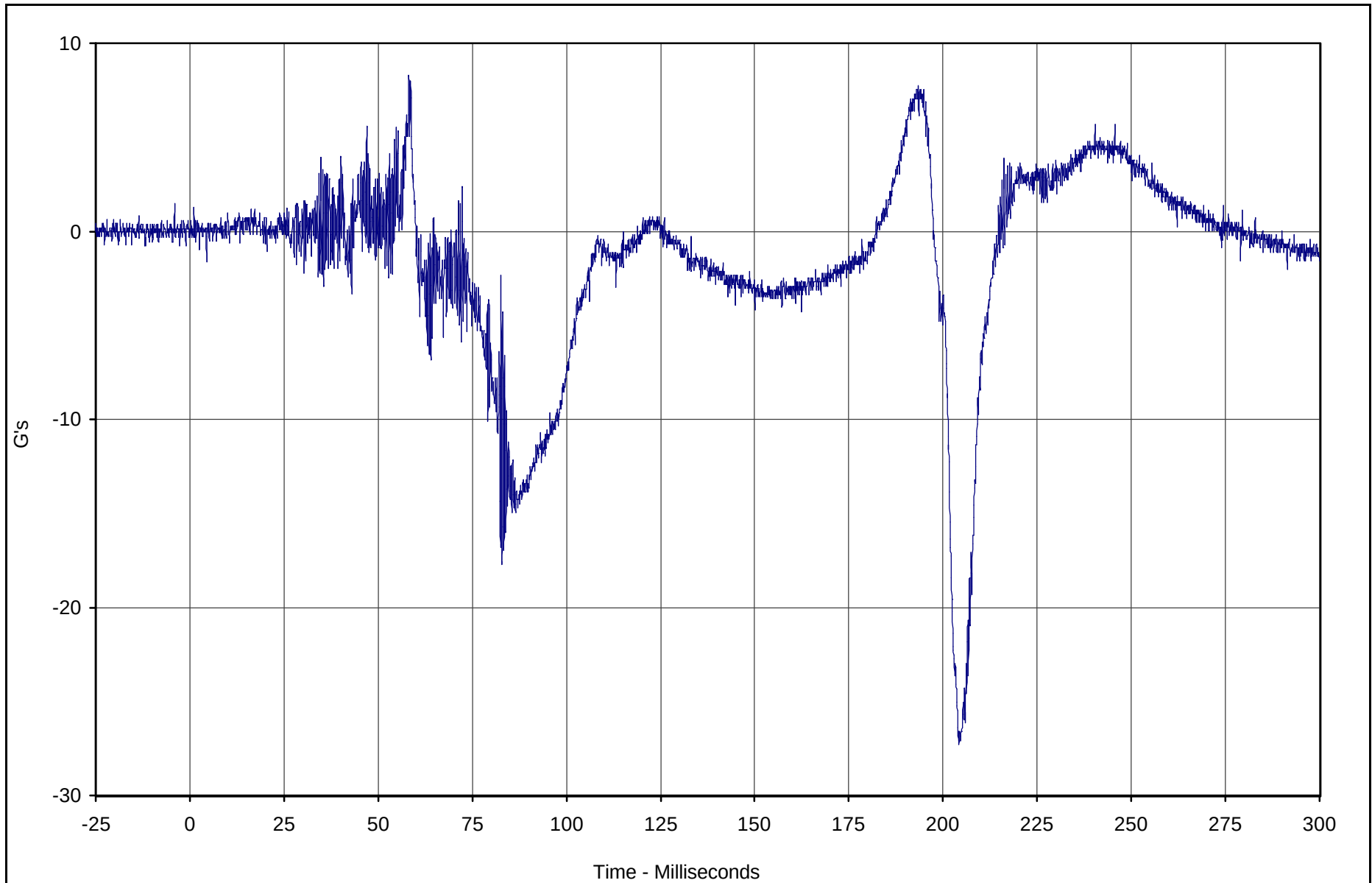


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Head Primary Y	046	FIL	G's	8.2	58.1	-27.3	204.3	1000

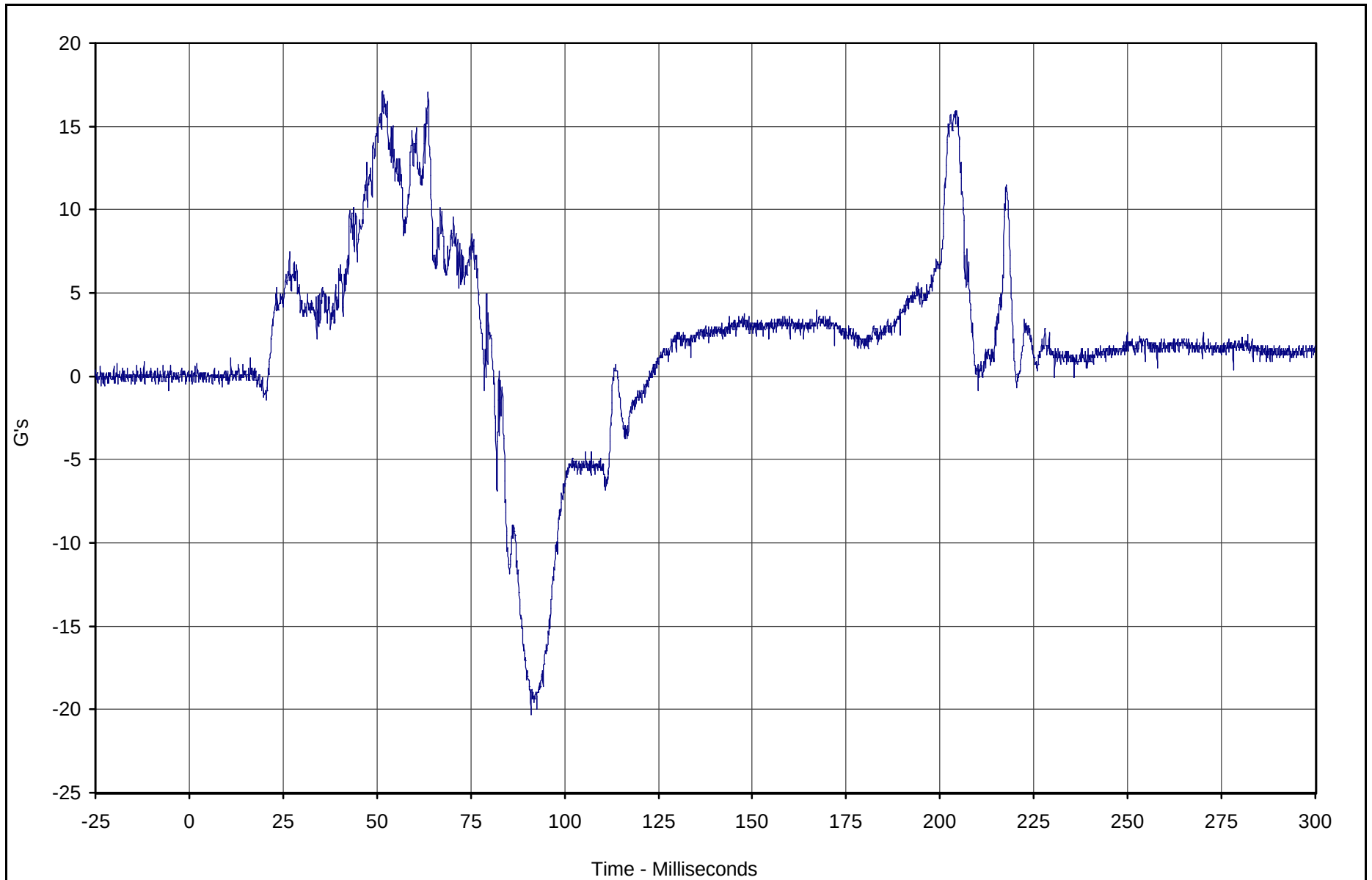


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Head Primary Z	047	FIL	G's	17.1	51.5	-20.3	91.0	1000

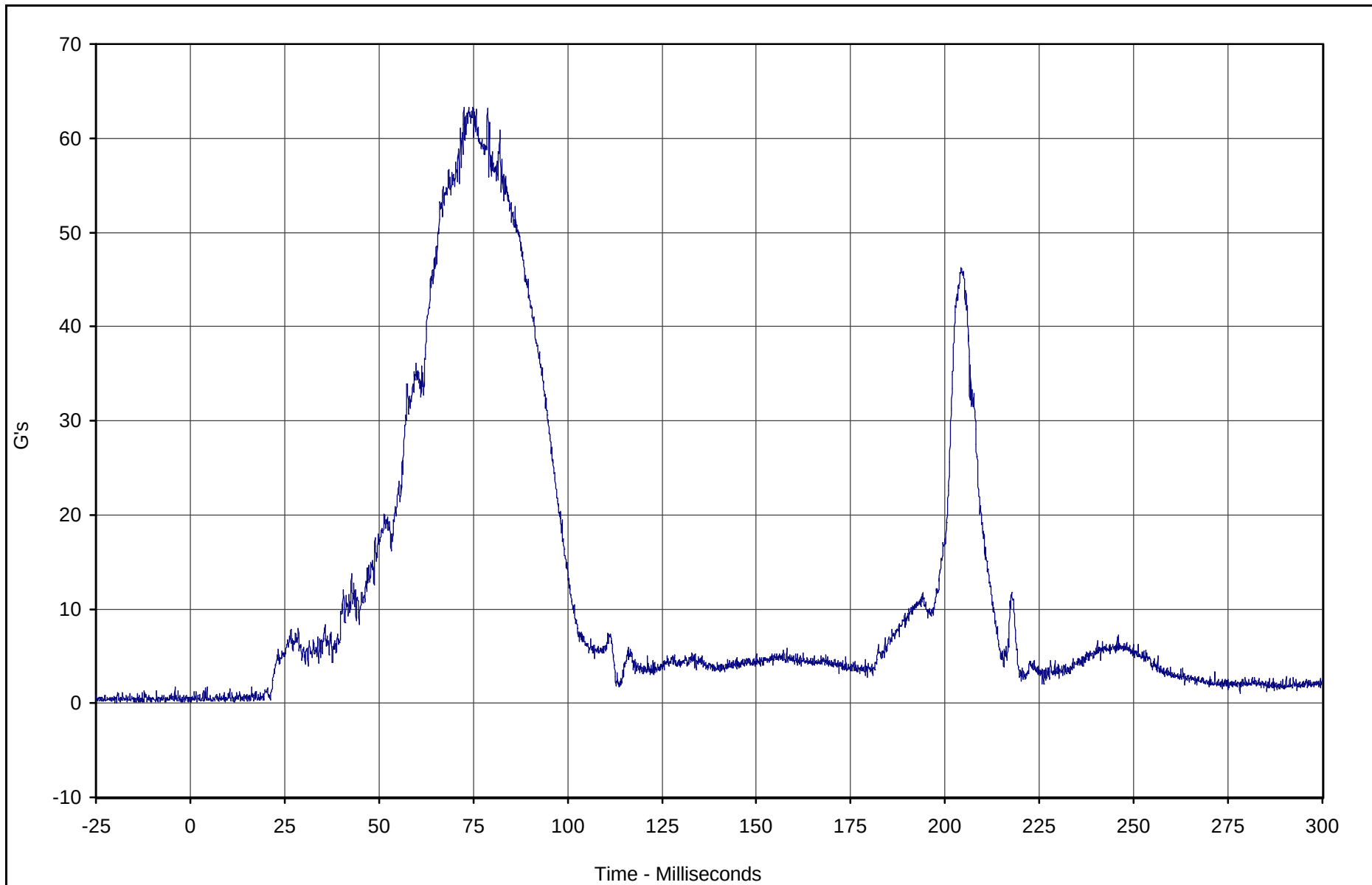


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Head Resultant Primary	045	RES	G's	63.3	74.9	0.1	11.7	1000

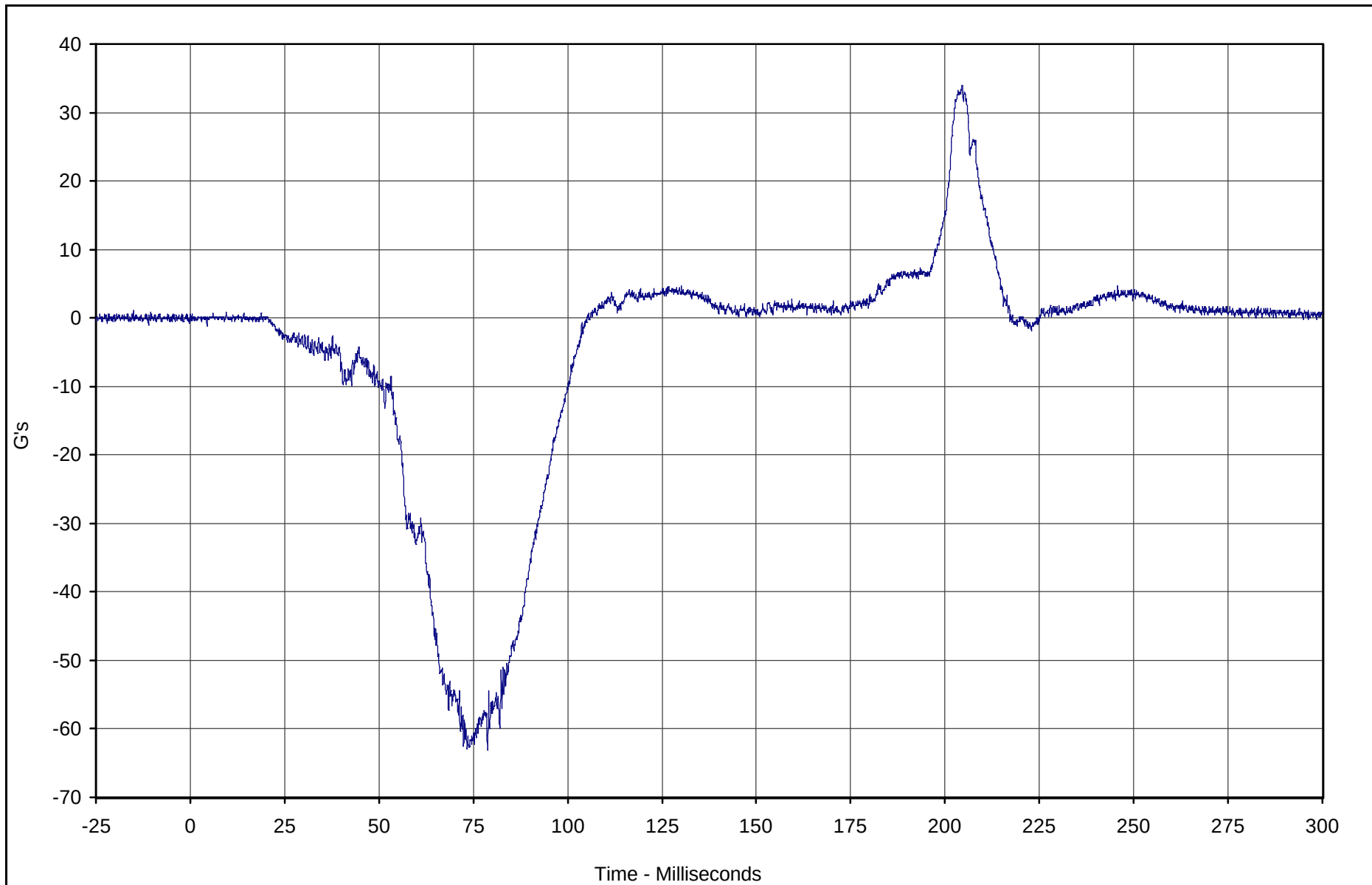


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Head Redundant X	048	FIL	G's	33.9	204.5	-63.0	73.4	1000

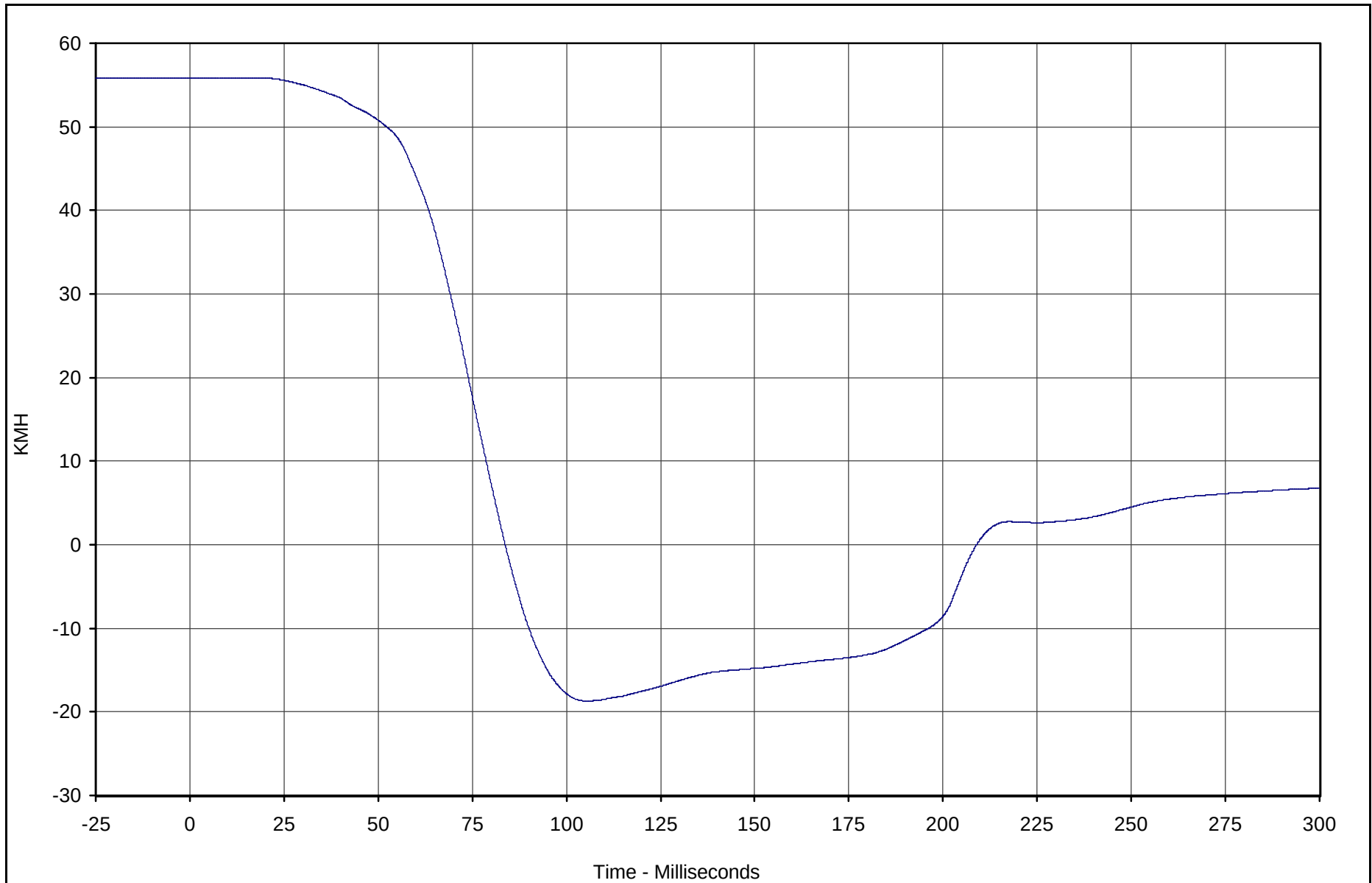


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Head Redundant X Velocity	048	IN1	KMH	55.8	0.0	-18.7	105.6	180

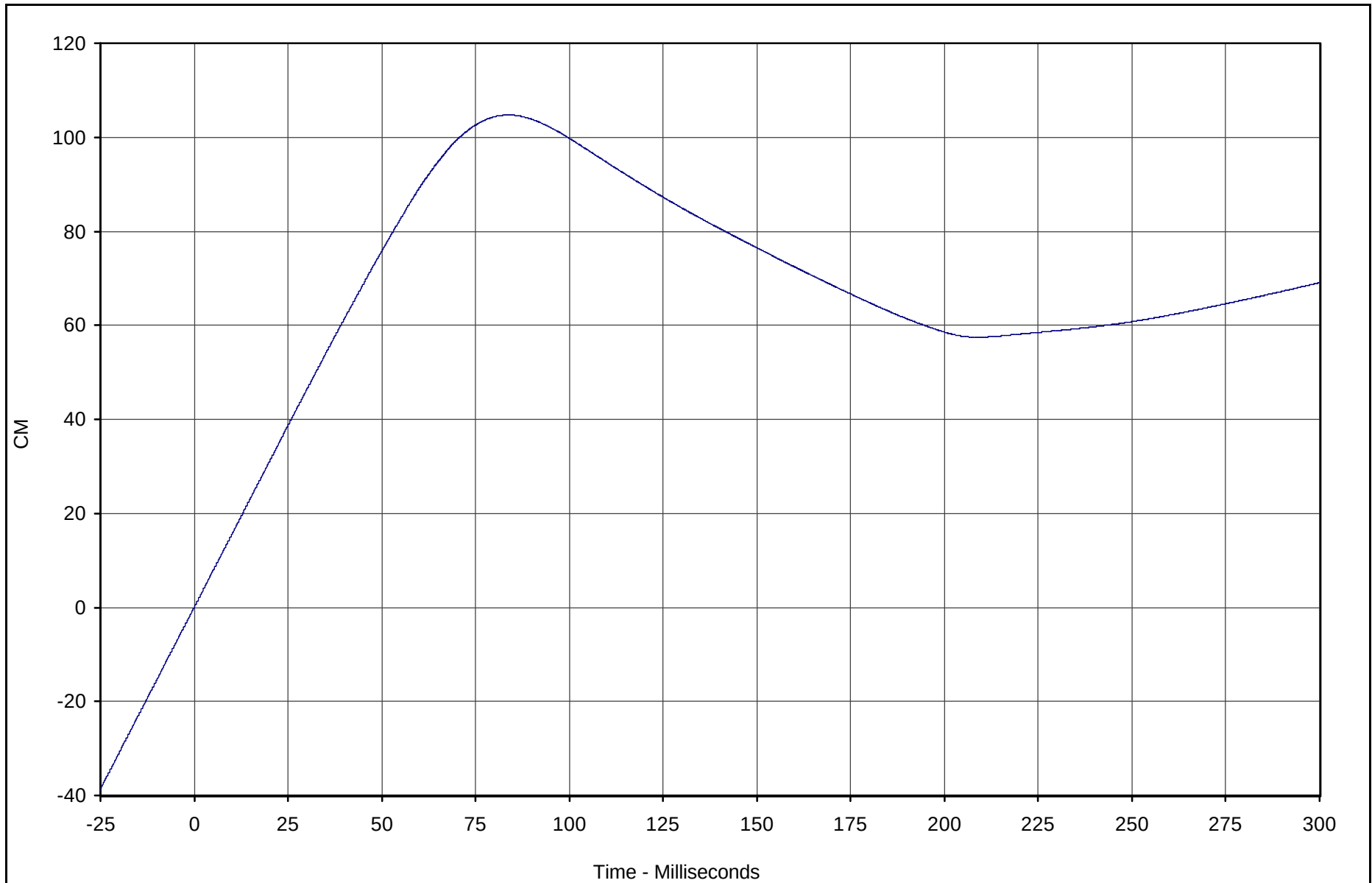


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Head Redundant X Displ.	048	IN2	CM	104.7	83.8	0.0	0.0	180

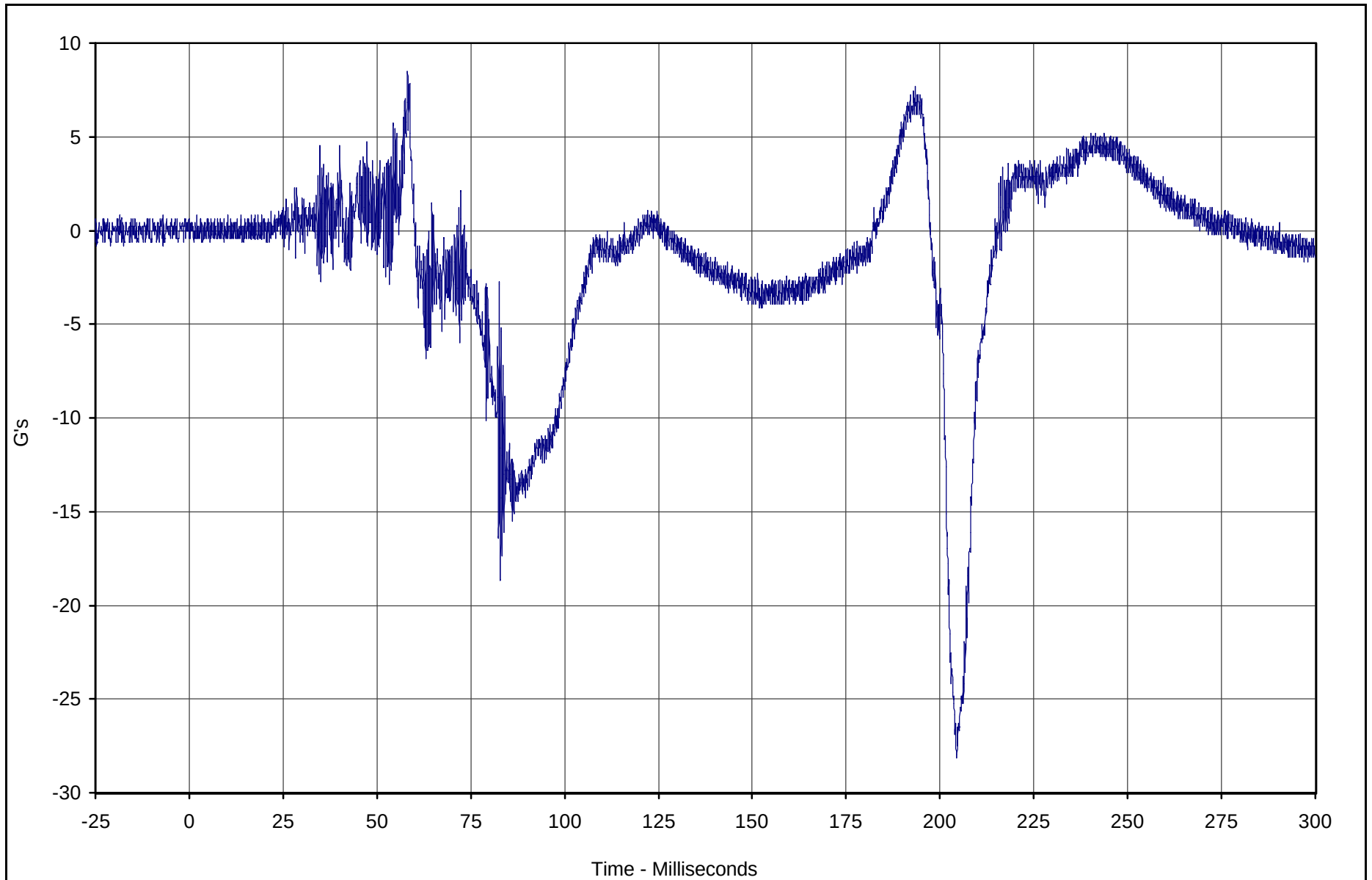


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Head Redundant Y	049	FIL	G's	8.5	58.1	-28.1	204.5	1000

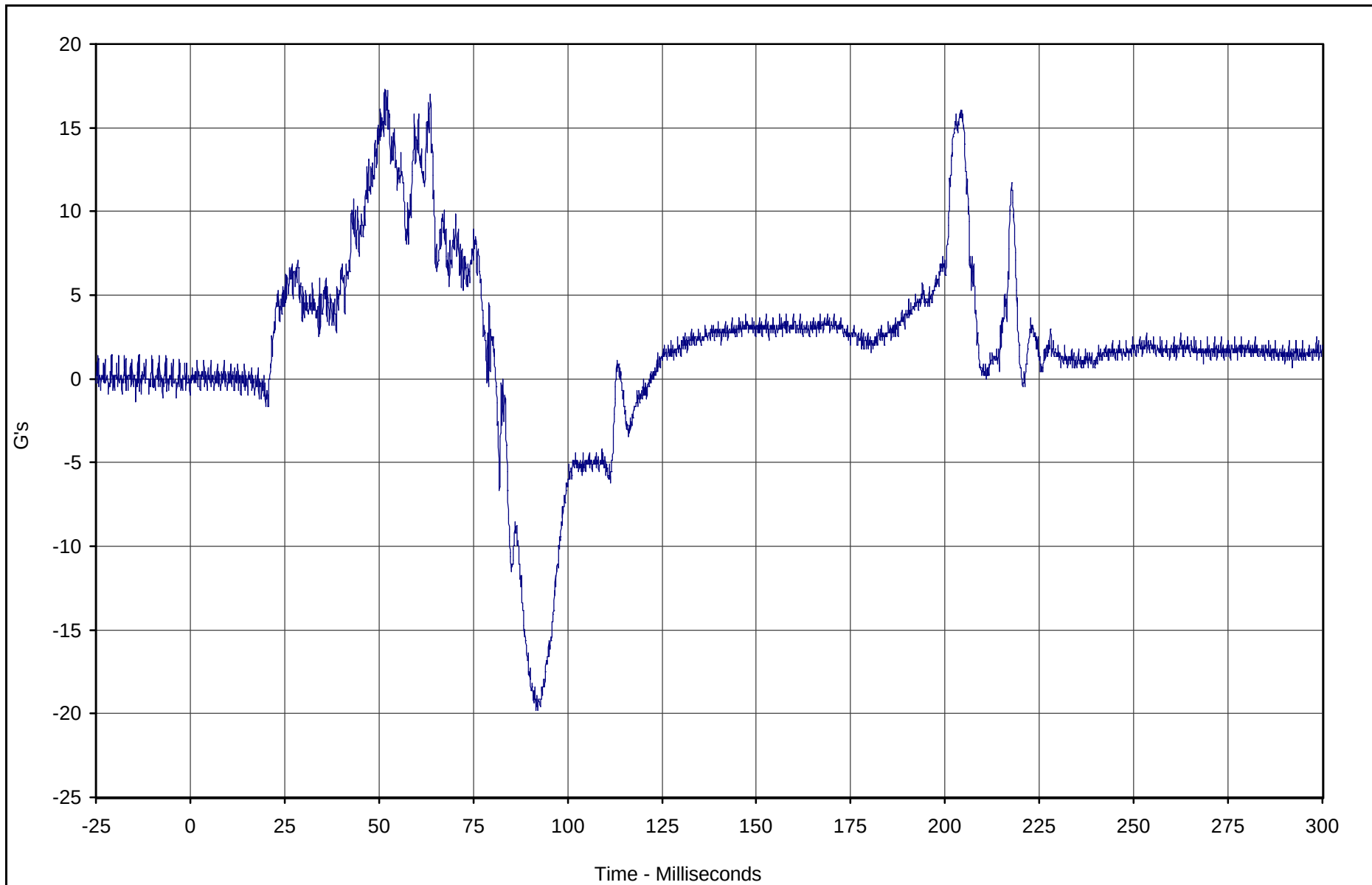


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Head Redundant Z	050	FIL	G's	17.2	51.5	-19.8	91.5	1000

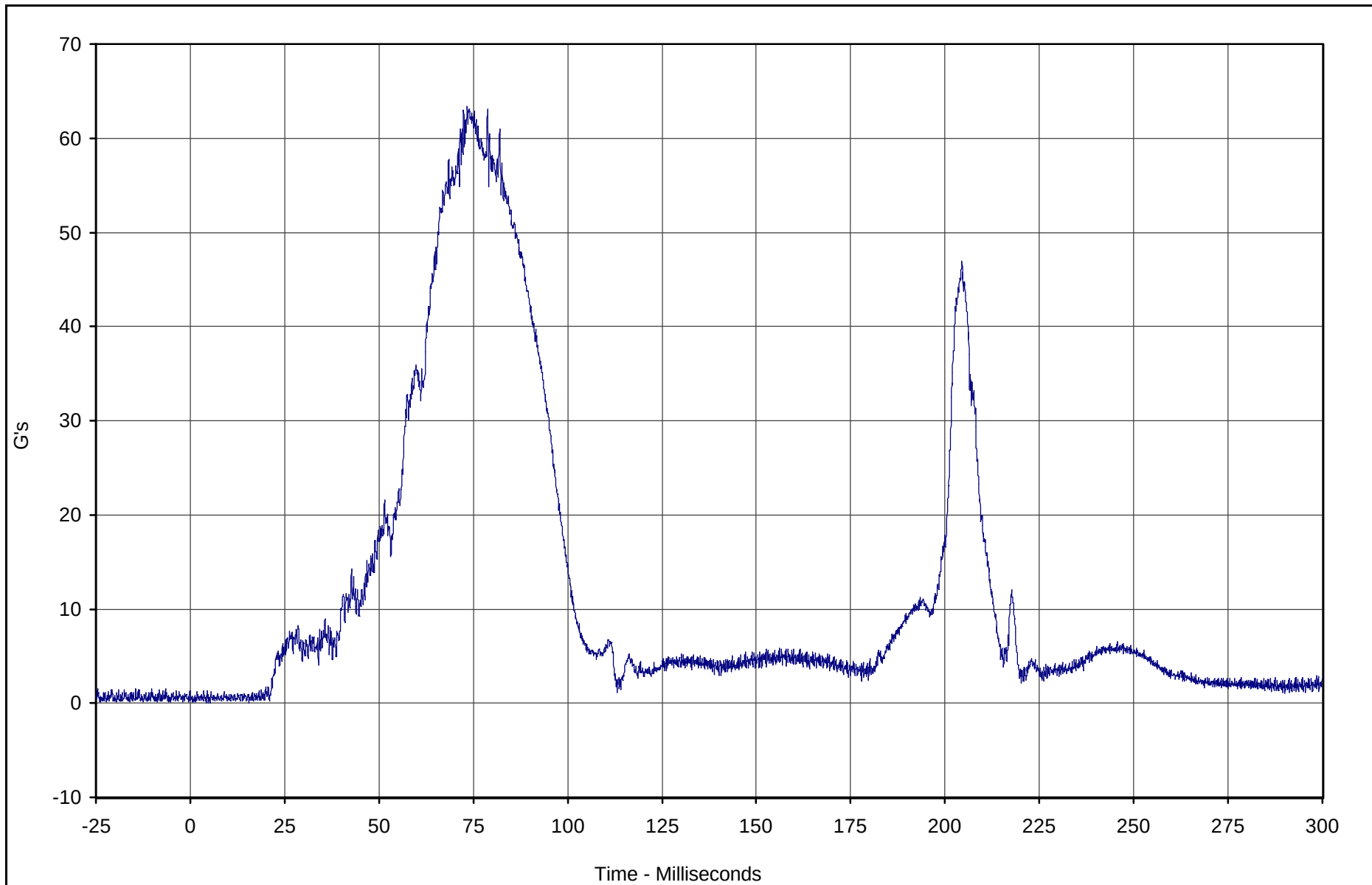


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Head Resultant Redundant	048	RES	G's	63.3	73.4	0.0	4.3	1000

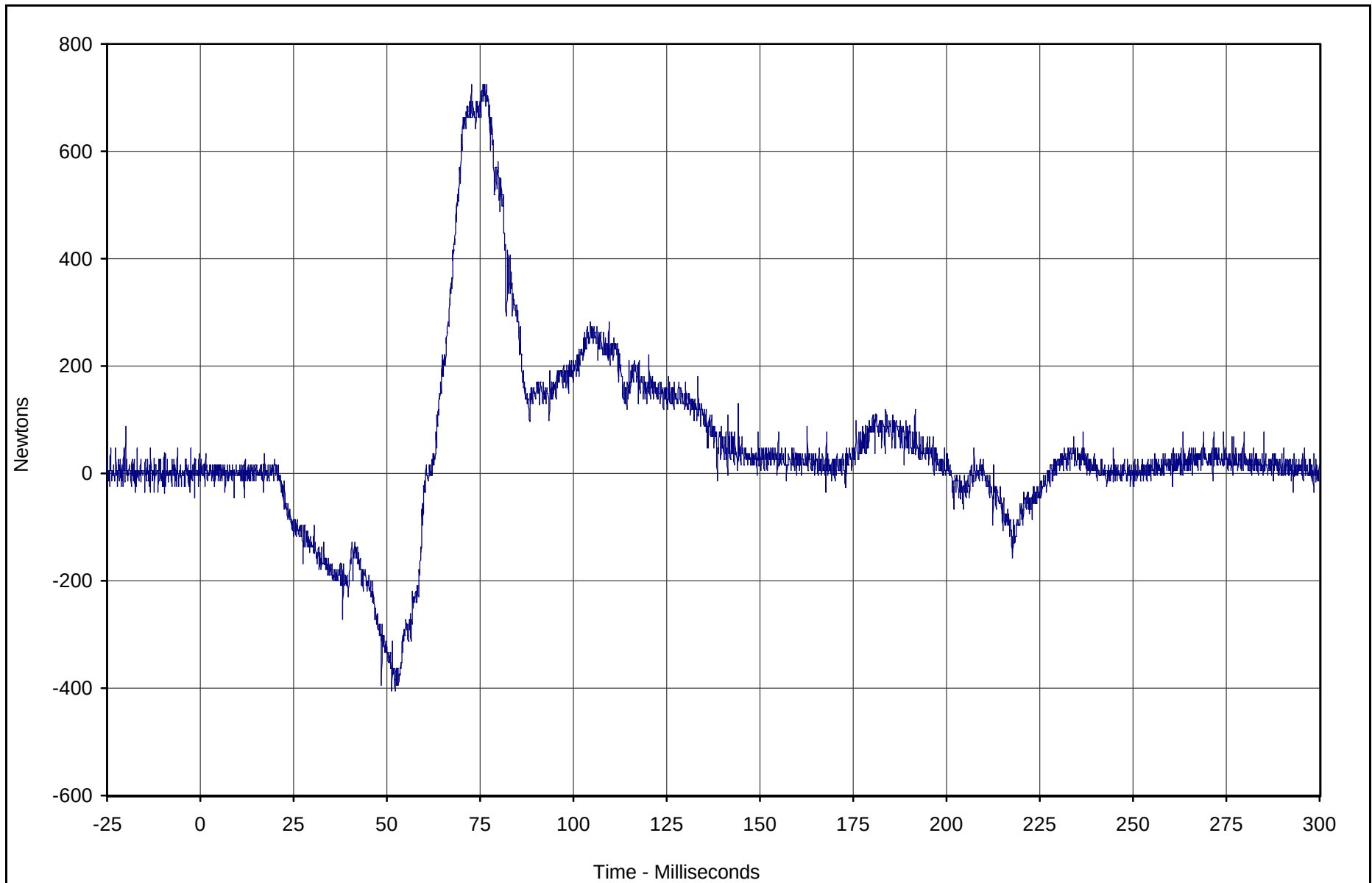


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Neck Force X	051	FIL	Newtons	724.4	72.7	-404.5	51.3	1000

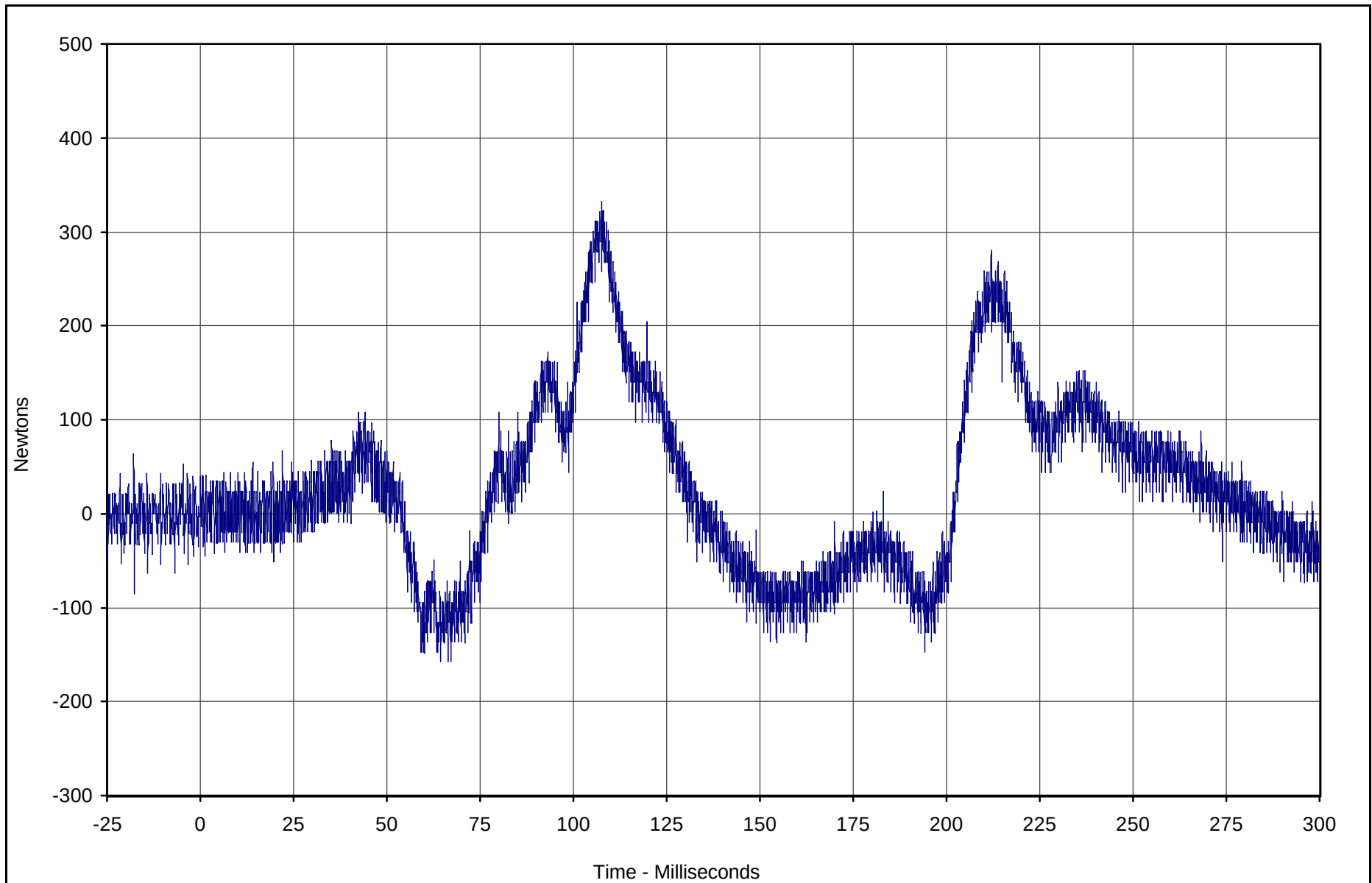


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Neck Force Y	052	FIL	Newtons	331.7	107.6	-158.1	64.5	1000

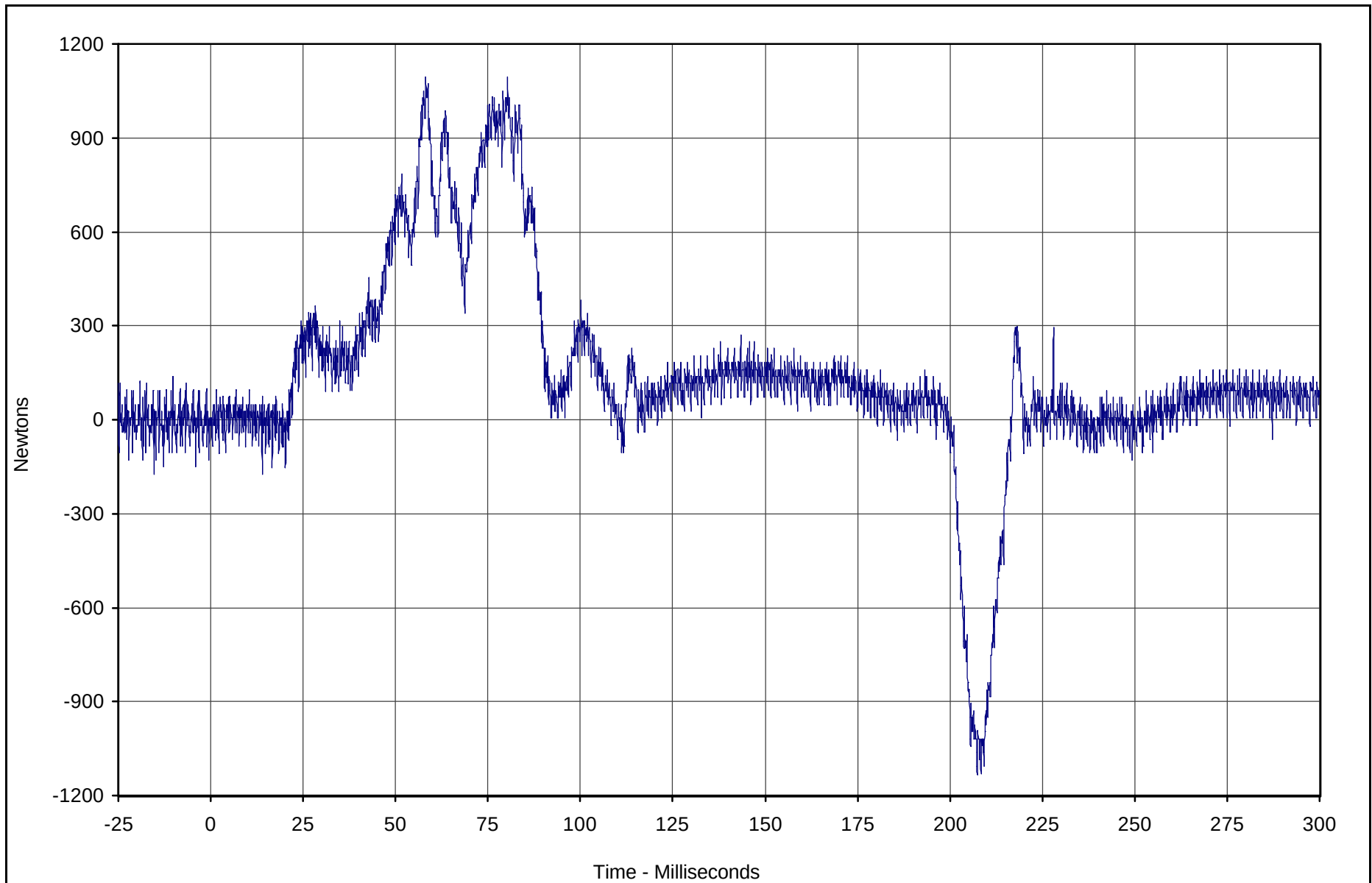


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Neck Force Z	053	FIL	Newtons	1094.9	58.1	-1129.4	207.4	1000

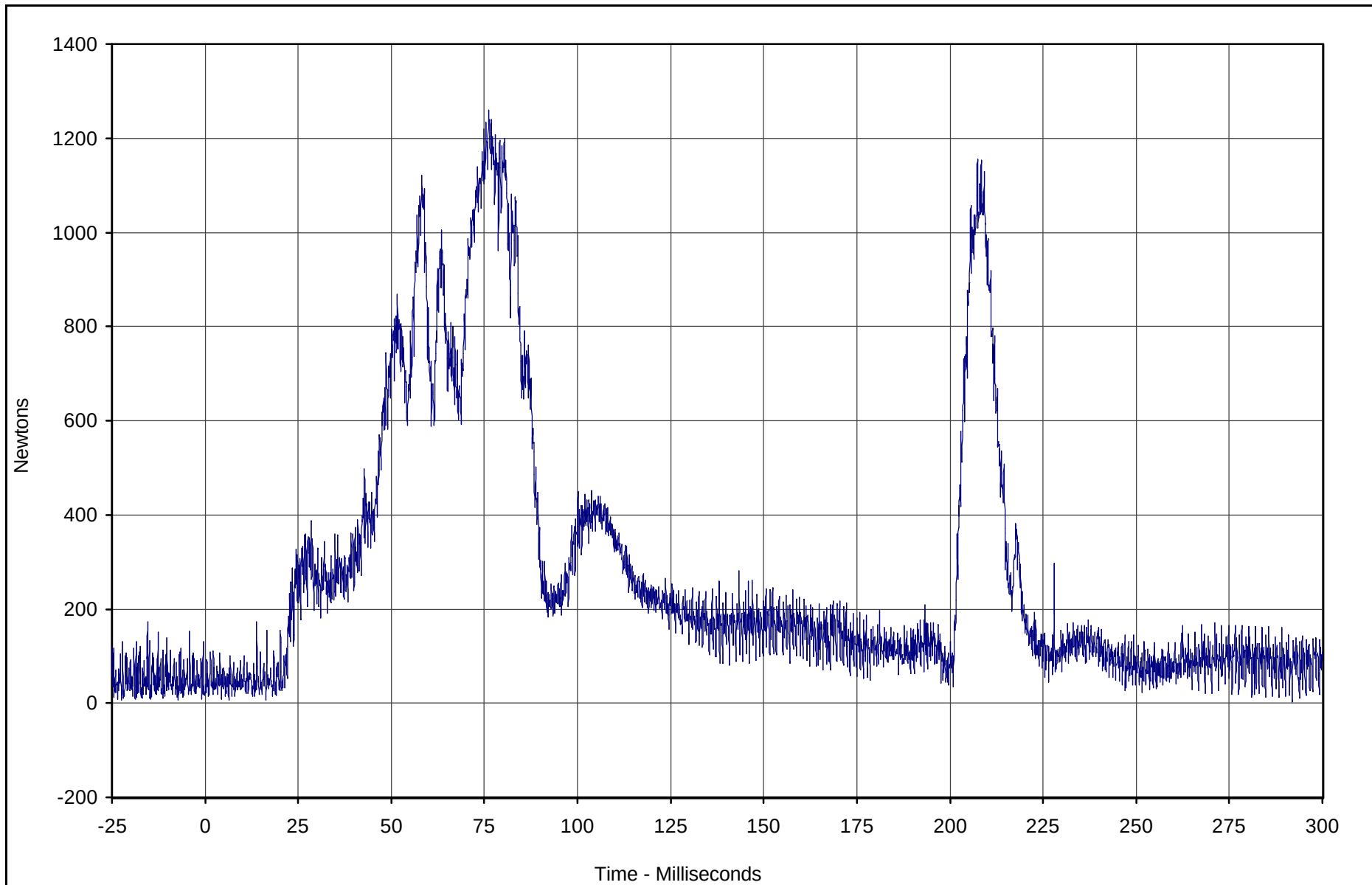


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Neck Force Resultant	051	RES	Newtons	1258.4	76.1	6.8	6.4	1000

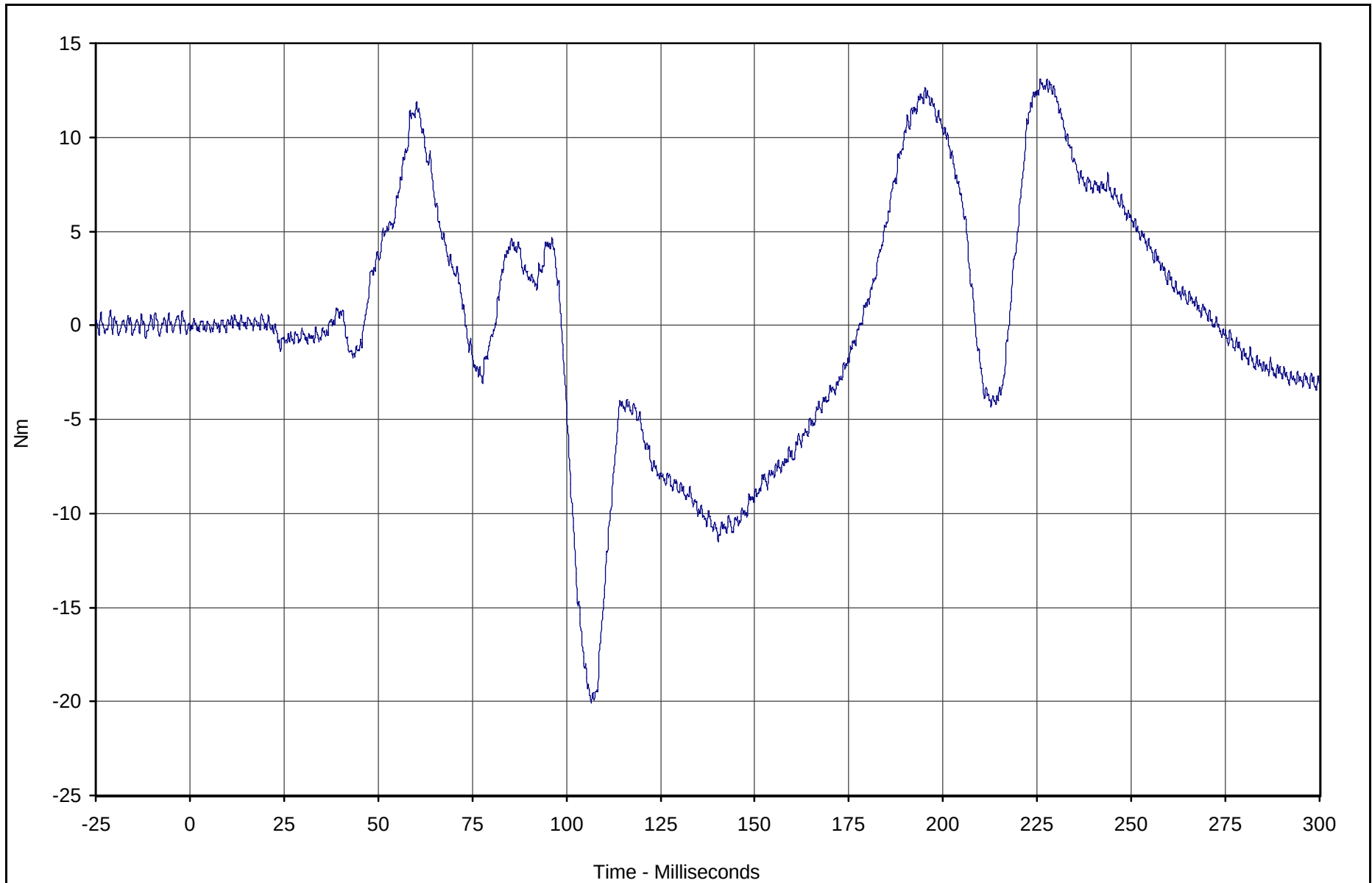


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Neck Moment X	054	FIL	Nm	13.1	227.6	-20.1	106.6	600

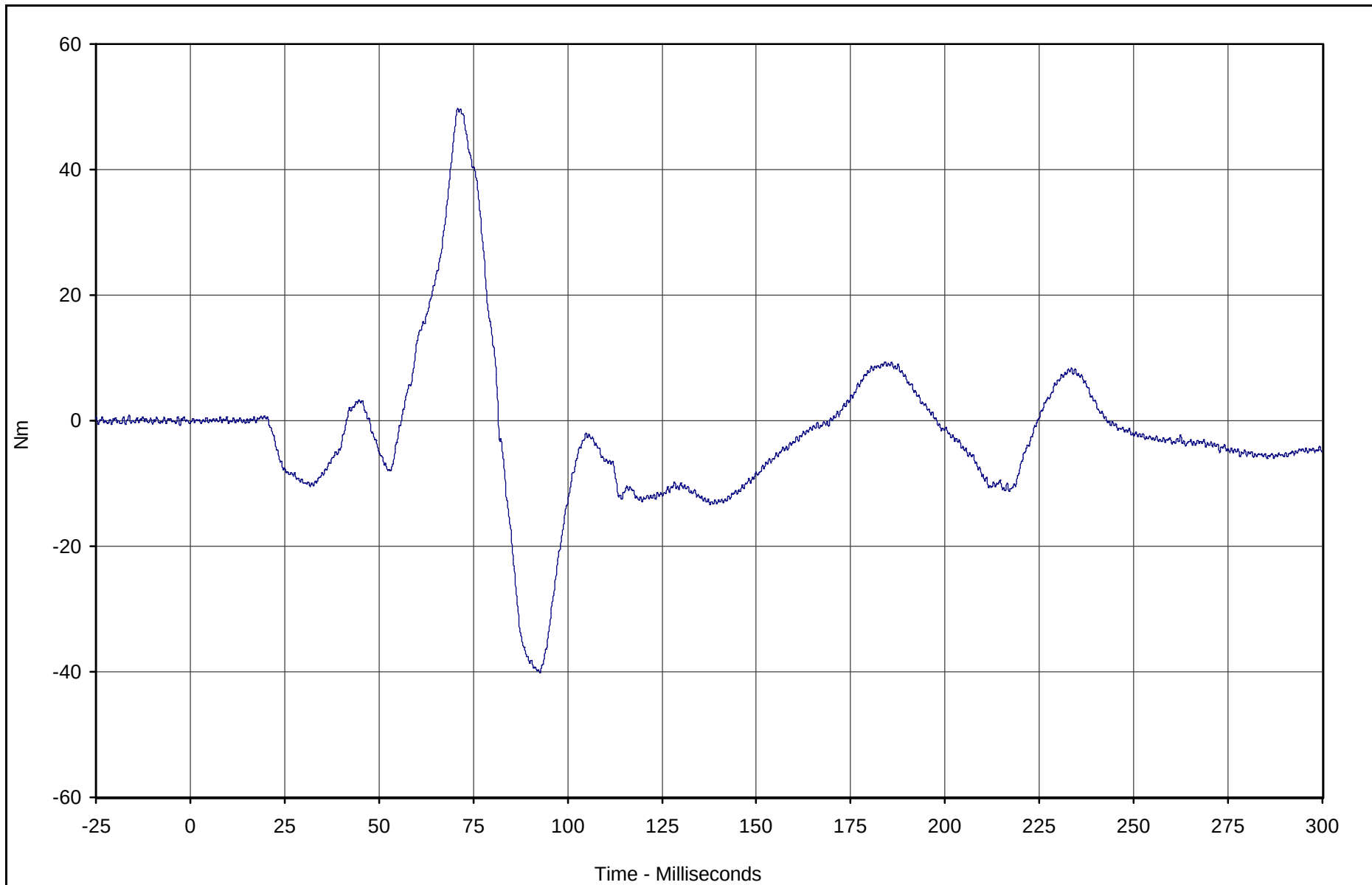


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Neck Moment Y	055	FIL	Nm	49.8	70.8	-40.2	92.7	600

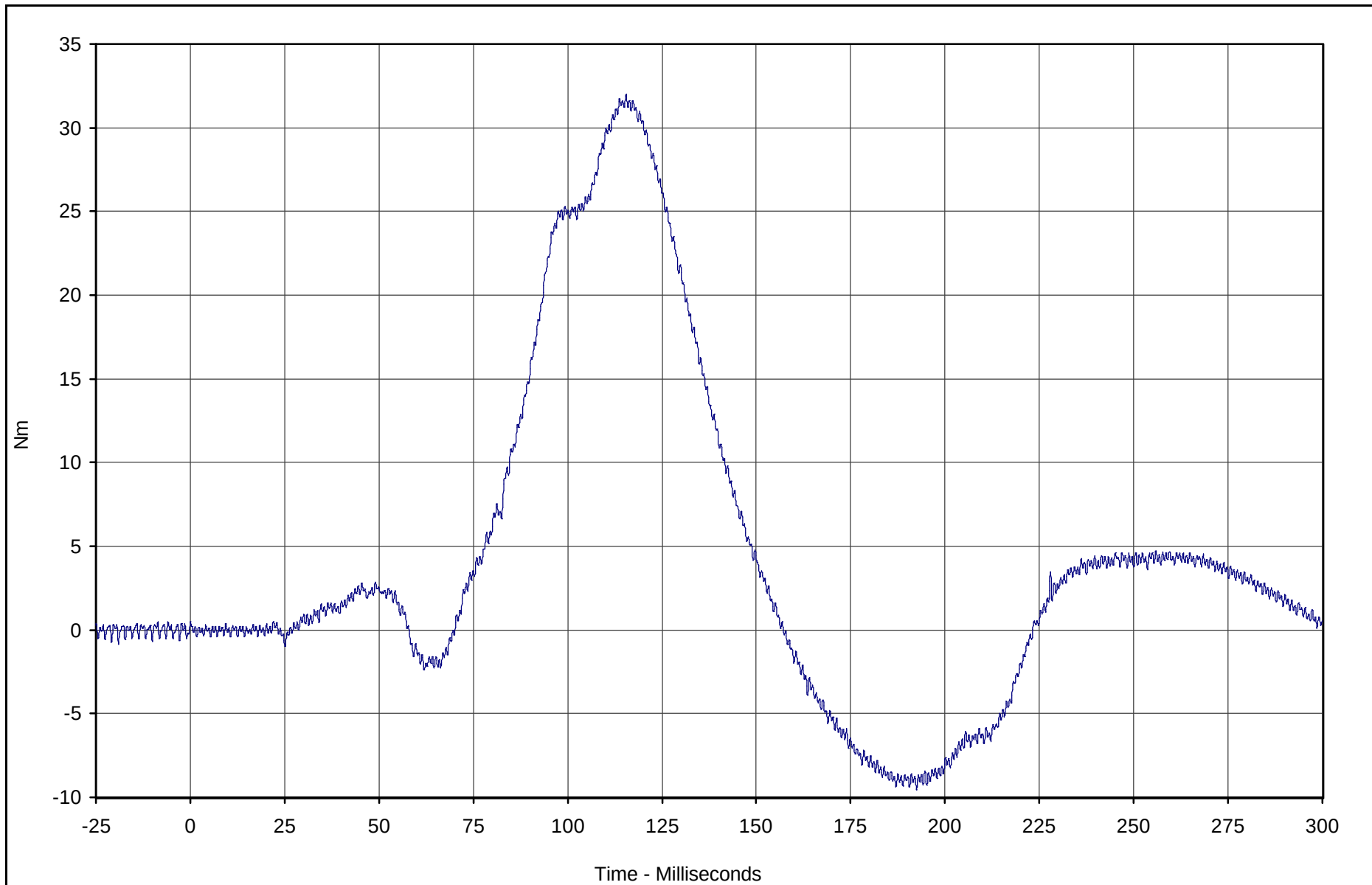


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Neck Moment Z	056	FIL	Nm	32.0	115.5	-9.6	192.5	600

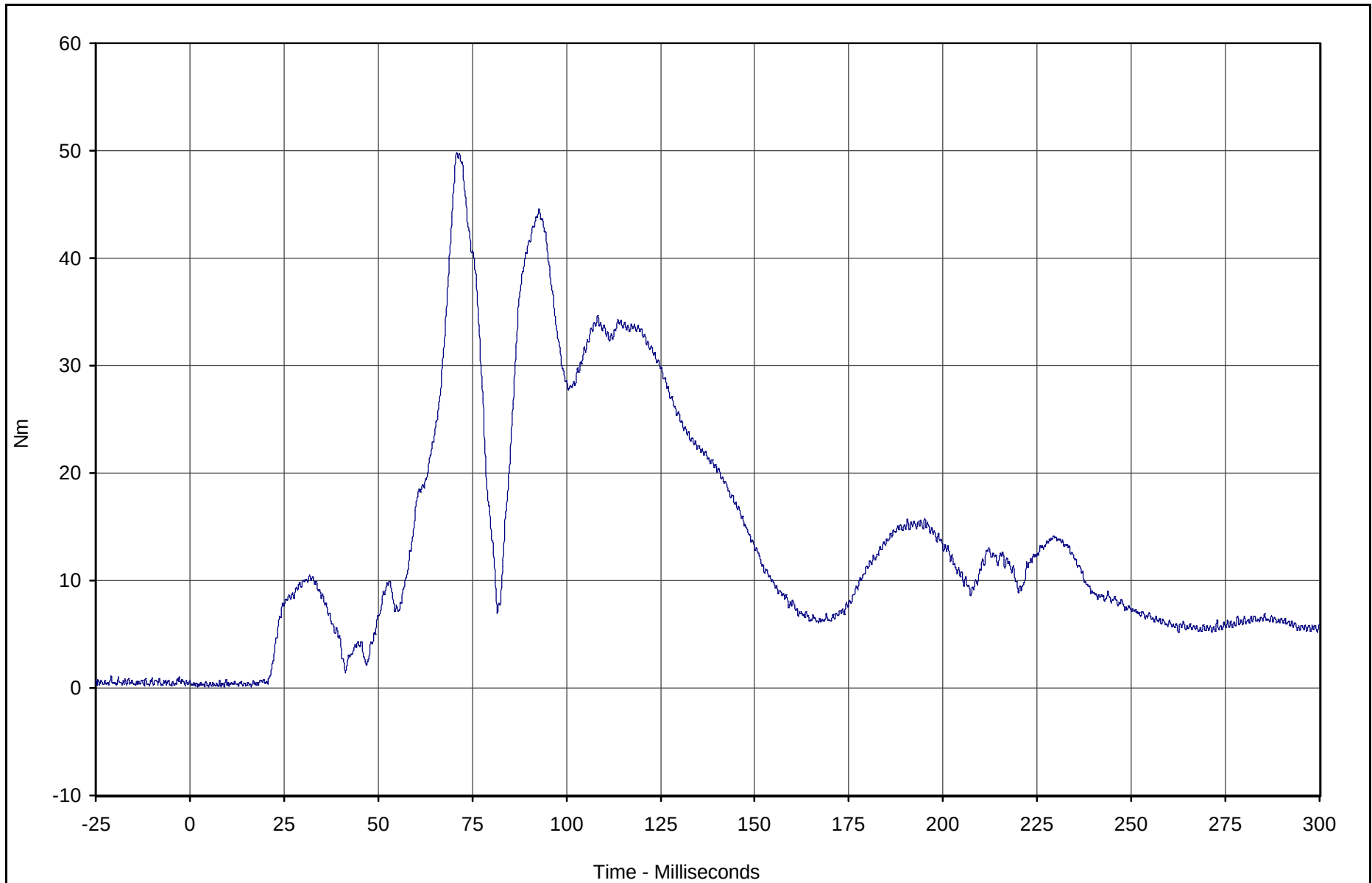


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Neck Moment Resultant	054	RES	Nm	49.9	70.8	0.1	5.0	600

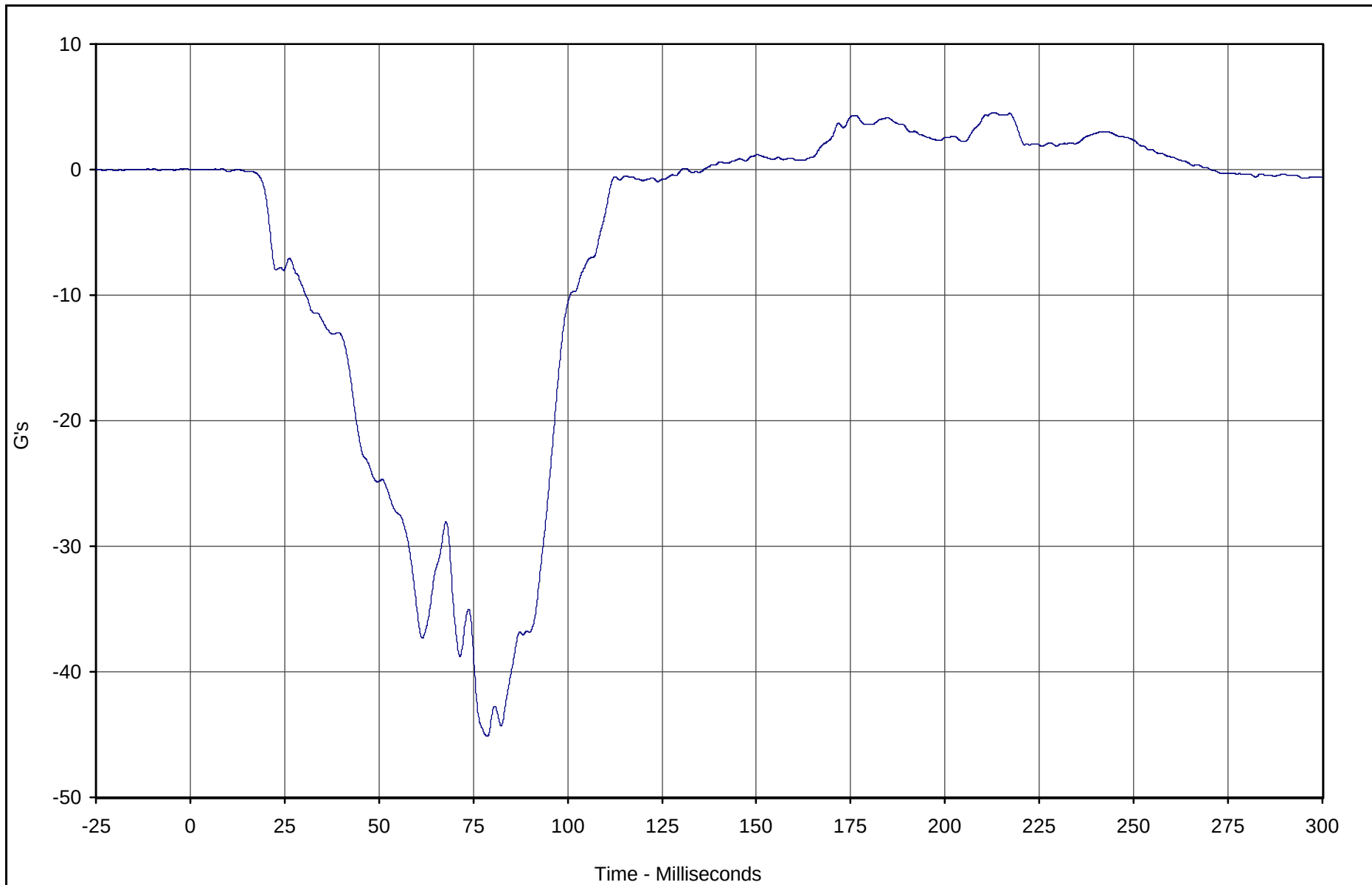


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Chest Primary X	057	FIL	G's	4.5	213.2	-45.1	78.7	180

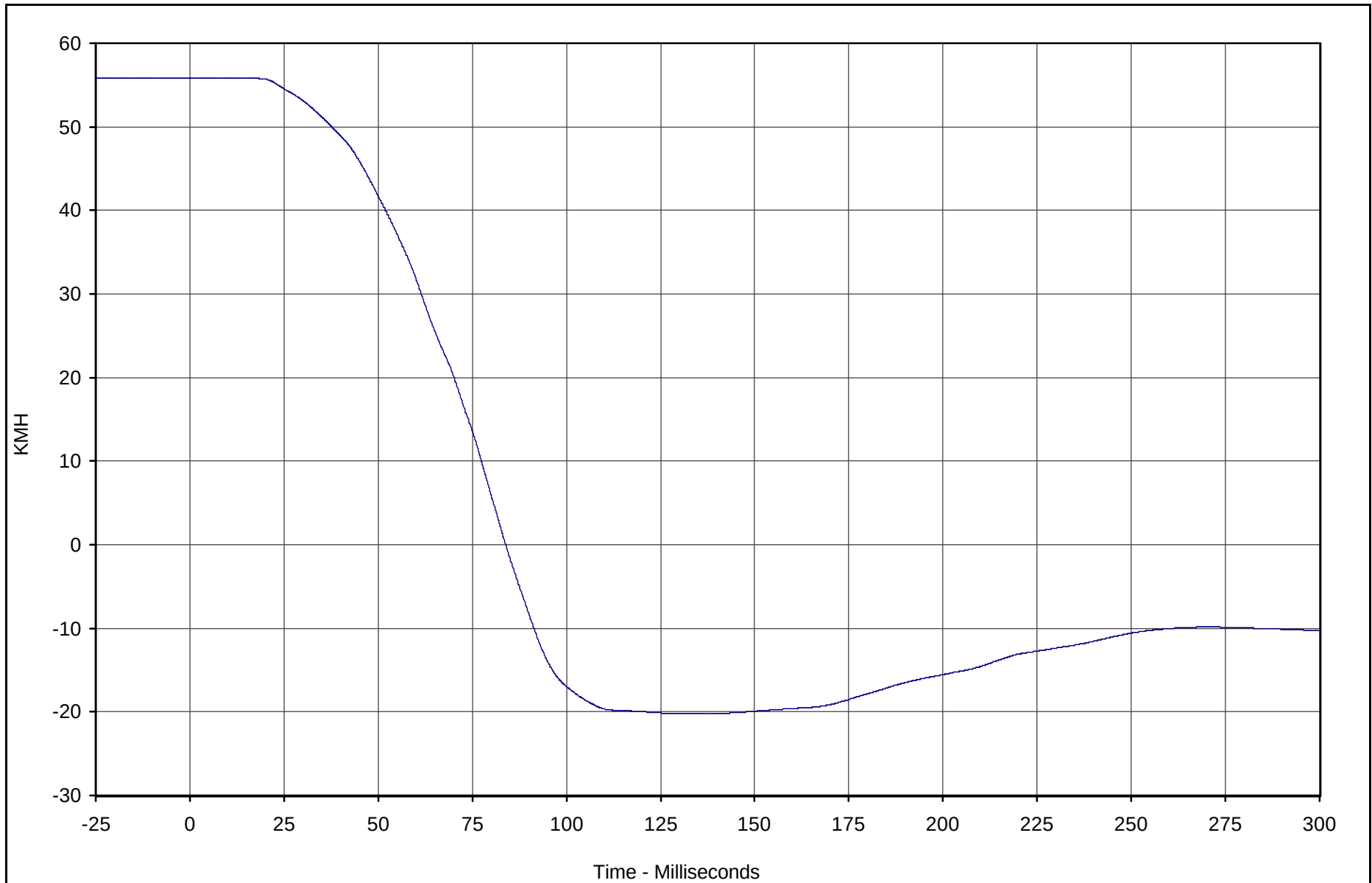


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Chest Primary X Velocity	057	IN1	KMH	55.8	0.2	-20.2	136.1	180

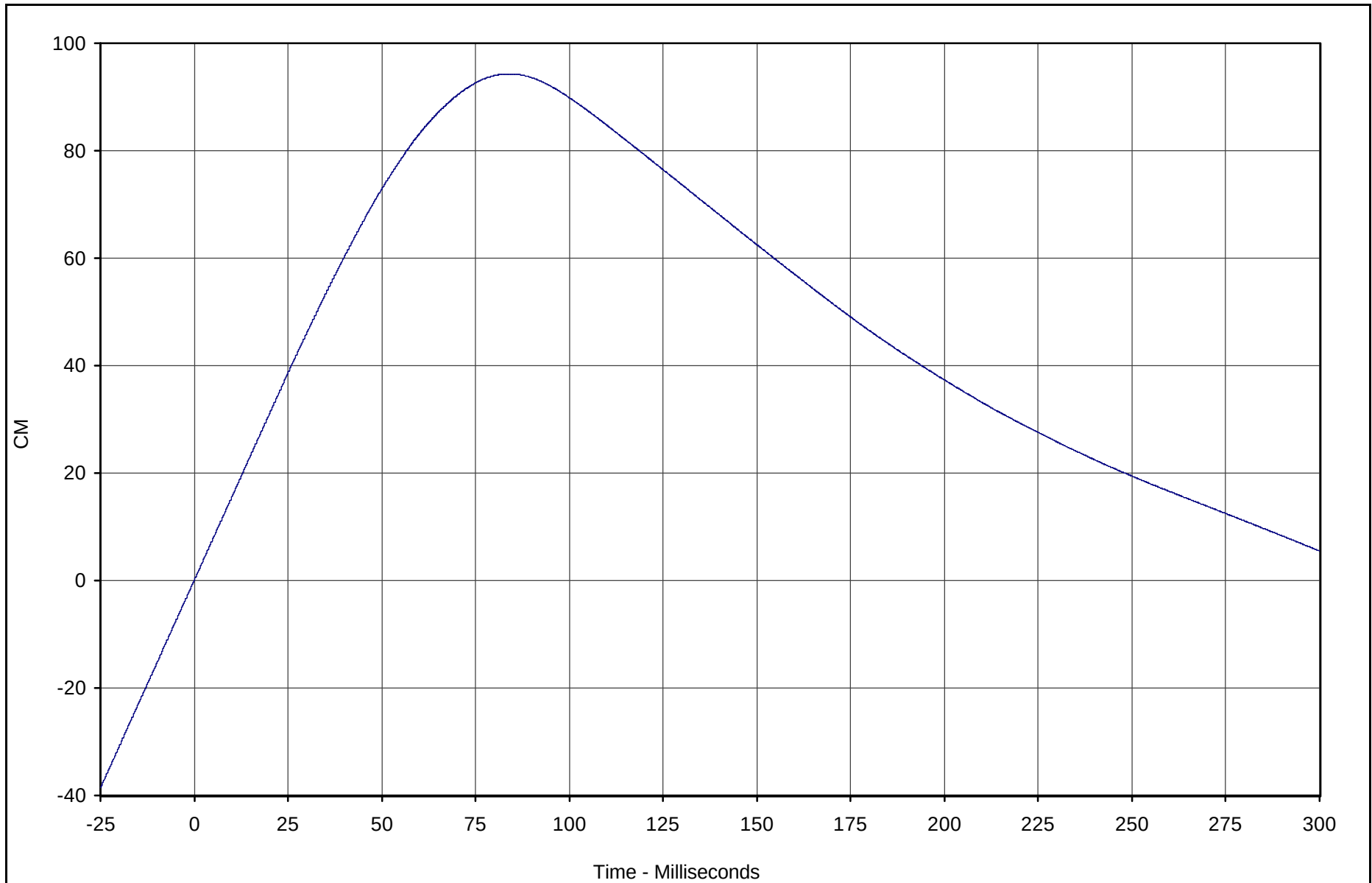


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Chest Primary X Displ.	057	IN2	CM	94.3	83.9	0.0	0.0	180

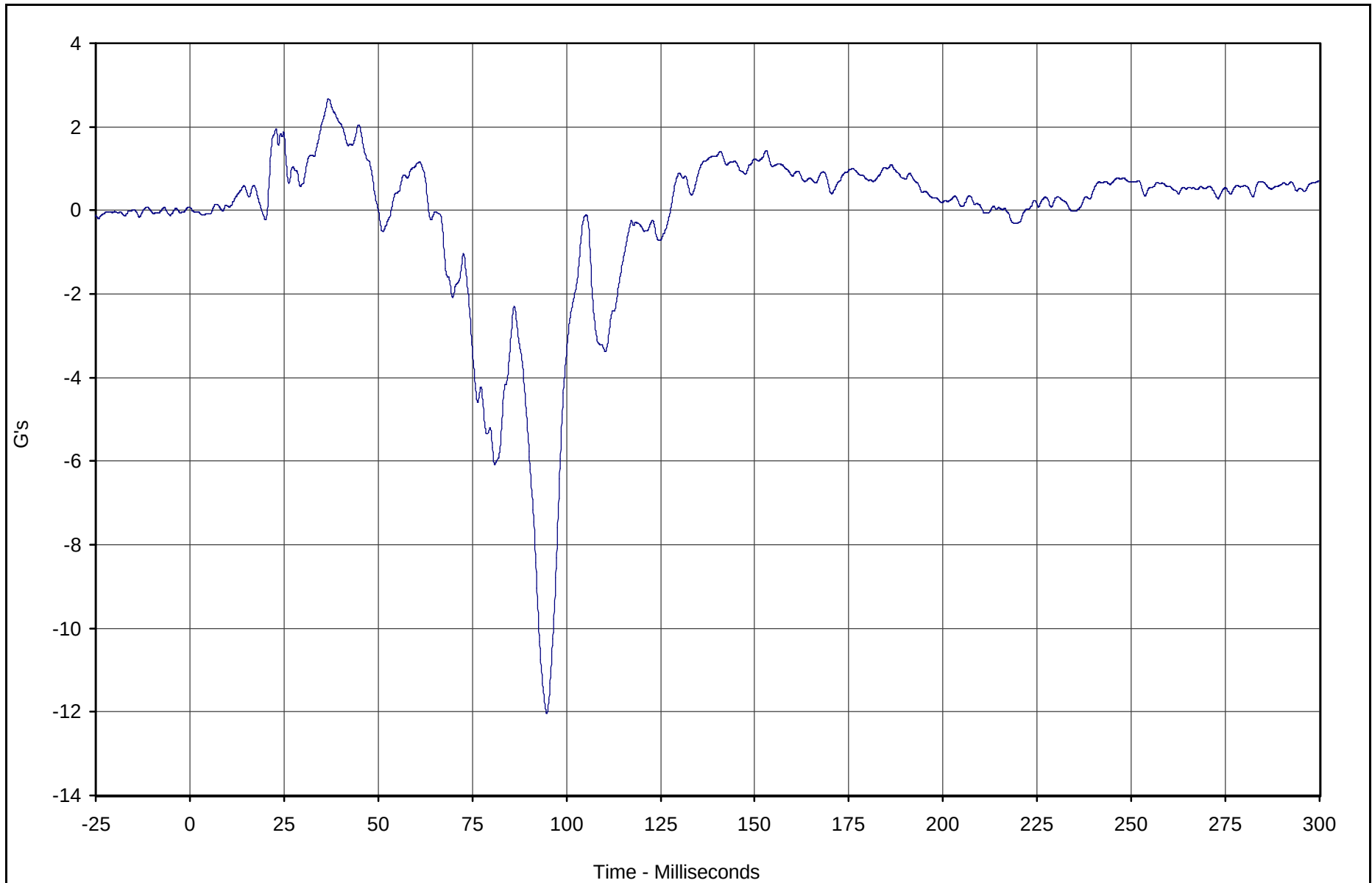


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Chest Primary Y	058	FIL	G's	2.7	36.8	-12.0	94.8	180

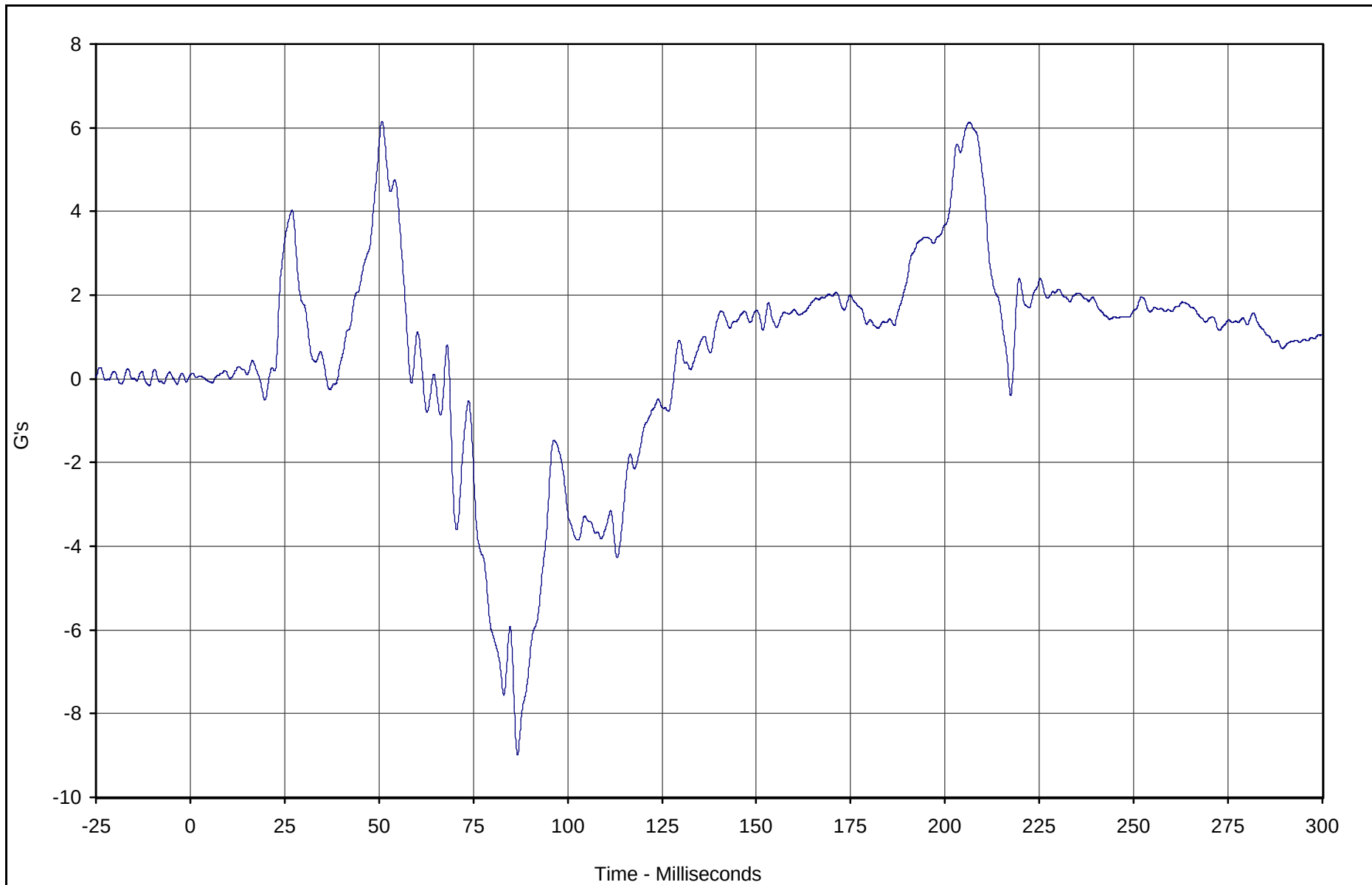


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Chest Primary Z	059	FIL	G's	6.2	50.8	-9.0	86.8	180

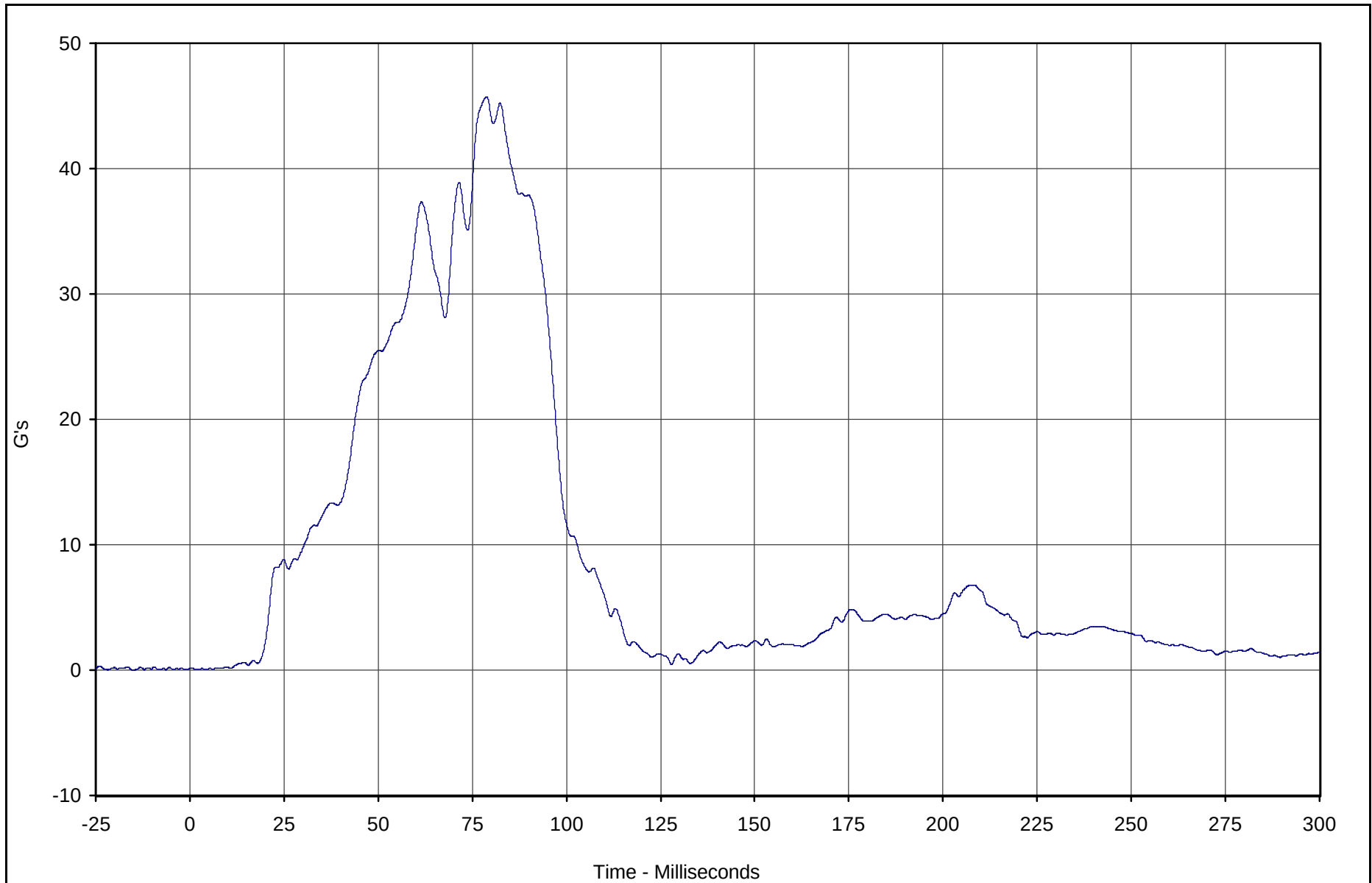


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Chest Resultant Primary	057	RES	G's	45.7	78.8	0.0	1.6	180

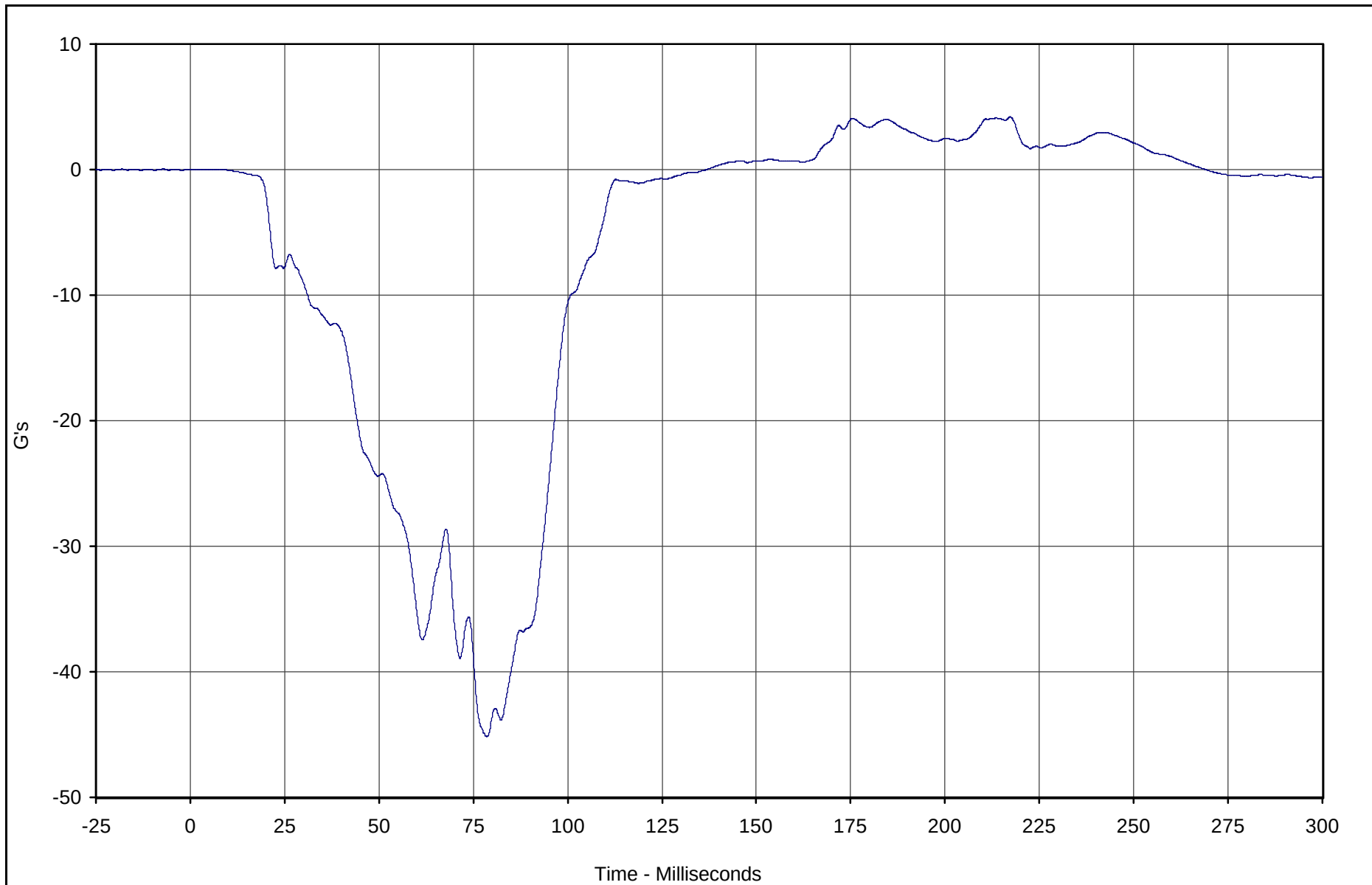


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Chest Redundant X	060	FIL	G's	4.2	217.2	-45.2	78.6	180

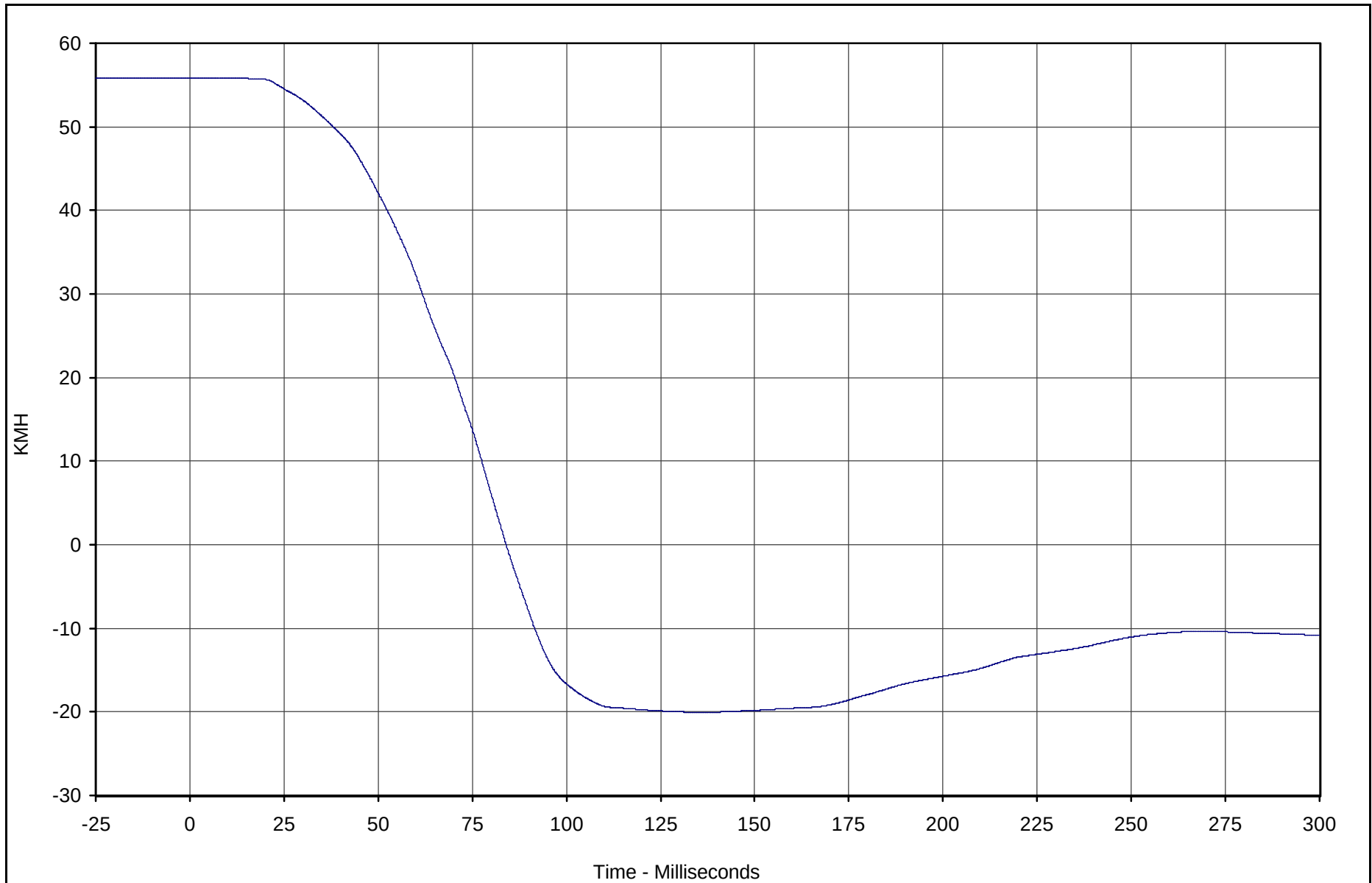


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Chest Redundant X Velocity	060	IN1	KMH	55.8	0.0	-20.1	136.9	180

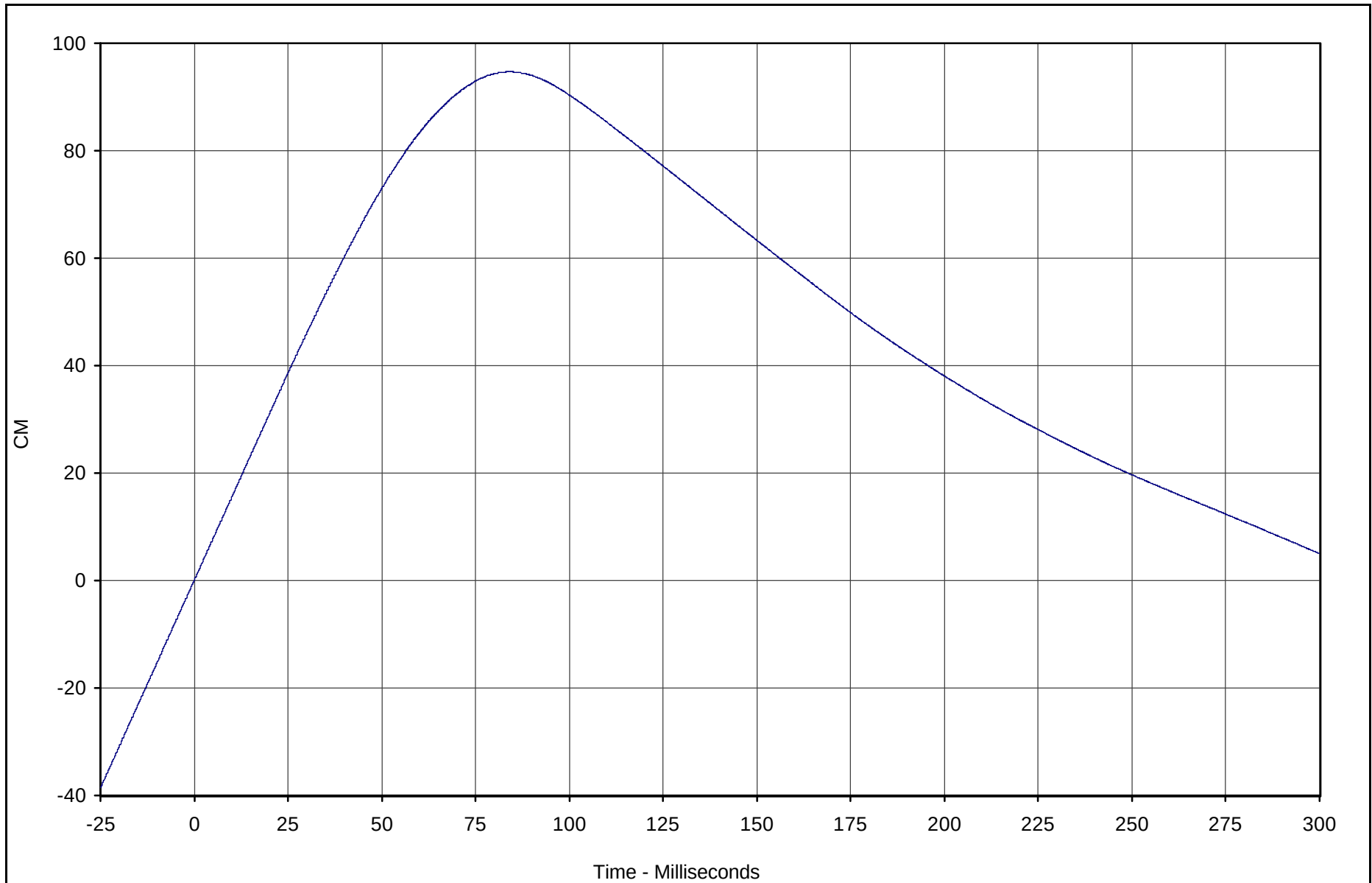


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Chest Redundant X Displ.	060	IN2	CM	94.7	84.0	0.0	0.0	180

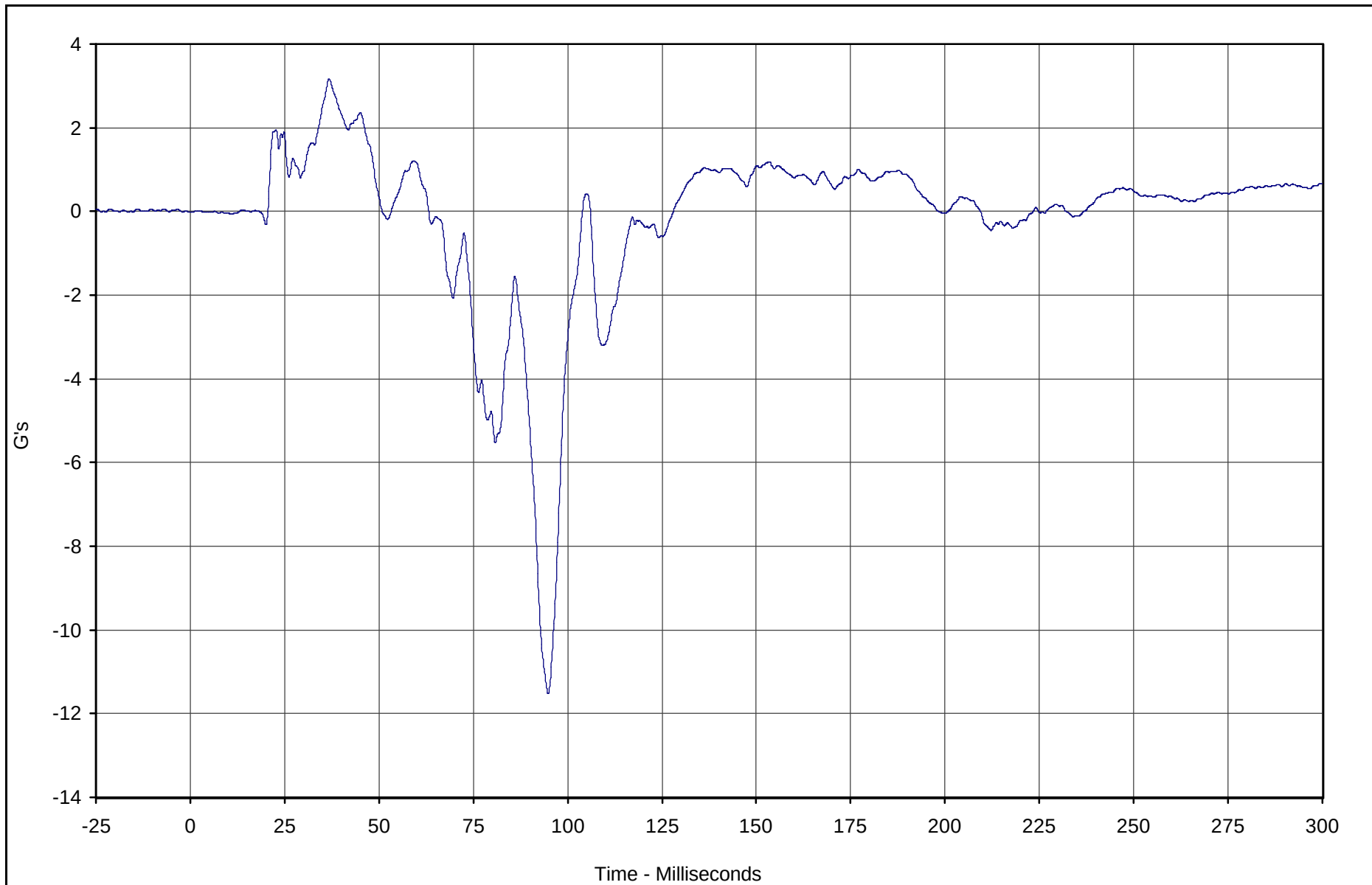


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Chest Redundant Y	061	FIL	G's	3.2	36.8	-11.5	94.9	180

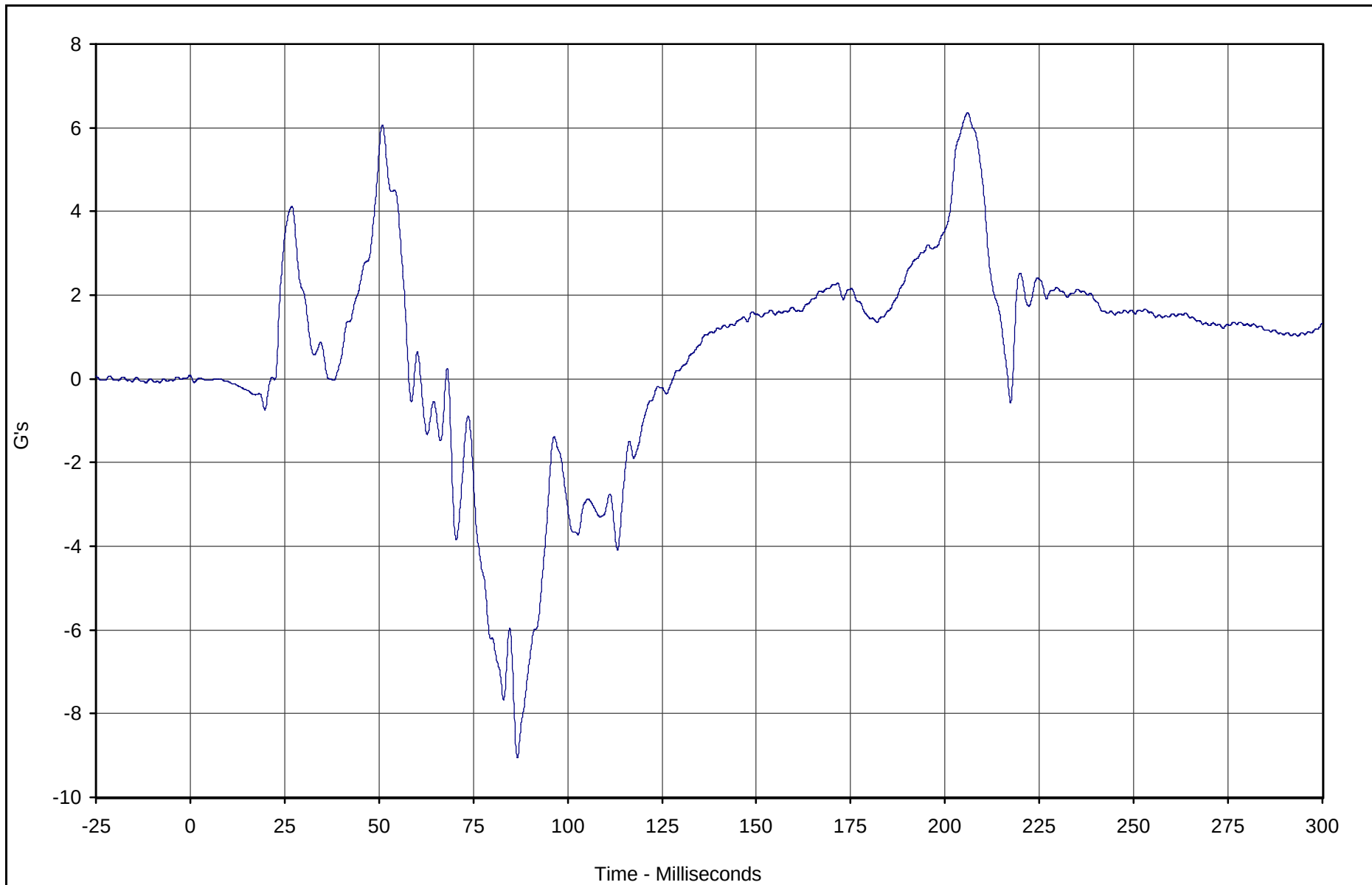


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Chest Redundant Z	062	FIL	G's	6.3	206.0	-9.1	86.7	180

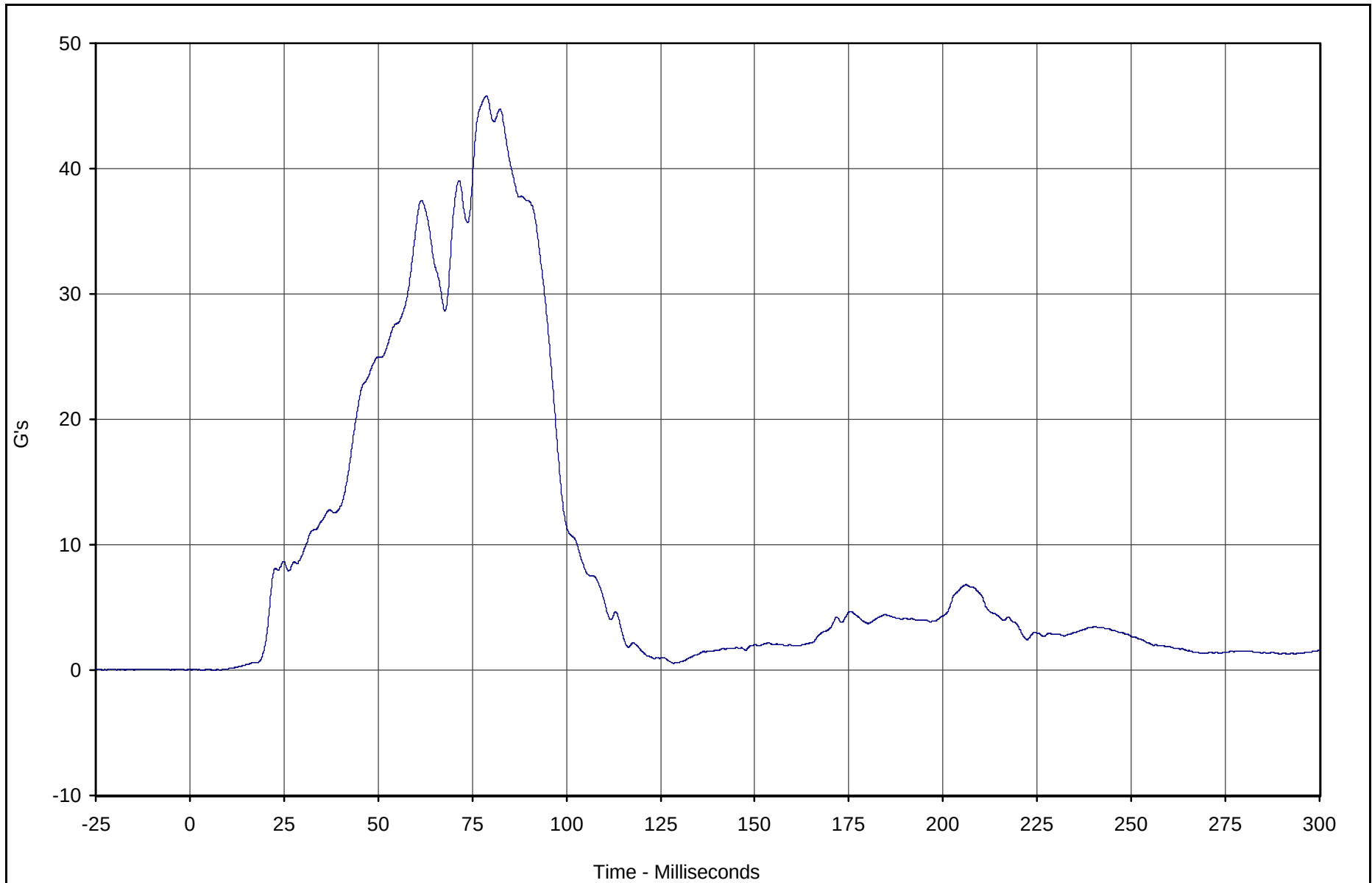


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Chest Resultant Redundant	060	RES	G's	45.8	78.7	0.0	6.4	180

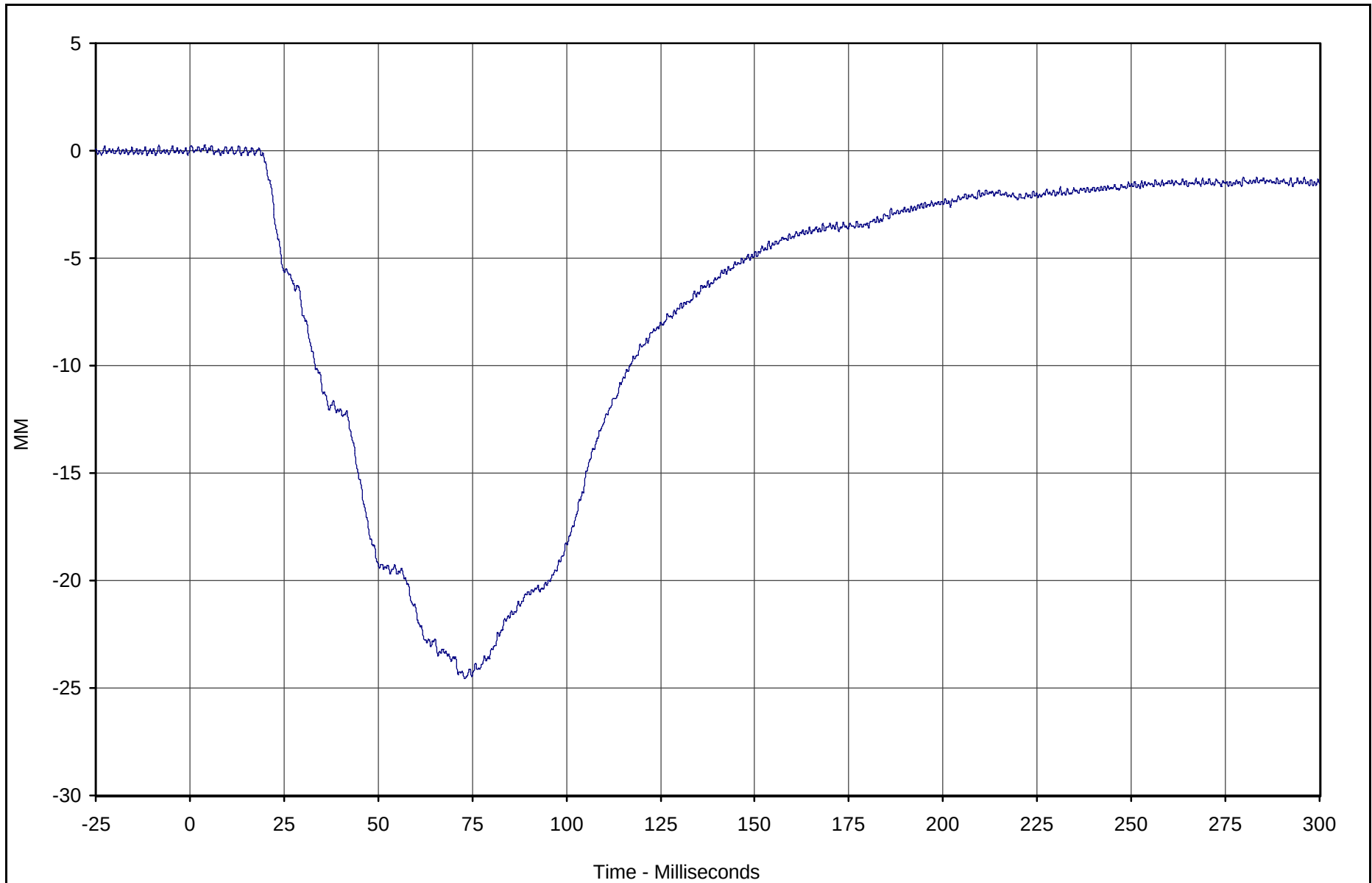


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Chest Displacement X	063	FIL	MM	0.3	3.9	-24.6	73.1	600

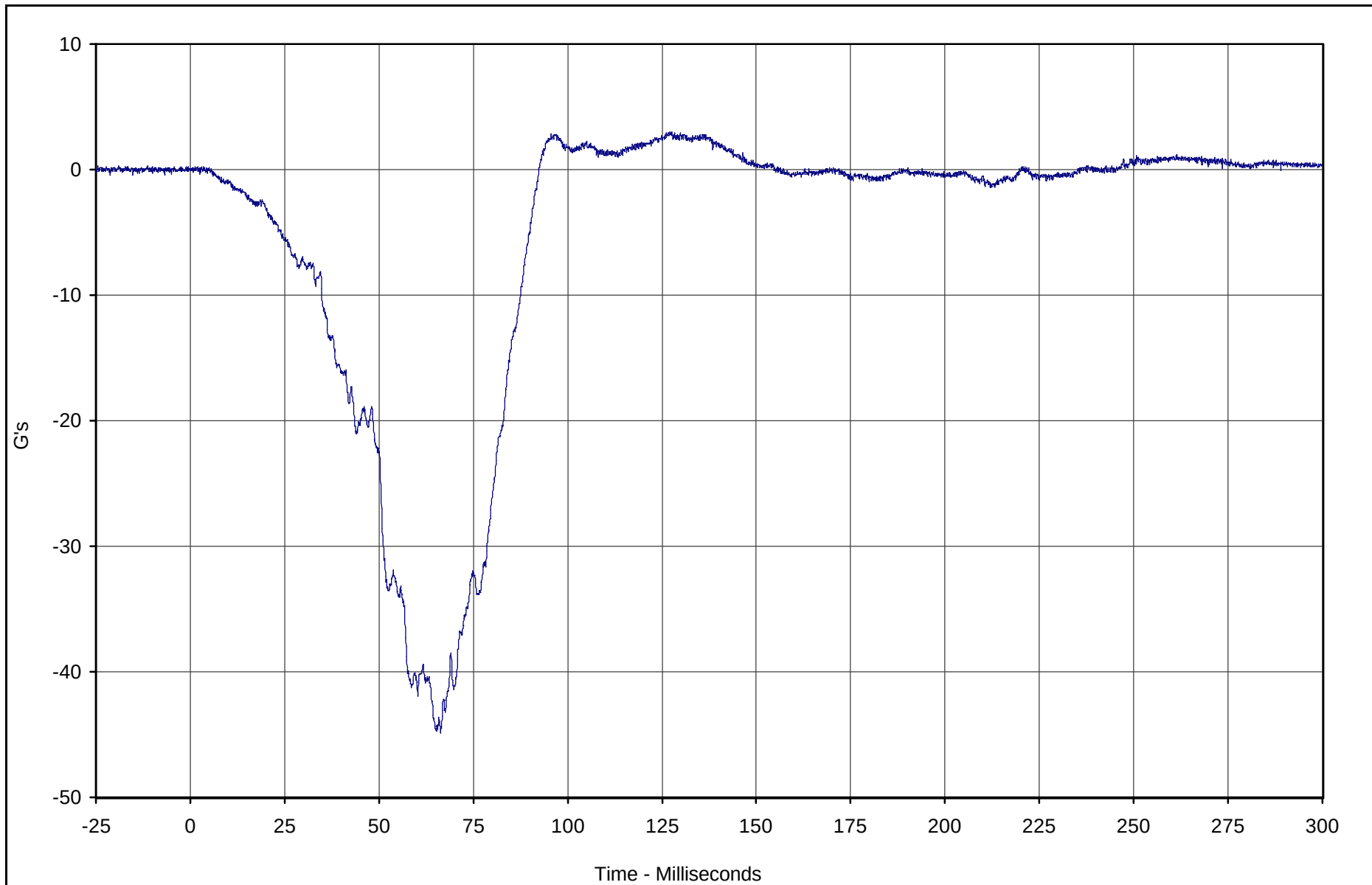


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Pelvis X	064	FIL	G's	3.0	127.1	-44.9	66.3	1000

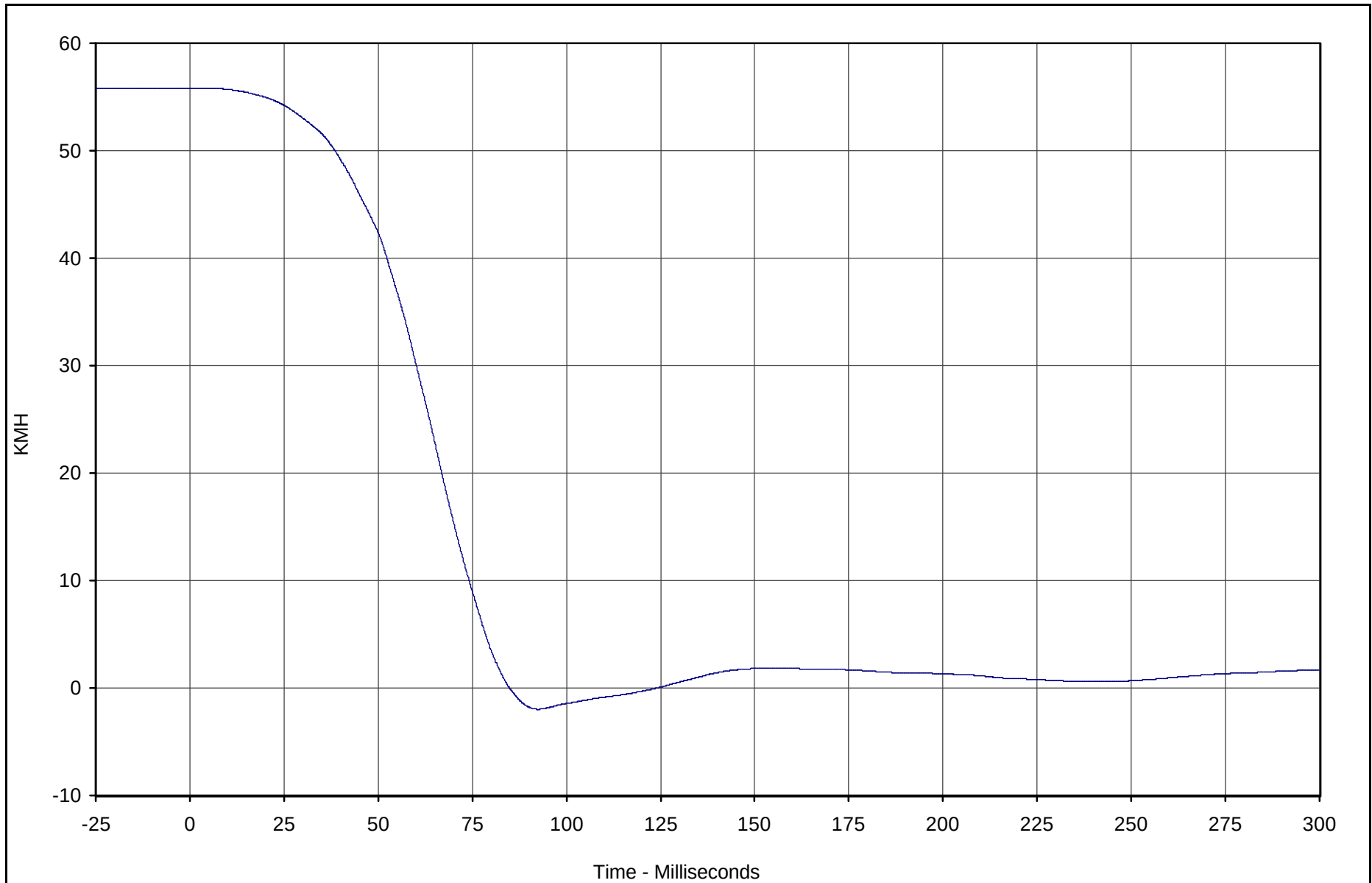


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Pelvis X Velocity	064	IN1	KMH	55.8	3.8	-2.0	92.5	180

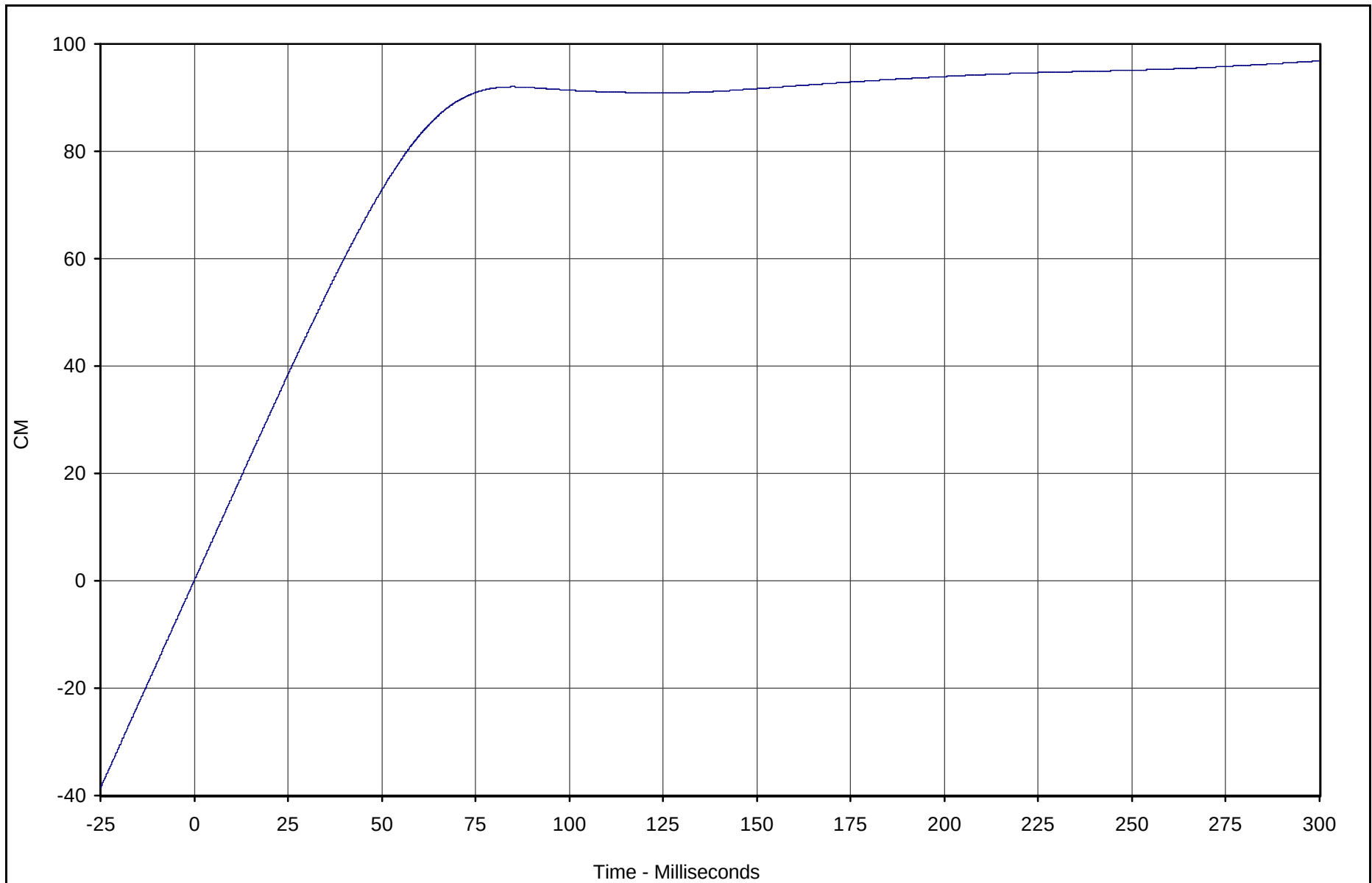


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Pelvis X Displ.	064	IN2	CM	96.8	299.9	0.0	0.0	180

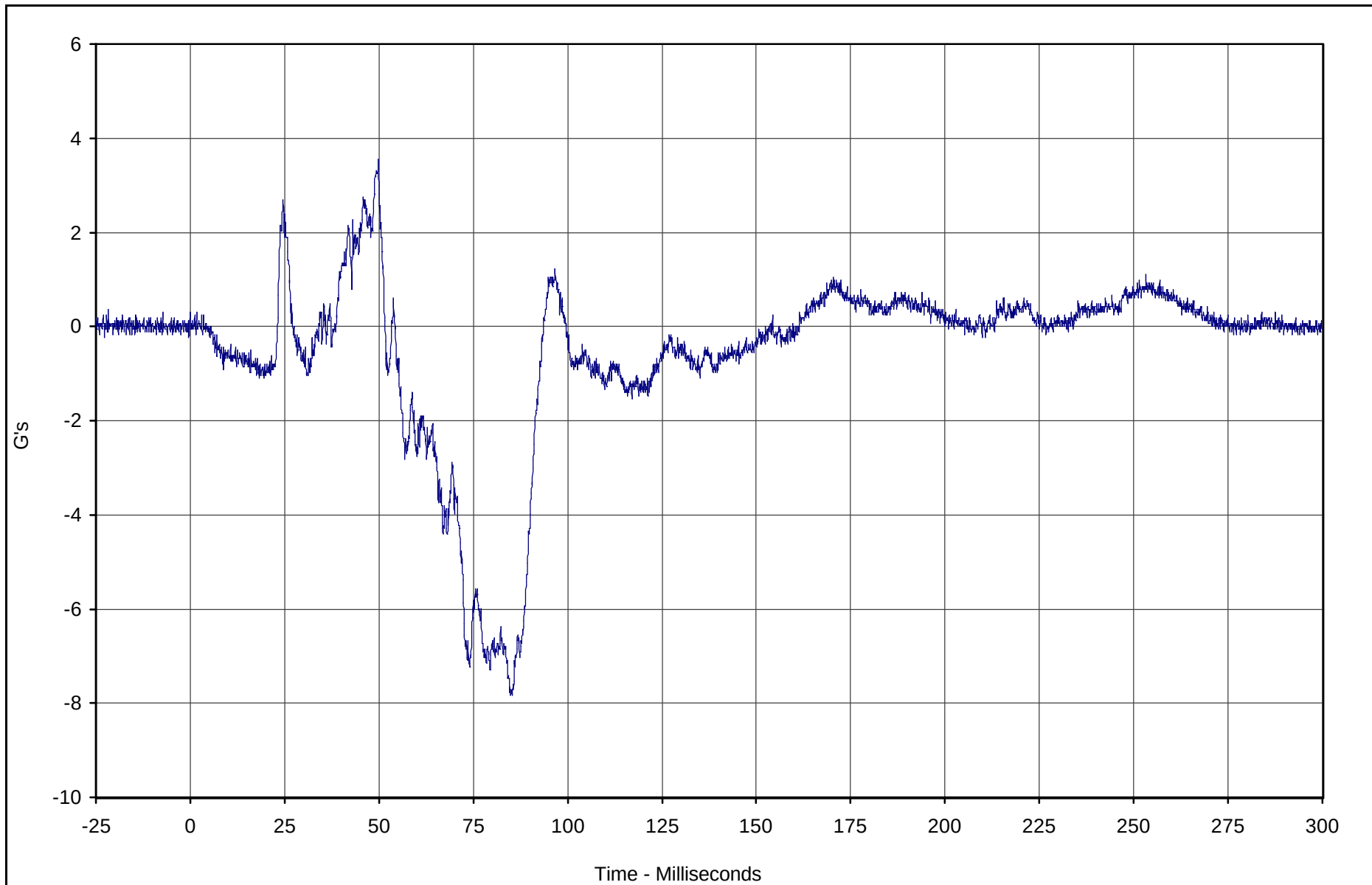


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Pelvis Y	065	FIL	G's	3.6	49.8	-7.8	84.9	1000

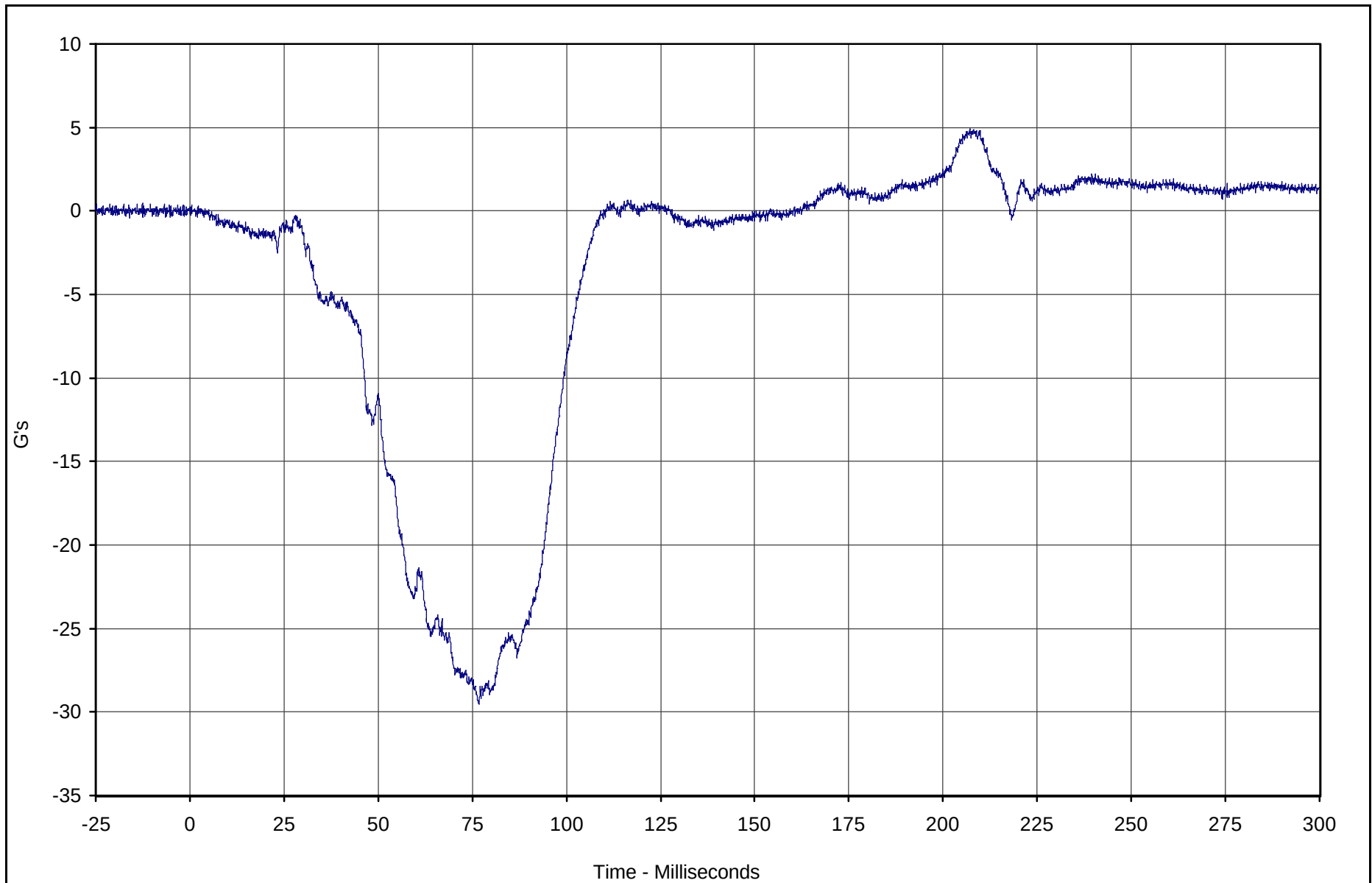


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Pelvis Z	066	FIL	G's	4.9	207.1	-29.5	76.8	1000

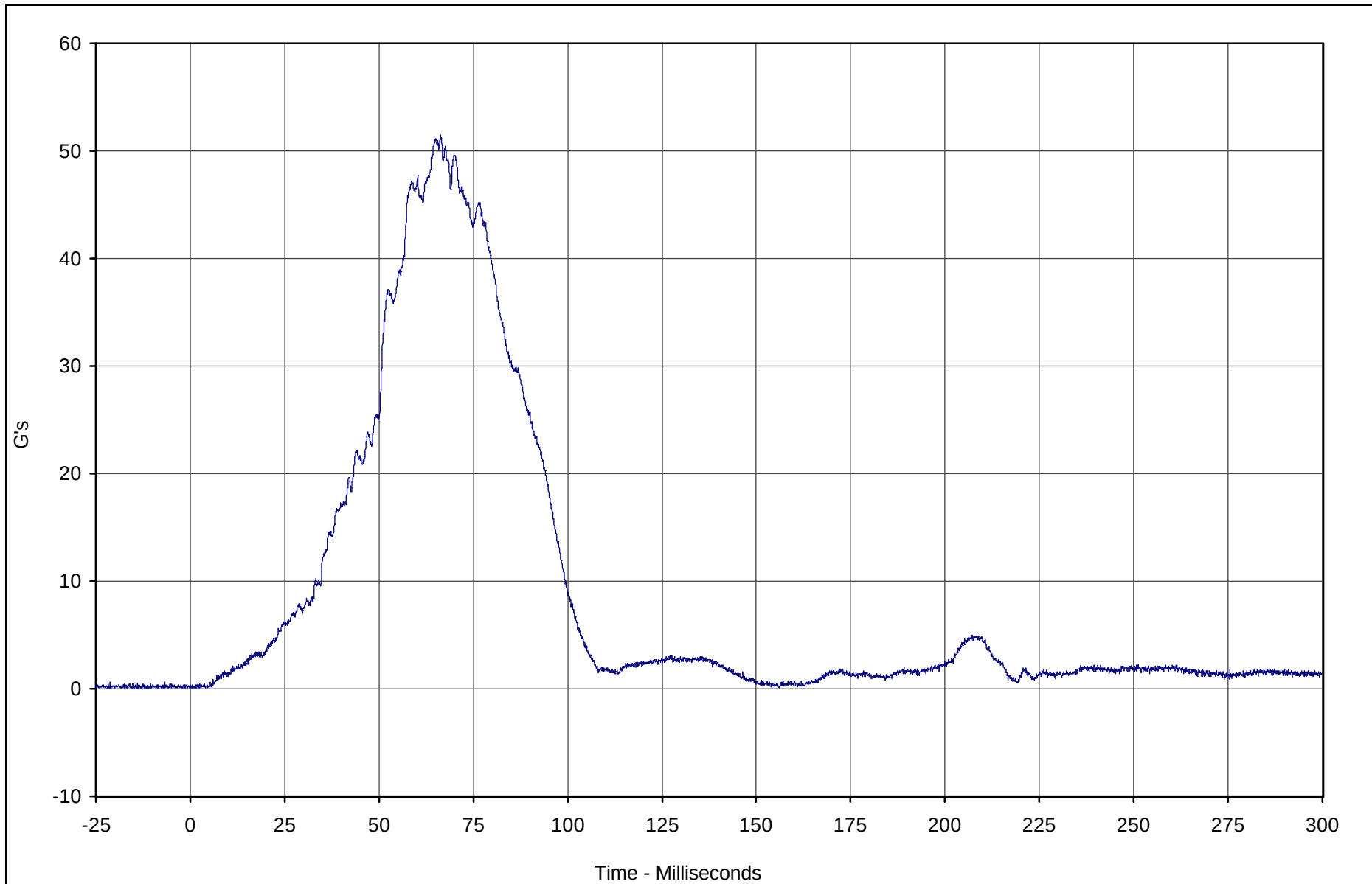


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Pelvis Resultant	066	RES	G's	51.5	66.3	0.1	3.9	1000

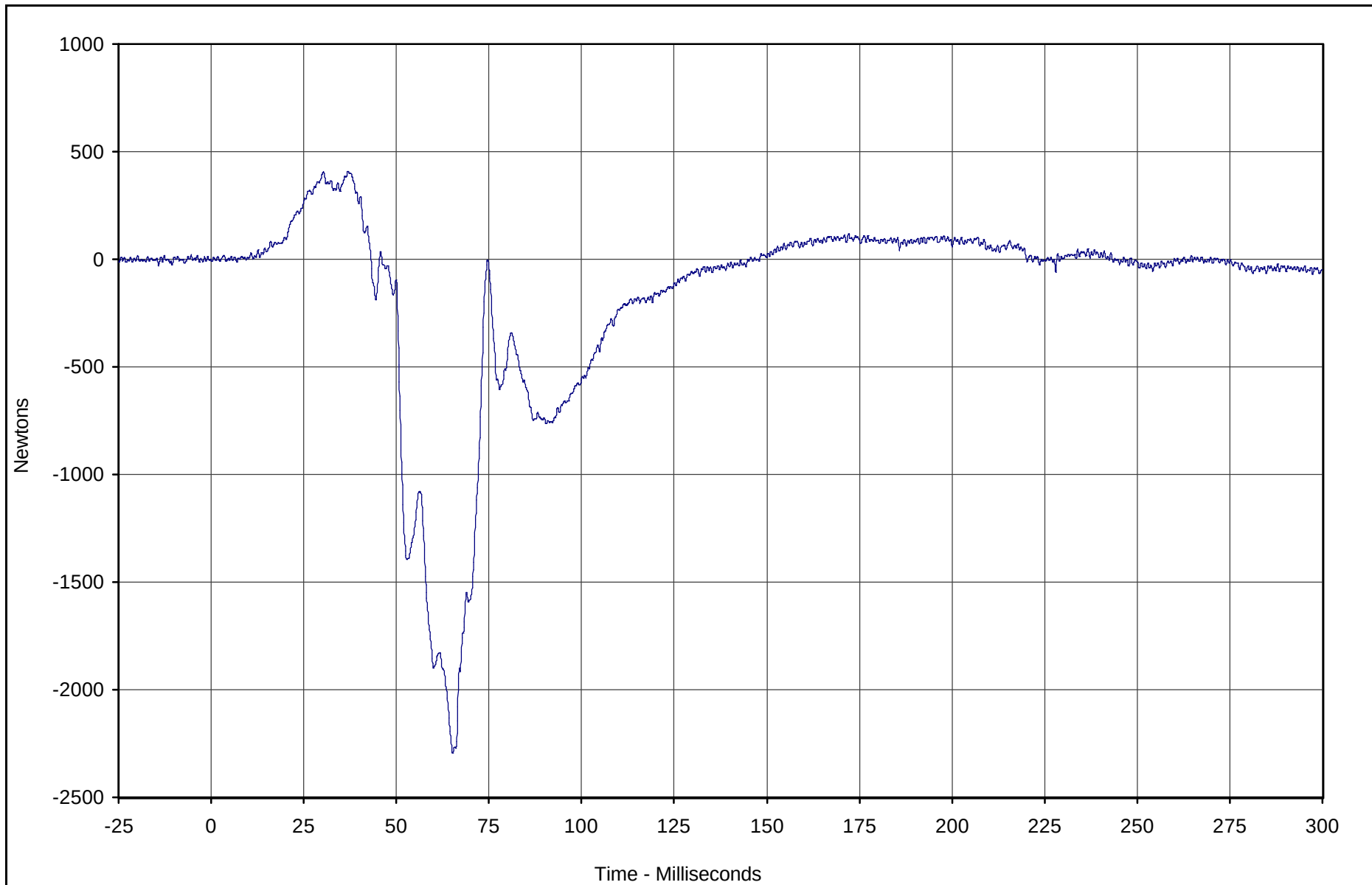


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Left Femur Force	067	FIL	Newtons	406.7	37.0	-2294.1	65.2	600

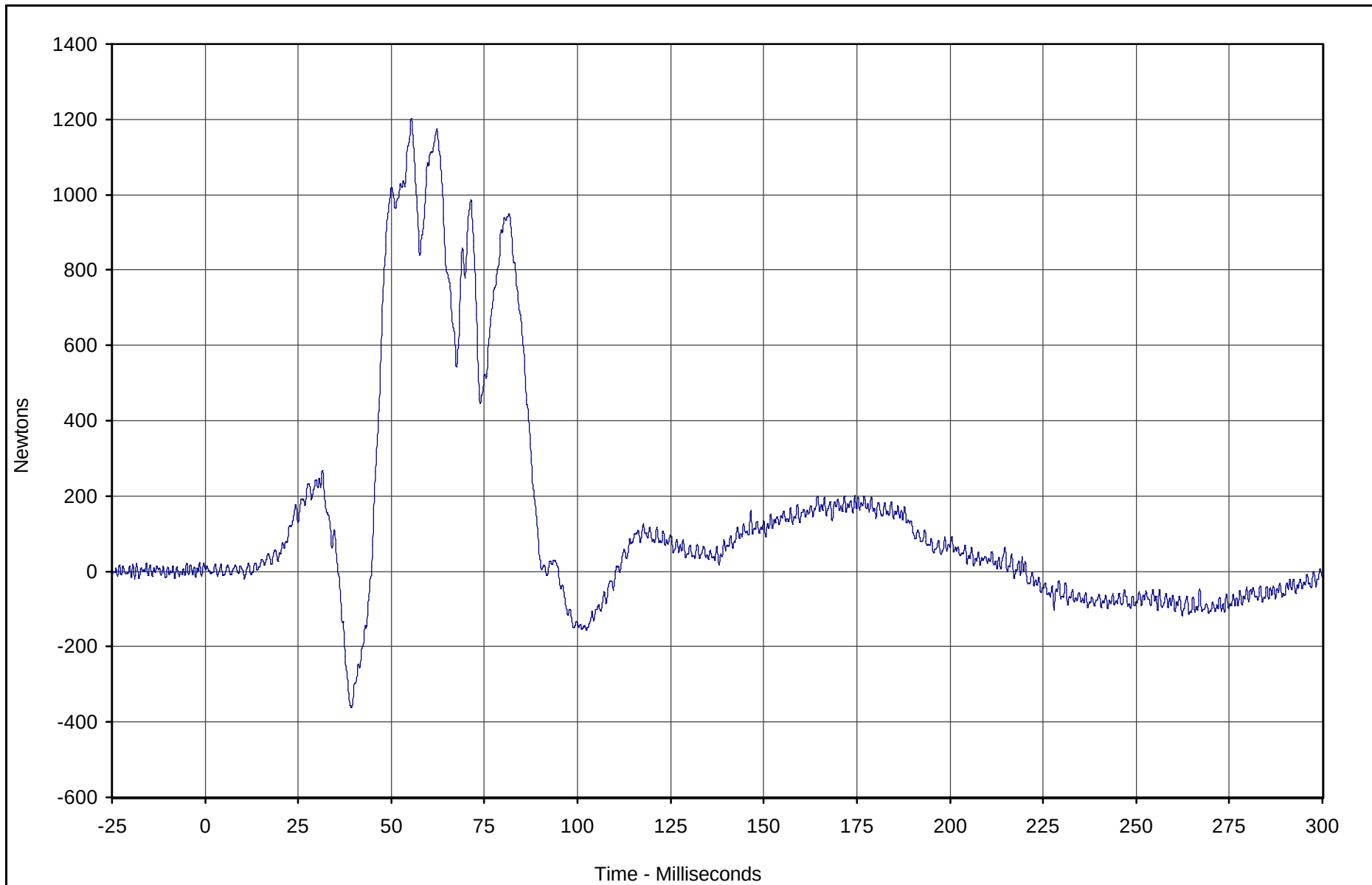


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Right Femur Force	068	FIL	Newtons	1203.0	55.3	-361.9	39.4	600

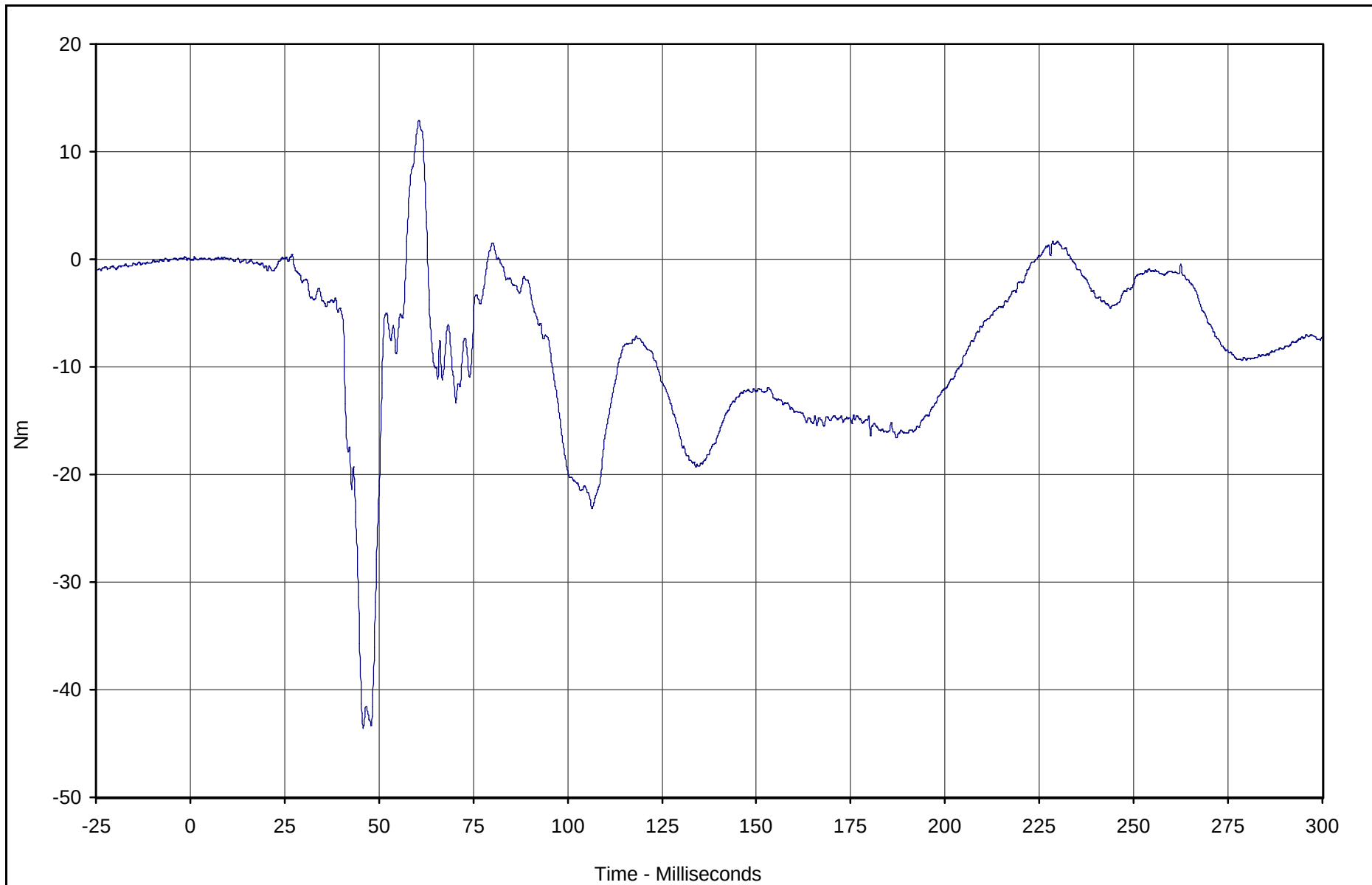


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Left Upper Tibia Moment X	069	FIL	Nm	12.9	60.6	-43.6	45.8	600

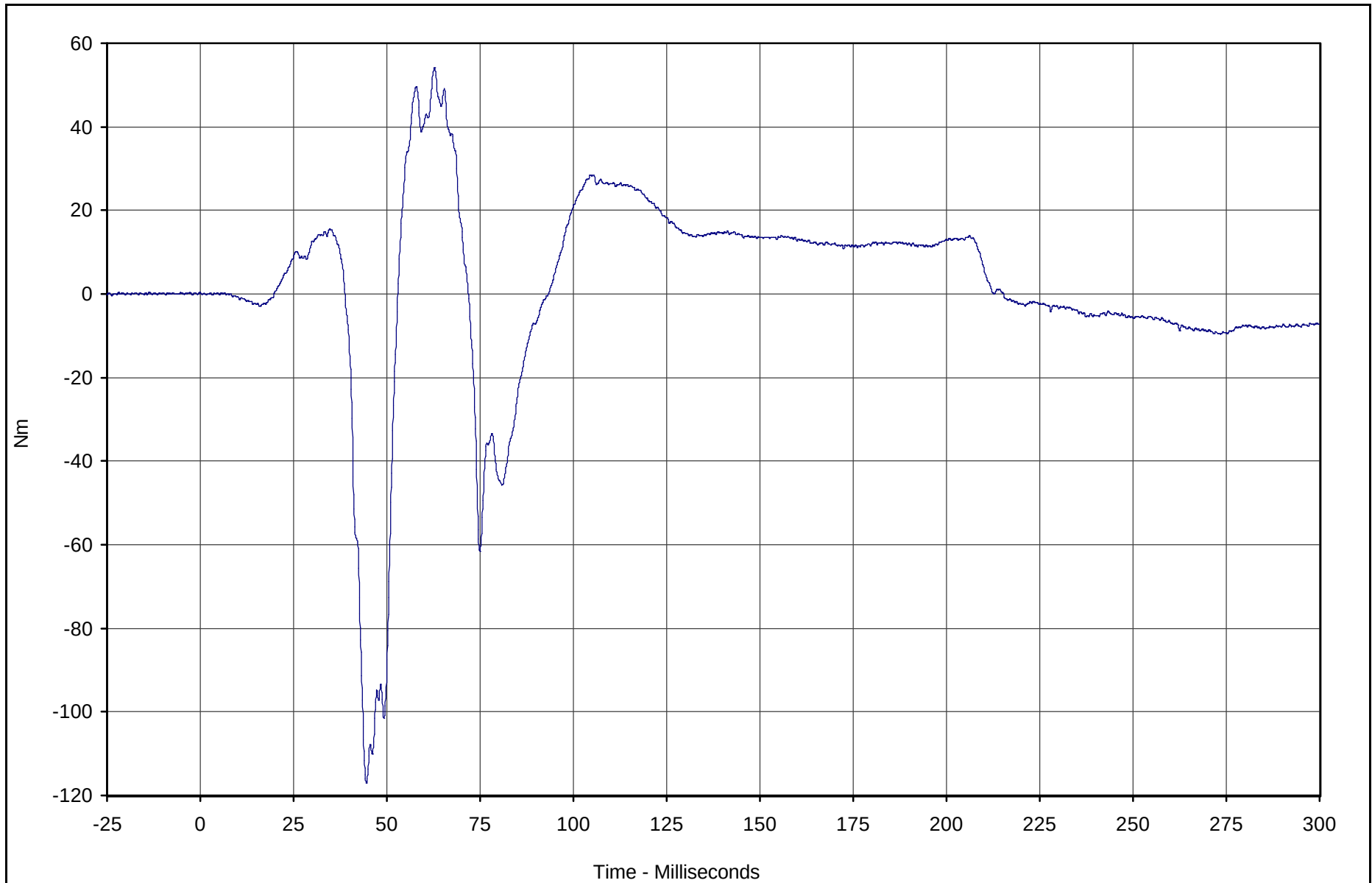


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Left Upper Tibia Moment Y	070	FIL	Nm	54.2	62.8	-117.0	44.6	600

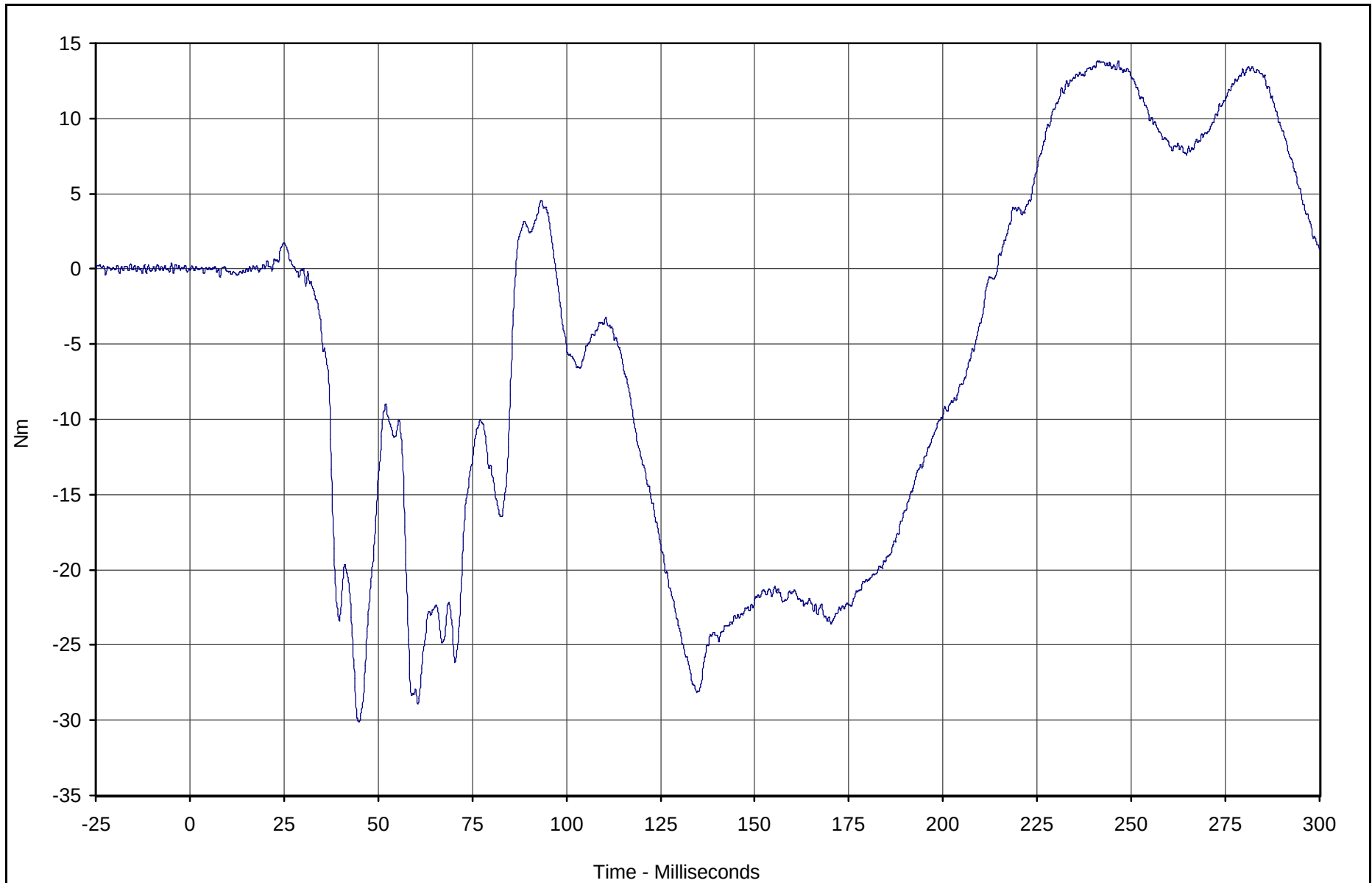


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Right Upper Tibia Moment X	071	FIL	Nm	13.8	246.6	-30.1	45.0	600

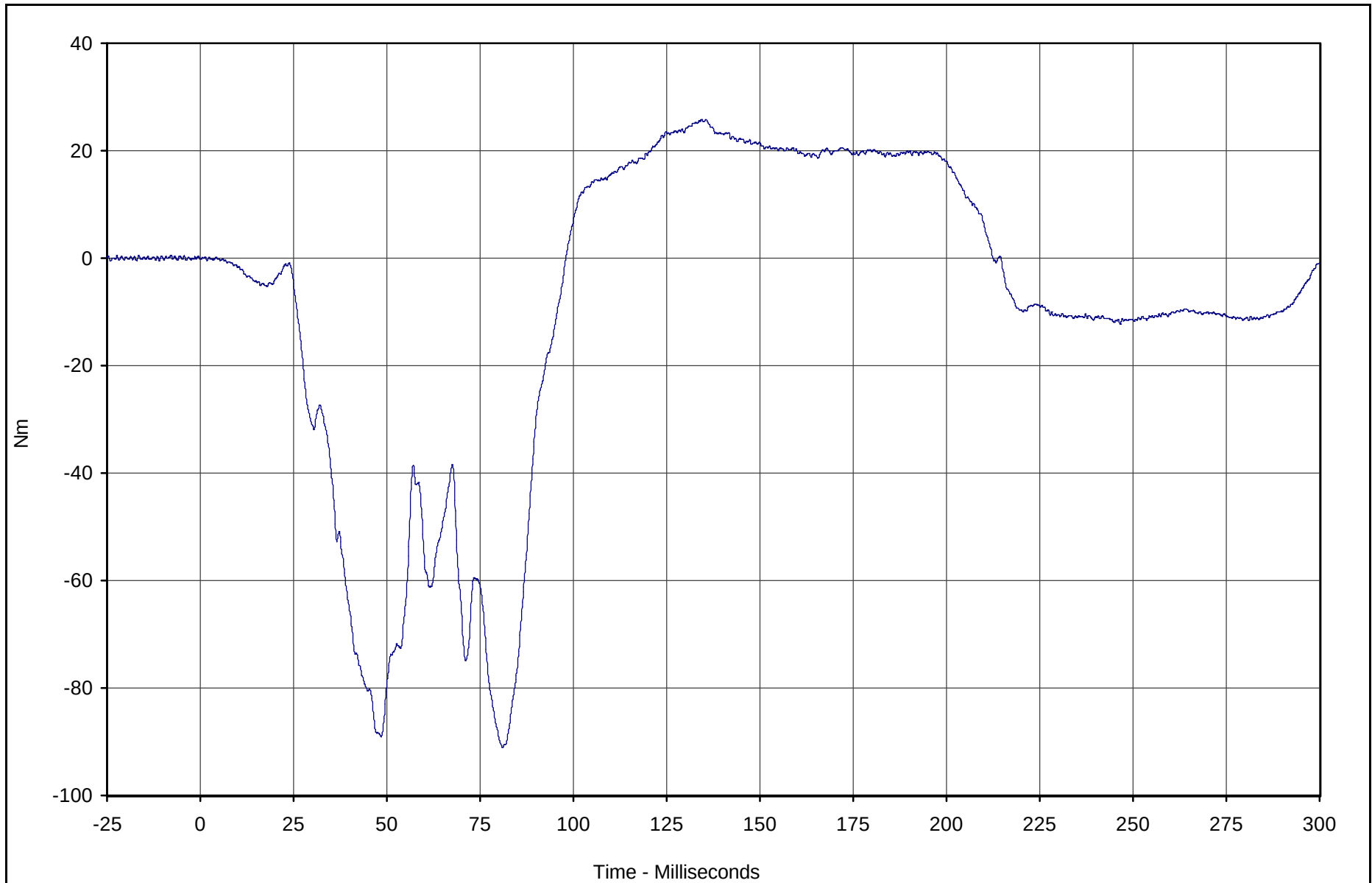


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Right Upper Tibia Moment Y	072	FIL	Nm	25.9	134.5	-91.1	81.0	600

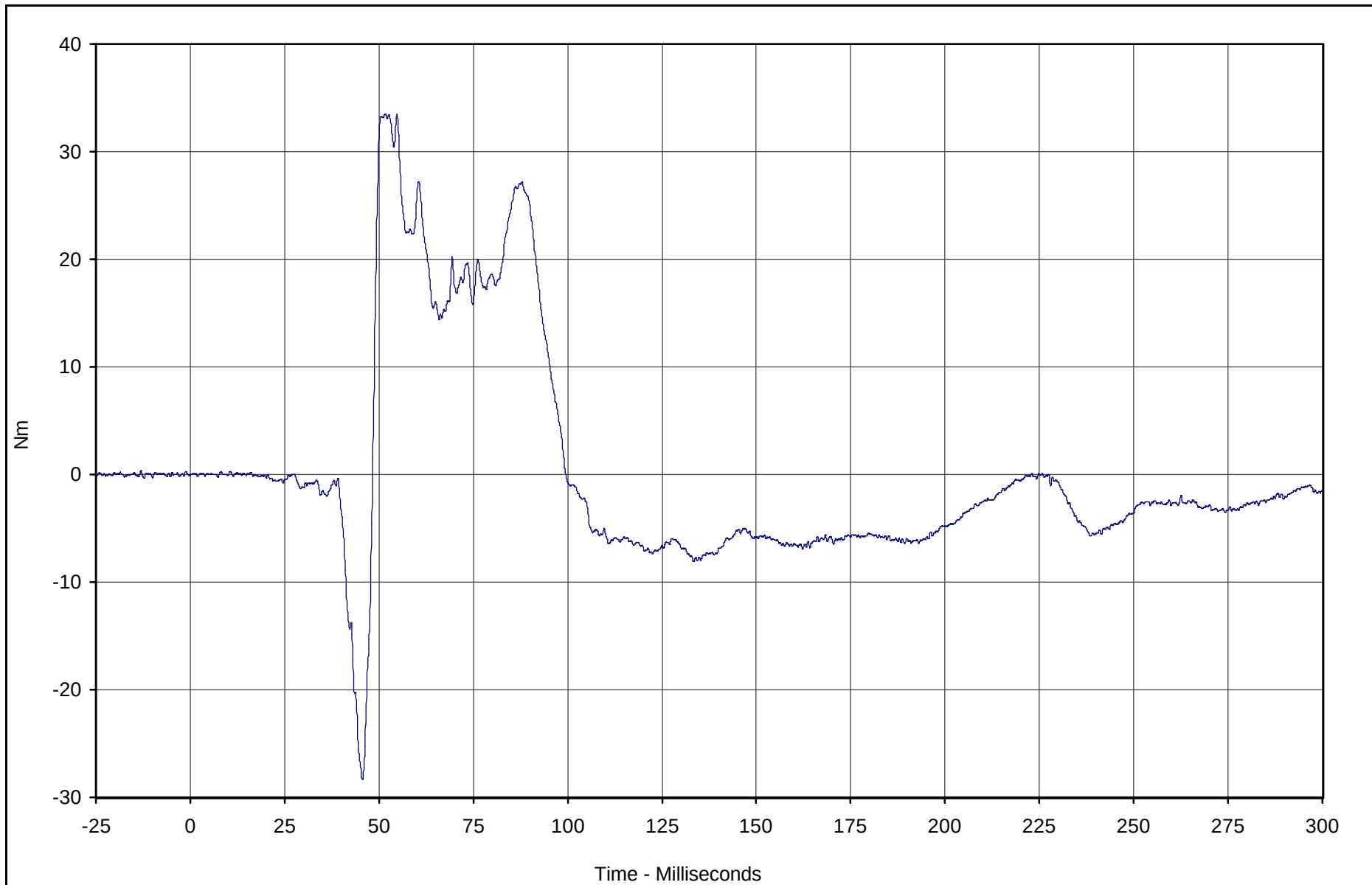


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Left Lower Tibia Moment X	073	FIL	Nm	33.5	54.8	-28.3	45.6	600

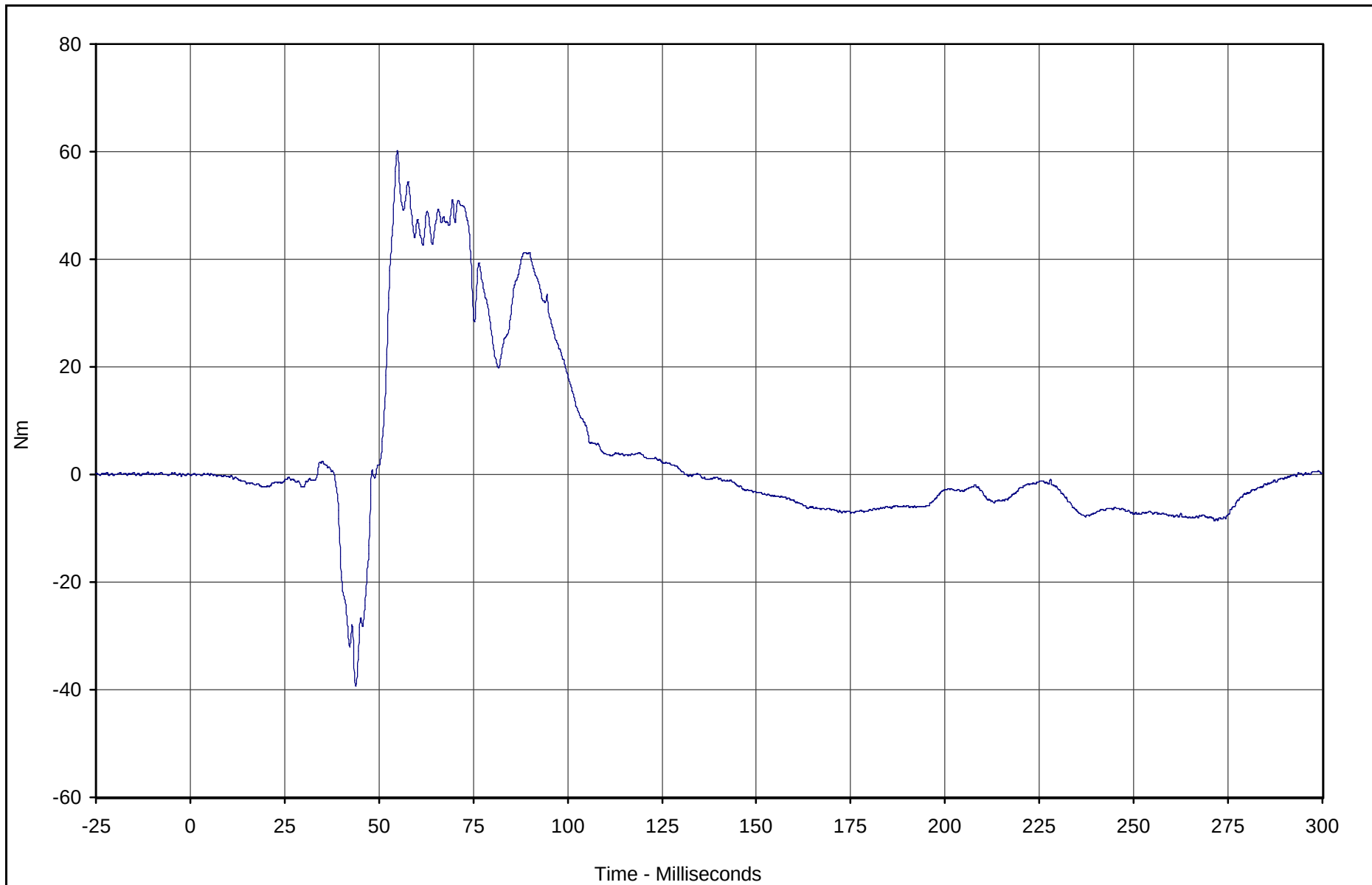


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Left Lower Tibia Moment Y	074	FIL	Nm	60.2	54.9	-39.4	43.8	600

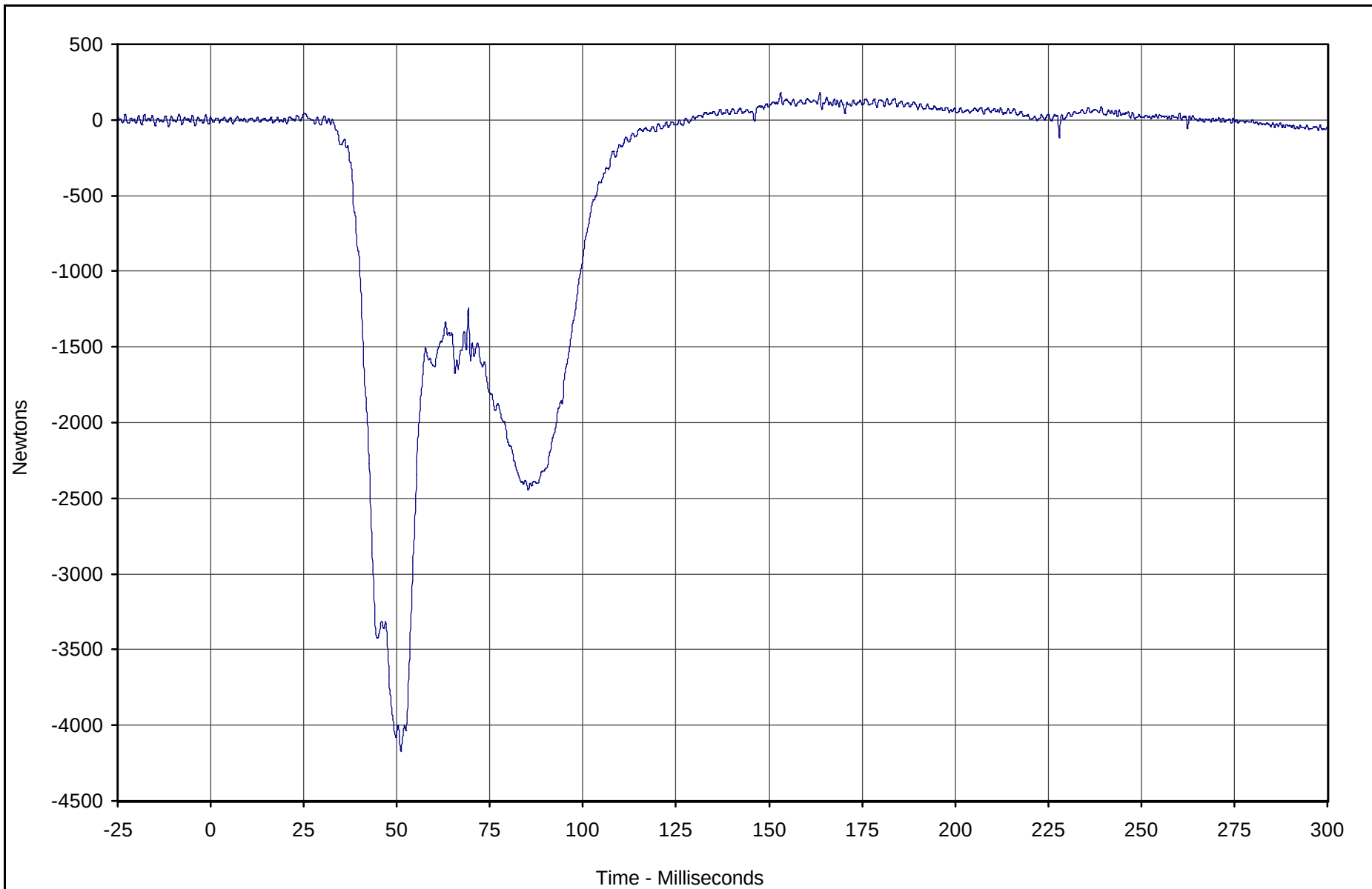


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Left Lower Tibia Force Z	075	FIL	Newtons	180.6	153.2	-4171.4	51.1	600

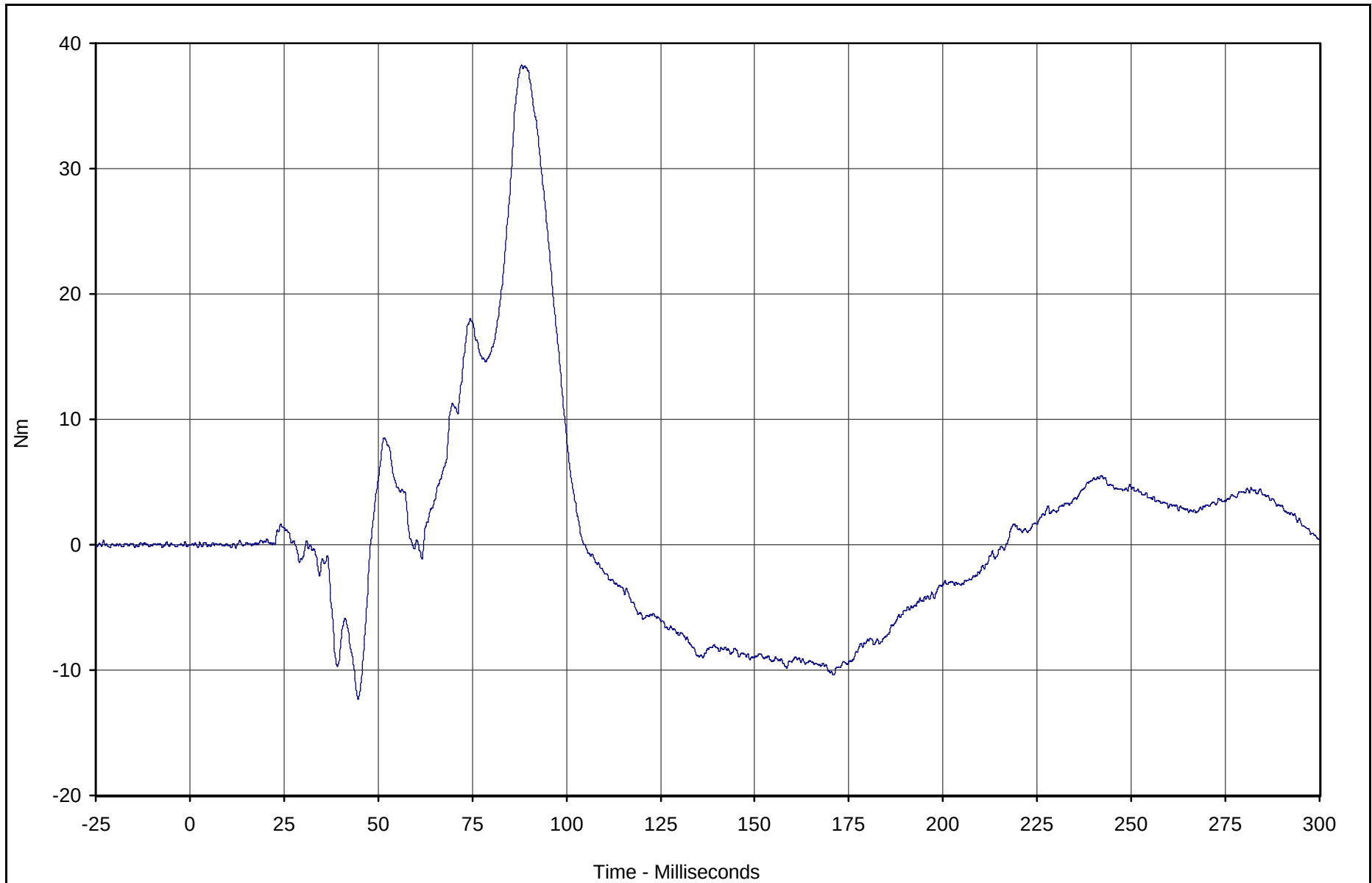


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Right Lower Tibia Moment X	076	FIL	Nm	38.3	88.1	-12.3	44.7	600

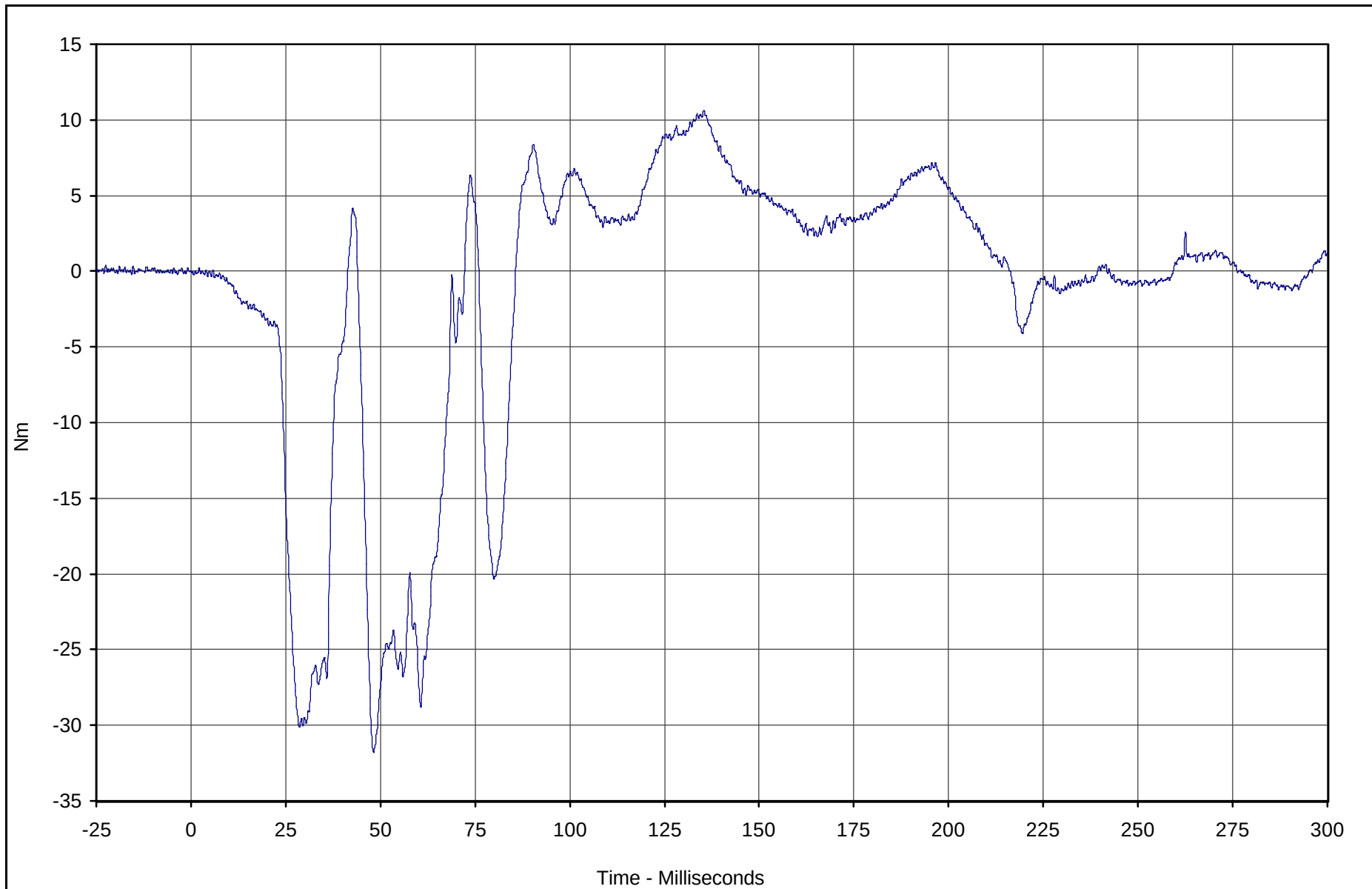


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Right Lower Tibia Moment Y	077	FIL	Nm	10.6	135.4	-31.8	48.2	600

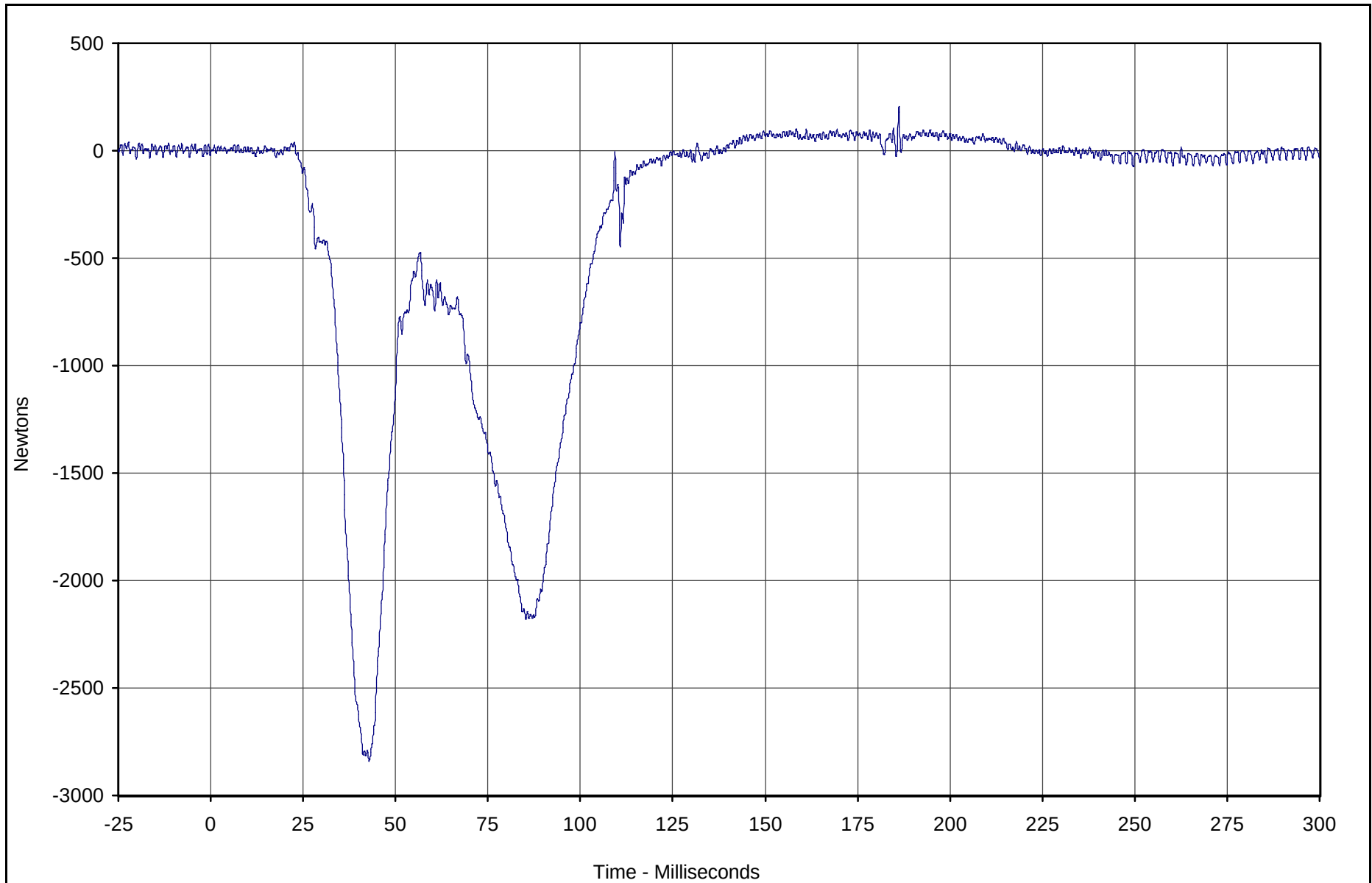


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Right lower Tibia Force Z	078	FIL	Newtons	207.6	186.2	-2840.5	42.9	600

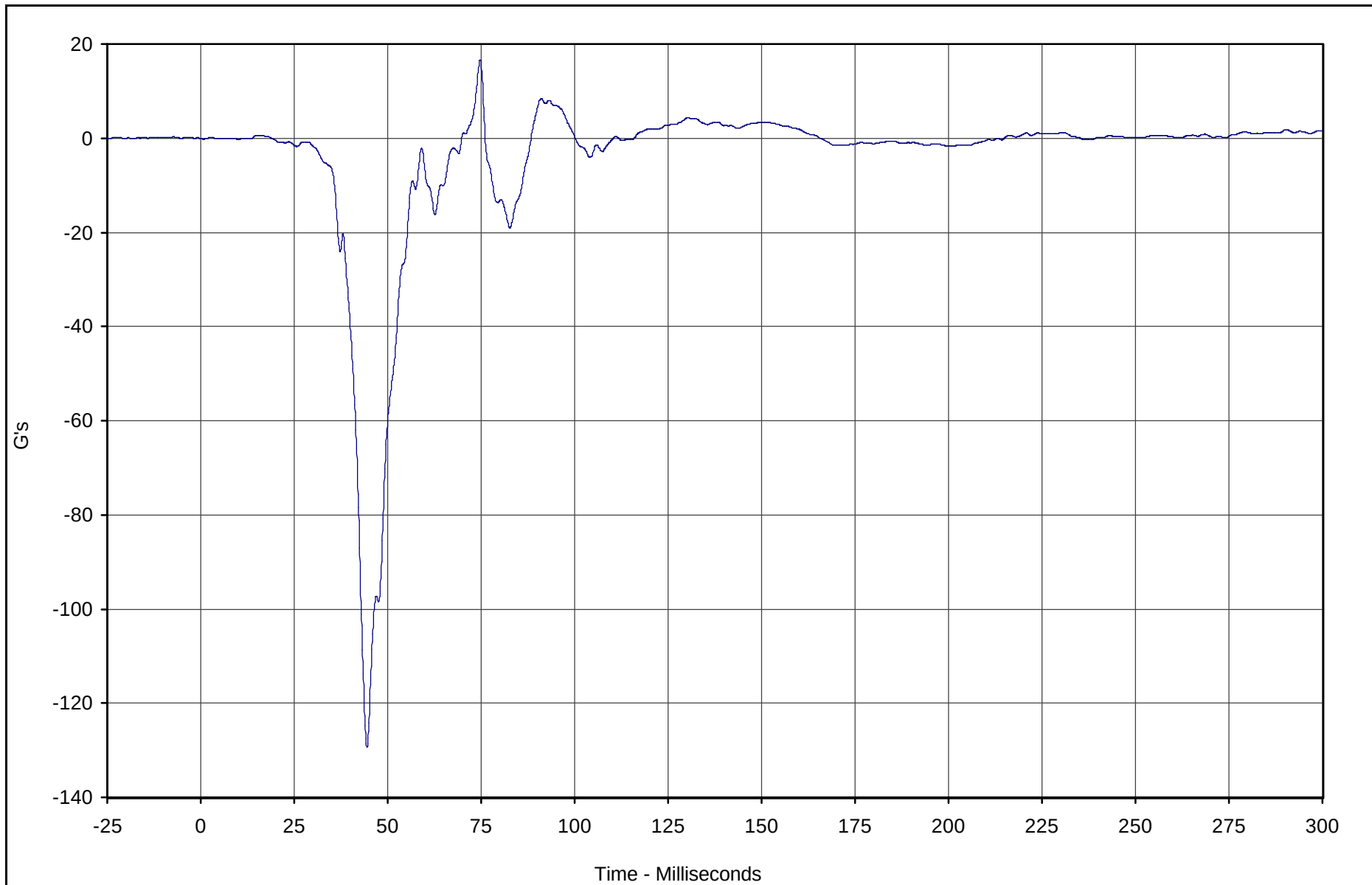


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Left Foot Aft X	079	FIL	G's	16.6	74.8	-129.4	44.5	180

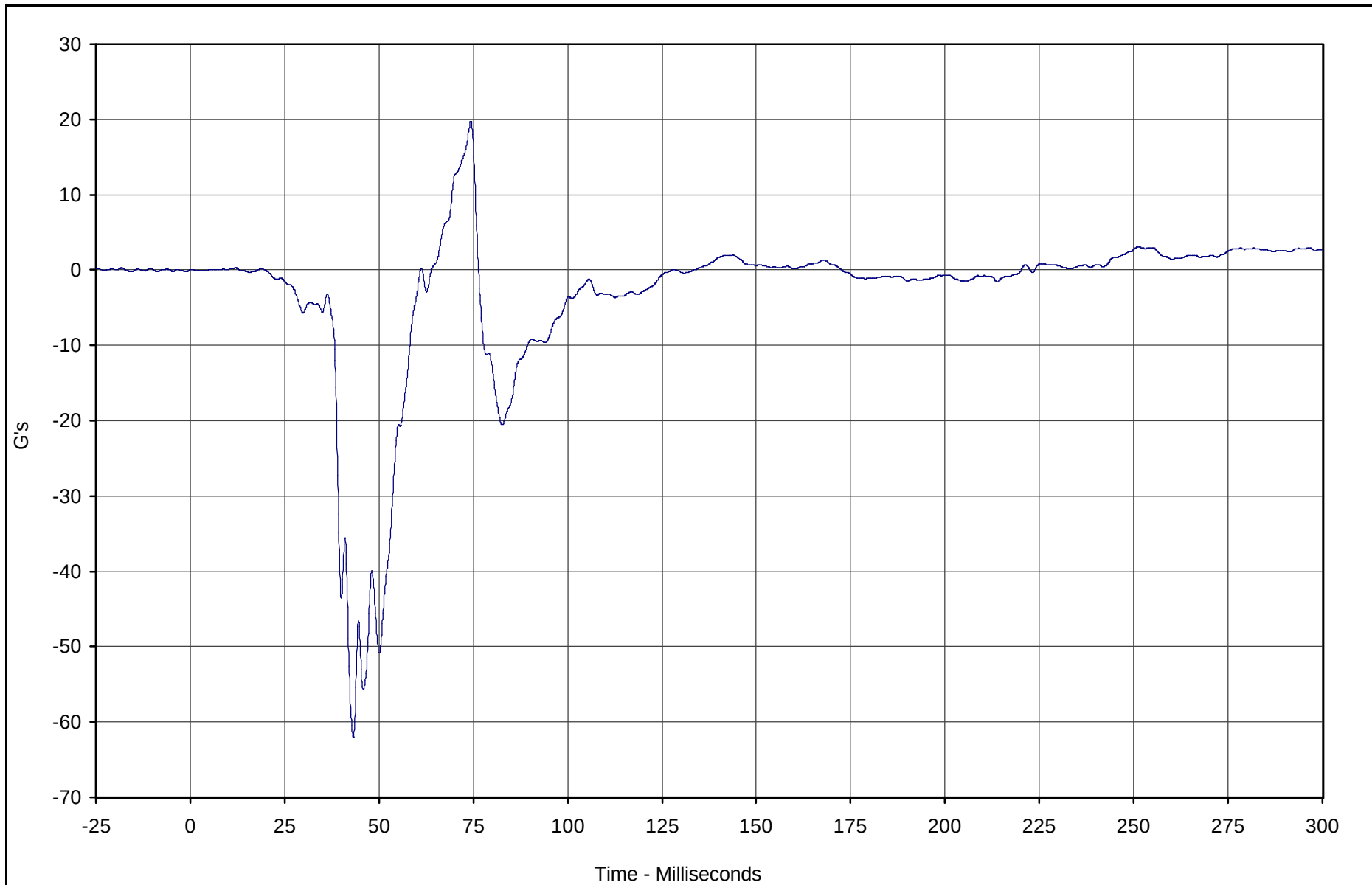


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Left Foot Aft Z	080	FIL	G's	19.8	74.4	-62.0	43.2	180

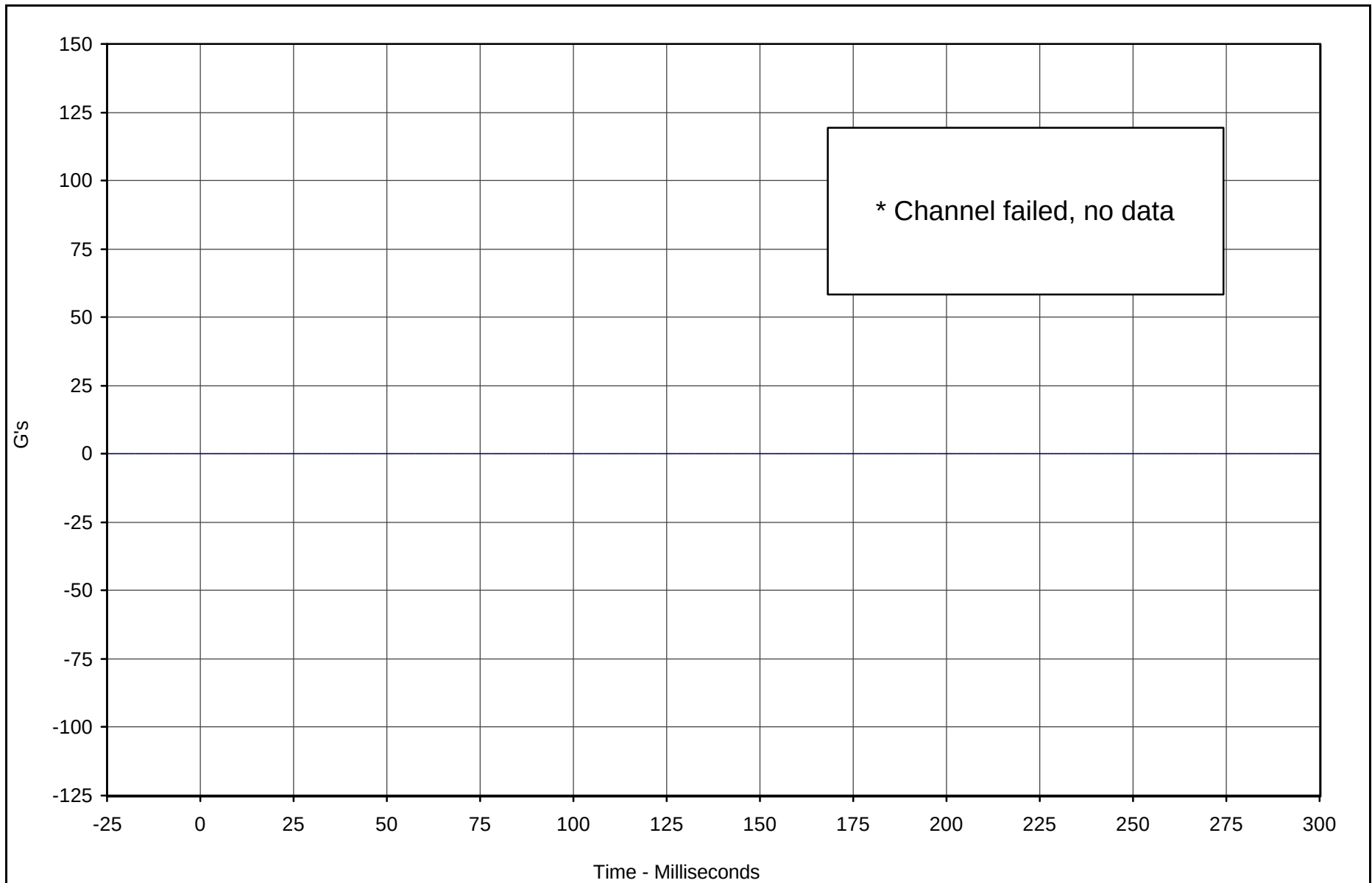


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Left Foot Fore Z	081	FIL	G's	0.0	0.0	0.0	0.0	180

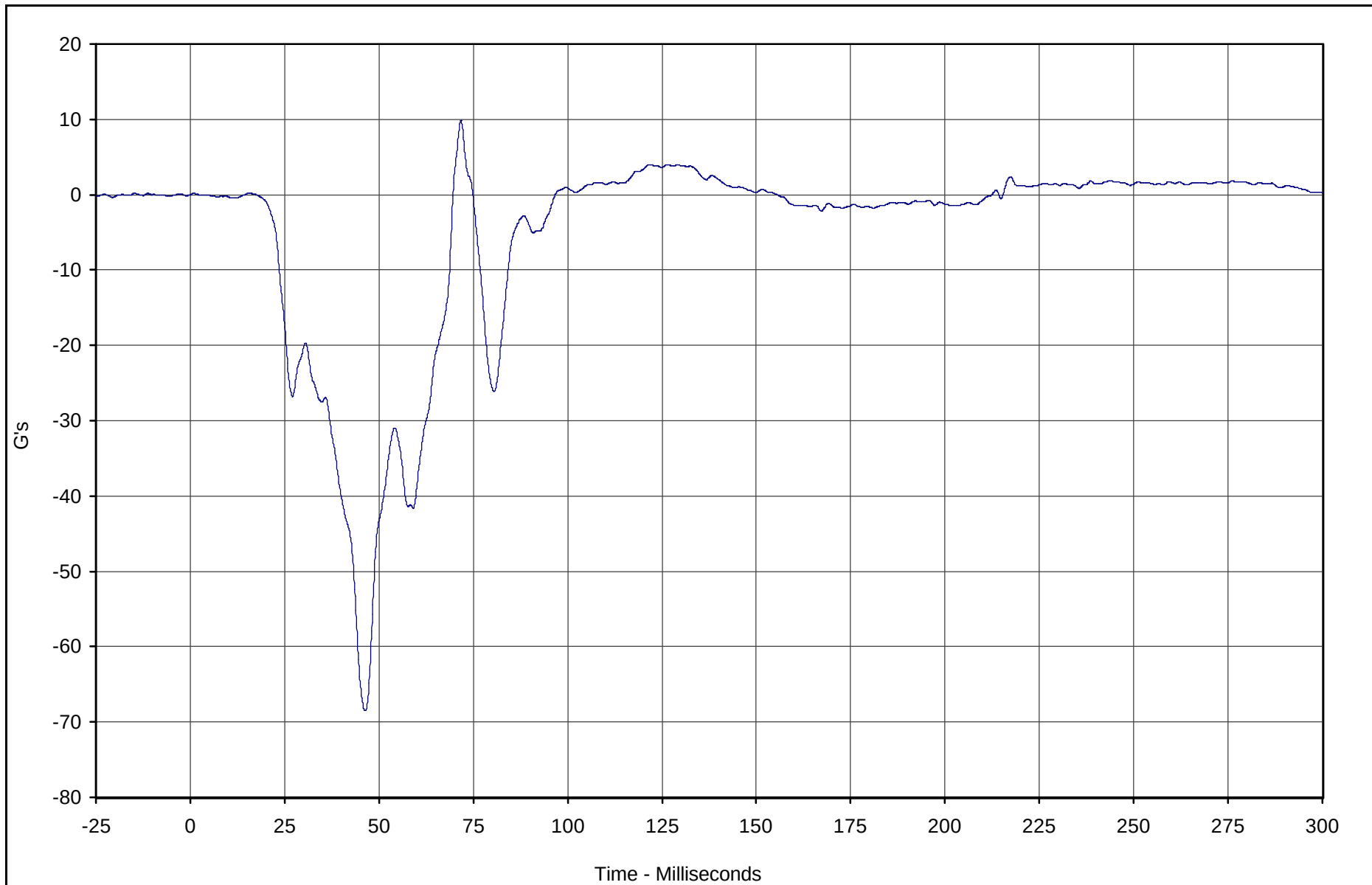


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Right Foot Aft X	082	FIL	G's	9.9	71.7	-68.5	46.3	180

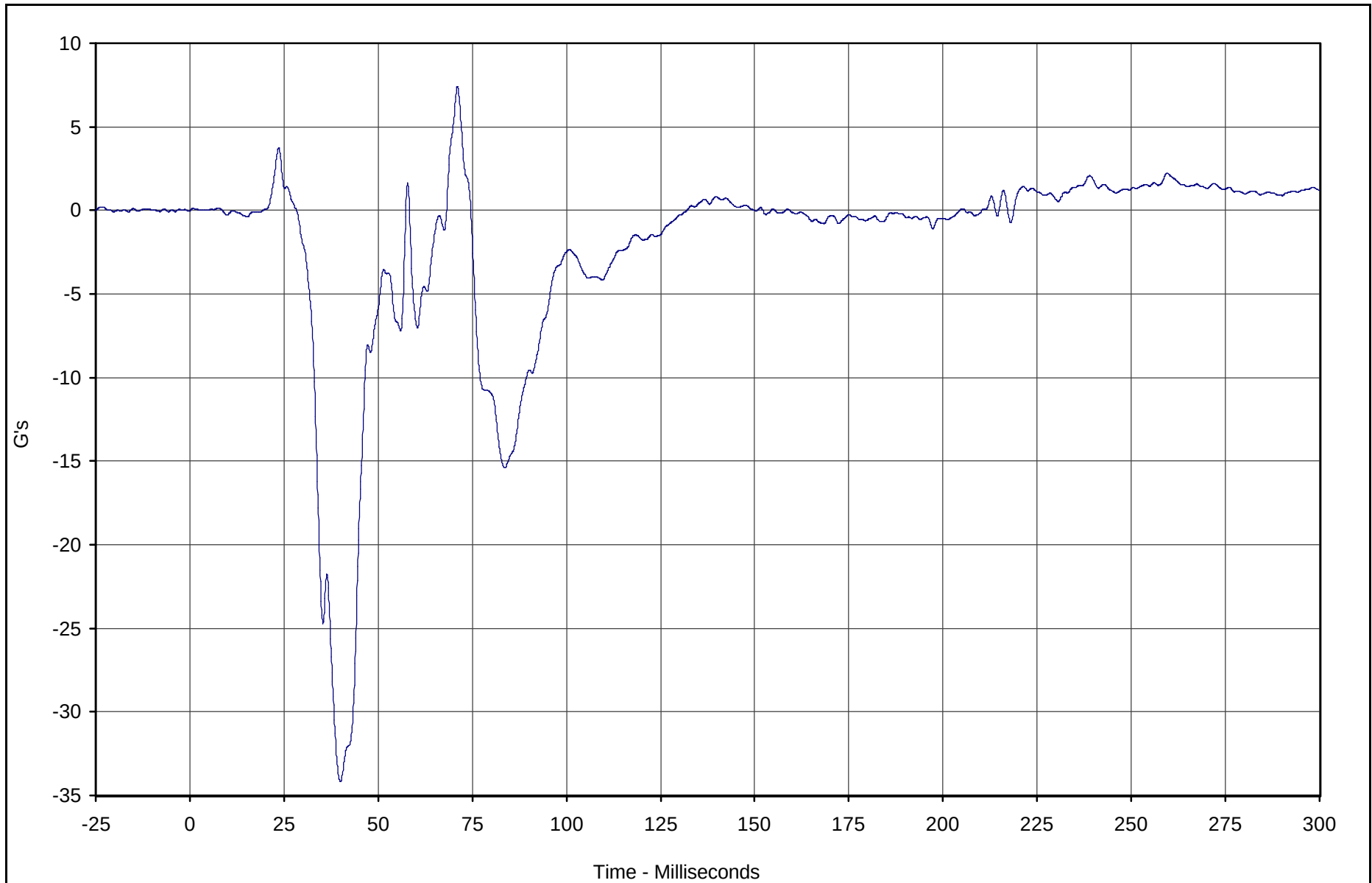


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Right Foot Aft Z	083	FIL	G's	7.4	71.0	-34.2	40.0	180

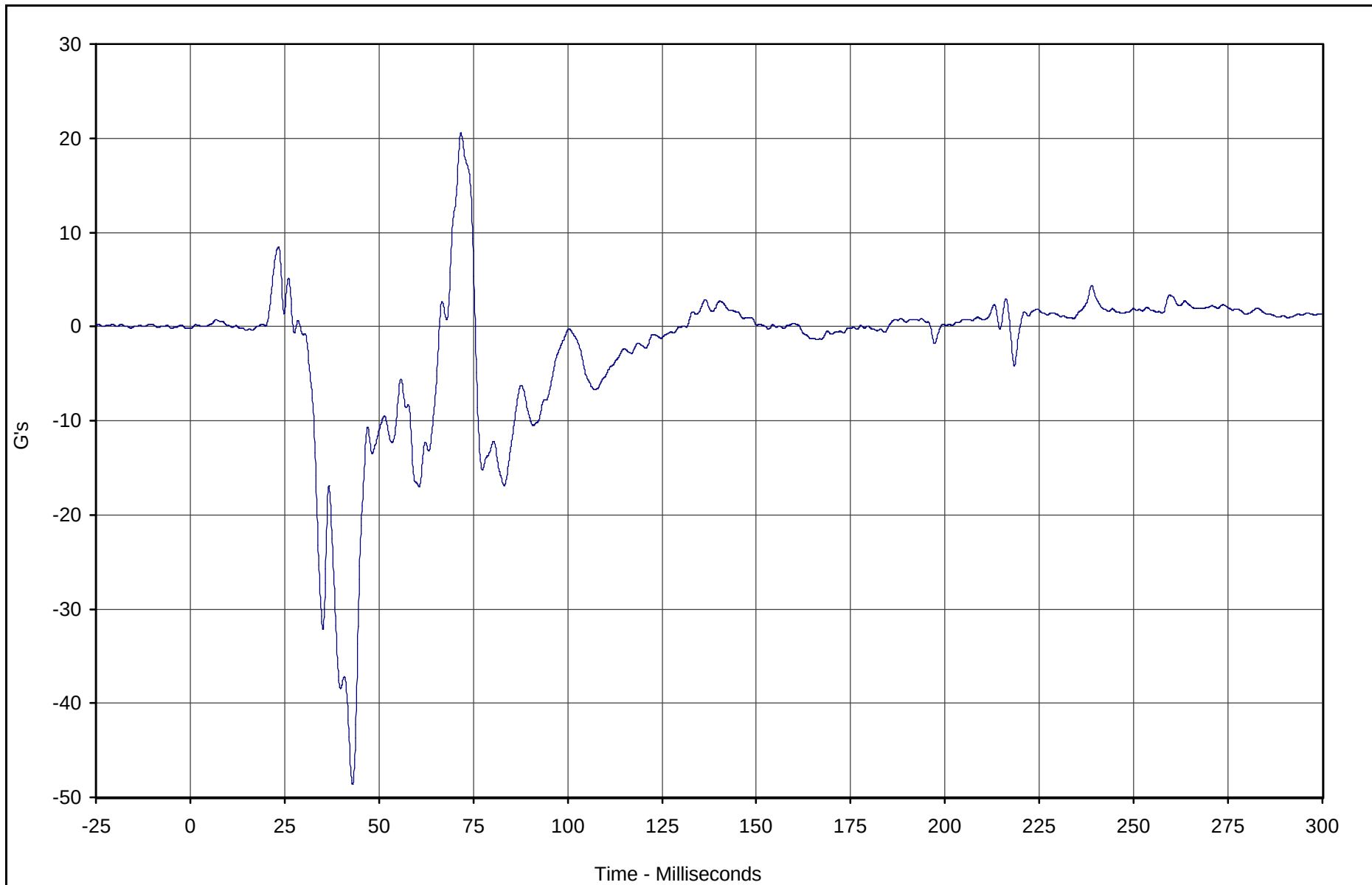


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Right Foot Fore Z	084	FIL	G's	20.5	71.7	-48.6	43.0	180

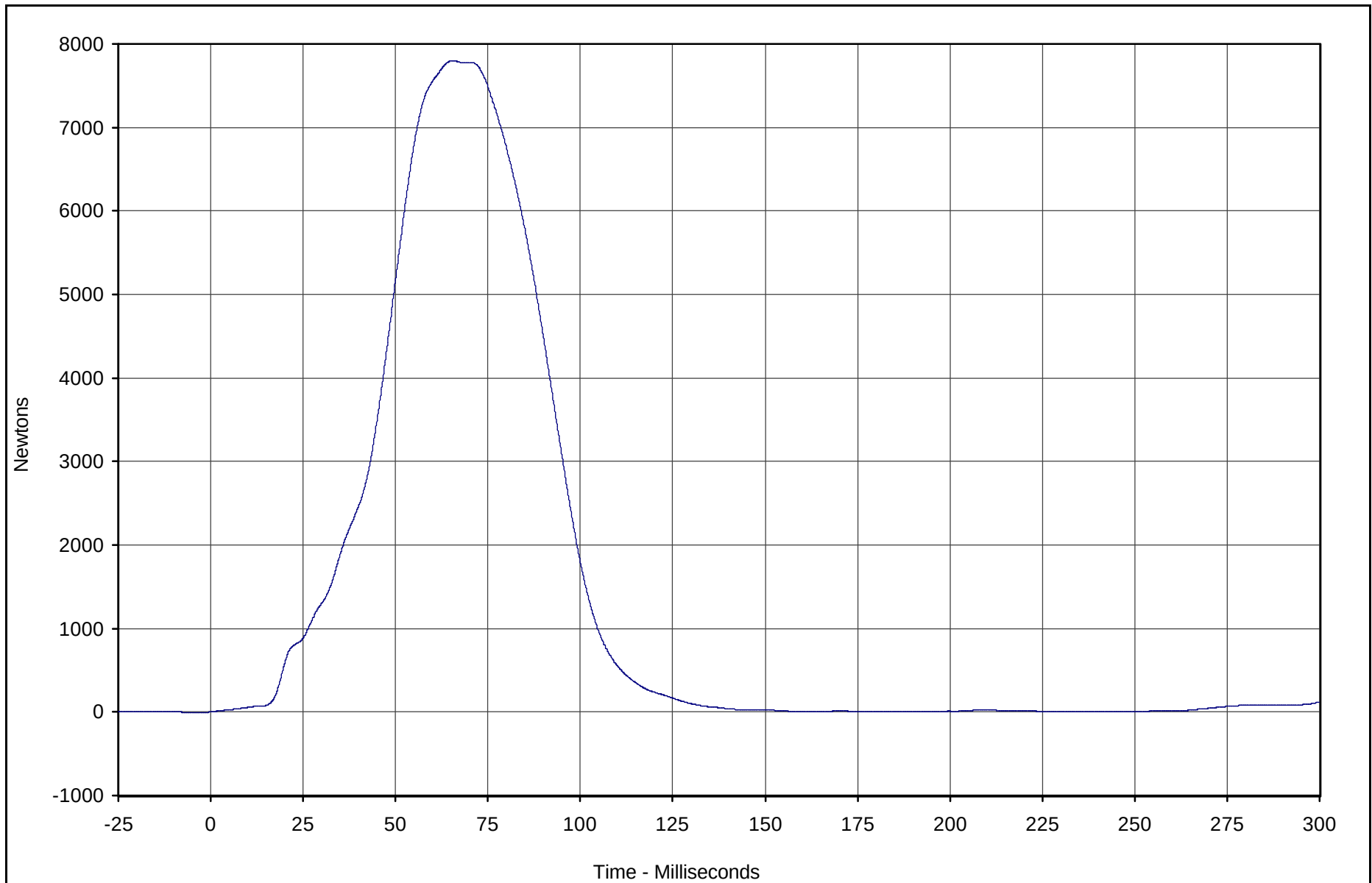


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Lap Belt Force	085	FIL	Newtons	7800.1	65.5	0.8	0.0	60

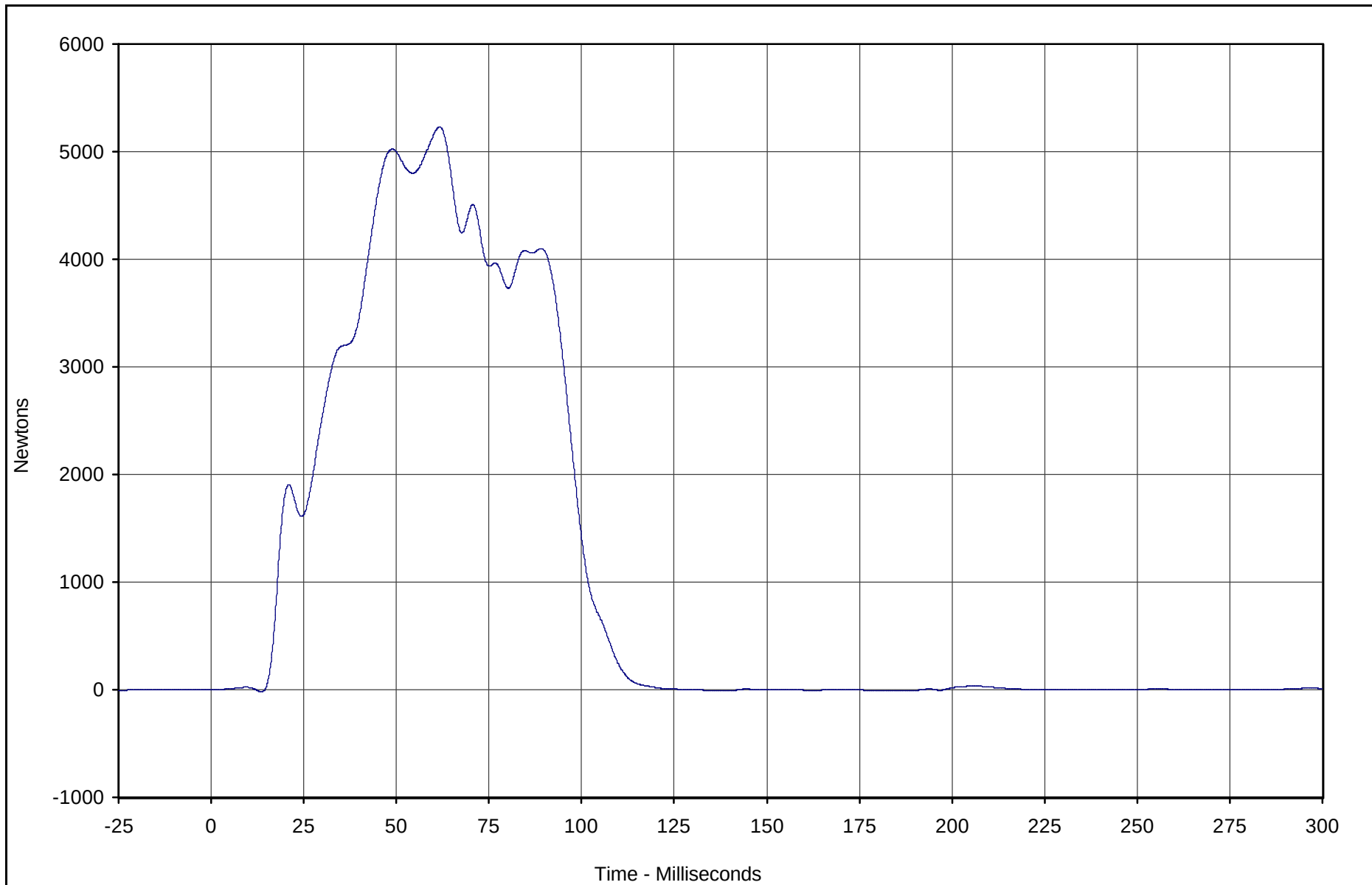


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Shoulder Belt Force	086	FIL	Newtons	5231.6	61.7	-21.9	13.6	60

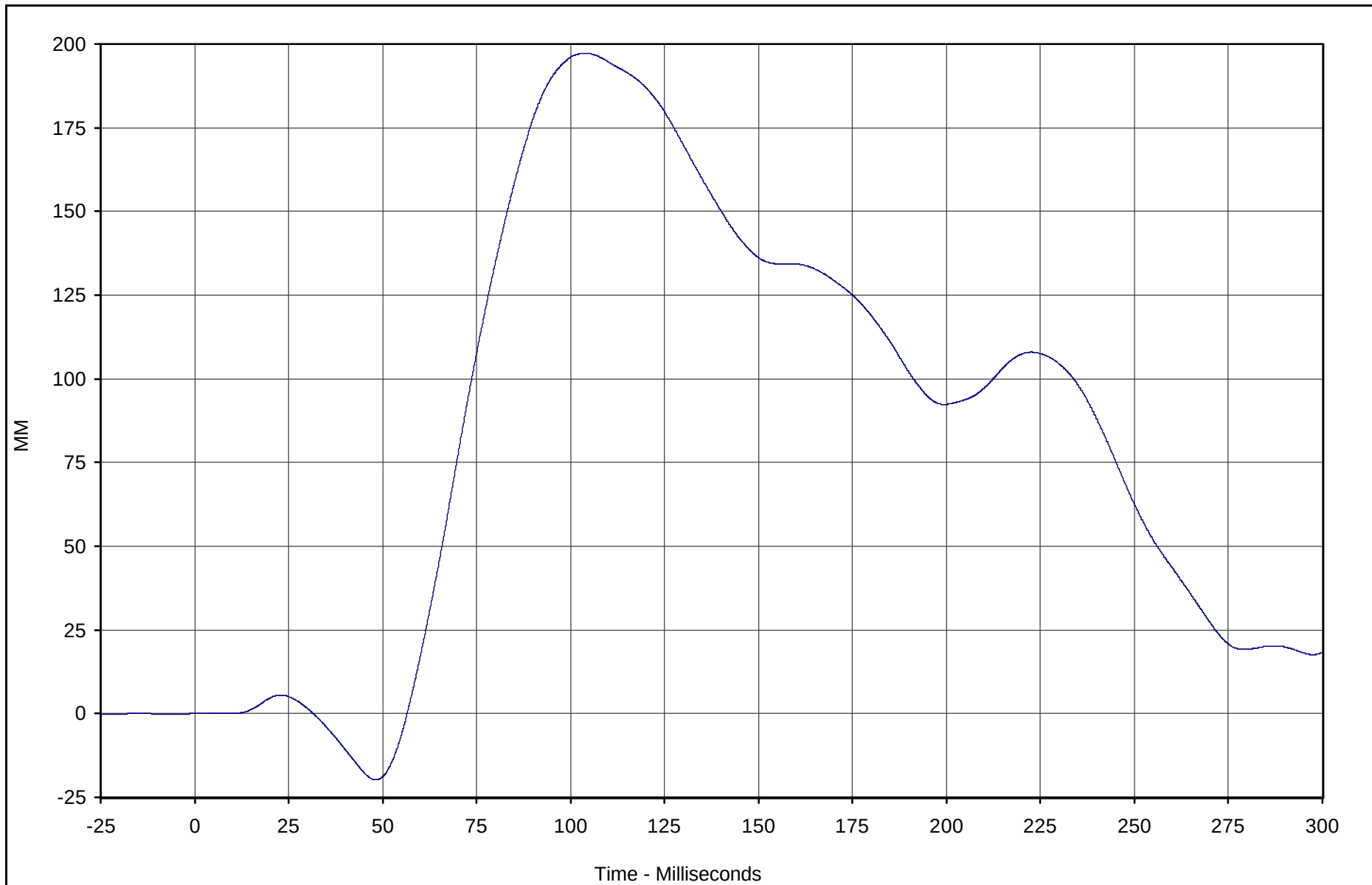


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Shoulder Belt Pullout	087	FIL	MM	197.3	103.7	-19.7	48.2	60

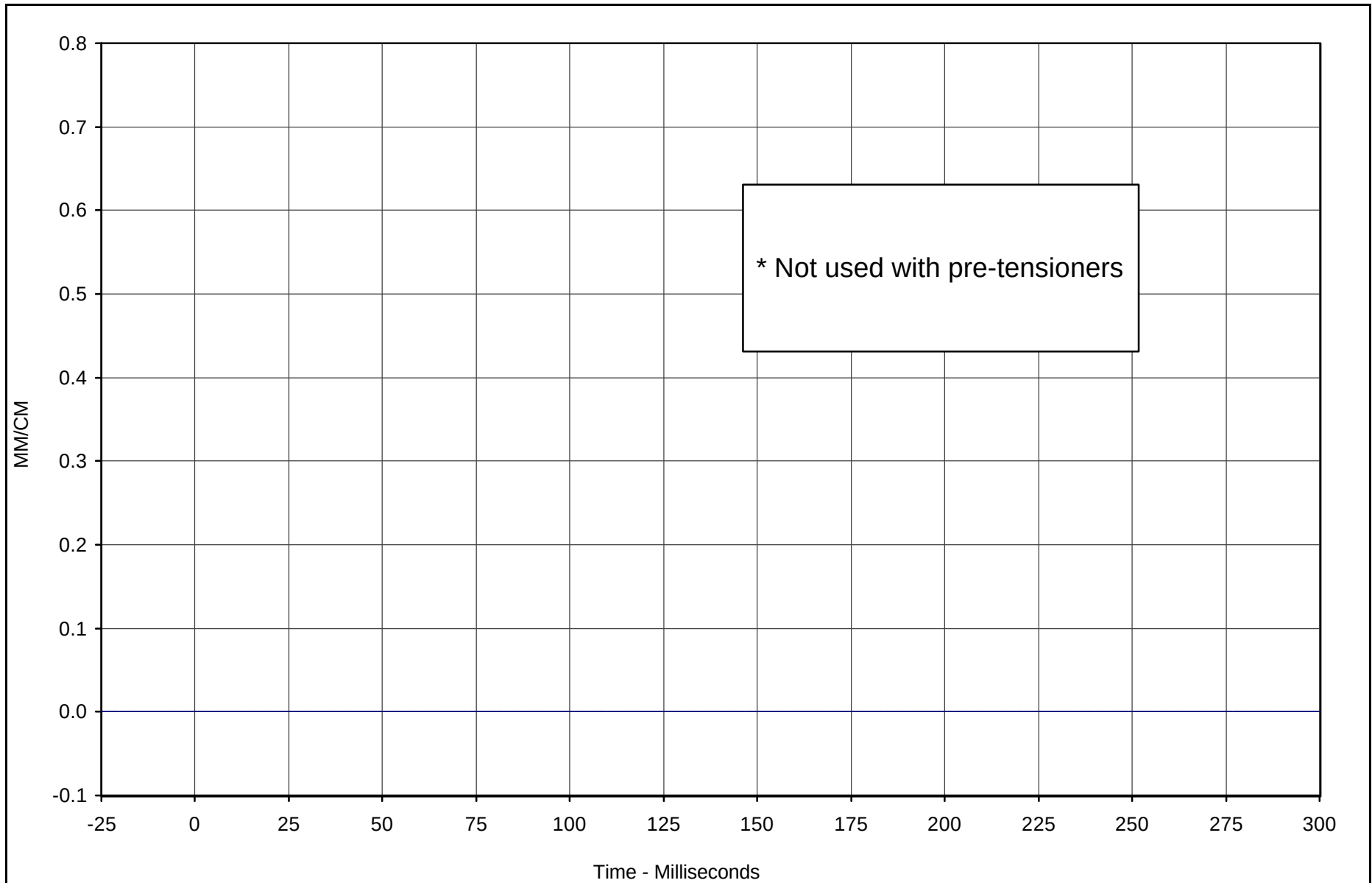


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Passenger Shoulder Belt Elongation	088	FIL	MM/CM	0.00	0.0	0.00	0.0	60

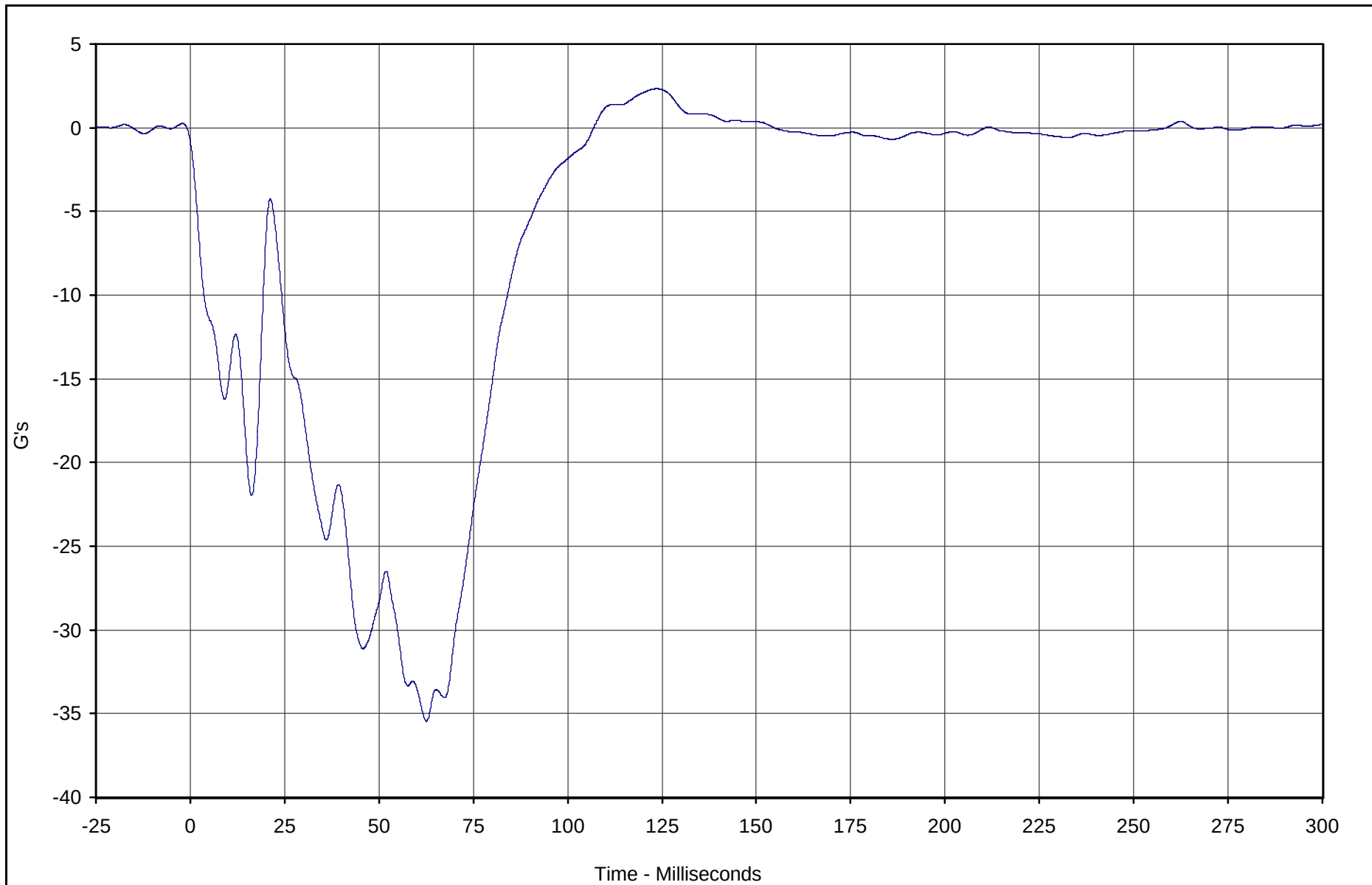


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Left Rear X	089	FIL	G's	2.3	123.5	-35.5	62.6	60

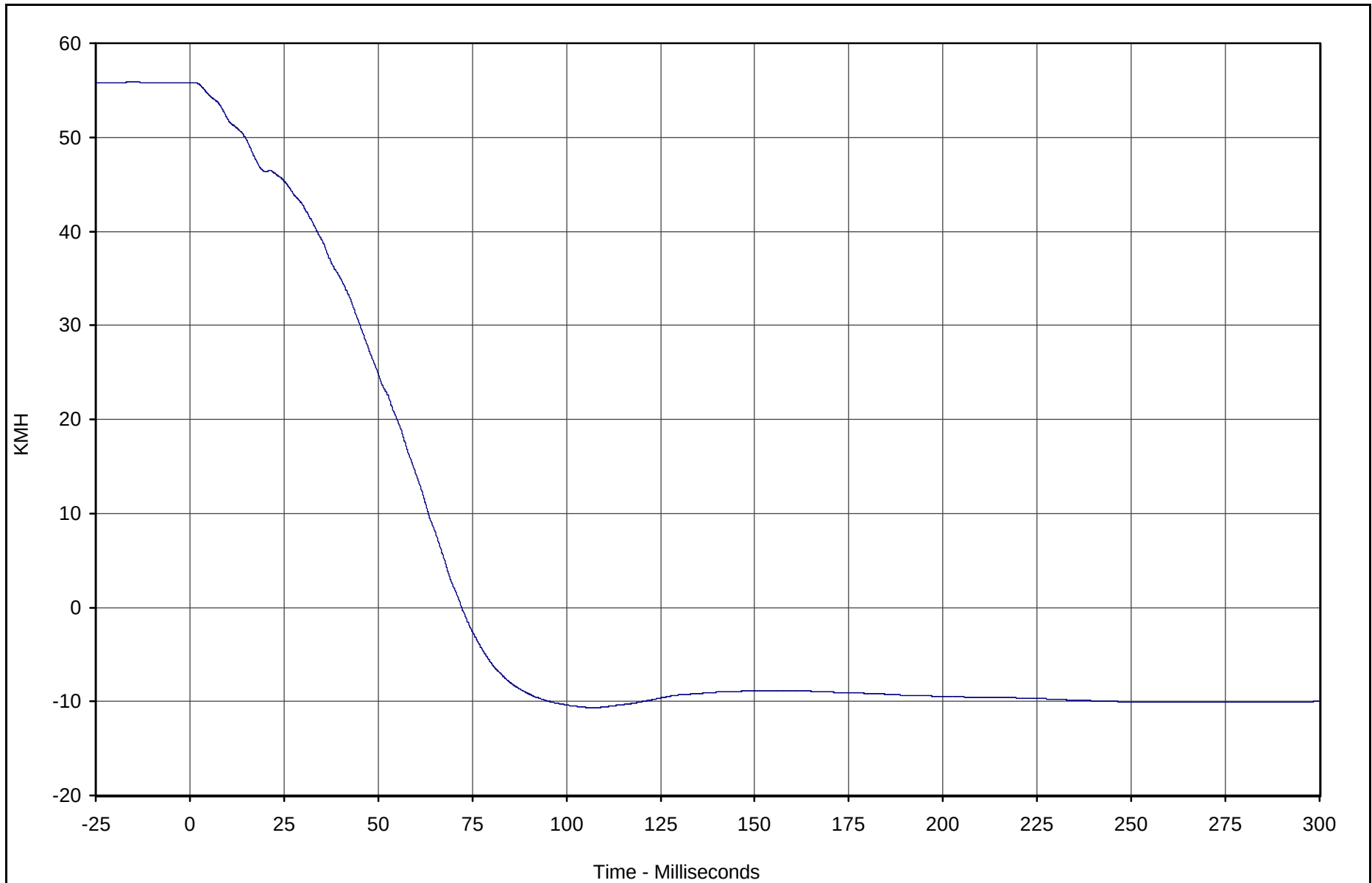


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Left Rear X Velocity	089	IN1	KMH	55.8	1.1	-10.7	106.4	180

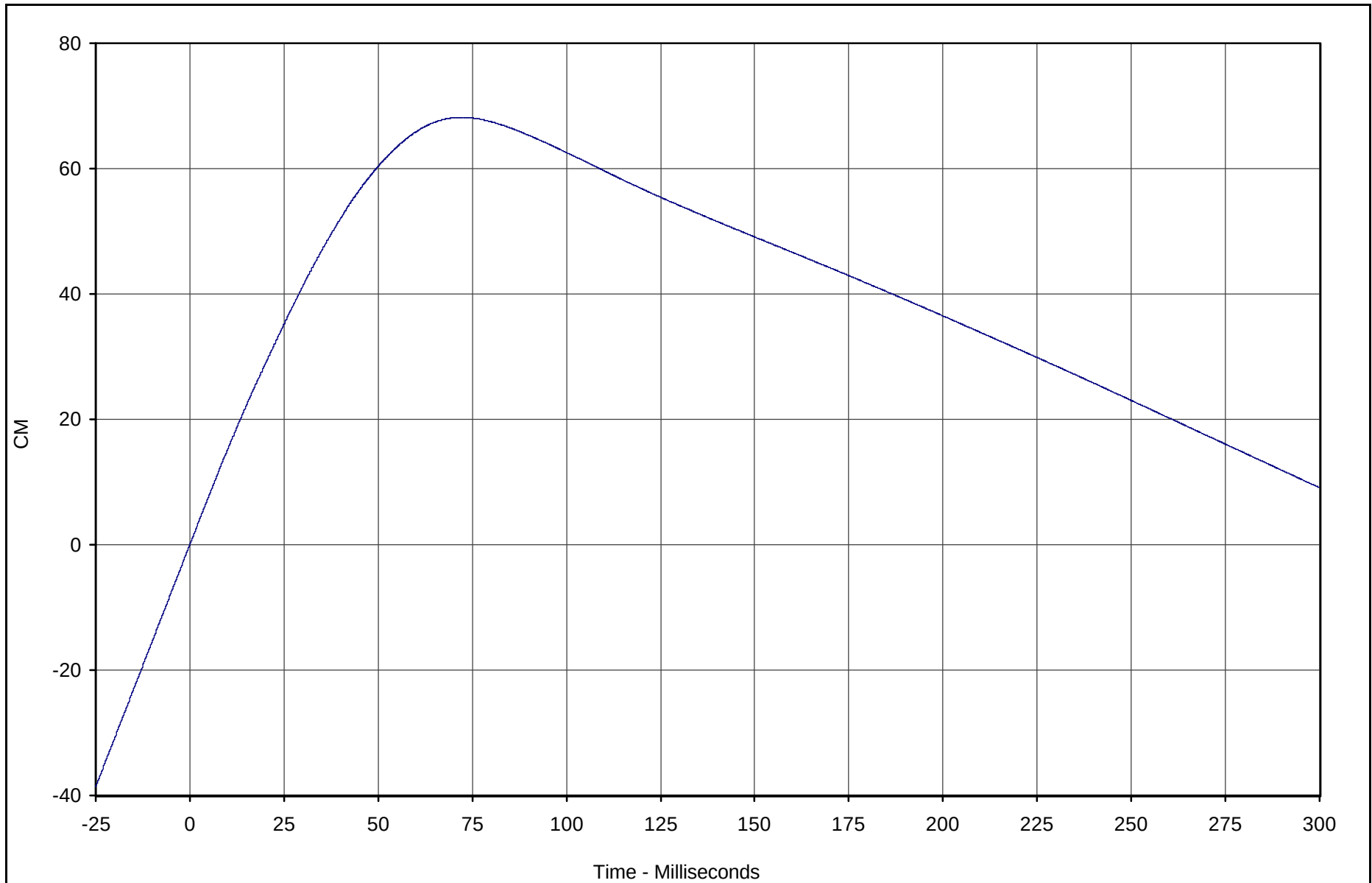


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Left Rear X Displ.	089	IN2	CM	68.2	72.2	0.0	0.0	180

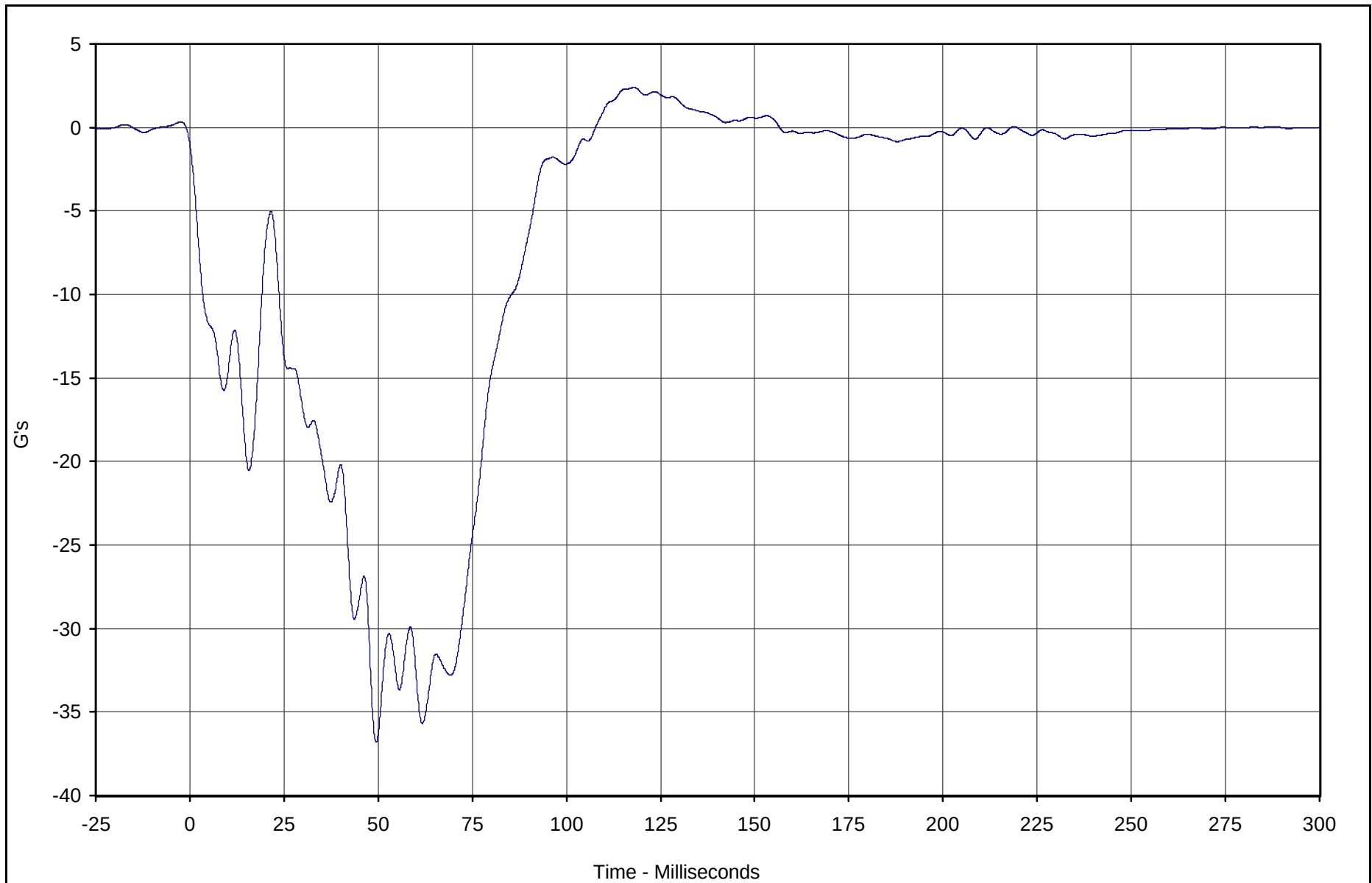


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Right Rear X	090	FIL	G's	2.4	117.9	-36.8	49.5	60

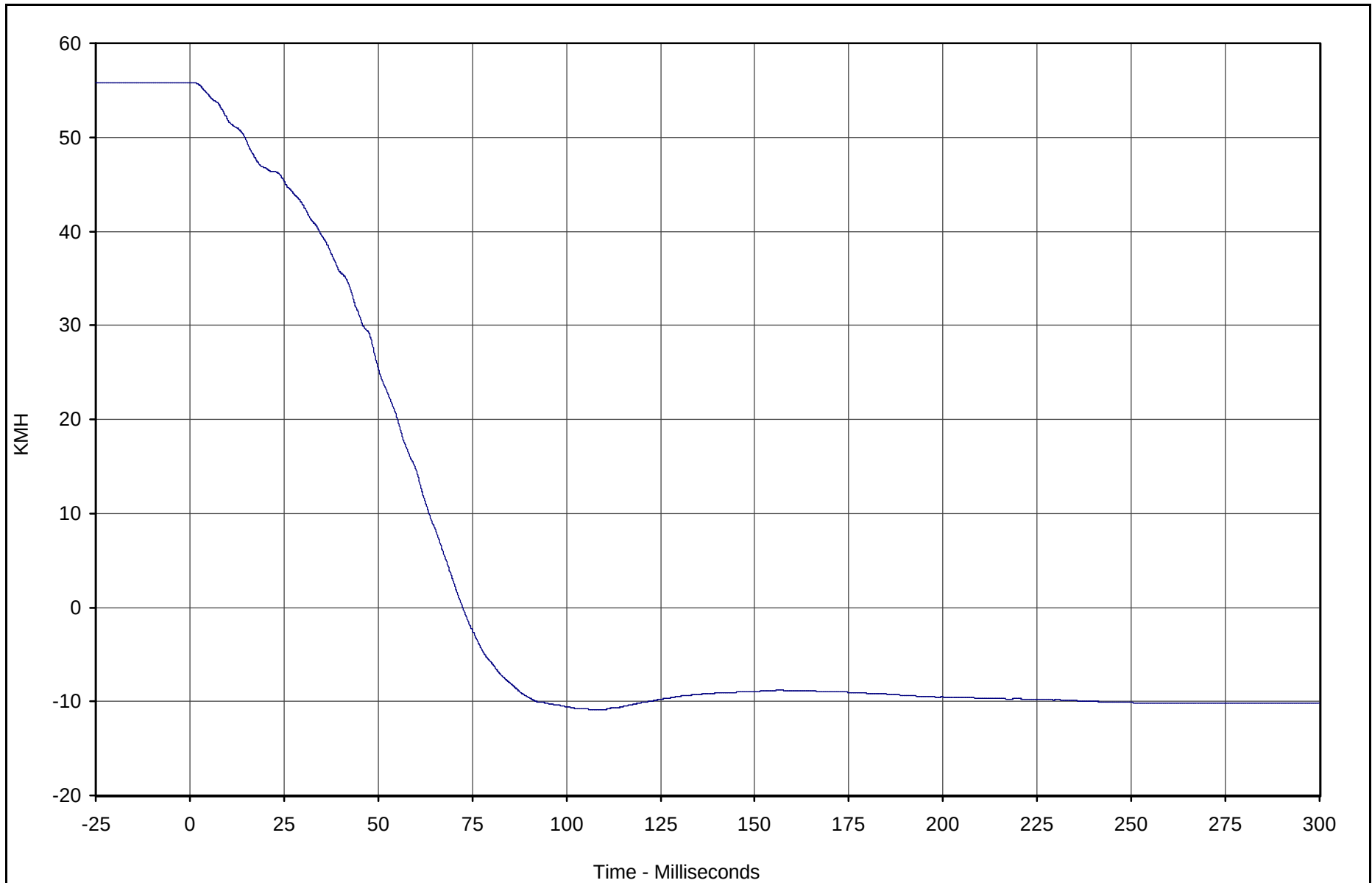


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Right Rear X Velocity	090	IN1	KMH	55.8	0.8	-10.9	107.1	180

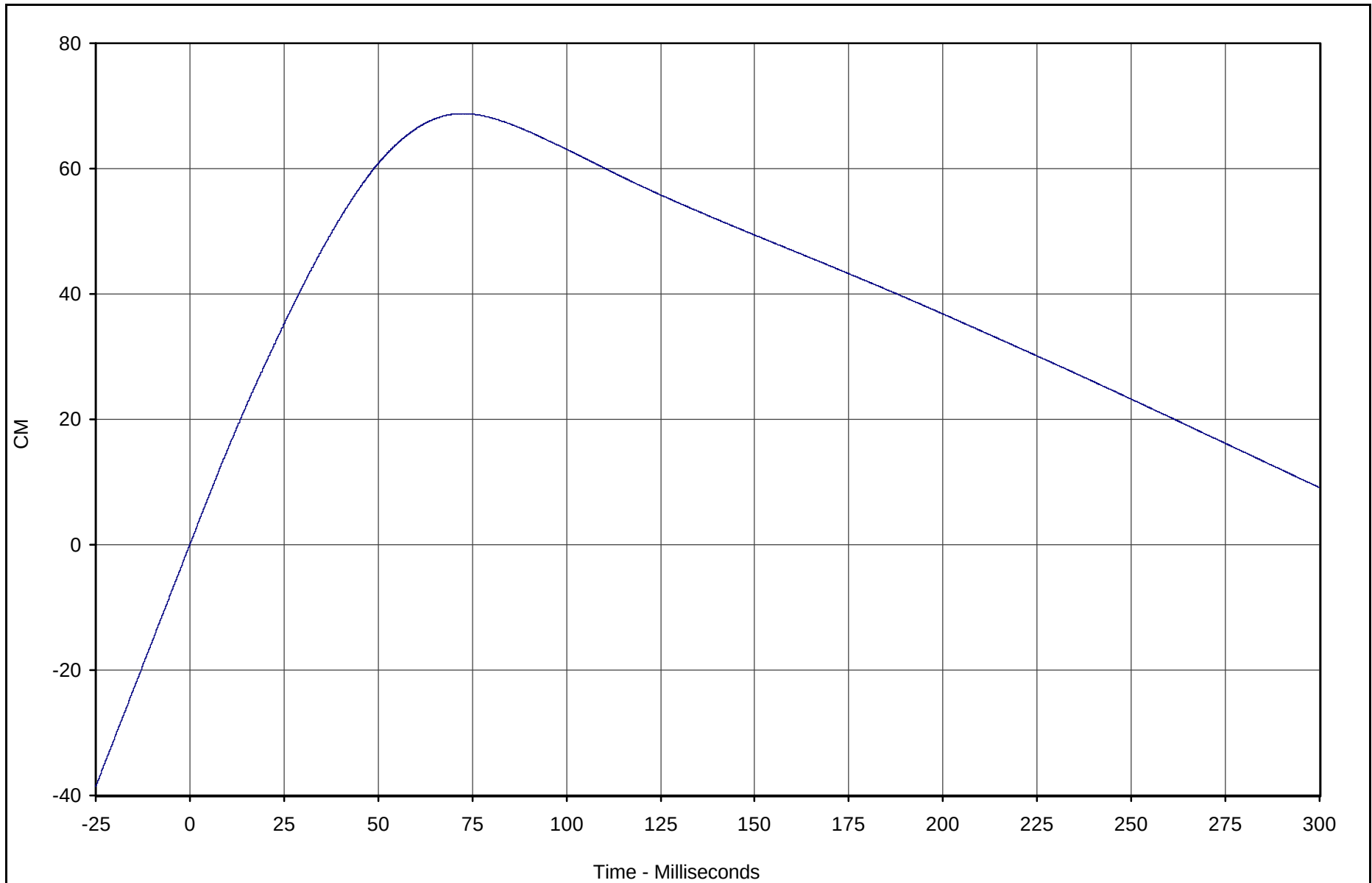


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Right Rear X Displ.	090	IN2	CM	68.8	72.5	0.0	0.0	180

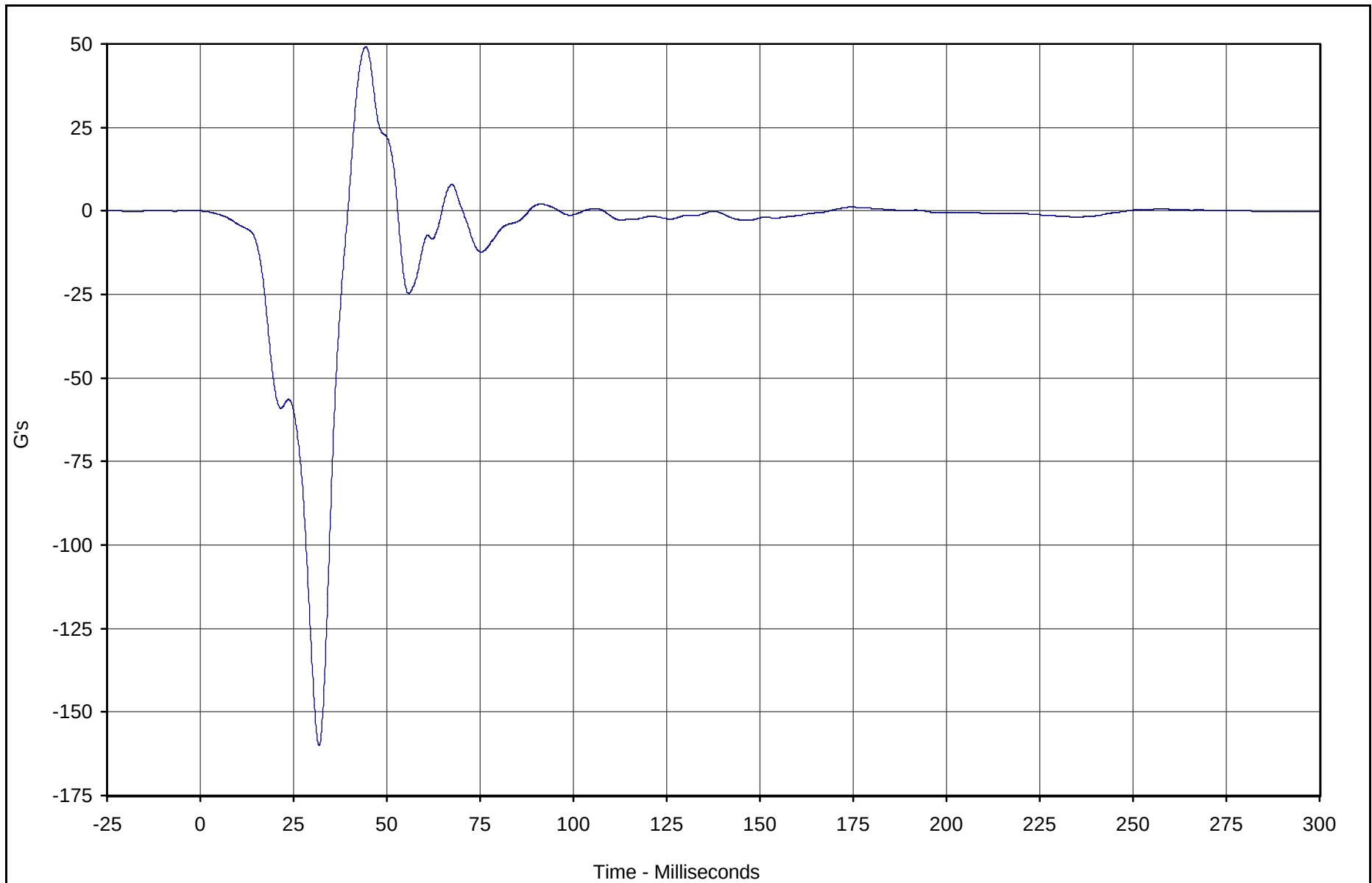


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Engine Top	091	FIL	G's	49.2	44.4	-160.0	31.8	60

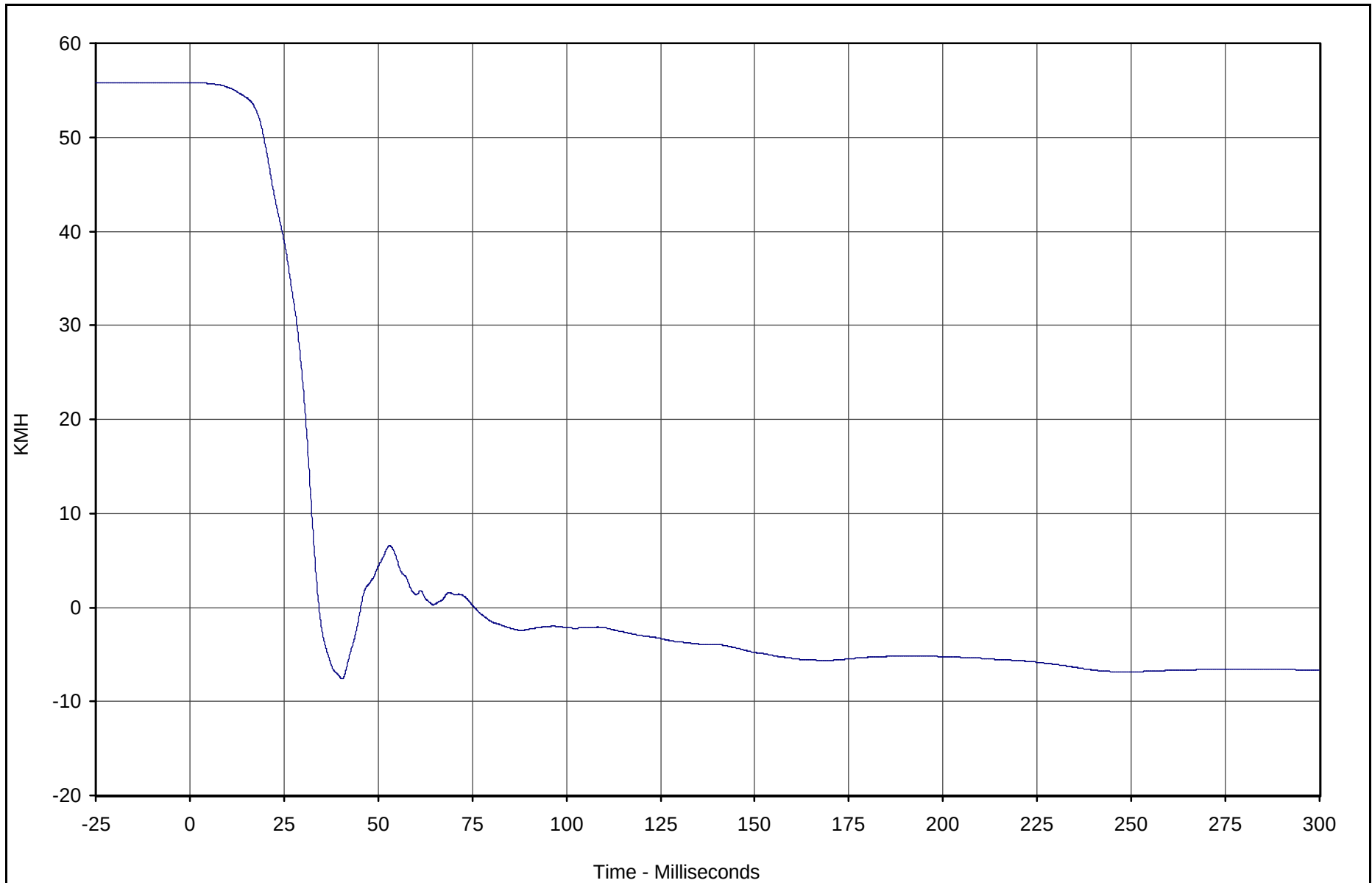


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Engine Top Velocity	091	IN1	KMH	55.8	0.0	-7.6	40.4	180

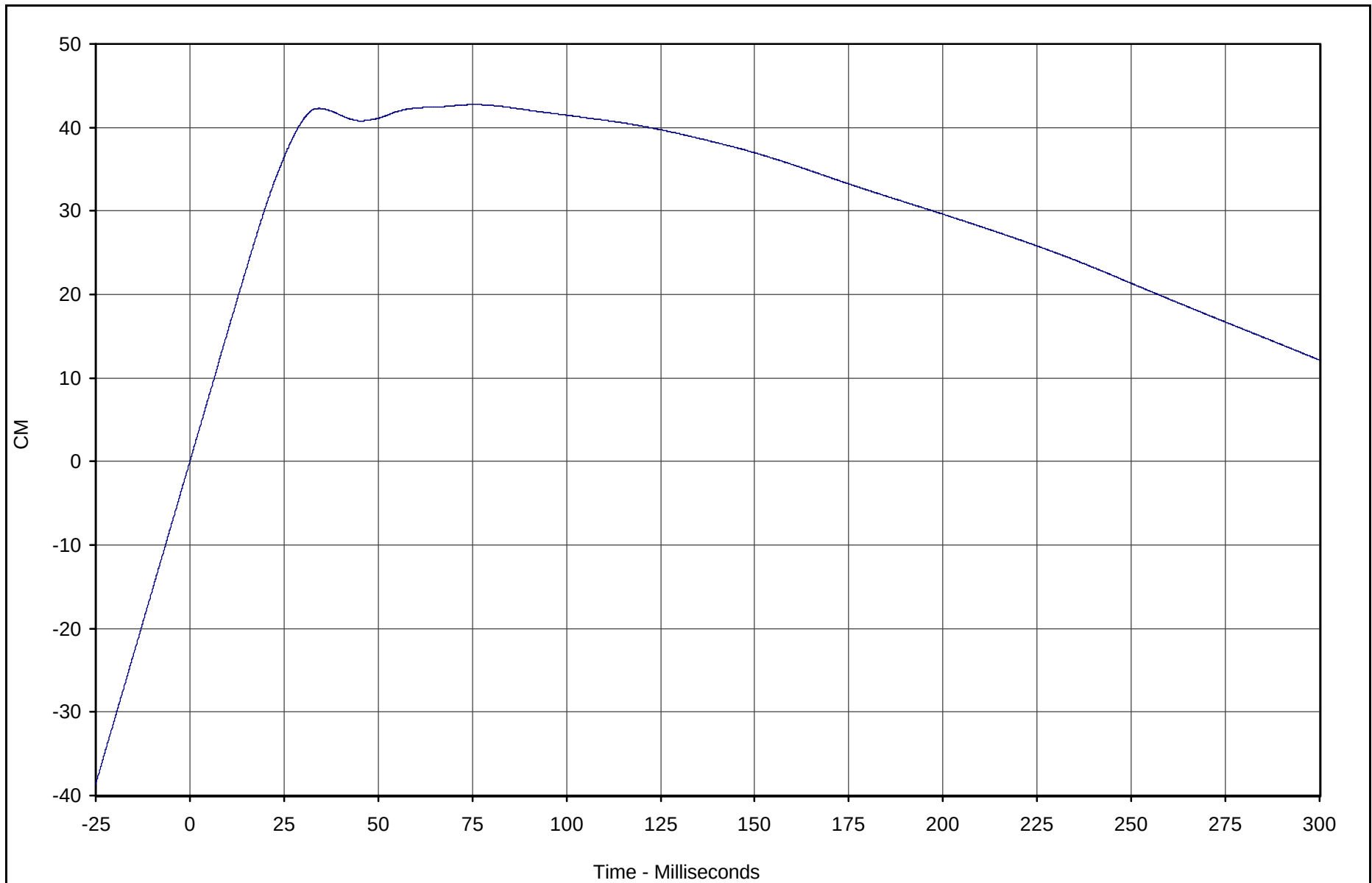


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Engine Top Displacement	091	IN2	CM	42.7	75.5	0.0	0.0	180

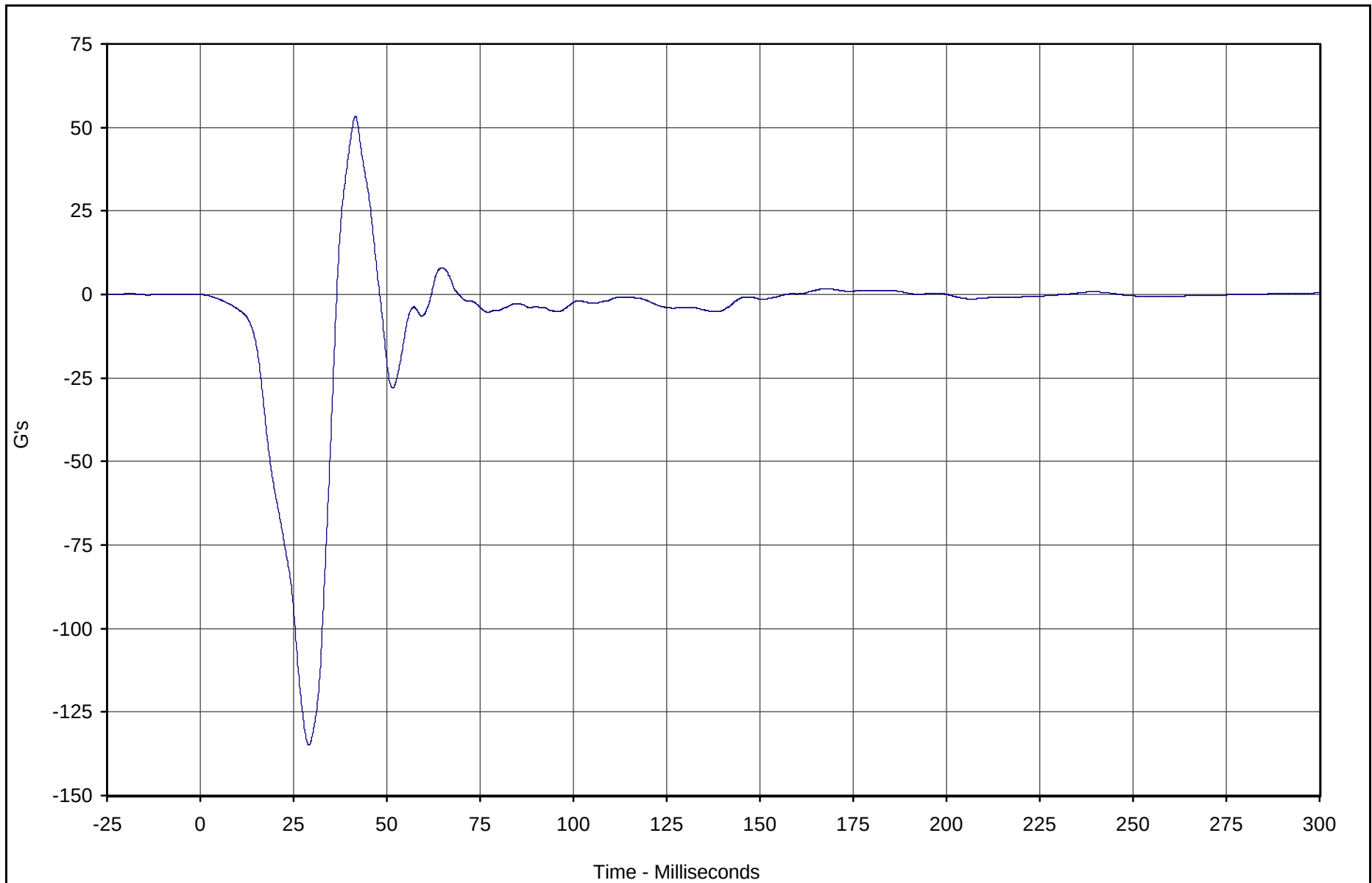


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Engine Bottom	092	FIL	G's	53.3	41.6	-134.9	29.1	60

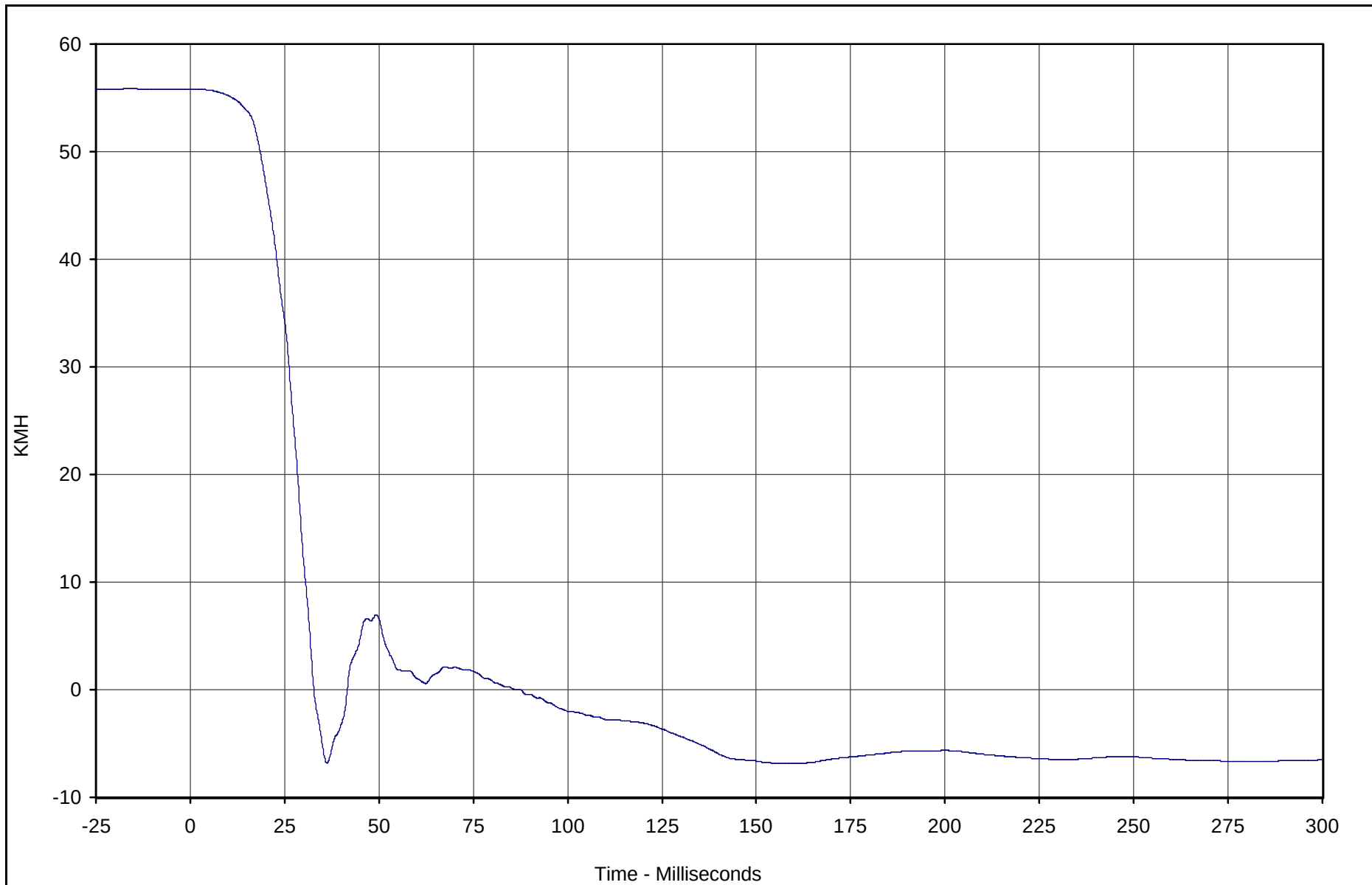


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Engine Bottom Velocity	092	IN1	KMH	55.8	0.0	-6.9	155.7	180

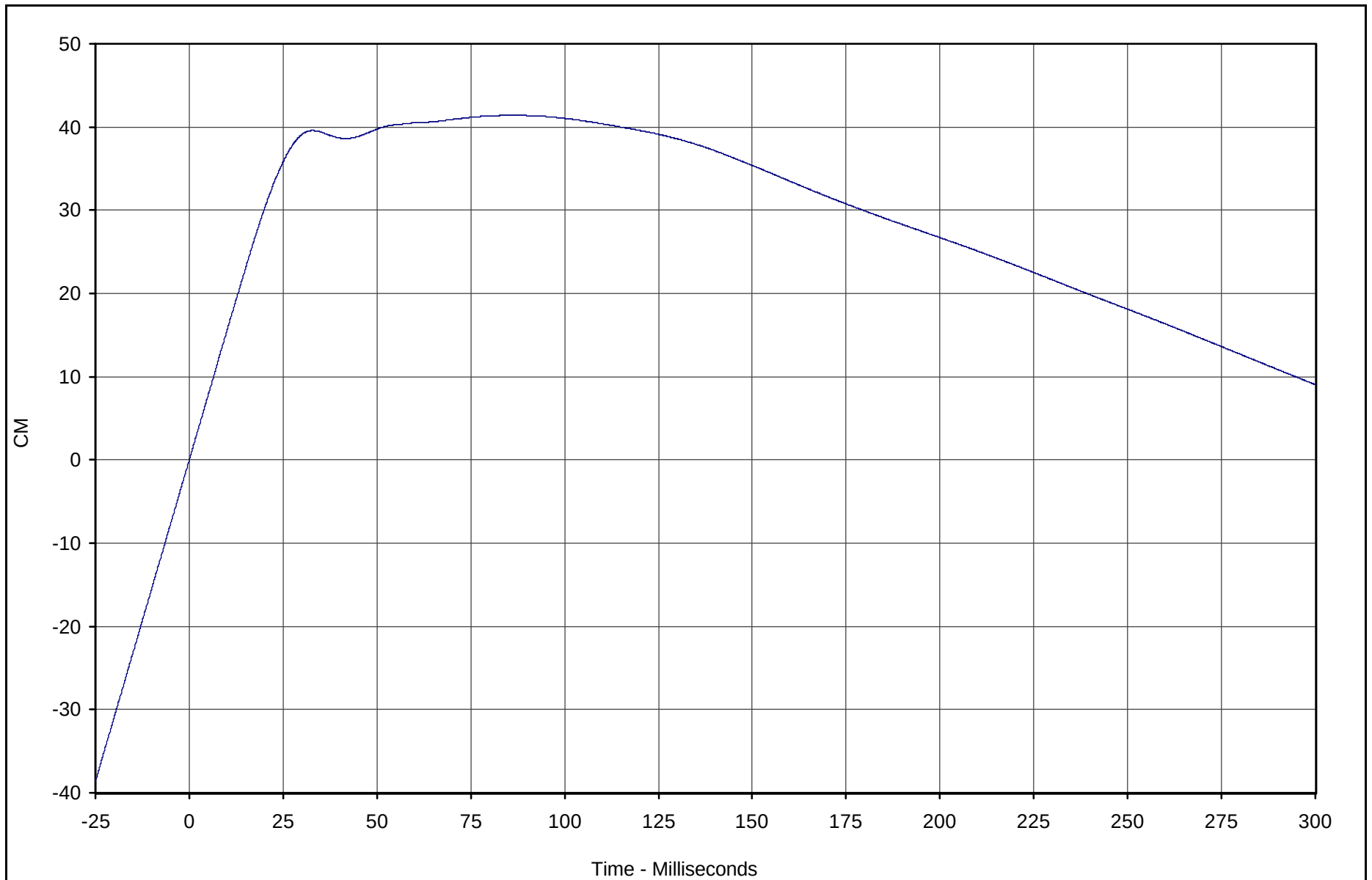


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Engine Bottom Displacement	092	IN2	CM	41.4	87.5	0.0	0.0	180

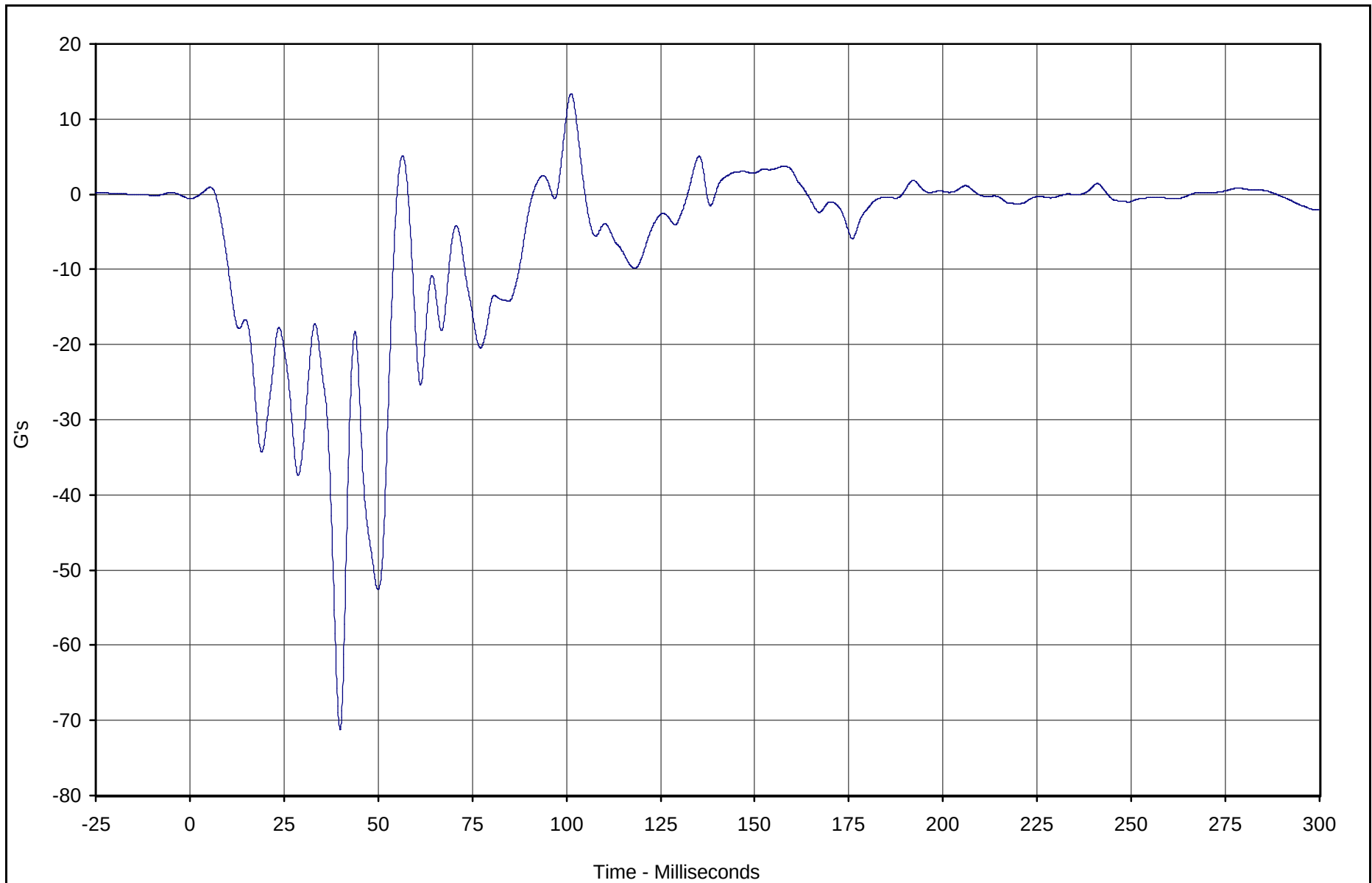


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Left Brake Caliper	093	FIL	G's	13.4	101.3	-71.3	39.9	60

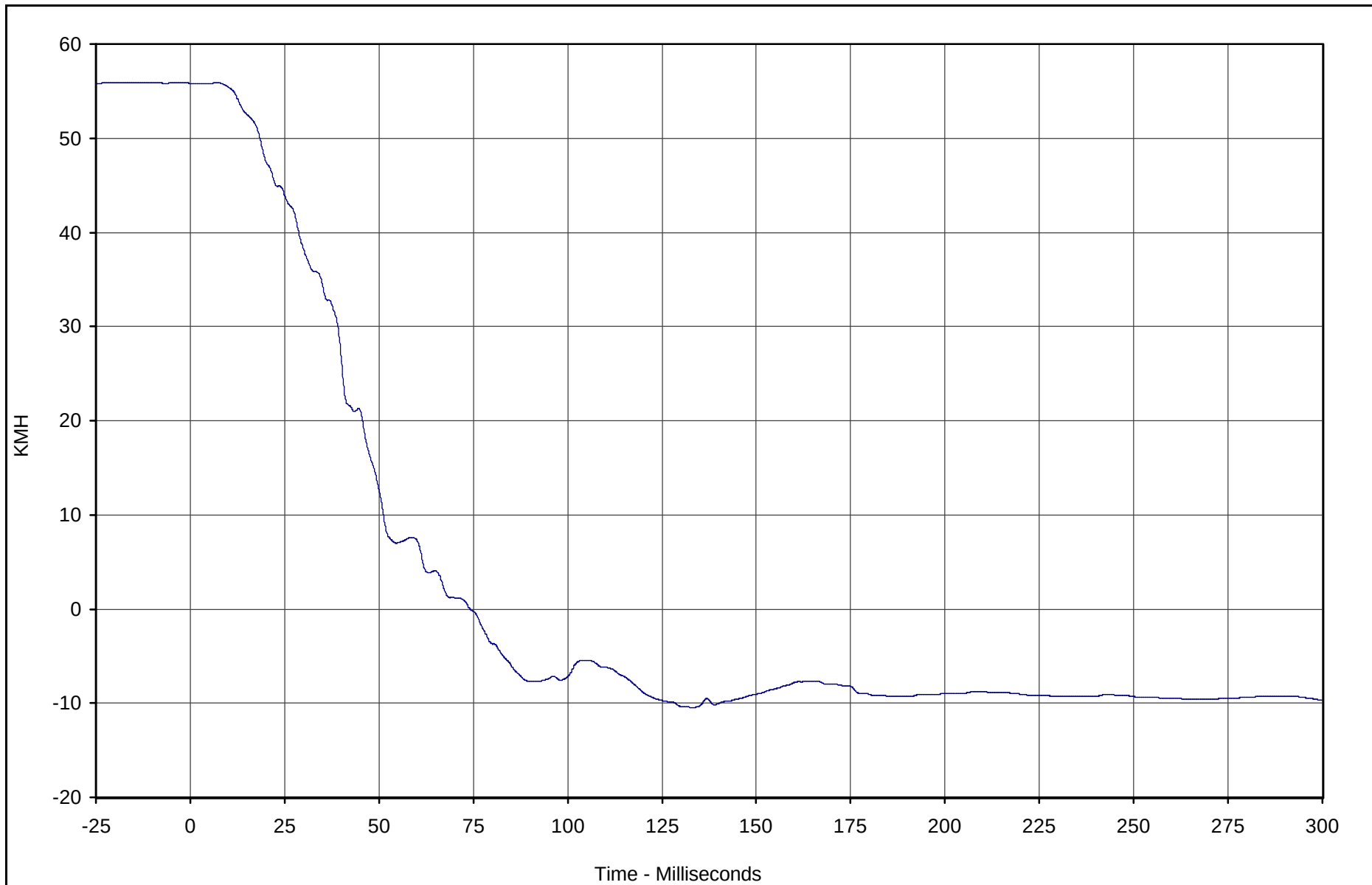


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Left Brake Caliper Velocity	093	IN1	KMH	55.9	7.1	-10.5	133.1	180

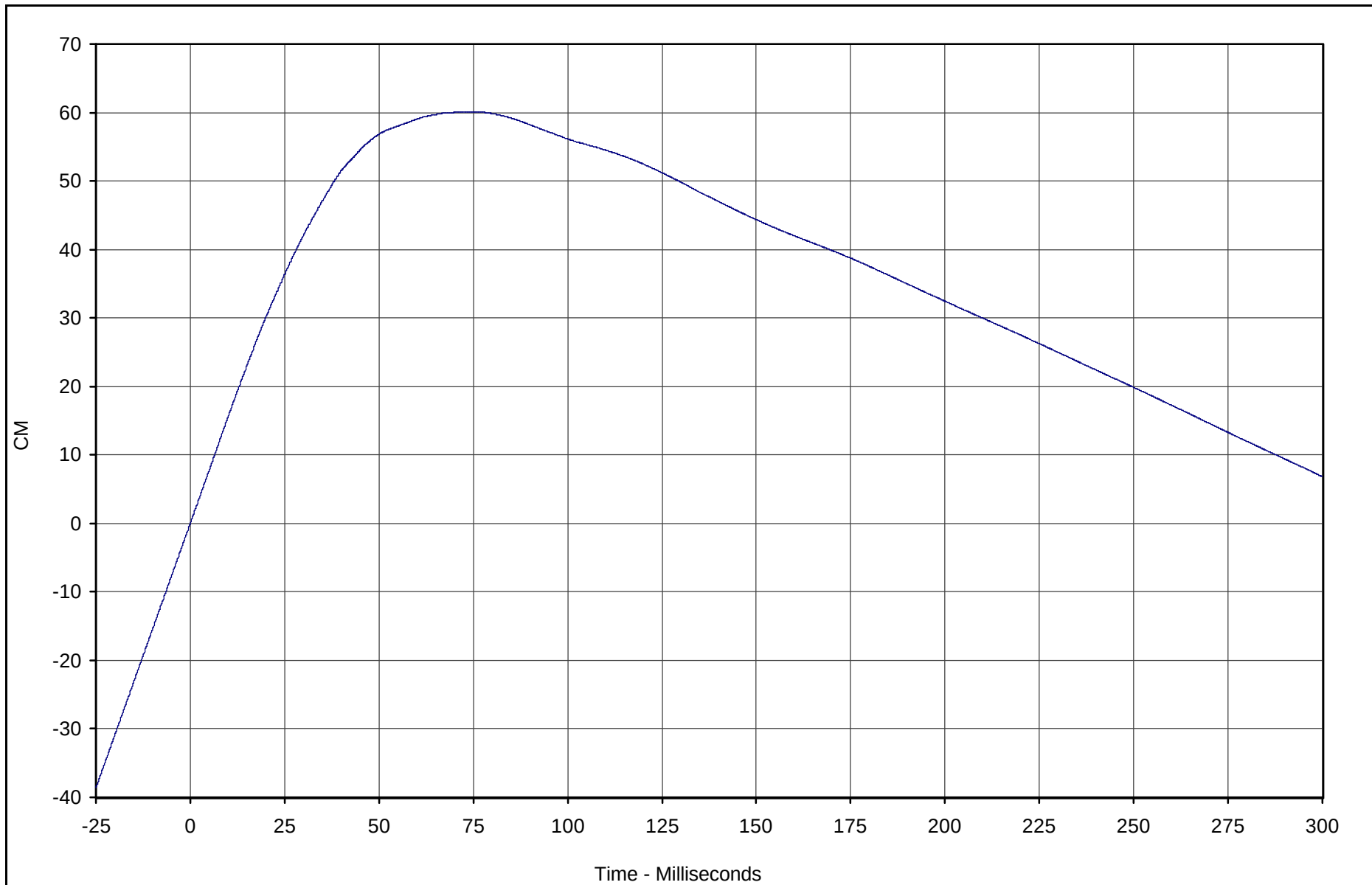


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Left Brake Caliper Displ.	093	IN2	CM	60.1	74.1	0.0	0.0	180

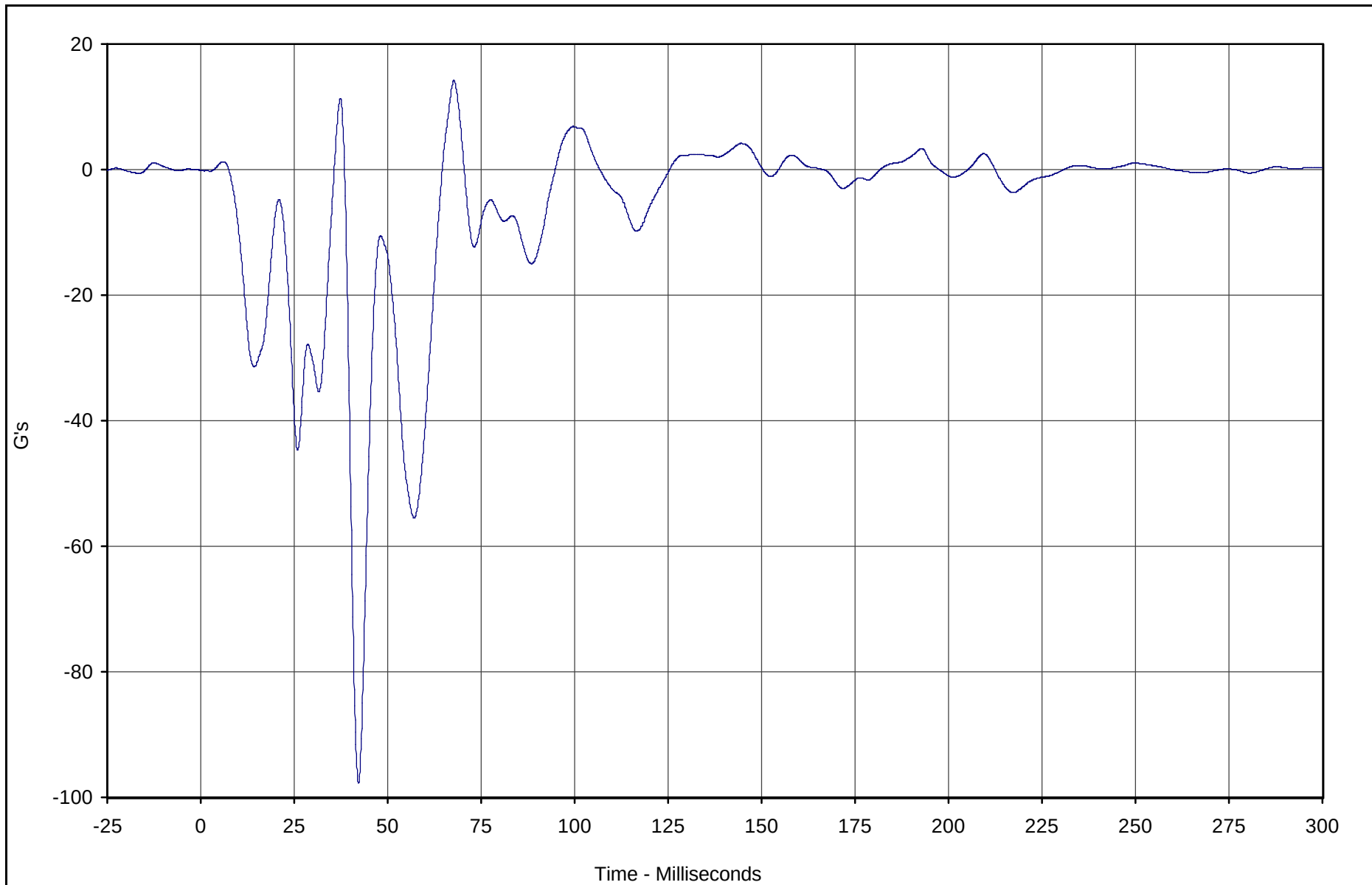


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Right Brake Caliper	094	FIL	G's	14.2	67.7	-97.7	42.2	60

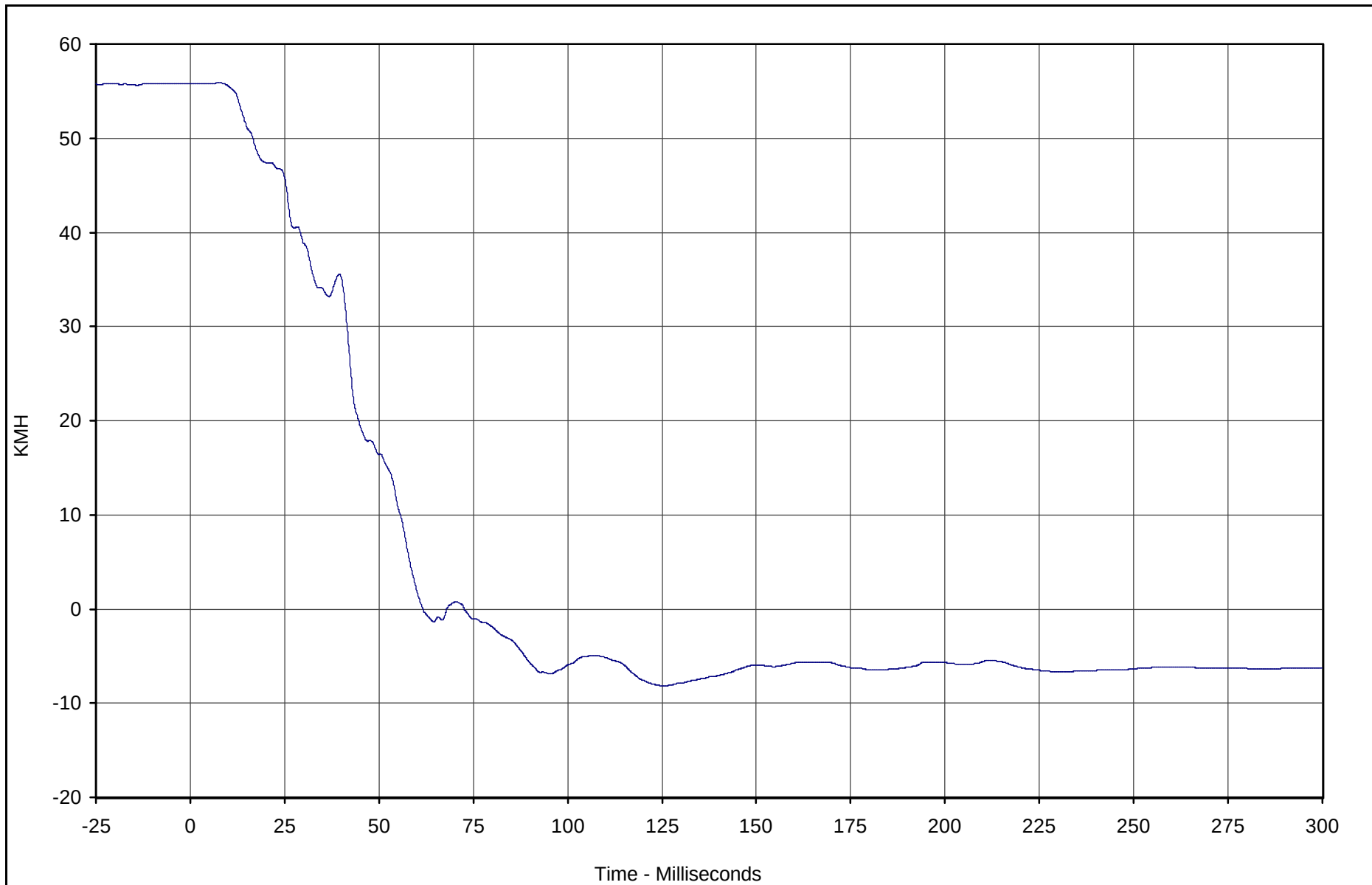


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Right Brake Caliper Velocity	094	IN1	KMH	55.9	7.7	-8.2	125.8	180

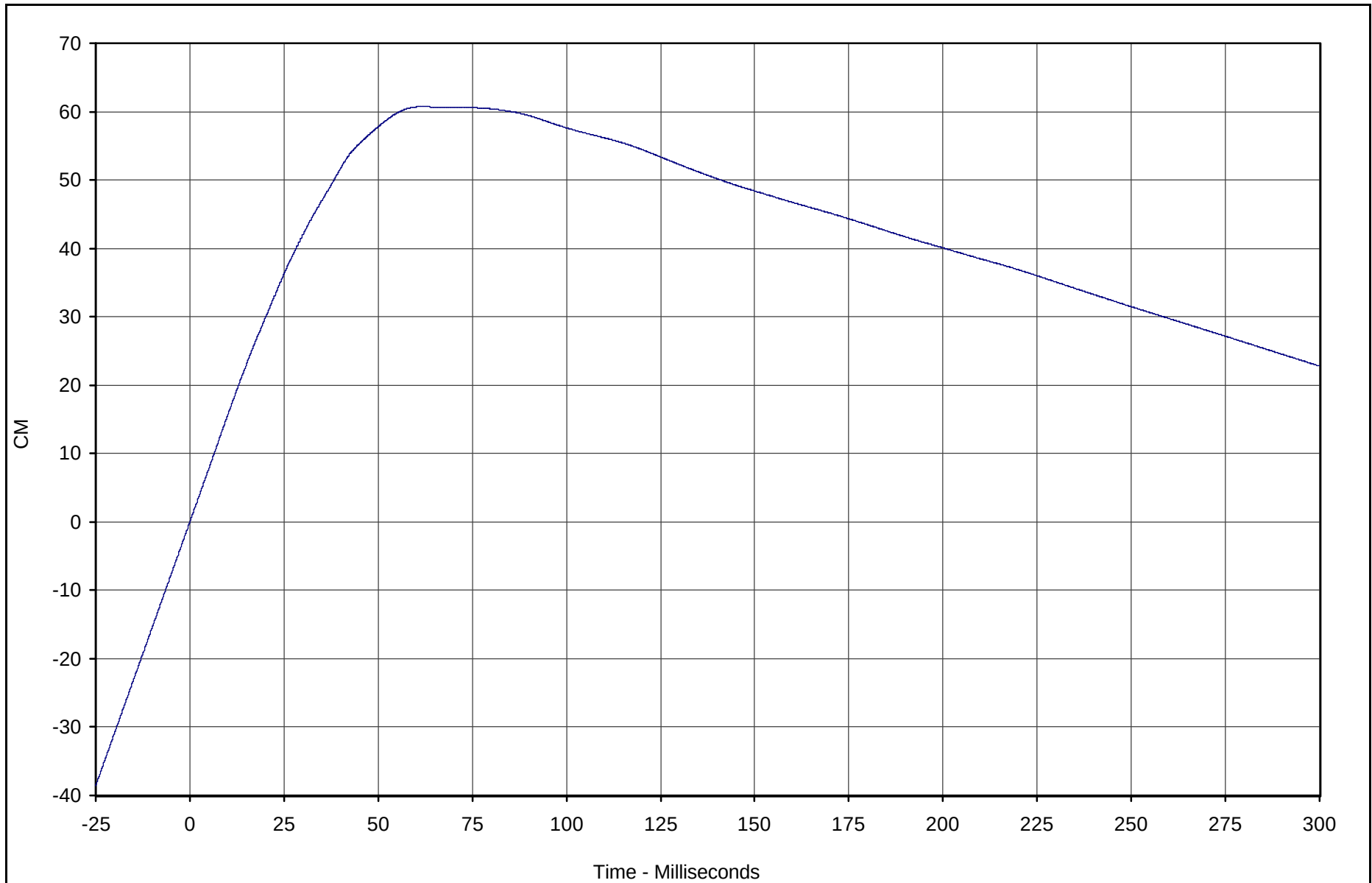


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Right Brake Caliper Displ.	094	IN2	CM	60.7	61.6	0.0	0.0	180

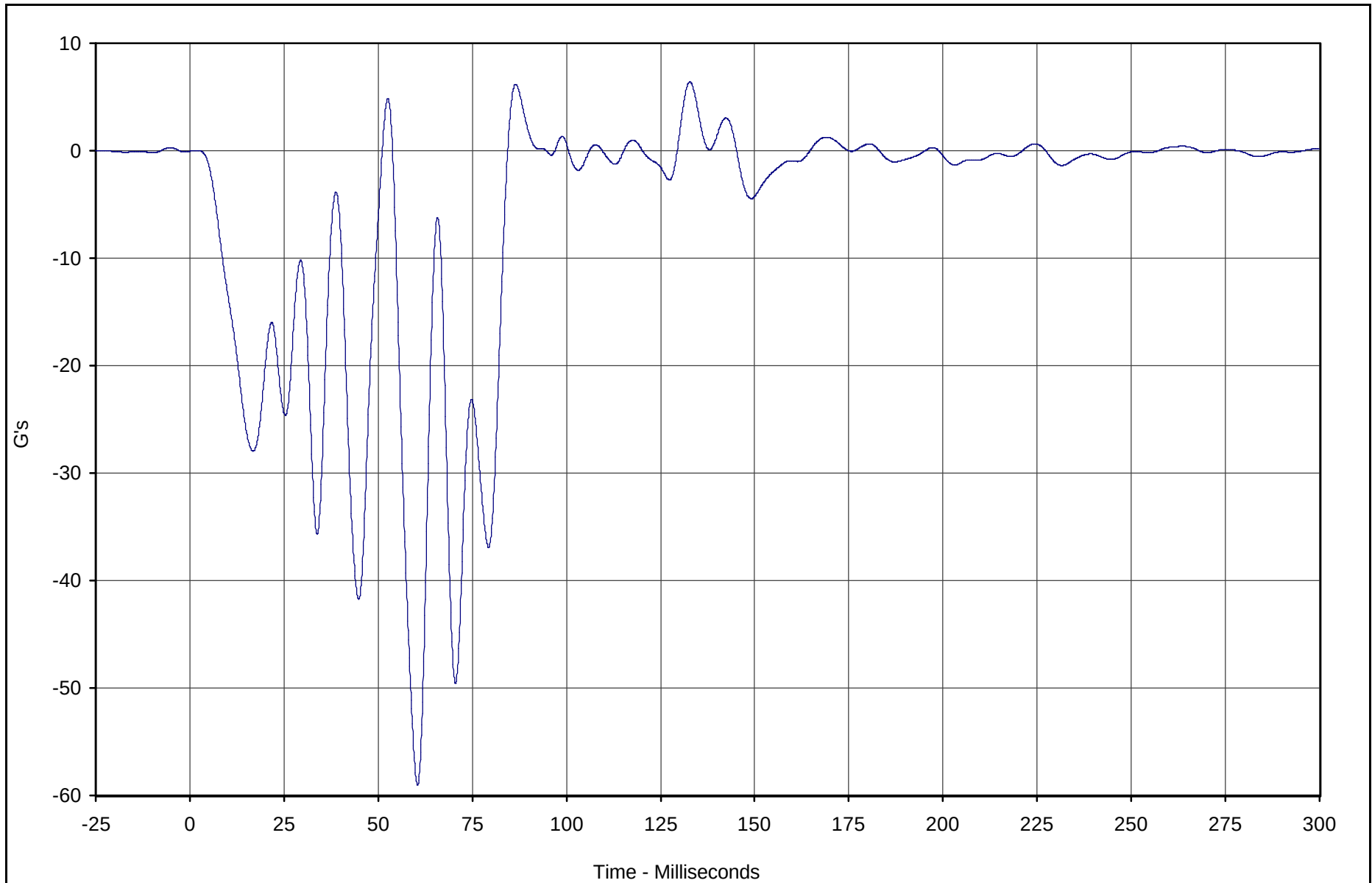


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Instrument Panel	095	FIL	G's	6.4	132.8	-59.1	60.5	60

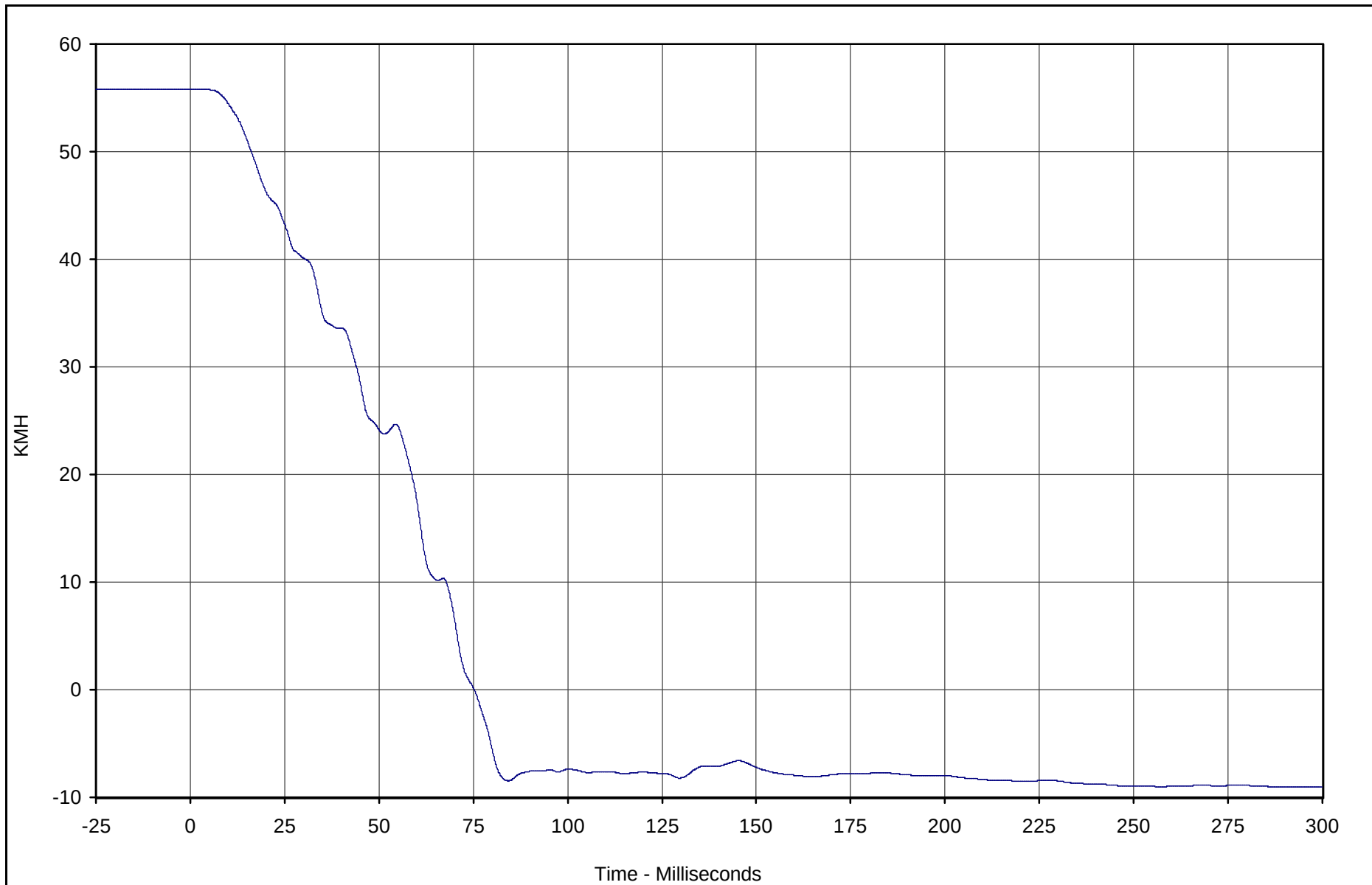


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Instrument Panel Velocity	095	IN1	KMH	55.8	1.1	-9.1	295.2	180

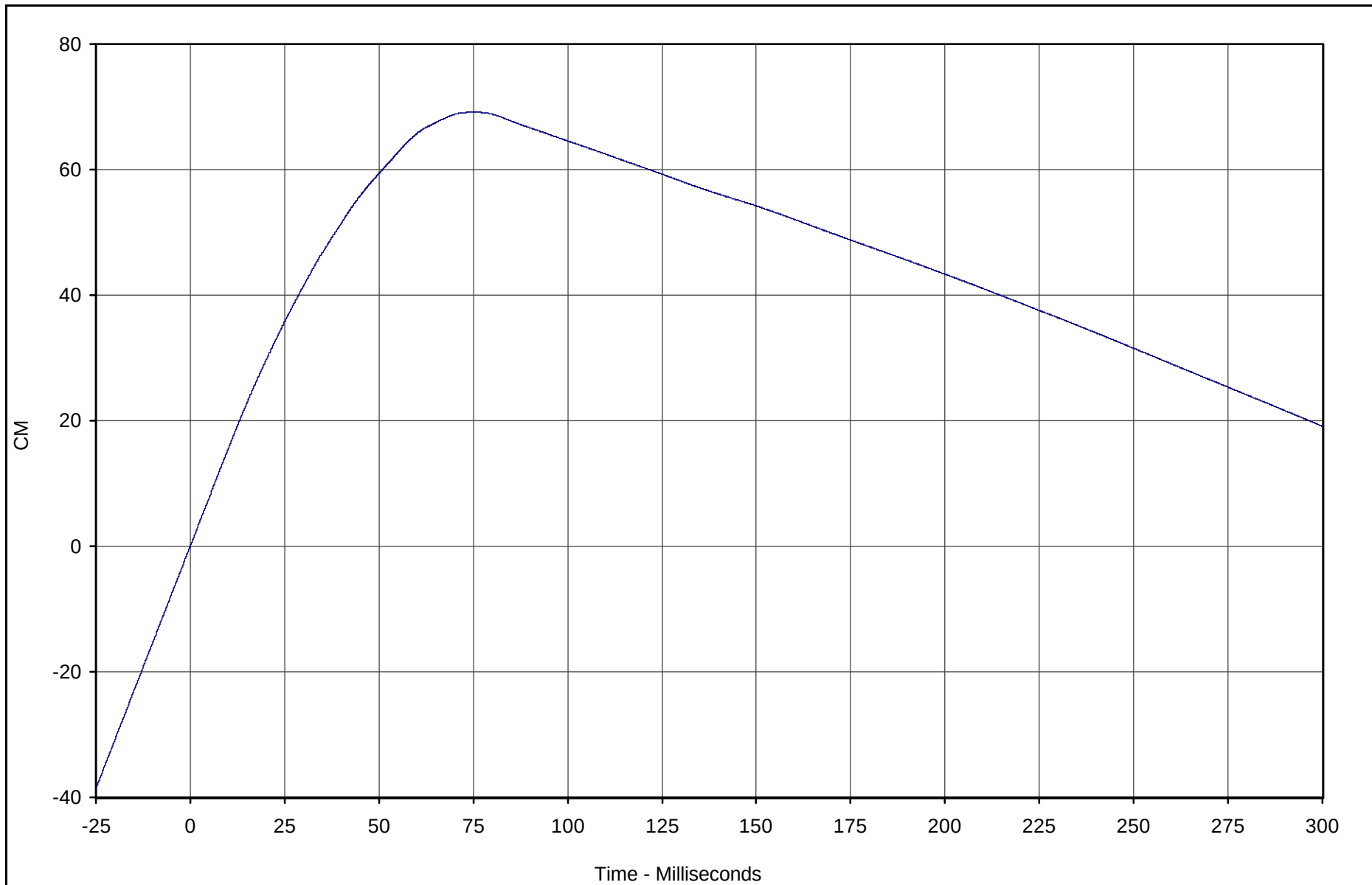


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Instrument Panel Displacement	095	IN2	CM	69.1	75.3	0.0	0.0	180

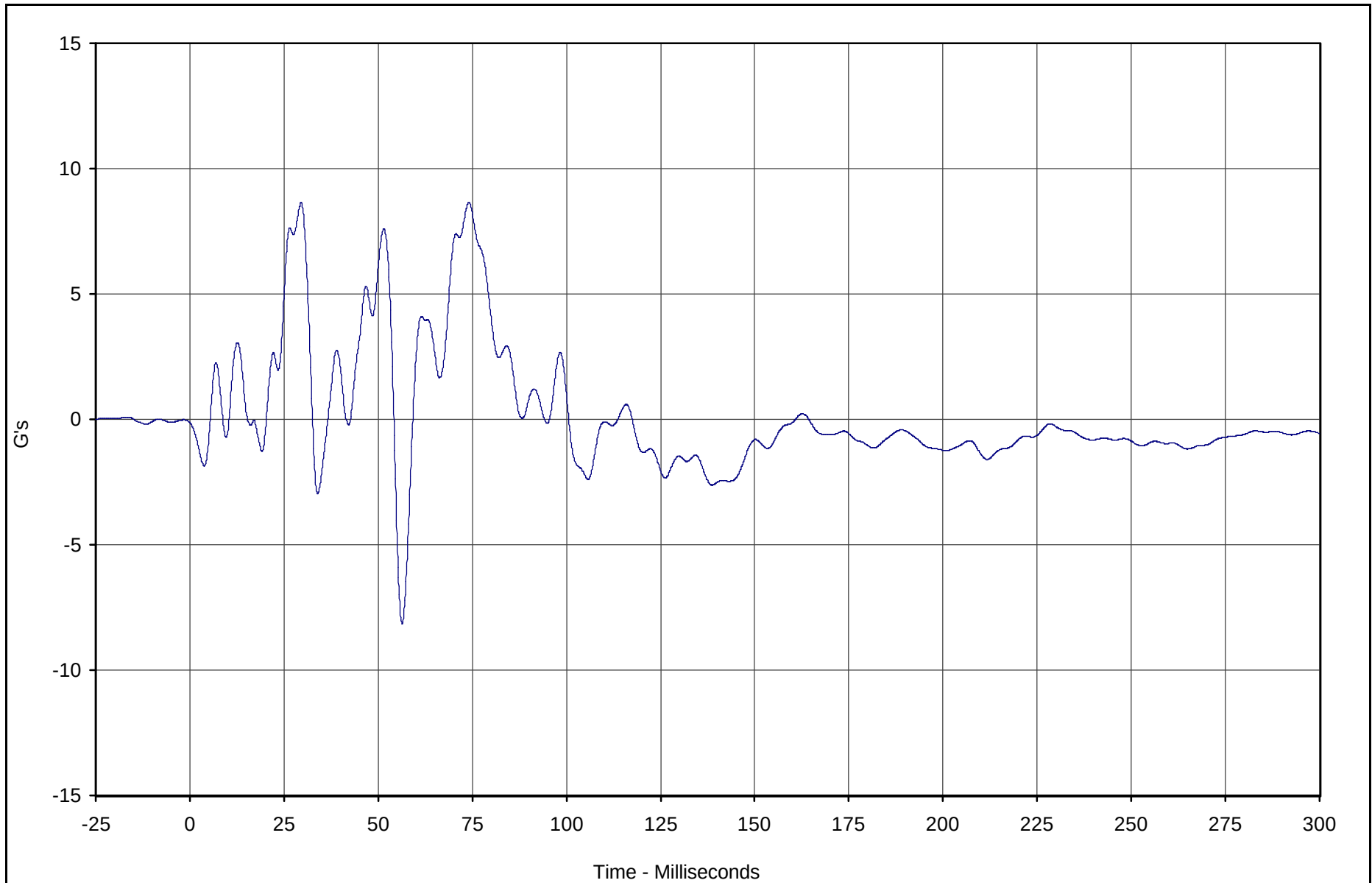


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Left Rear Z	096	FIL	G's	8.7	74.1	-8.1	56.4	60

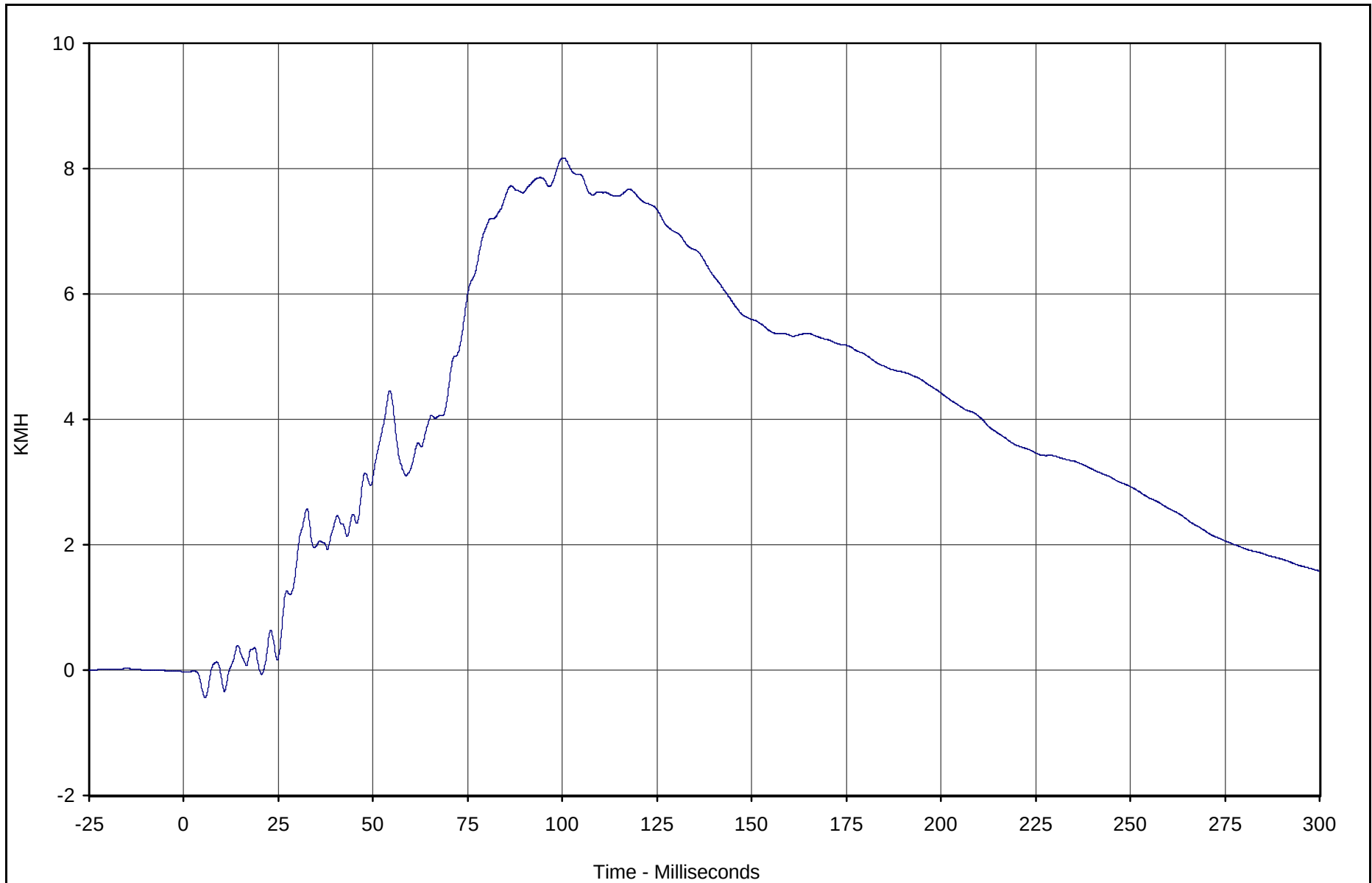


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Left Rear Z Velocity	096	IN1	KMH	8.2	100.3	-0.4	5.7	180

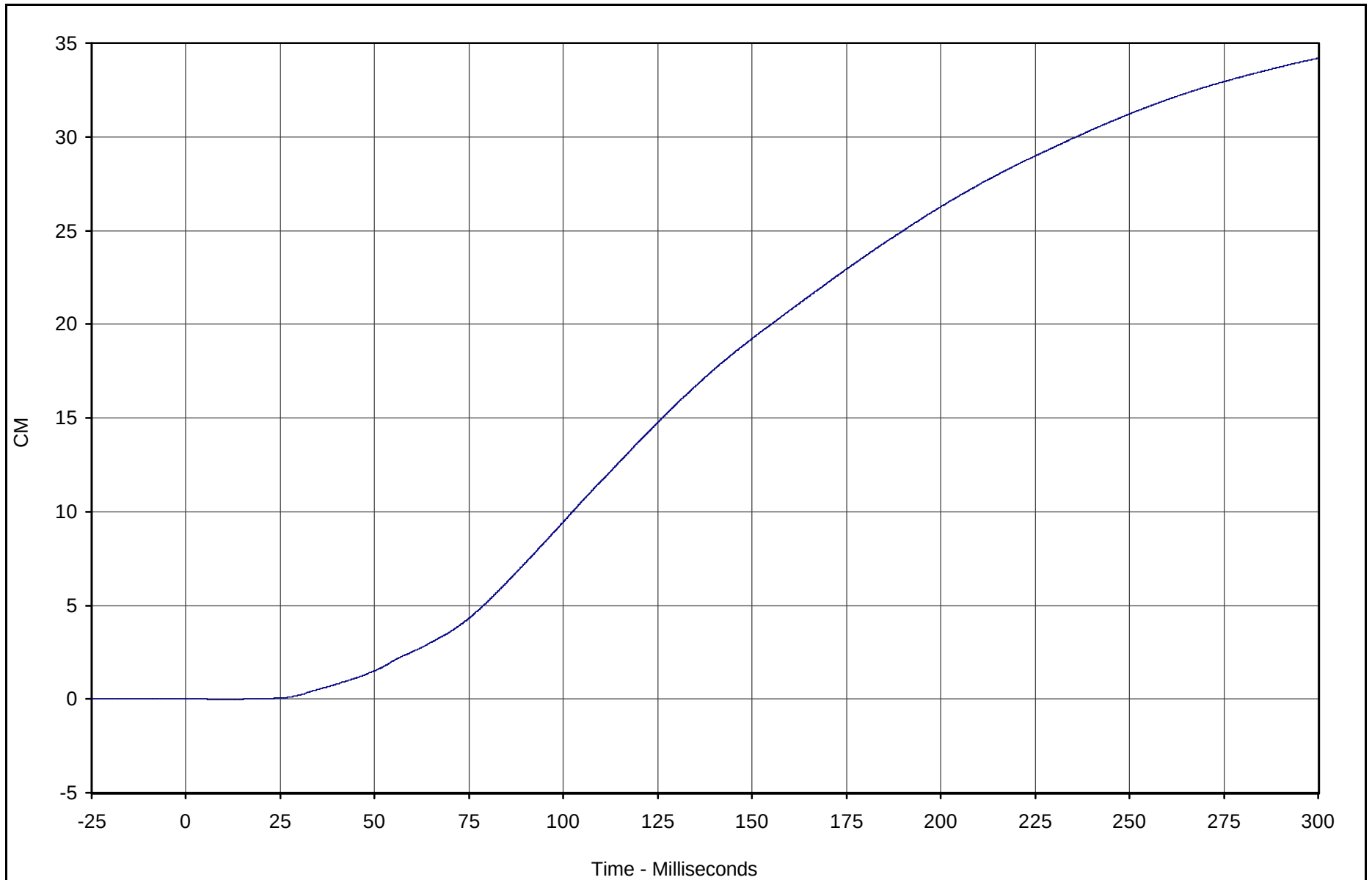


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Left Rear Z Displ.	096	IN2	CM	34.2	299.9	0.0	12.1	180

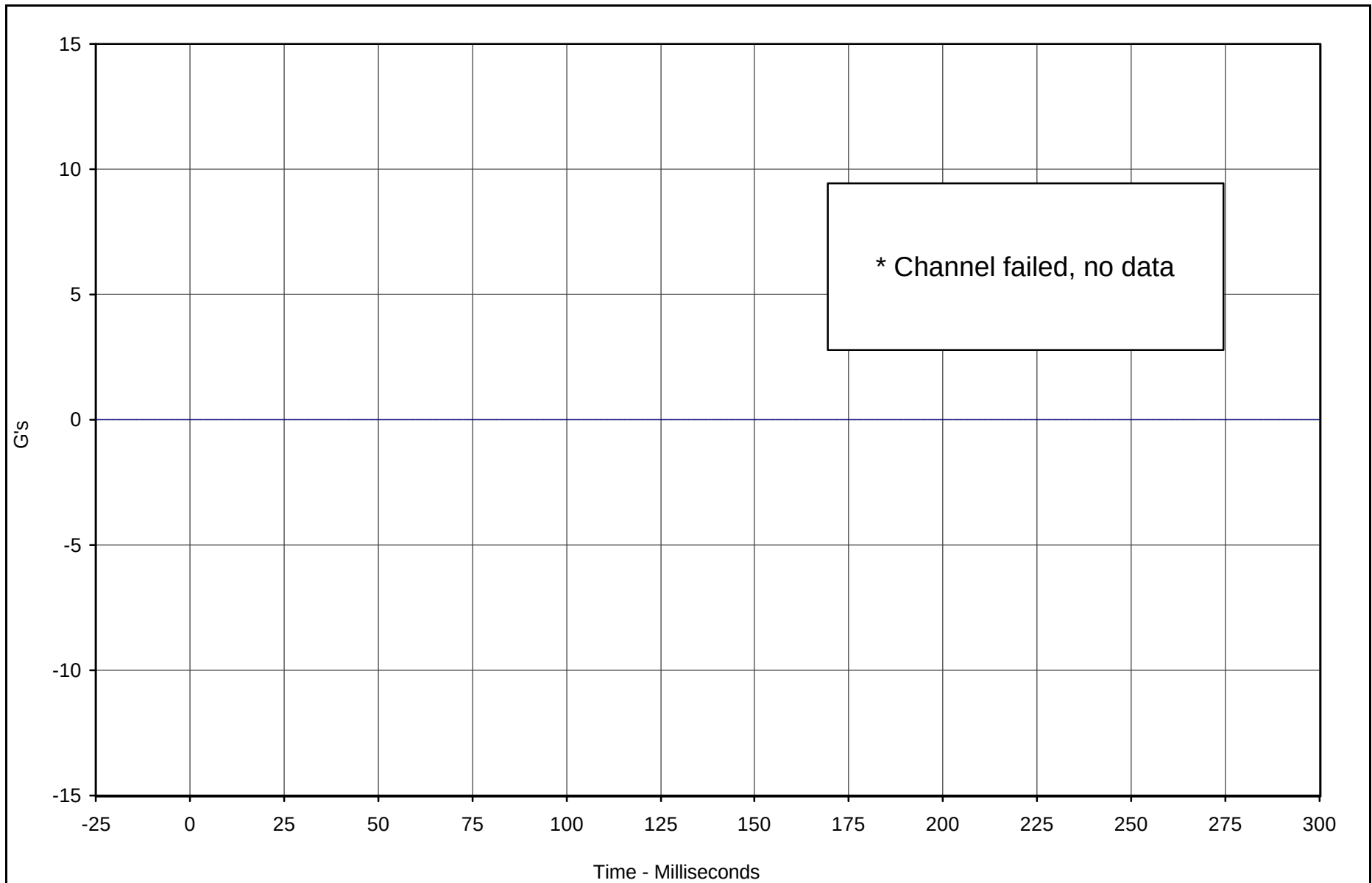


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Right Rear Z	097	FIL	G's	0.0	0.0	0.0	0.0	60

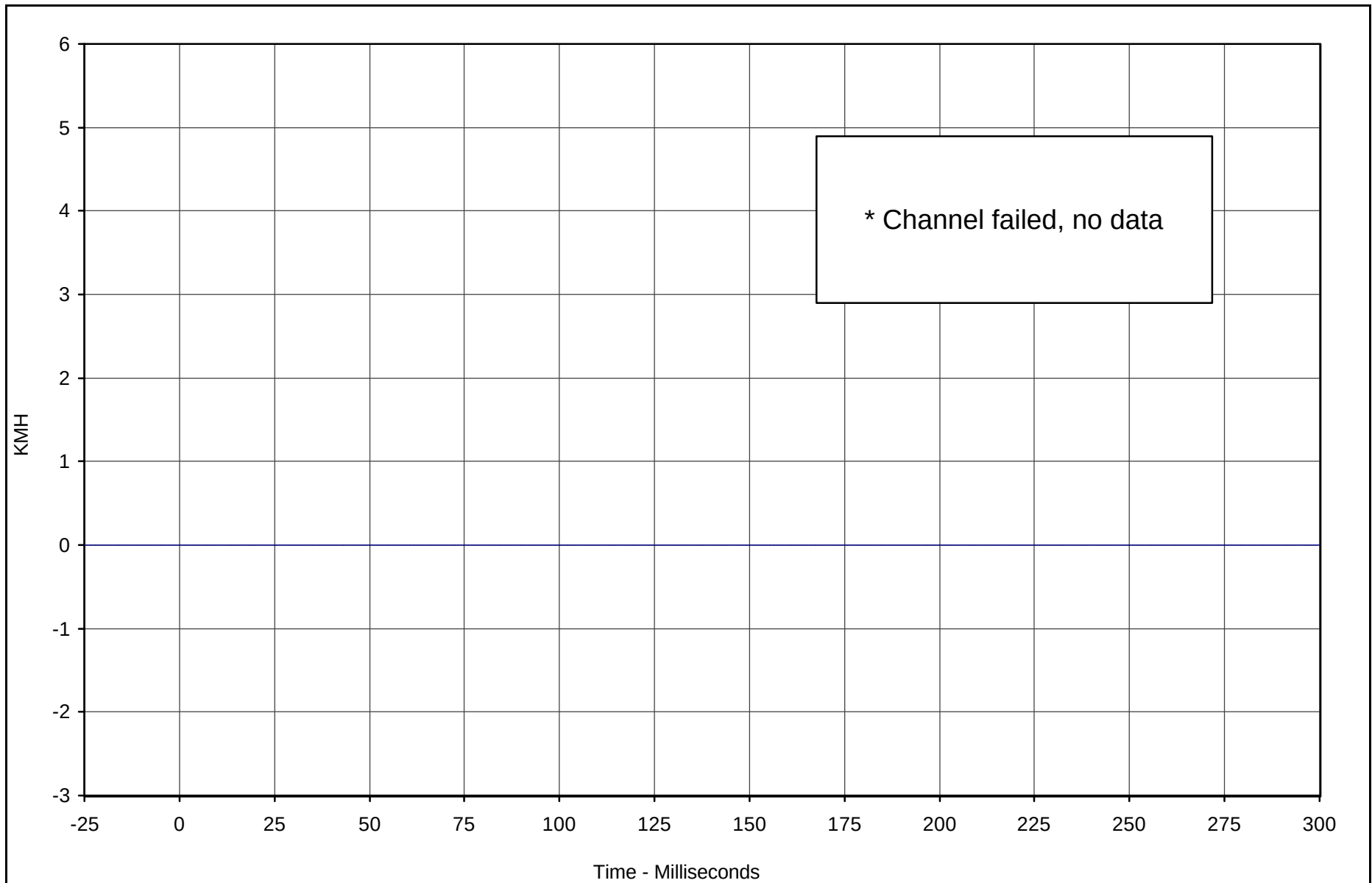


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Right Rear Z Velocity	097	IN1	KMH	0.0	0.0	0.0	0.0	180

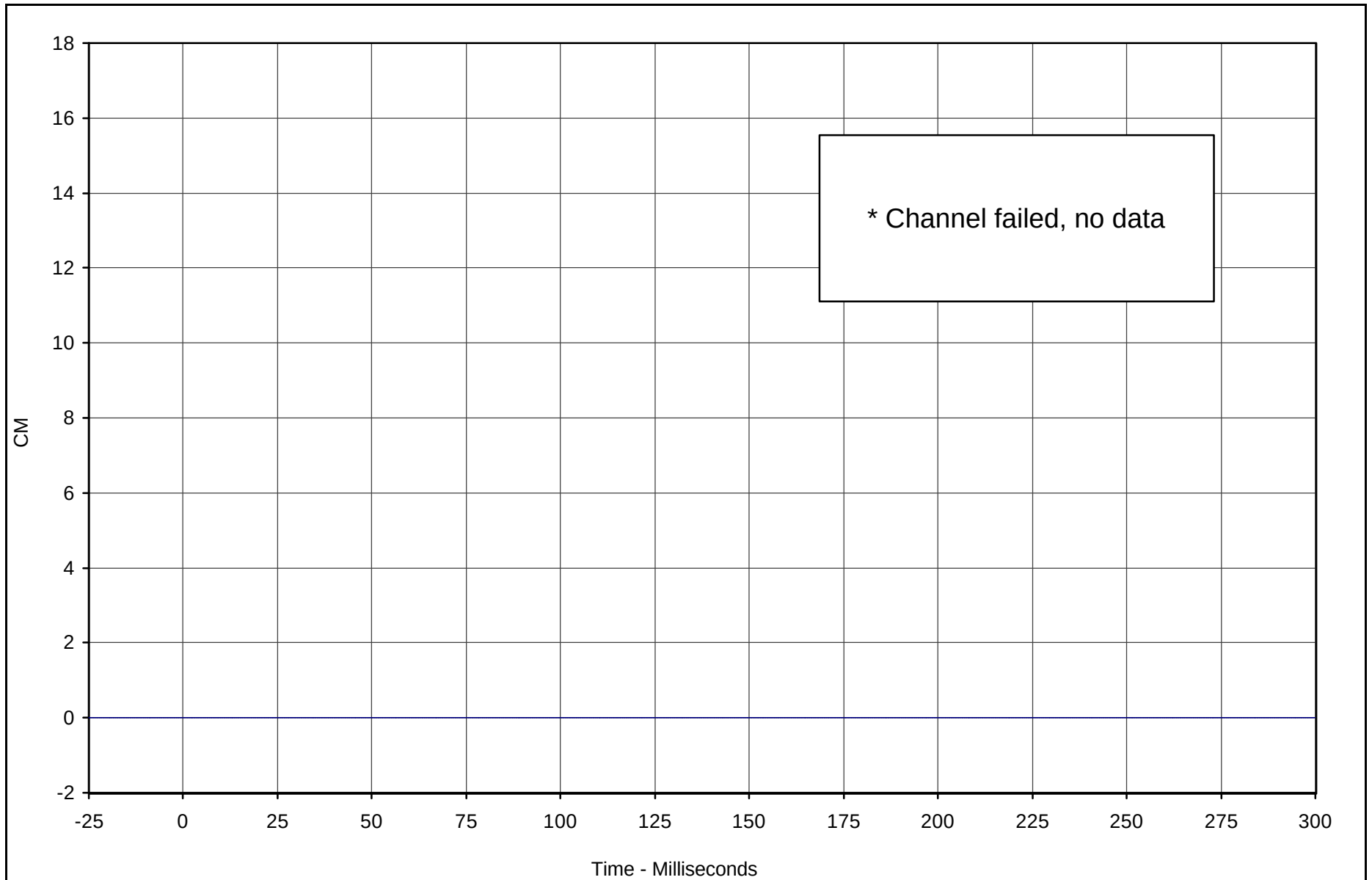


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Vehicle Right Rear Z Displ.	097	IN2	CM	0.0	0.0	0.0	0.0	180



Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

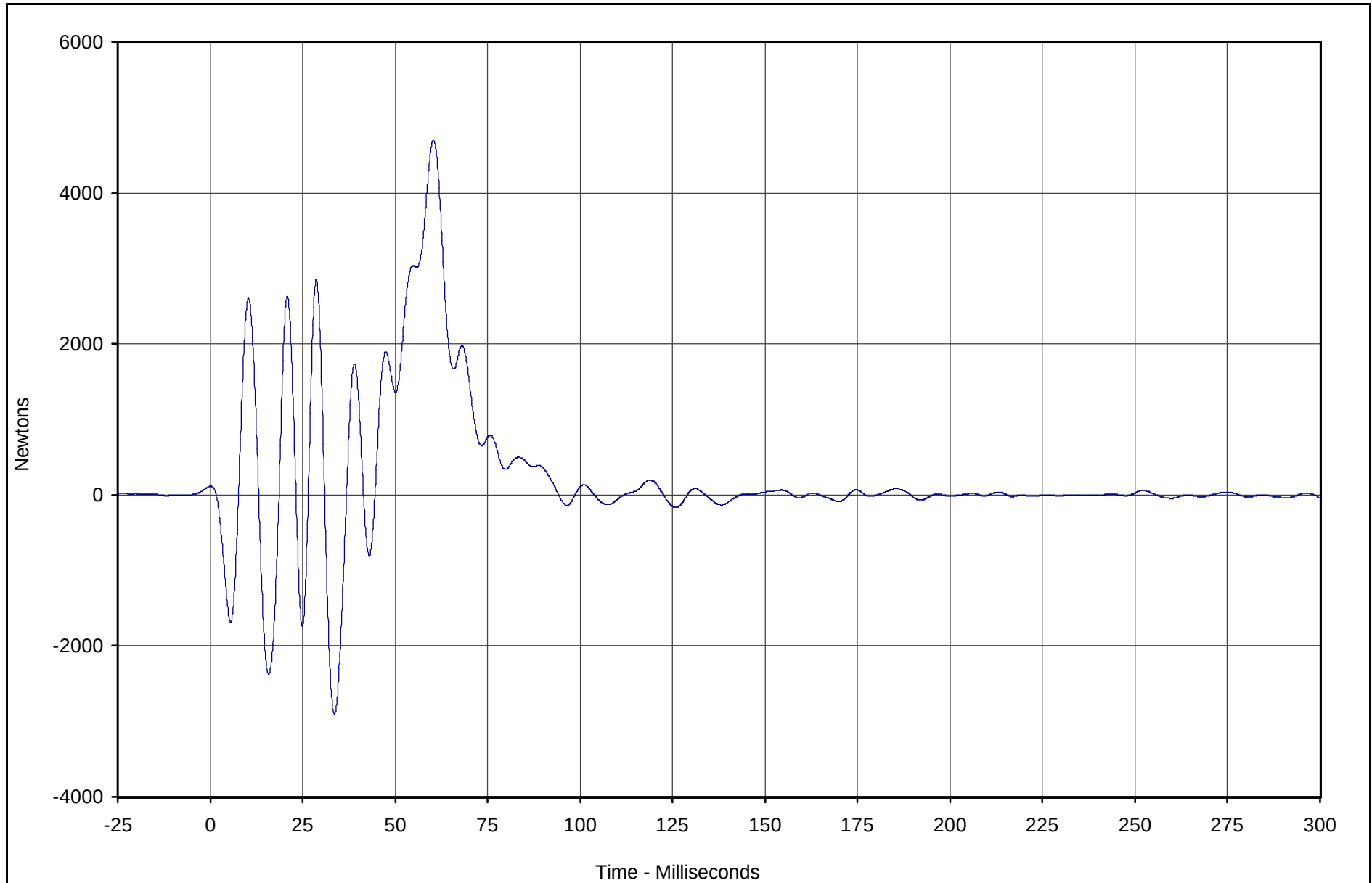
Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200

APPENDIX C
LOAD CELL BARRIER DATA PLOTS

C-1



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force A1	098	FIL	Newtons	4693.4	60.4	-2902.2	33.6	60

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

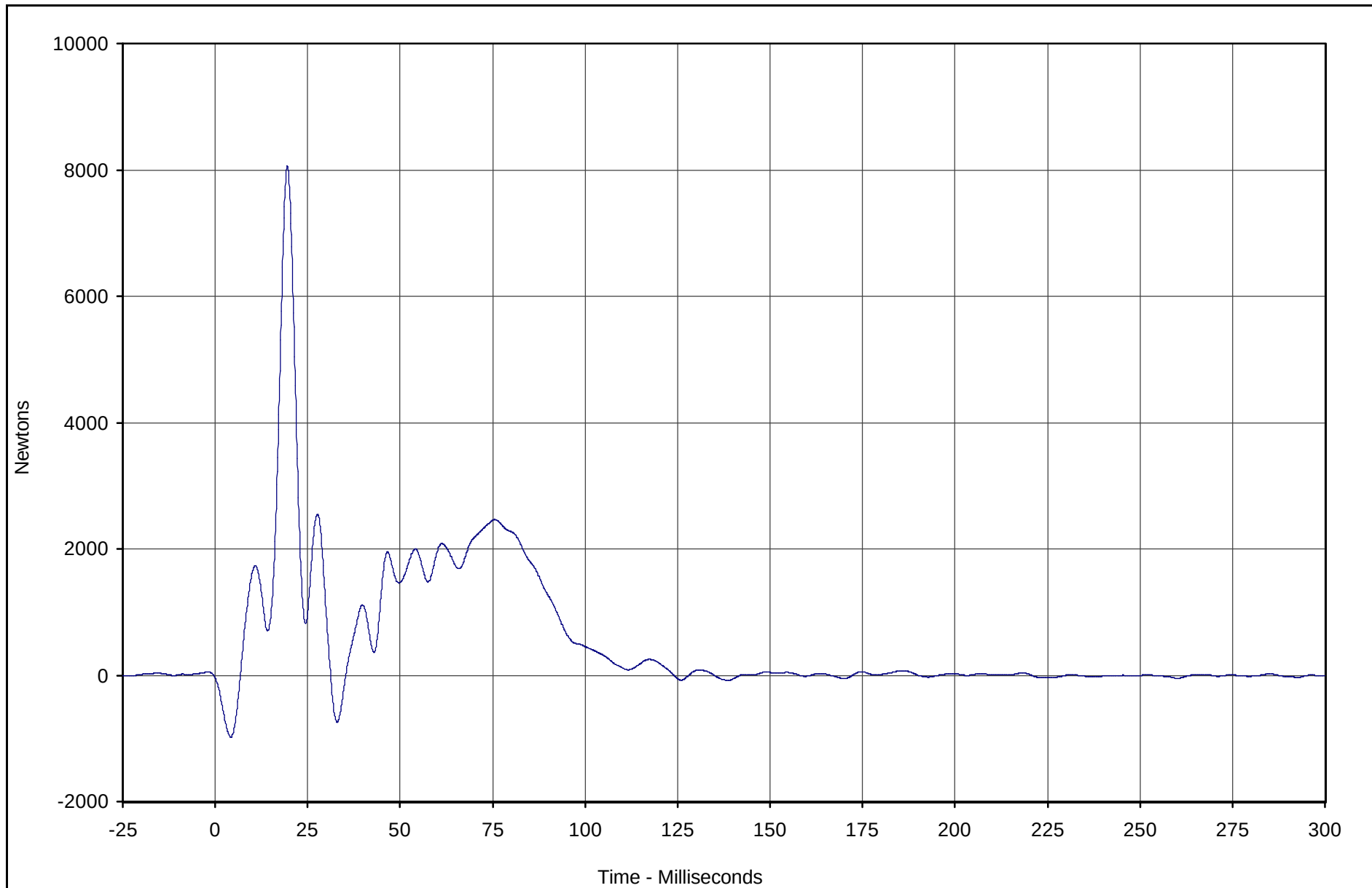
Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



TR-P23001-19-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force A2	099	FIL	Newtons	8065.8	19.5	-983.0	4.2	60

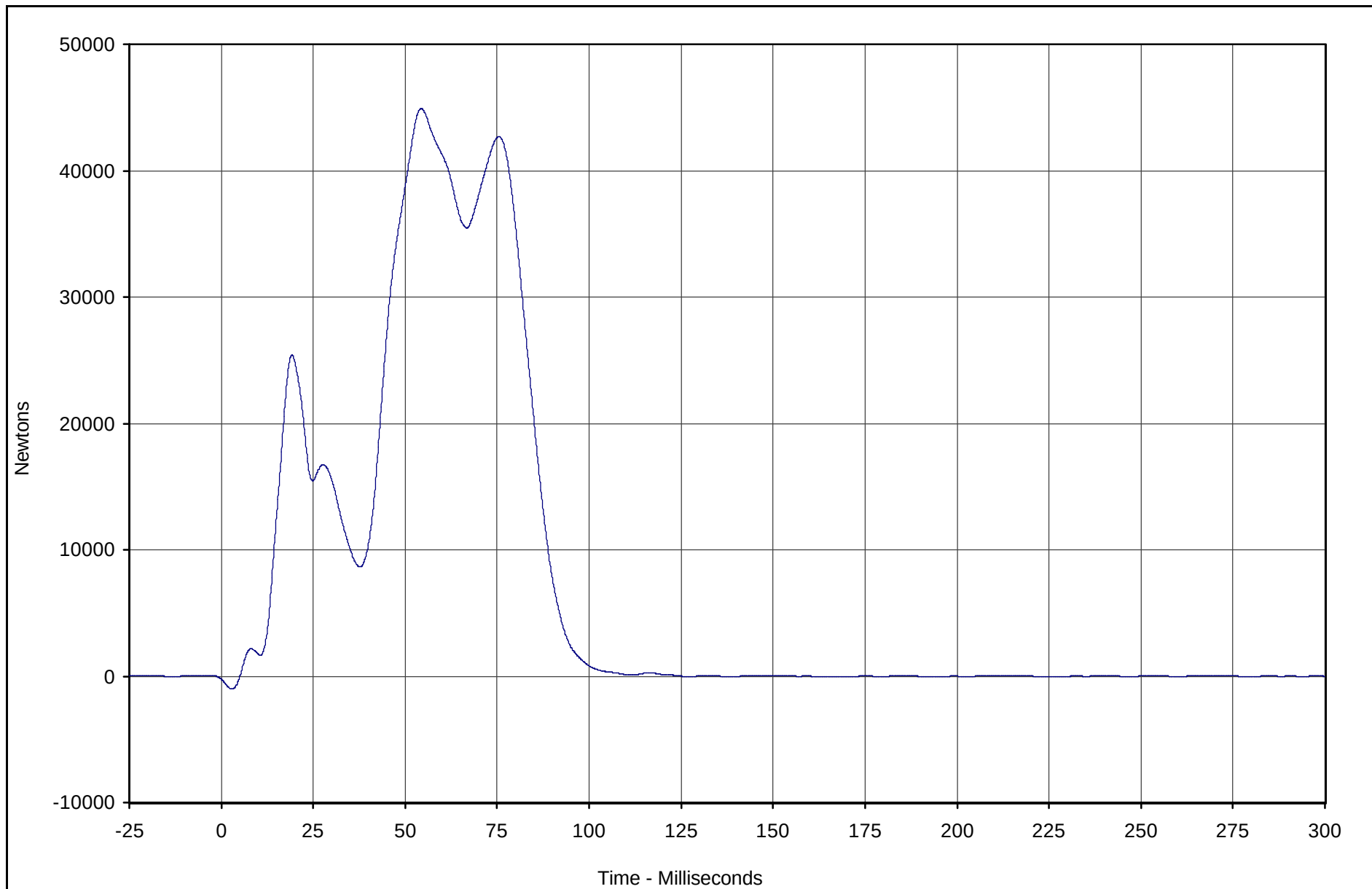
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200





Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force A3	100	FIL	Newtons	44900.8	54.4	-1032.5	2.9	60

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

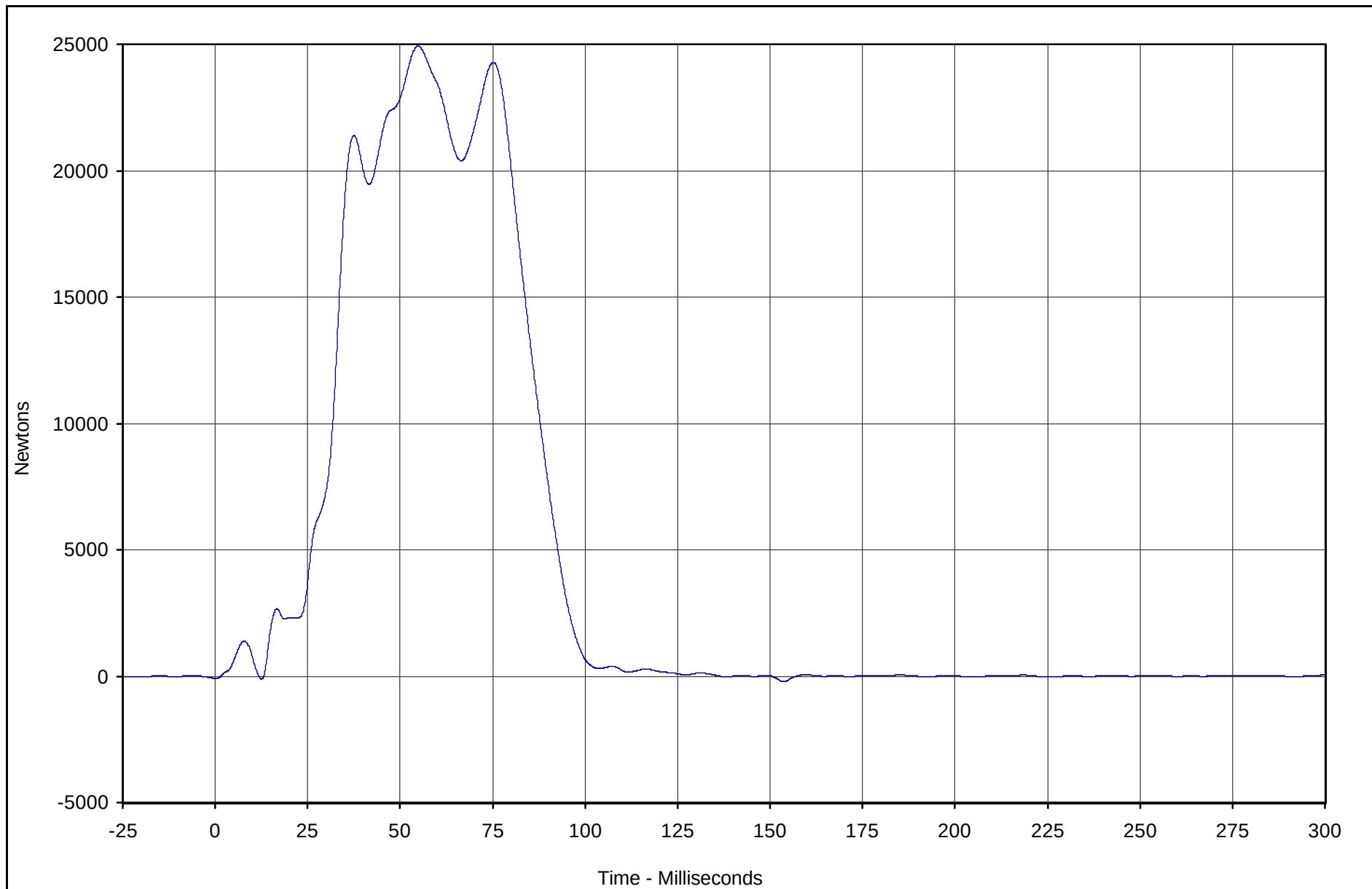
Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



C-4



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force A4	101	FIL	Newtons	24940.6	54.8	-213.0	153.5	60

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

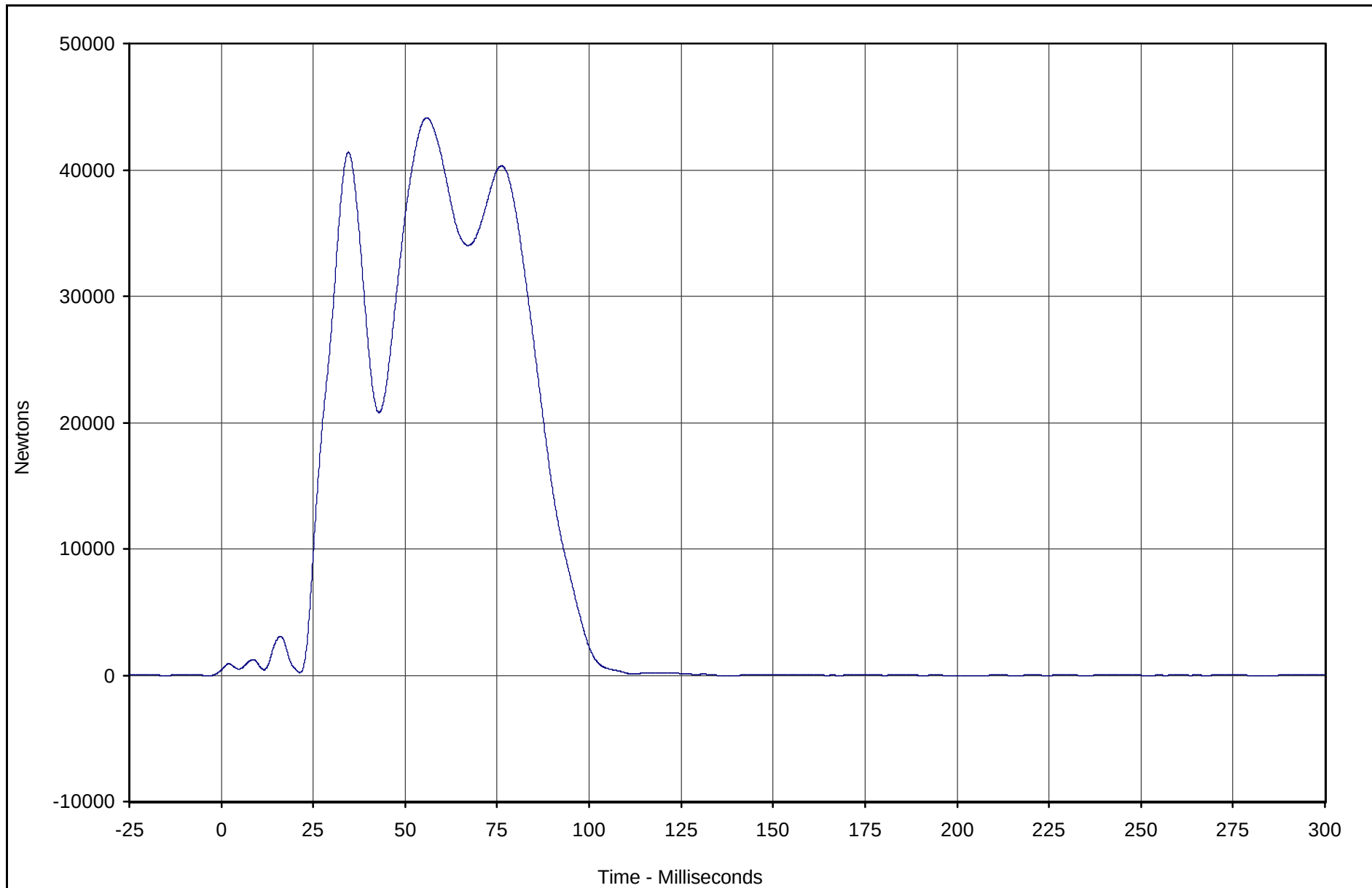
Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



TR-P23001-19-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force A5	102	FIL	Newtons	44132.7	55.8	-54.9	235.0	60

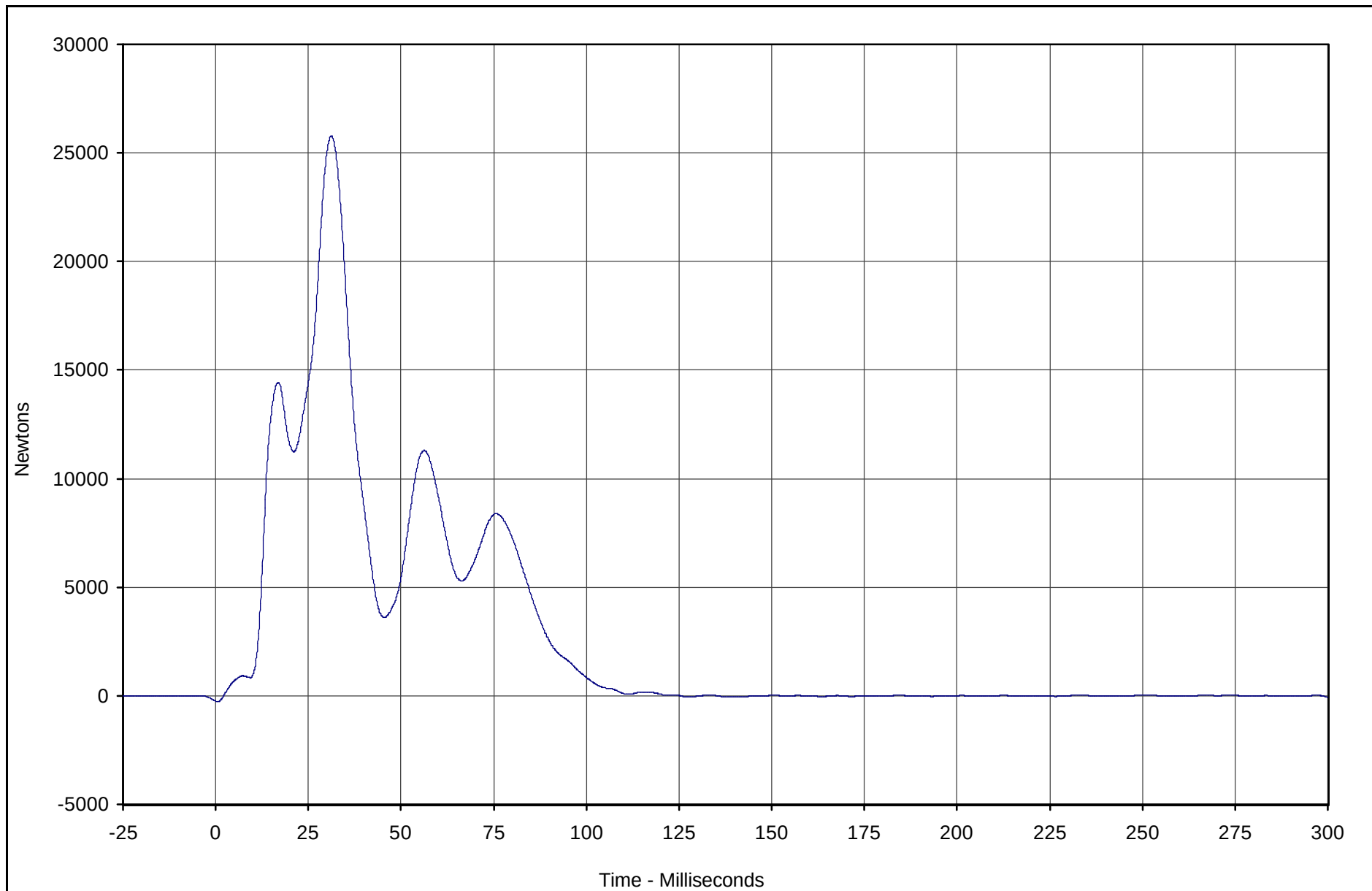


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force A6	103	FIL	Newtons	25784.3	31.2	-263.2	0.5	60

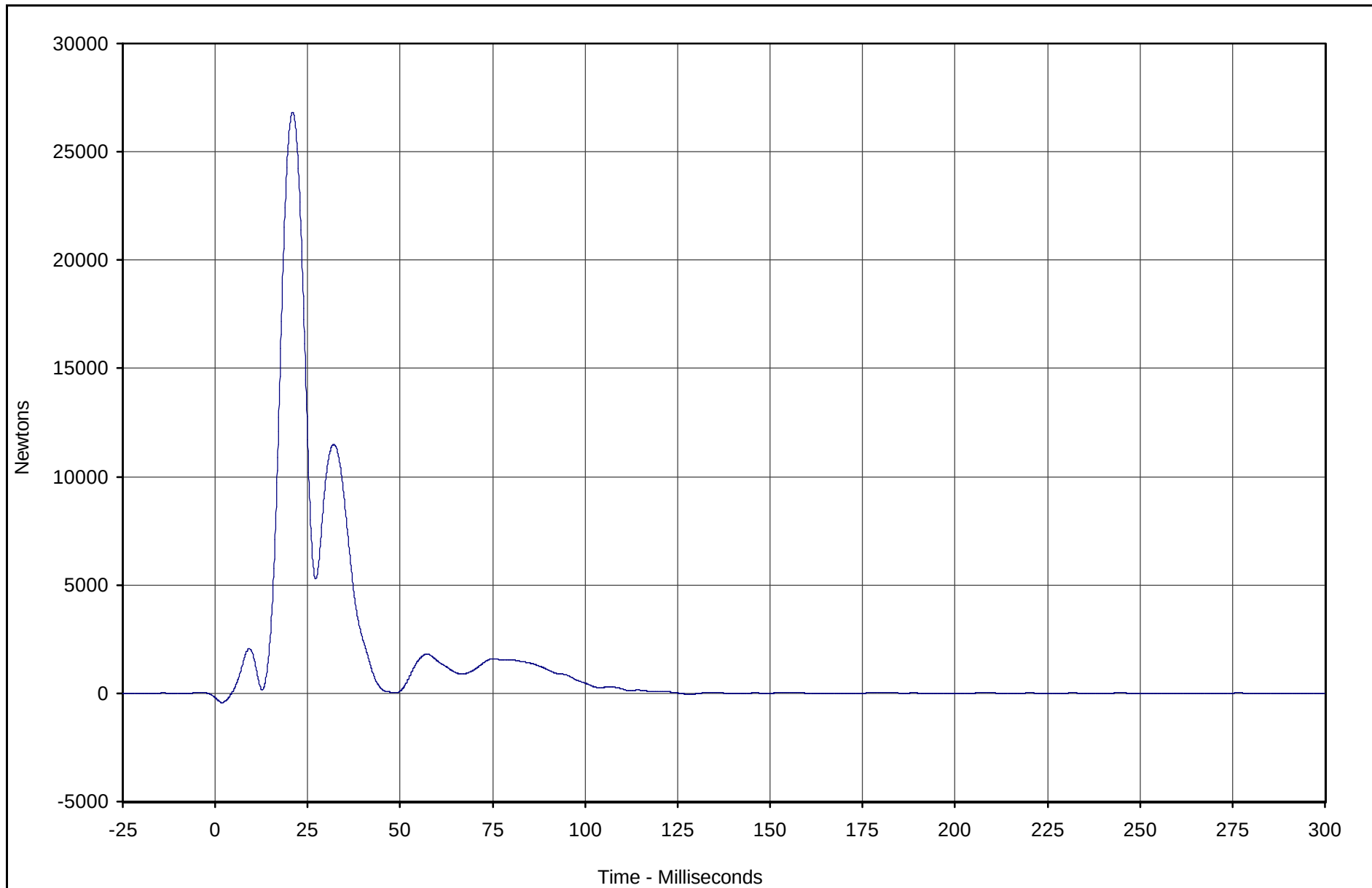


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force A7	104	FIL	Newtons	26825.9	20.9	-430.3	1.9	60

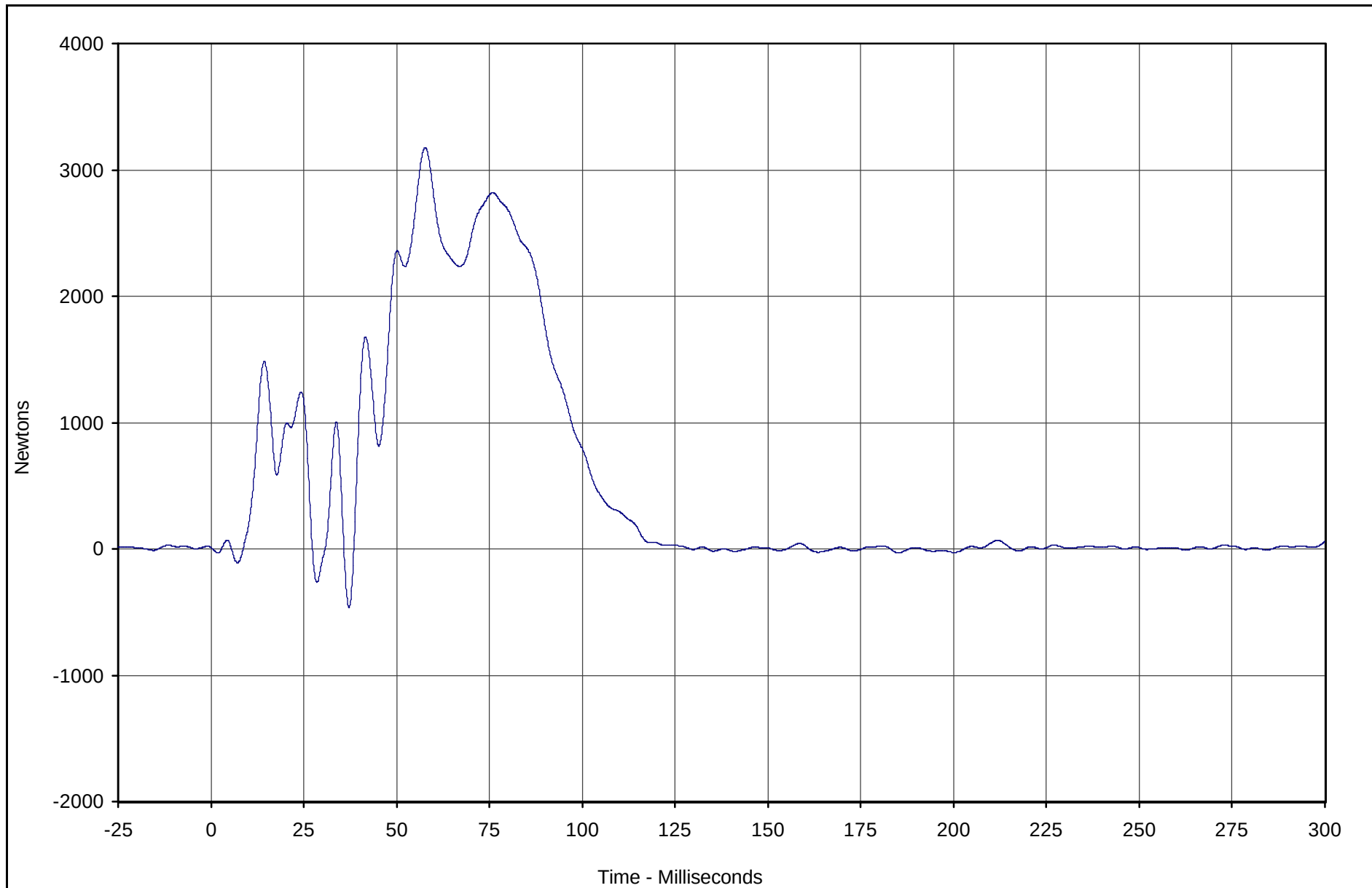
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200





Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force A8	105	FIL	Newtons	3175.8	57.7	-464.1	37.2	60

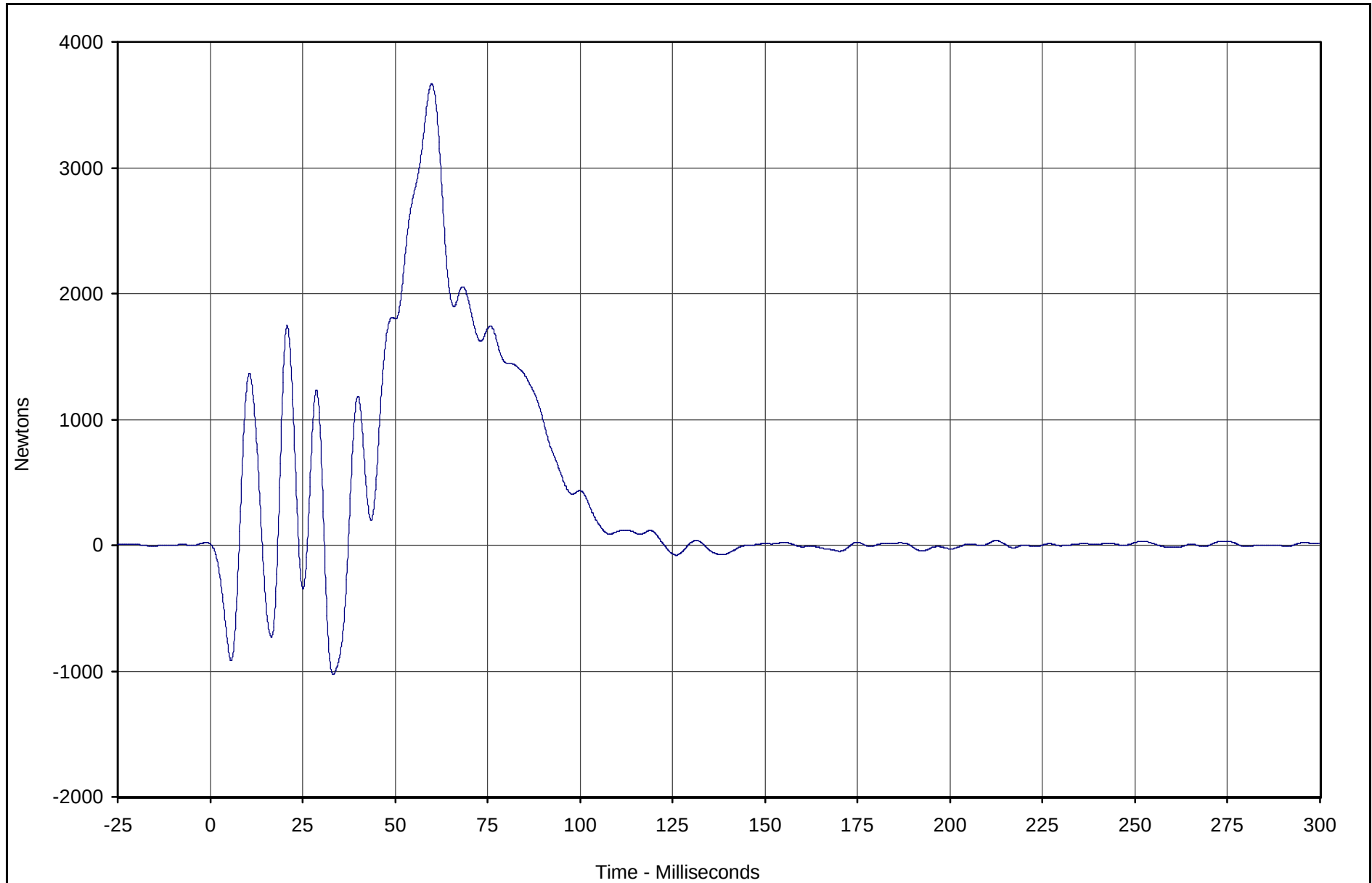
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200





Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force A9	106	FIL	Newtons	3665.6	59.9	-1026.3	33.2	60

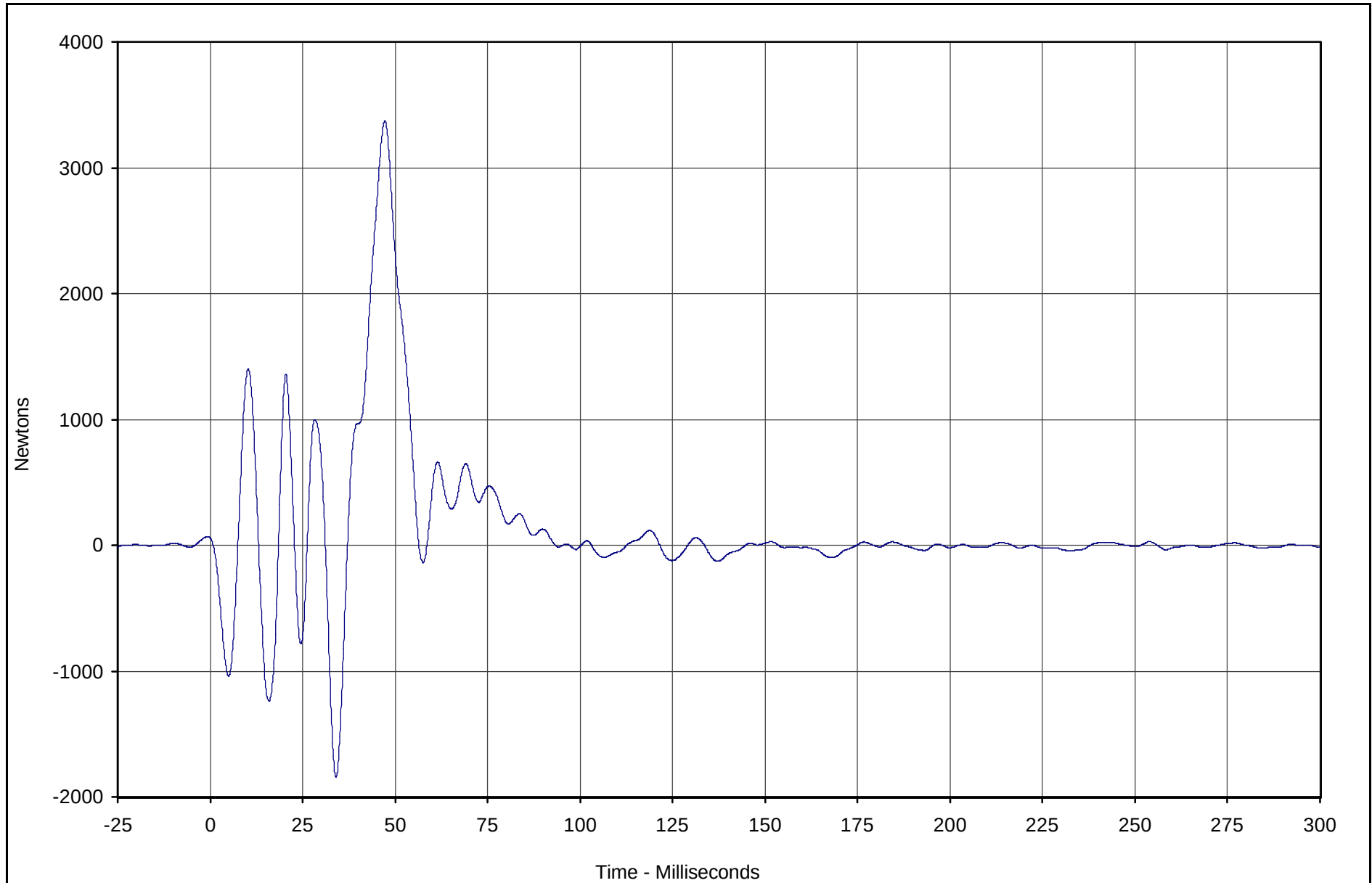
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200





Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force B1	107	FIL	Newtons	3373.2	47.2	-1843.8	34.0	60

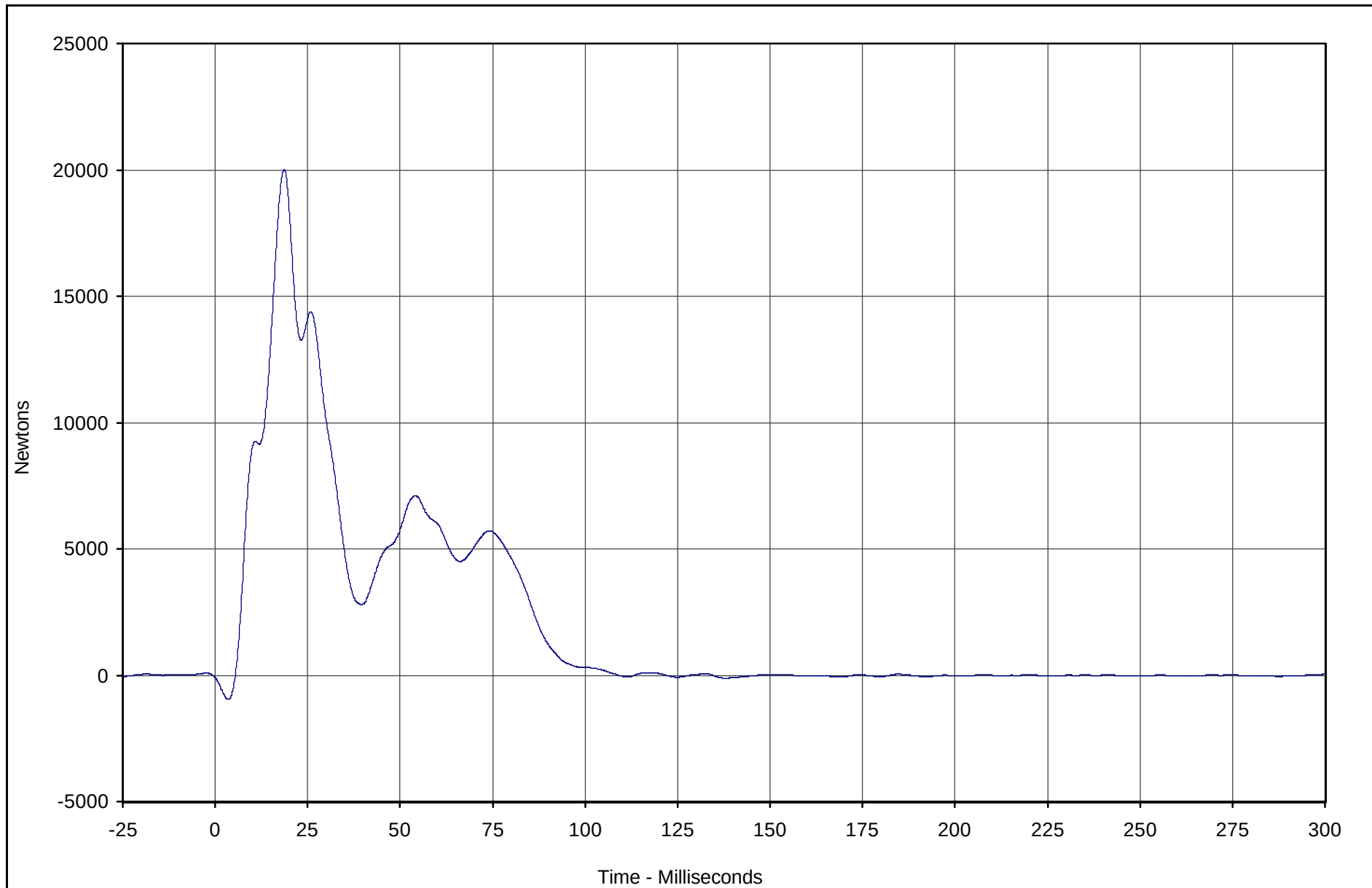


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force B2	108	FIL	Newtons	20002.5	18.6	-957.2	3.6	60

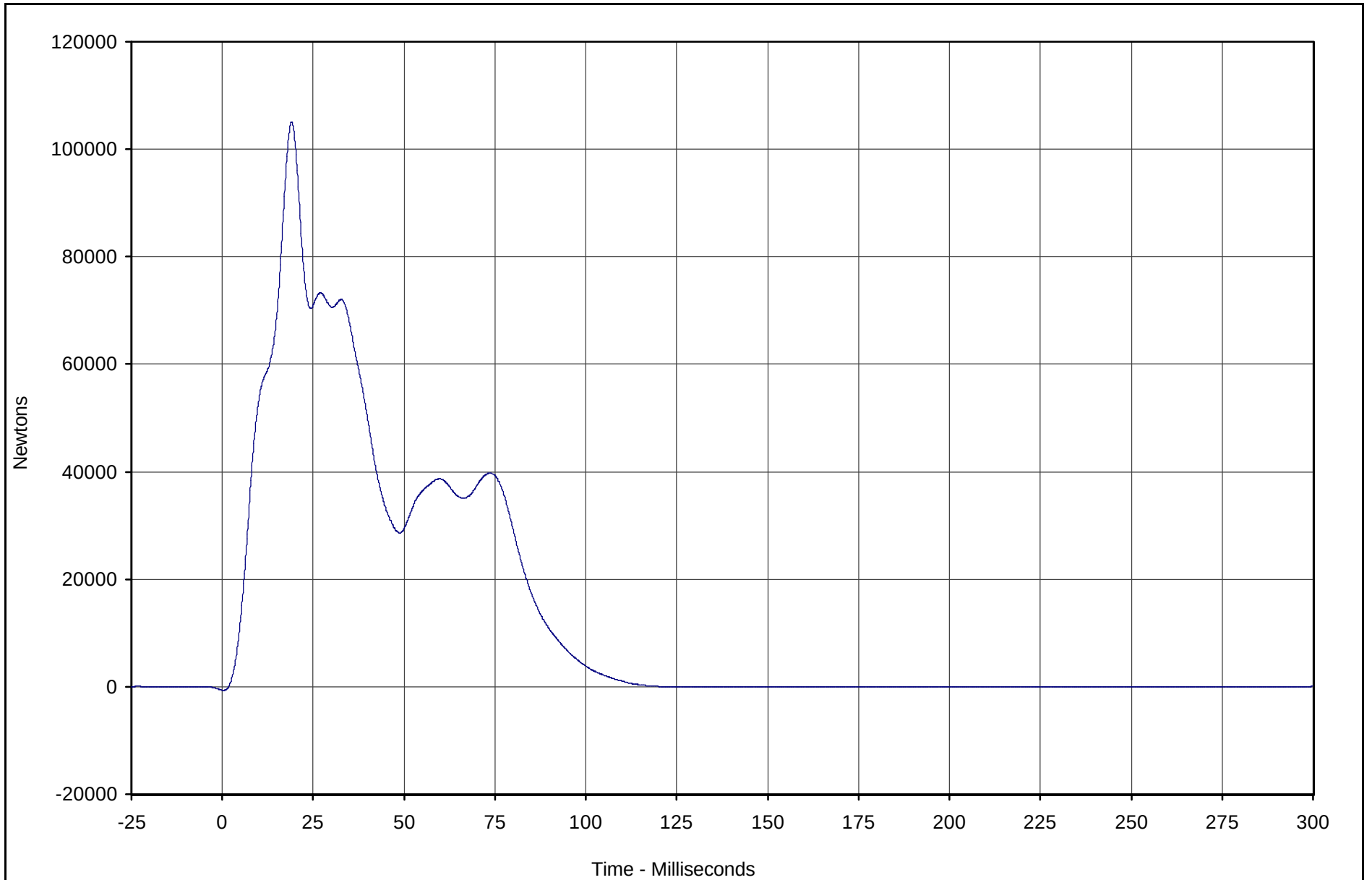
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200





Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force B3	109	FIL	Newtons	105073.0	19.1	-662.0	0.3	60

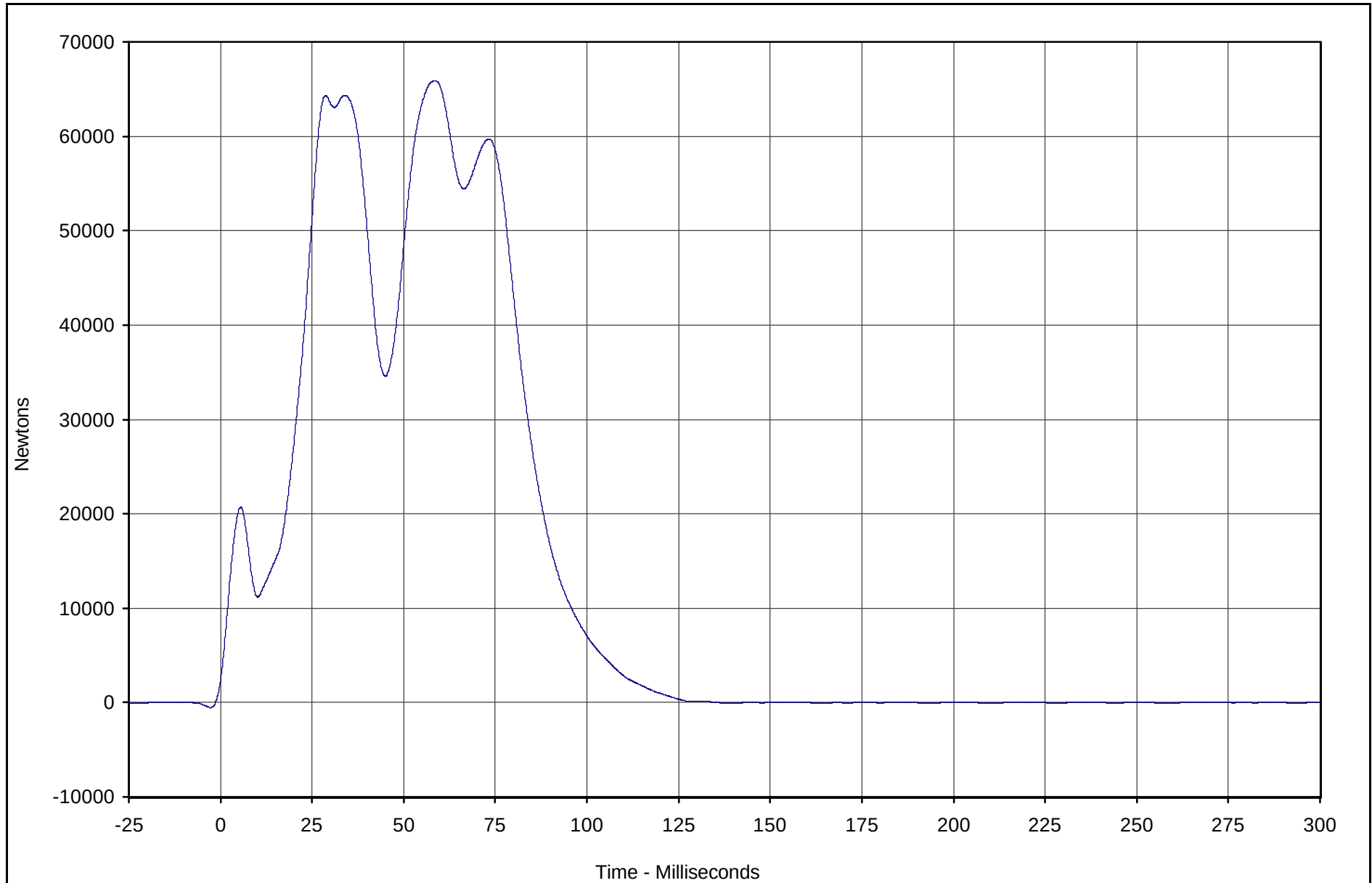
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200





Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force B4	110	FIL	Newtons	65908.5	58.5	-64.9	193.7	60



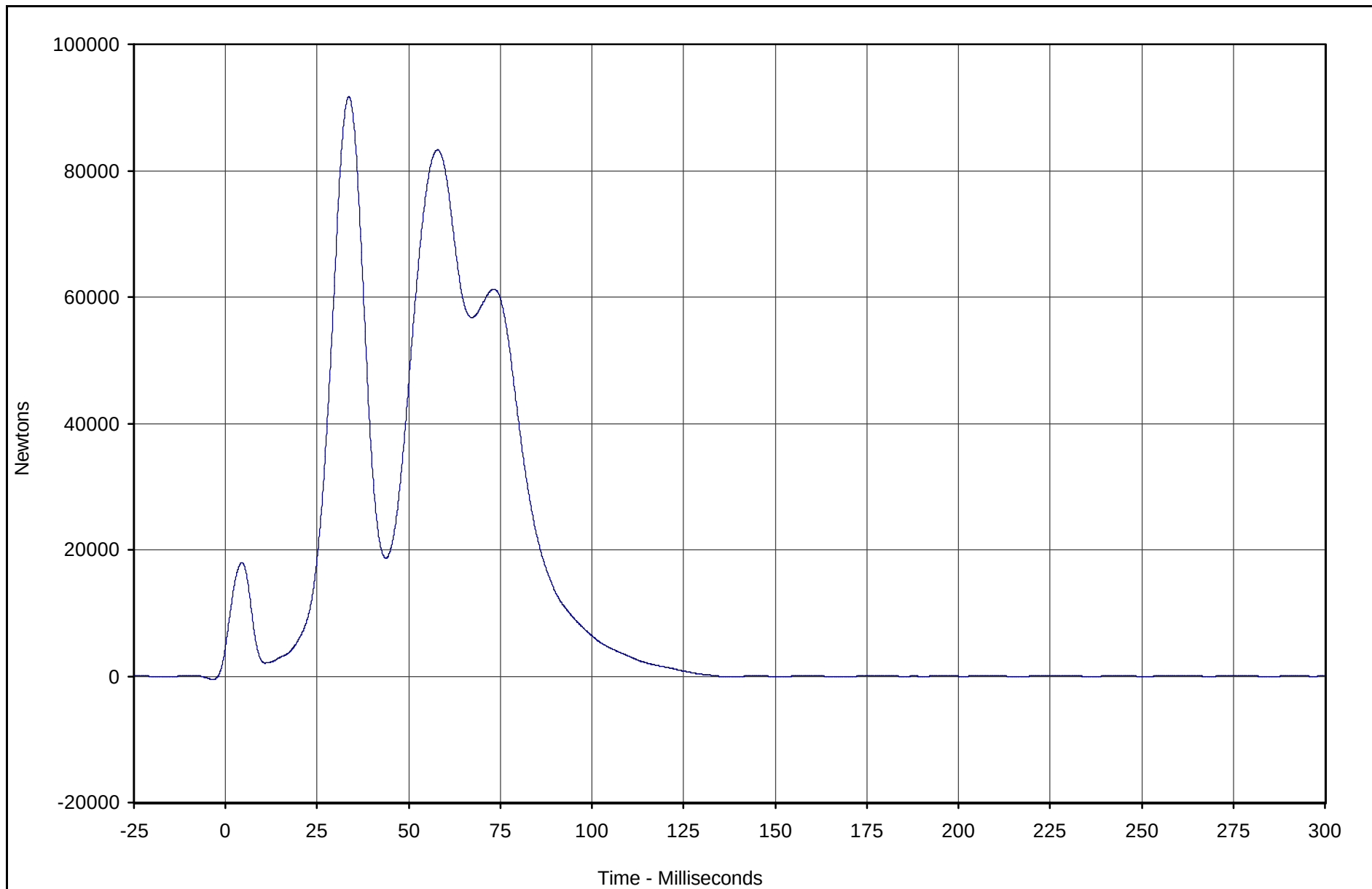
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200

C-14



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force B5	111	FIL	Newtons	91674.1	33.6	-51.9	285.1	60

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

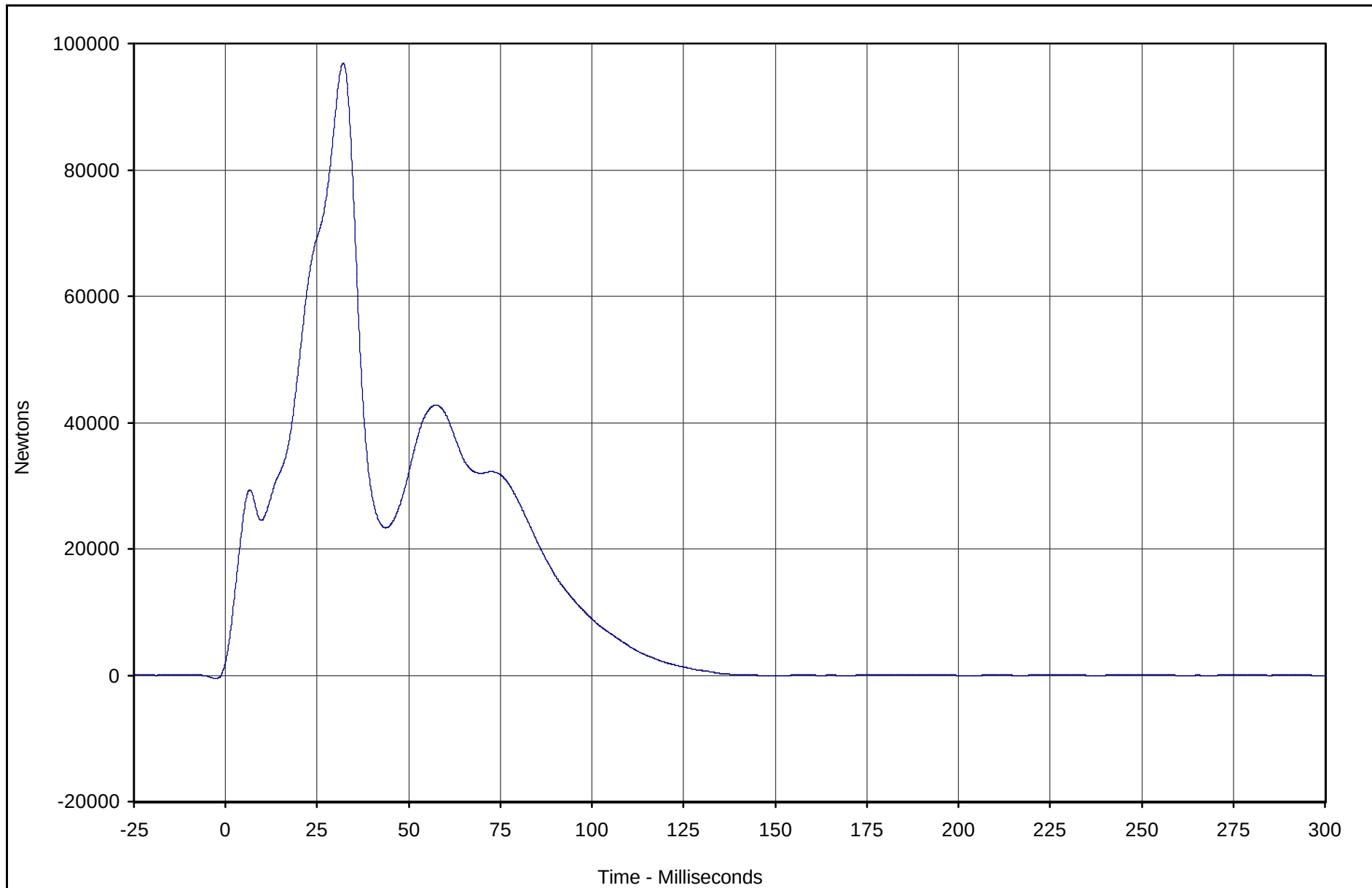
Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



TR-P23001-19-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force B6	112	FIL	Newtons	96910.7	32.1	-62.0	299.9	60

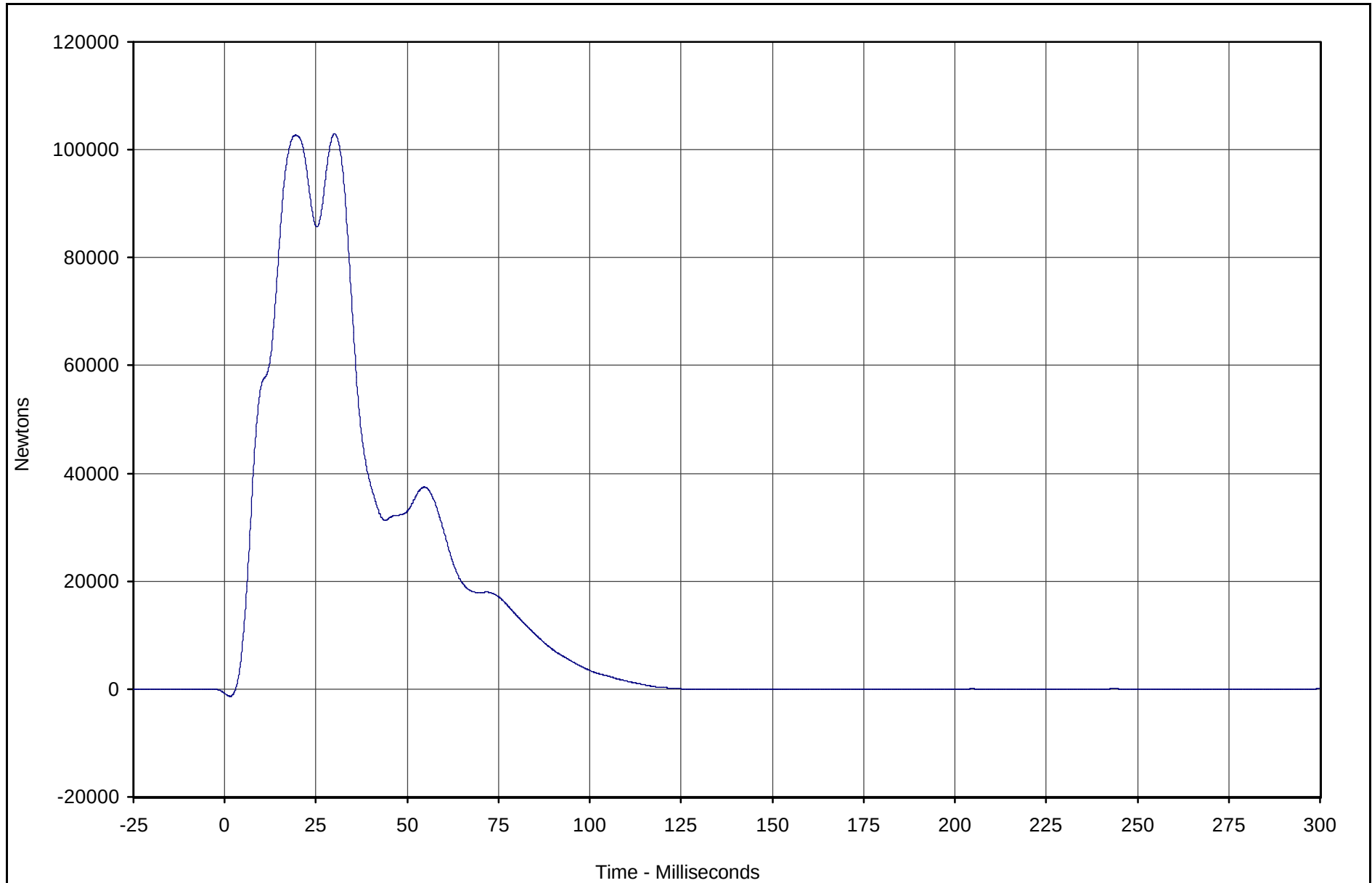


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force B7	113	FIL	Newtons	102926.6	30.1	-1343.1	1.5	60

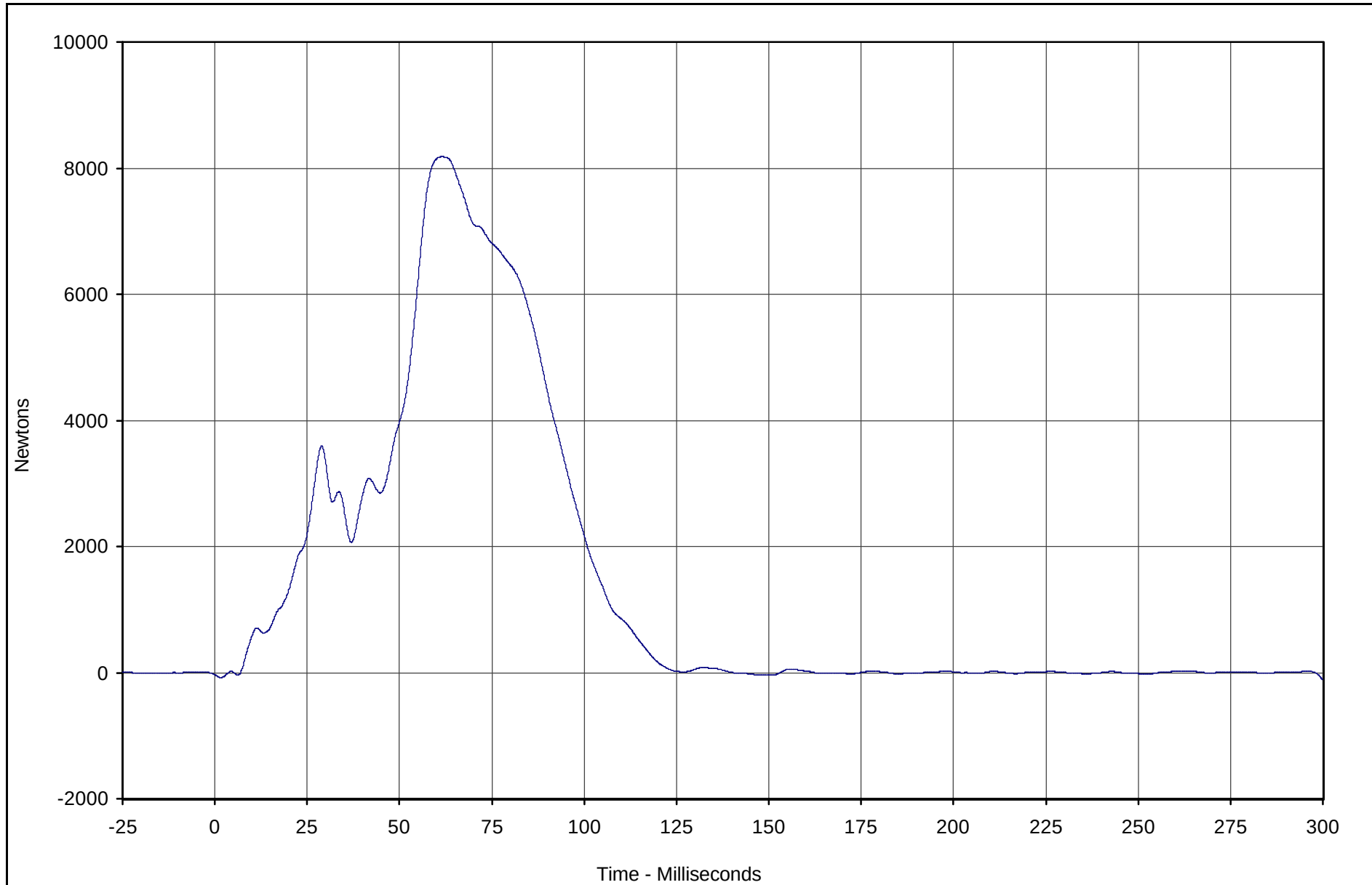


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force B8	114	FIL	Newtons	8179.3	61.4	-115.9	299.9	60

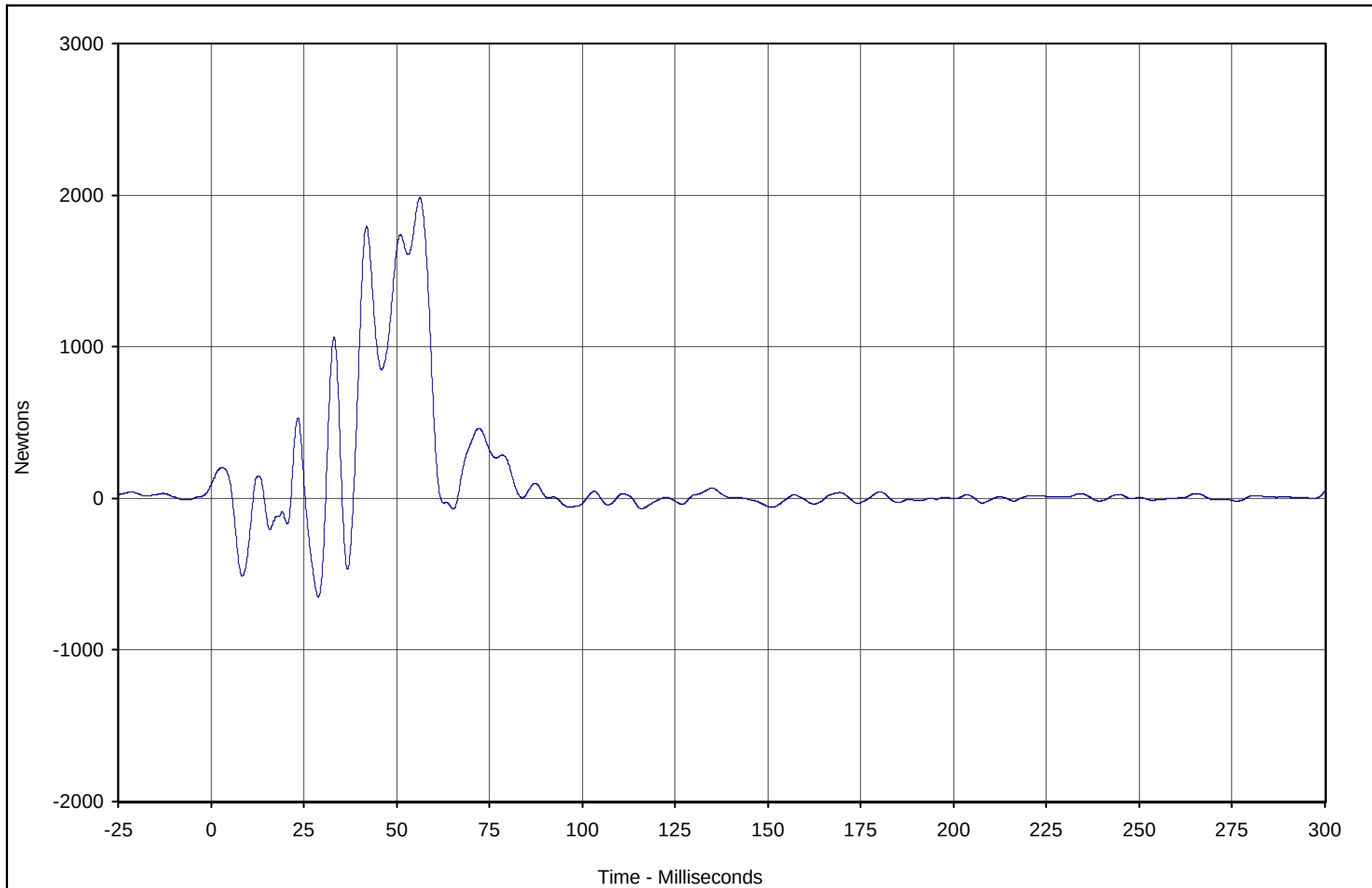


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force B9	115	FIL	Newtons	1982.4	56.3	-651.7	28.9	60

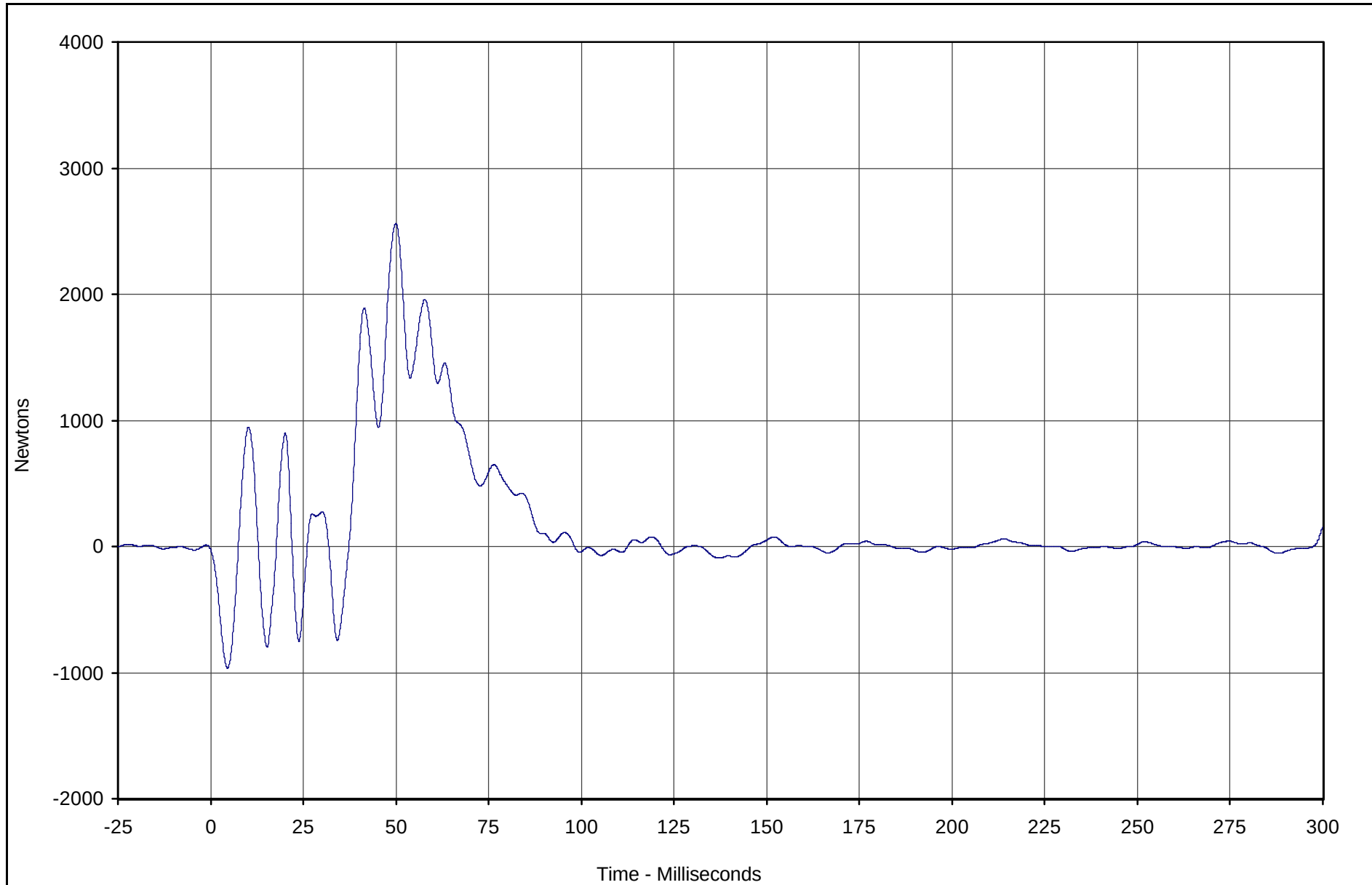
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200





Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force C1	116	FIL	Newtons	2558.6	50.0	-963.2	4.6	60



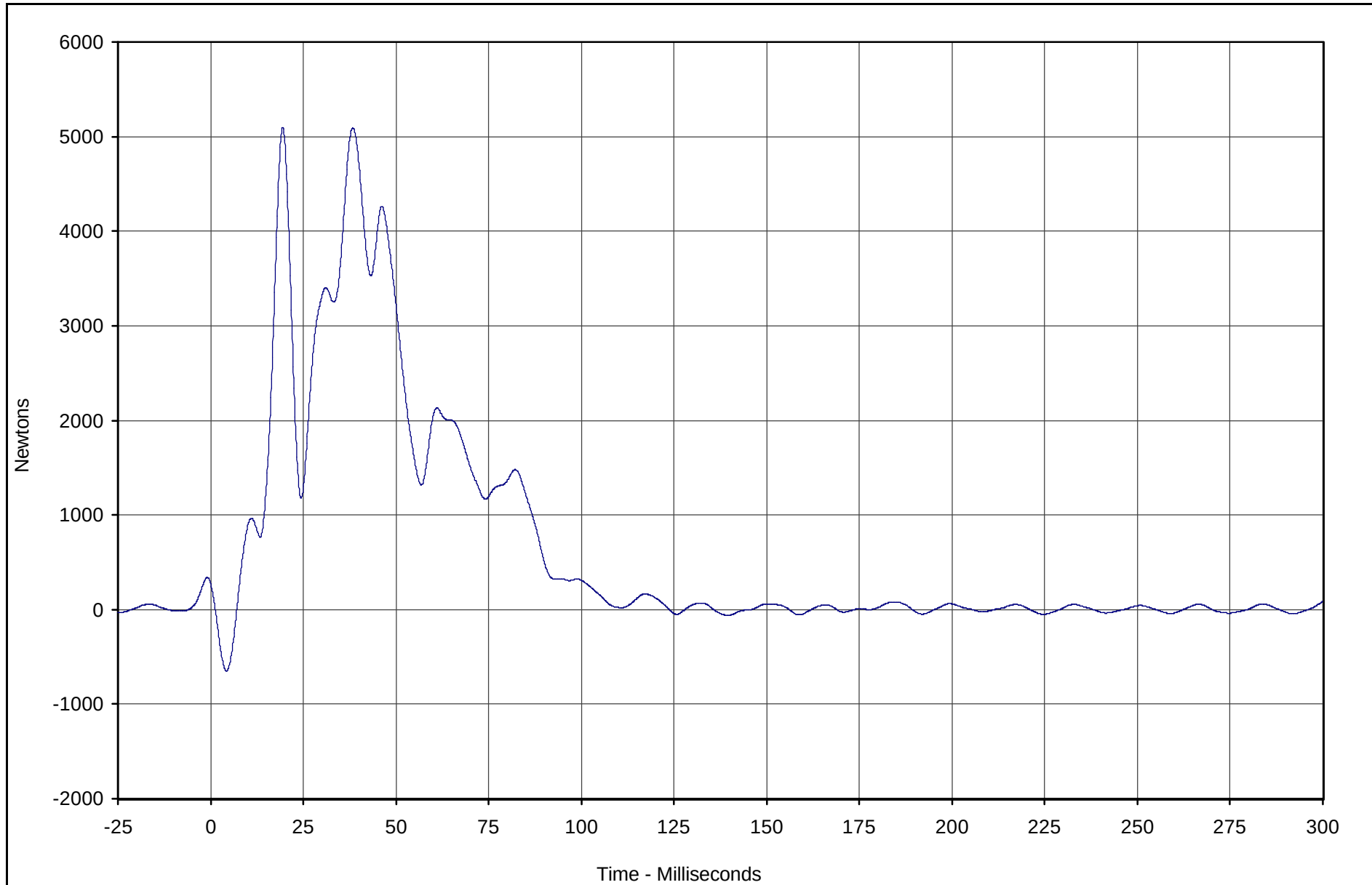
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200

C-20



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force C2	117	FIL	Newtons	5097.4	19.5	-650.5	4.3	60

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

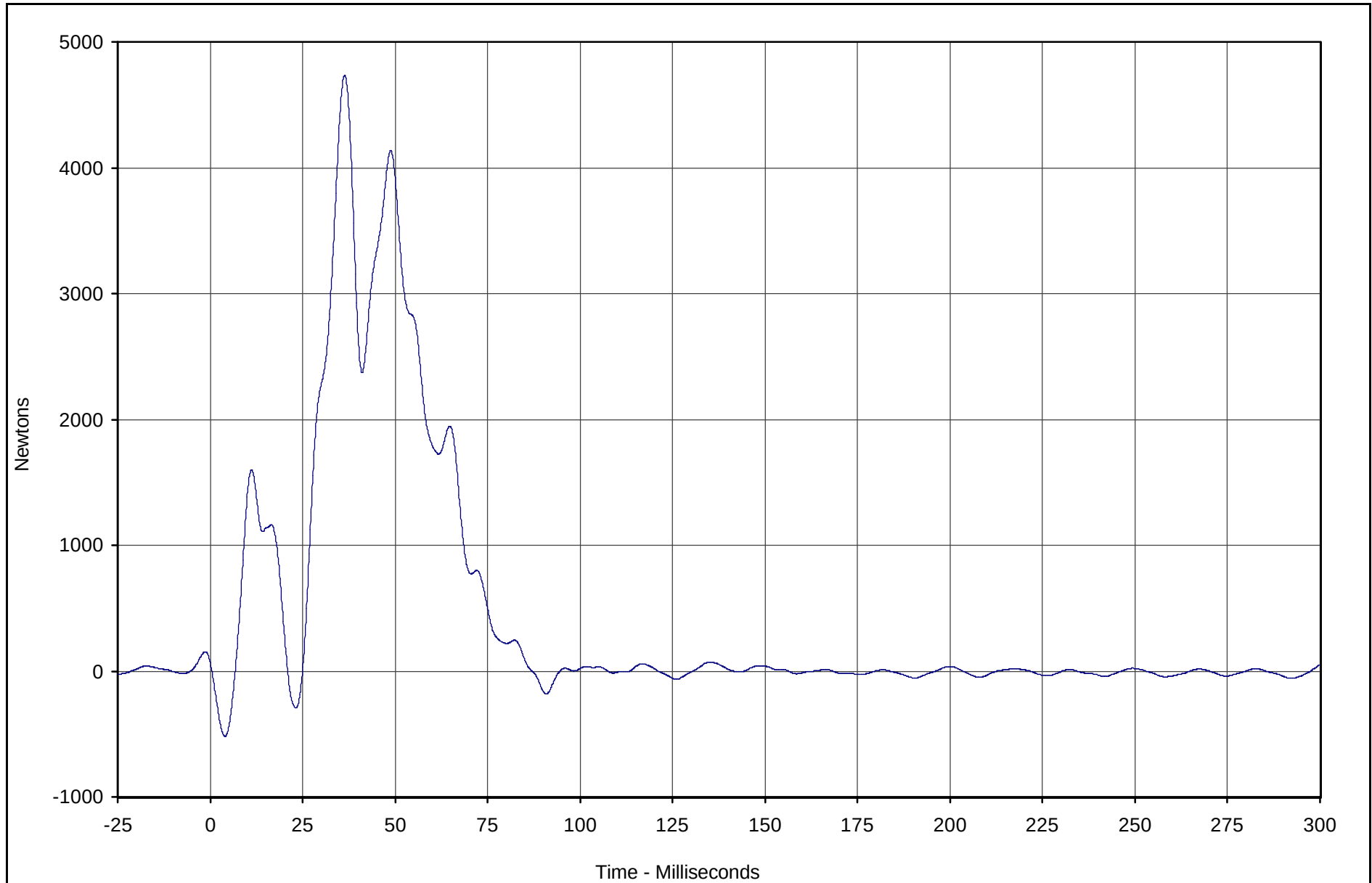
Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



TR-P23001-19-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force C3	118	FIL	Newtons	4735.0	36.4	-520.0	4.0	60



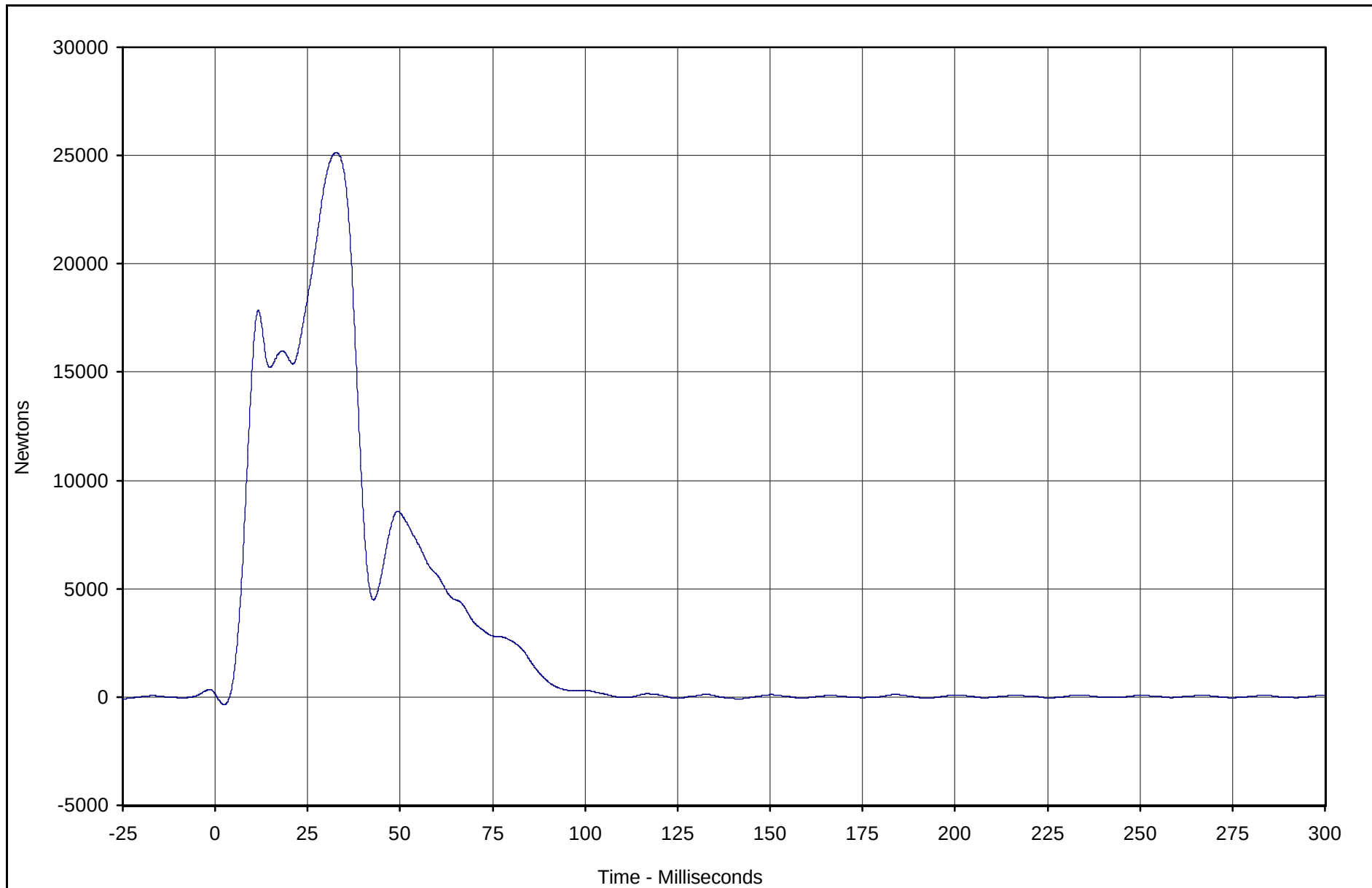
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200

C-22



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force C4	119	FIL	Newtons	25129.7	32.7	-355.4	2.4	60

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

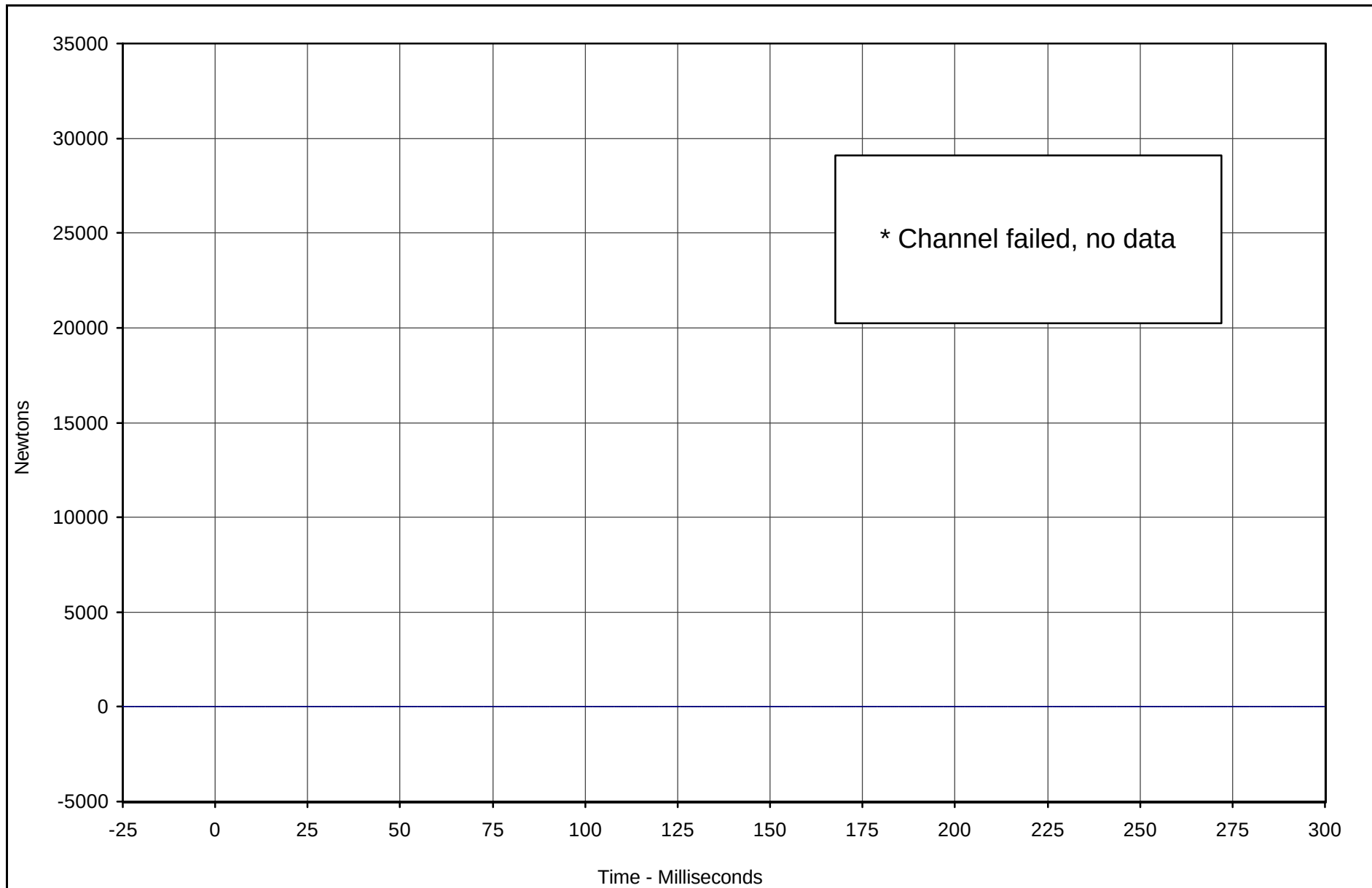
Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



TR-P23001-19-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force C5	120	FIL	Newtons	0.0	0.0	0.0	0.0	60

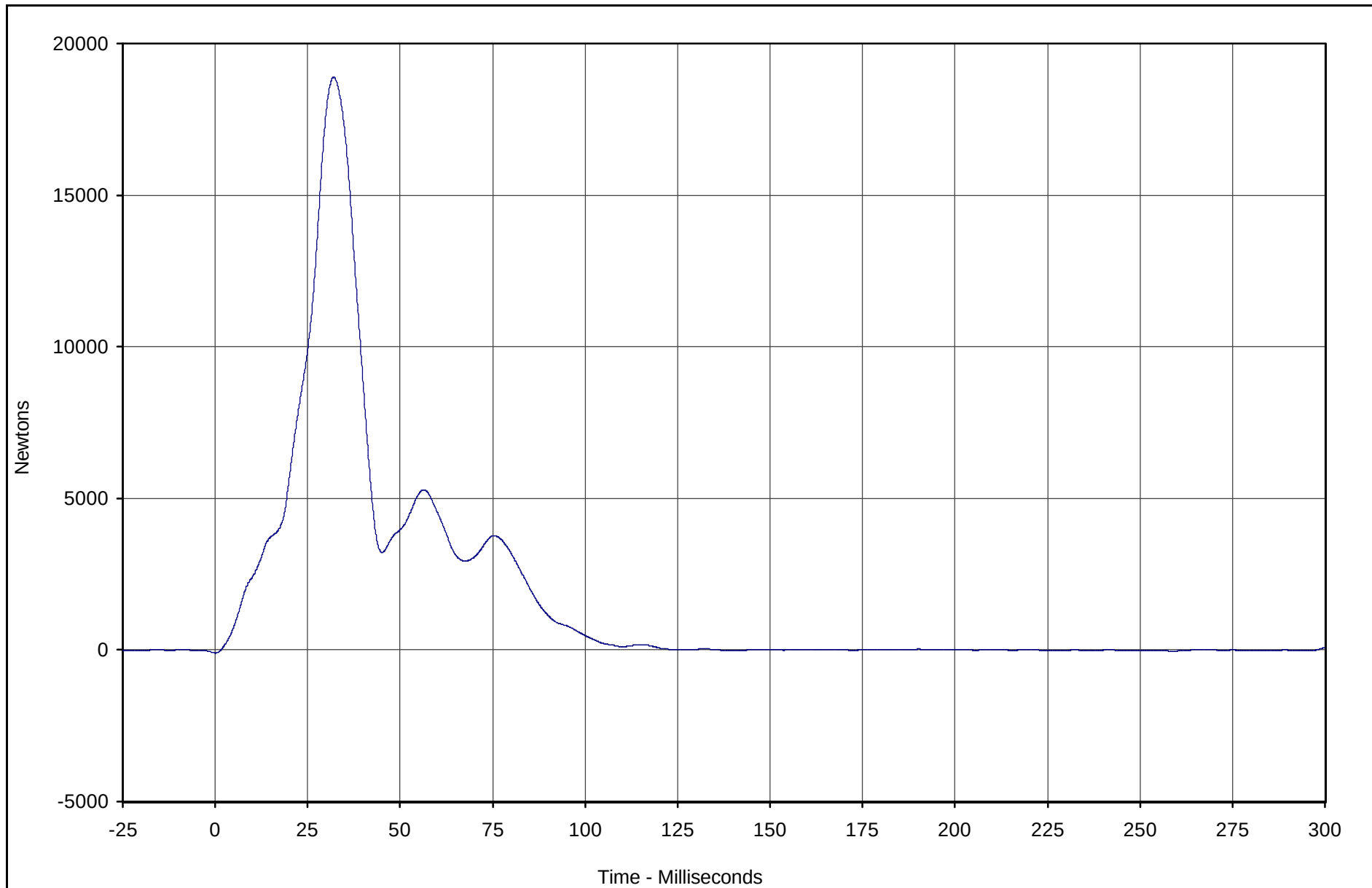


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force C6	121	FIL	Newtons	18890.9	32.0	-97.9	0.1	60

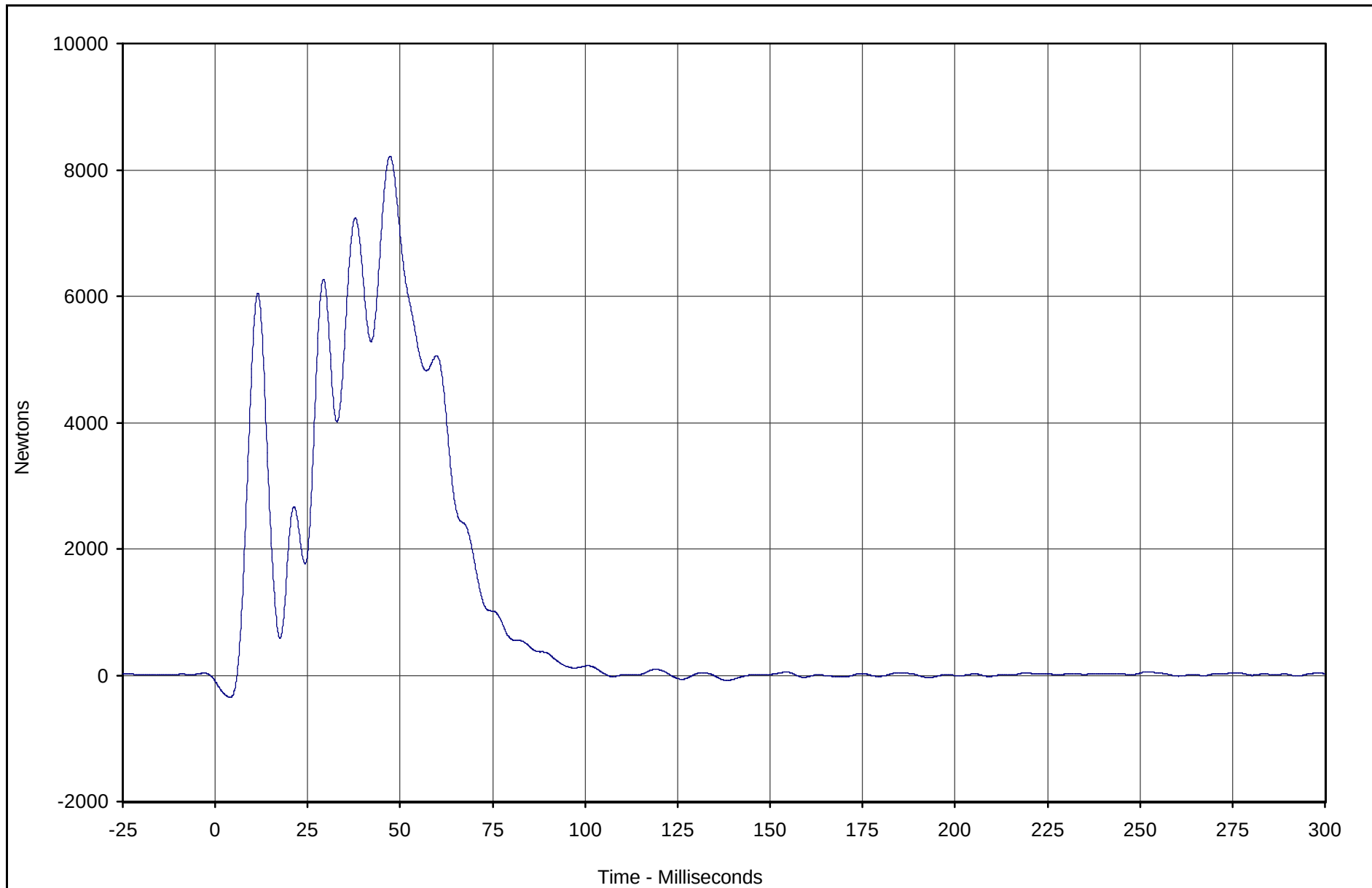


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force C7	122	FIL	Newtons	8213.9	47.2	-350.2	4.0	60

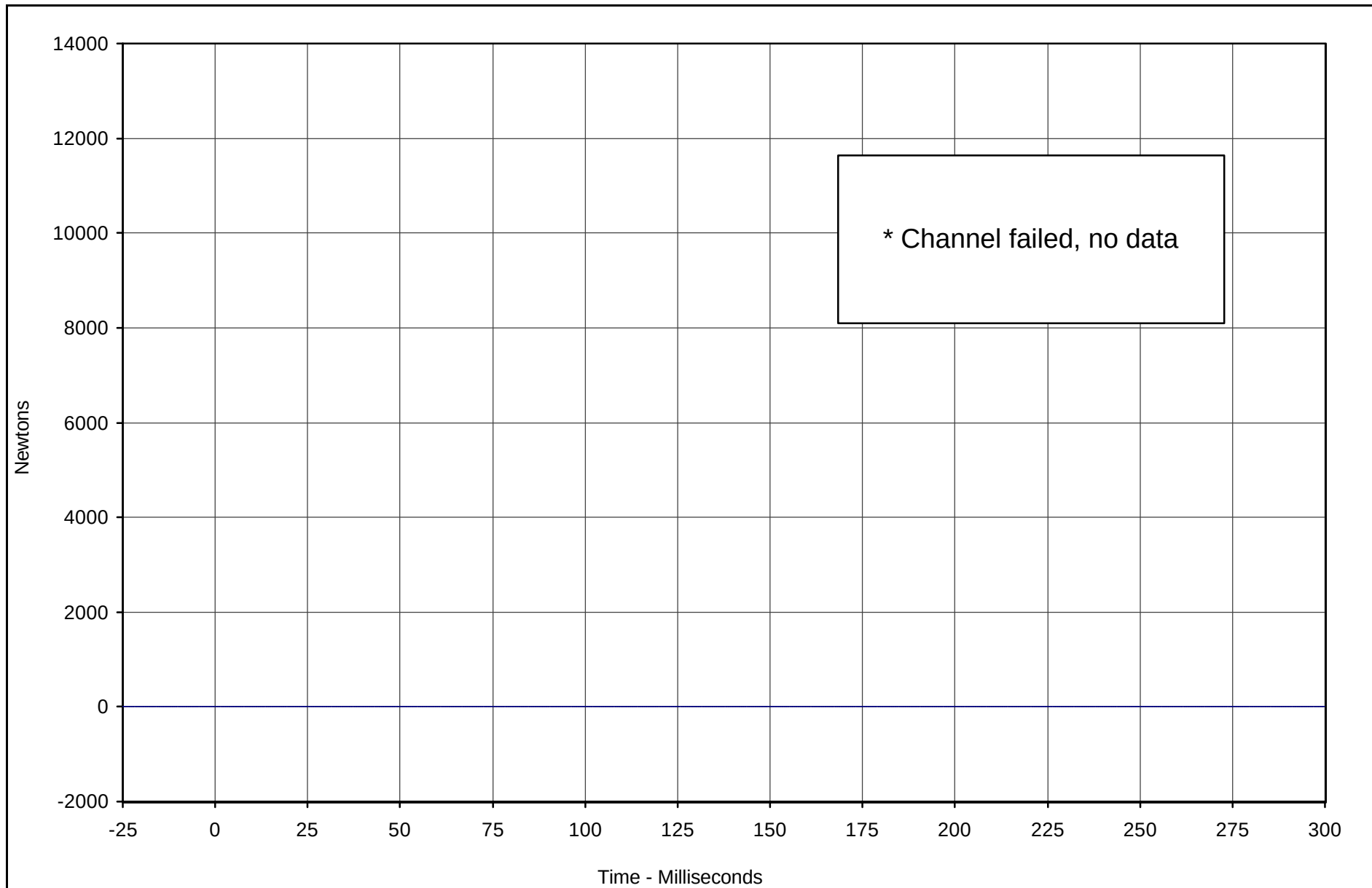
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200





Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force C8	123	FIL	Newtons	0.0	0.0	0.0	0.0	60



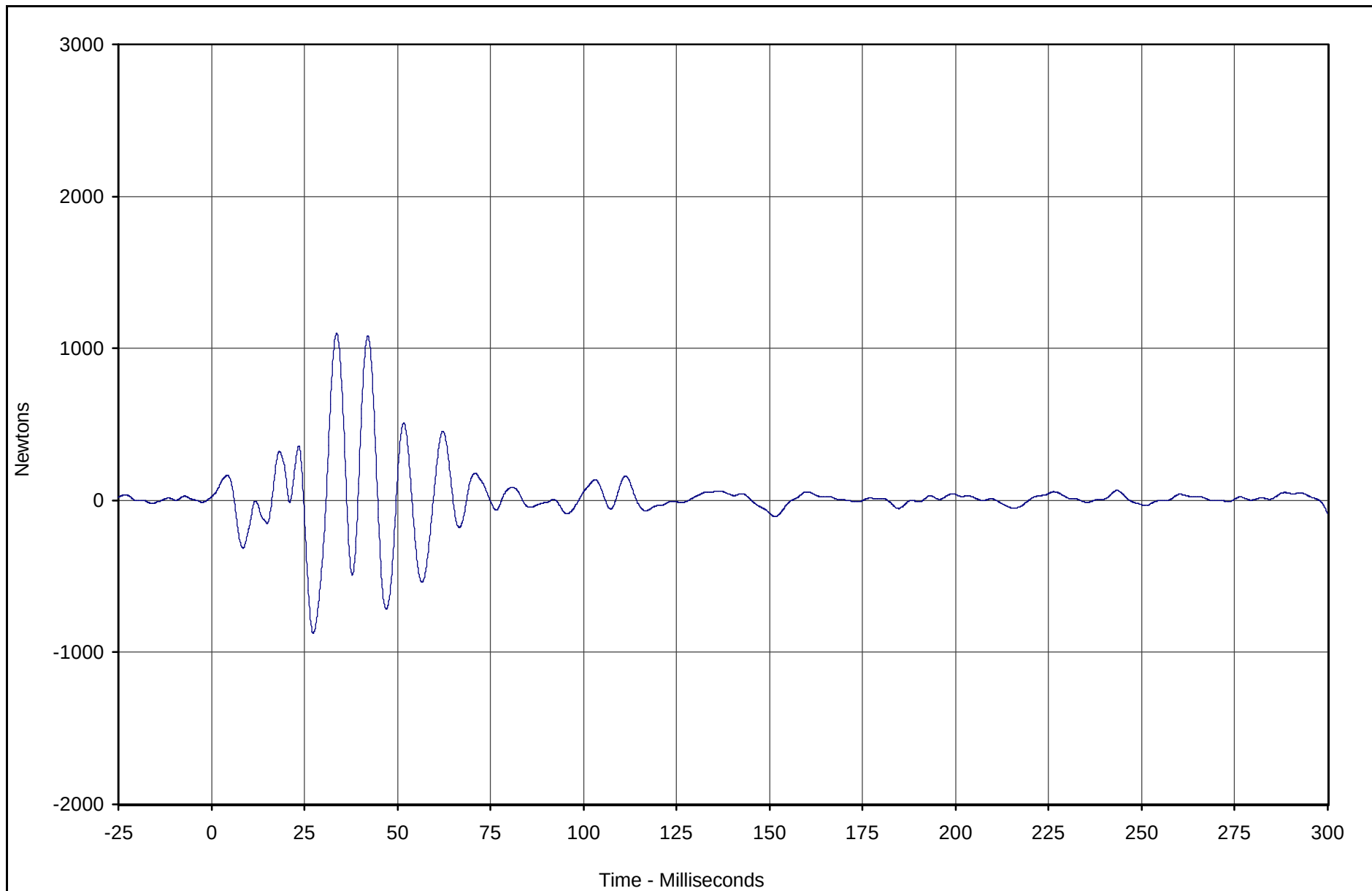
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200

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Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force C9	124	FIL	Newtons	1099.7	33.6	-875.0	27.4	60

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

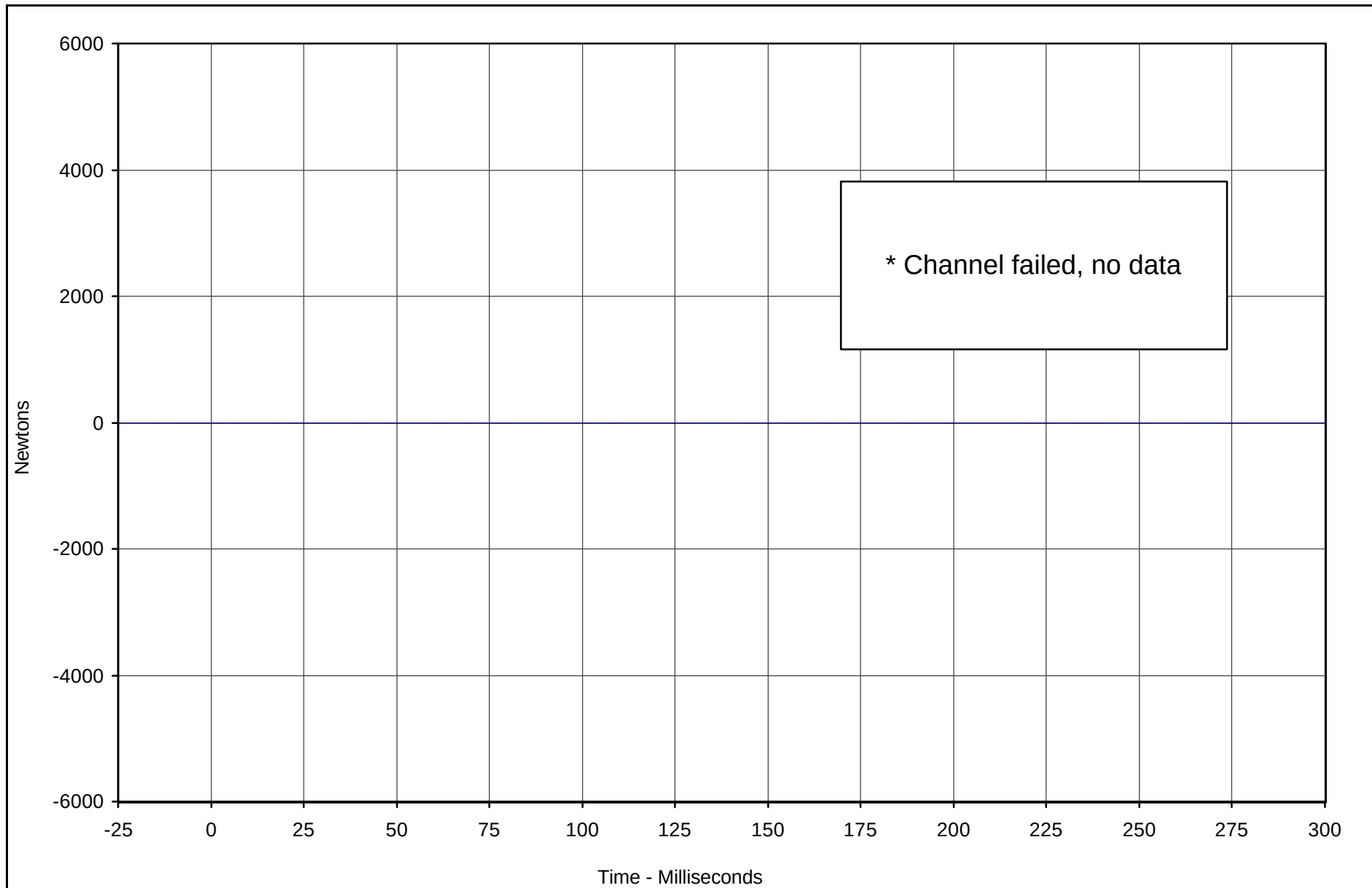
Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



TR-P23001-19-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force D1	125	FIL	Newtons	0.0	0.0	0.0	0.0	60

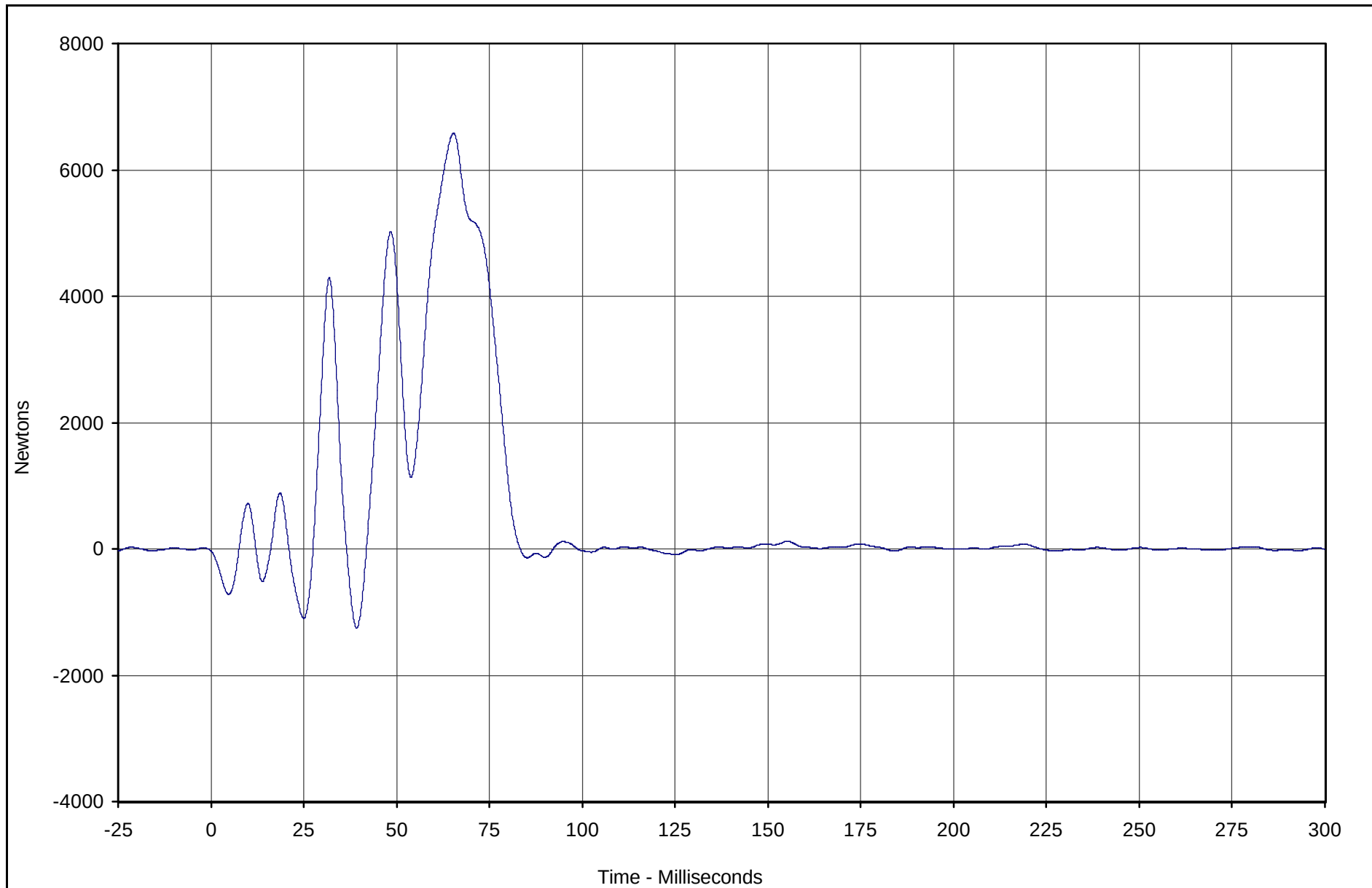


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force D2	126	FIL	Newtons	6579.1	65.3	-1256.4	39.2	60

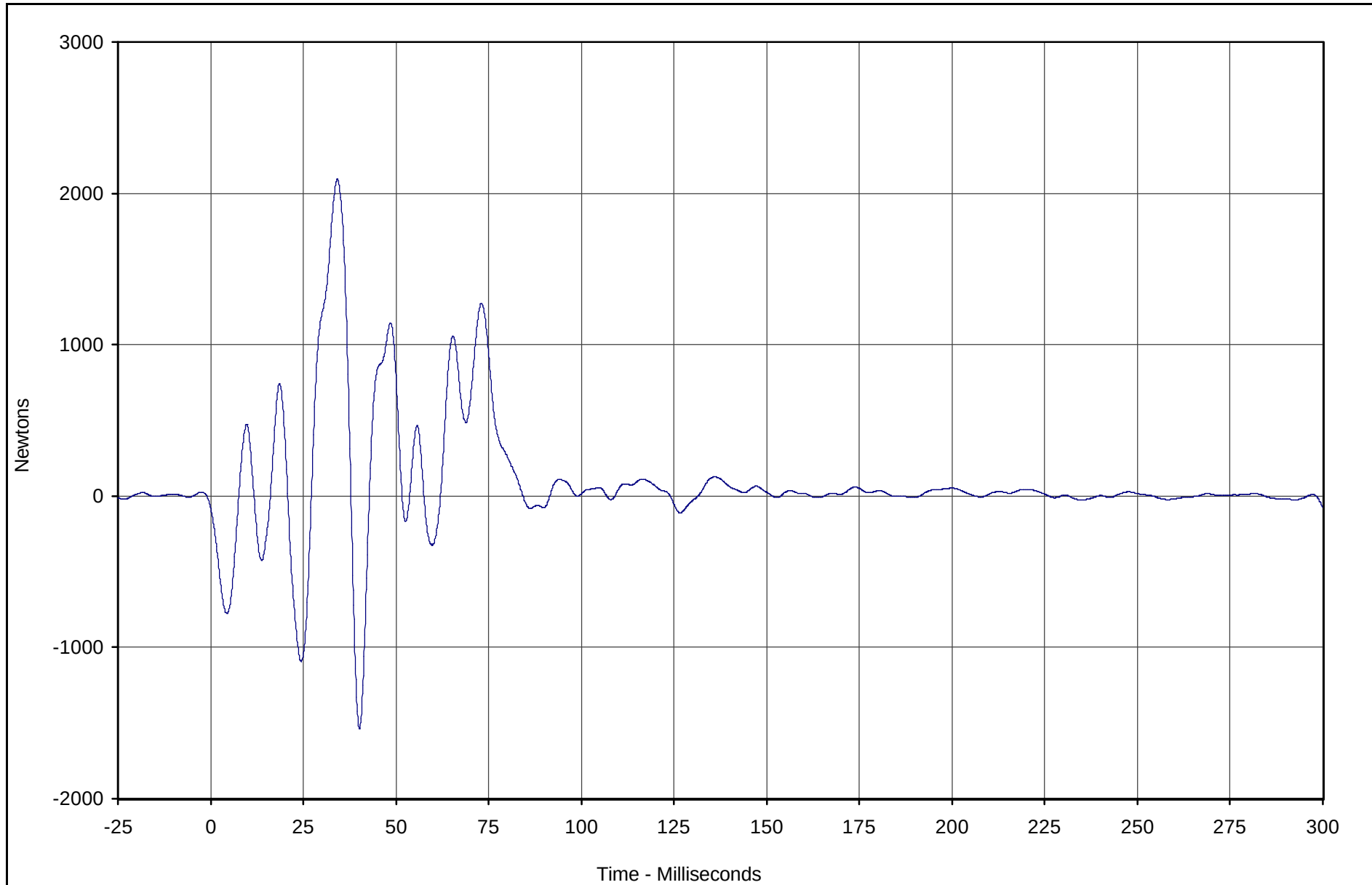
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200





Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force D3	127	FIL	Newtons	2094.0	34.2	-1536.1	40.2	60

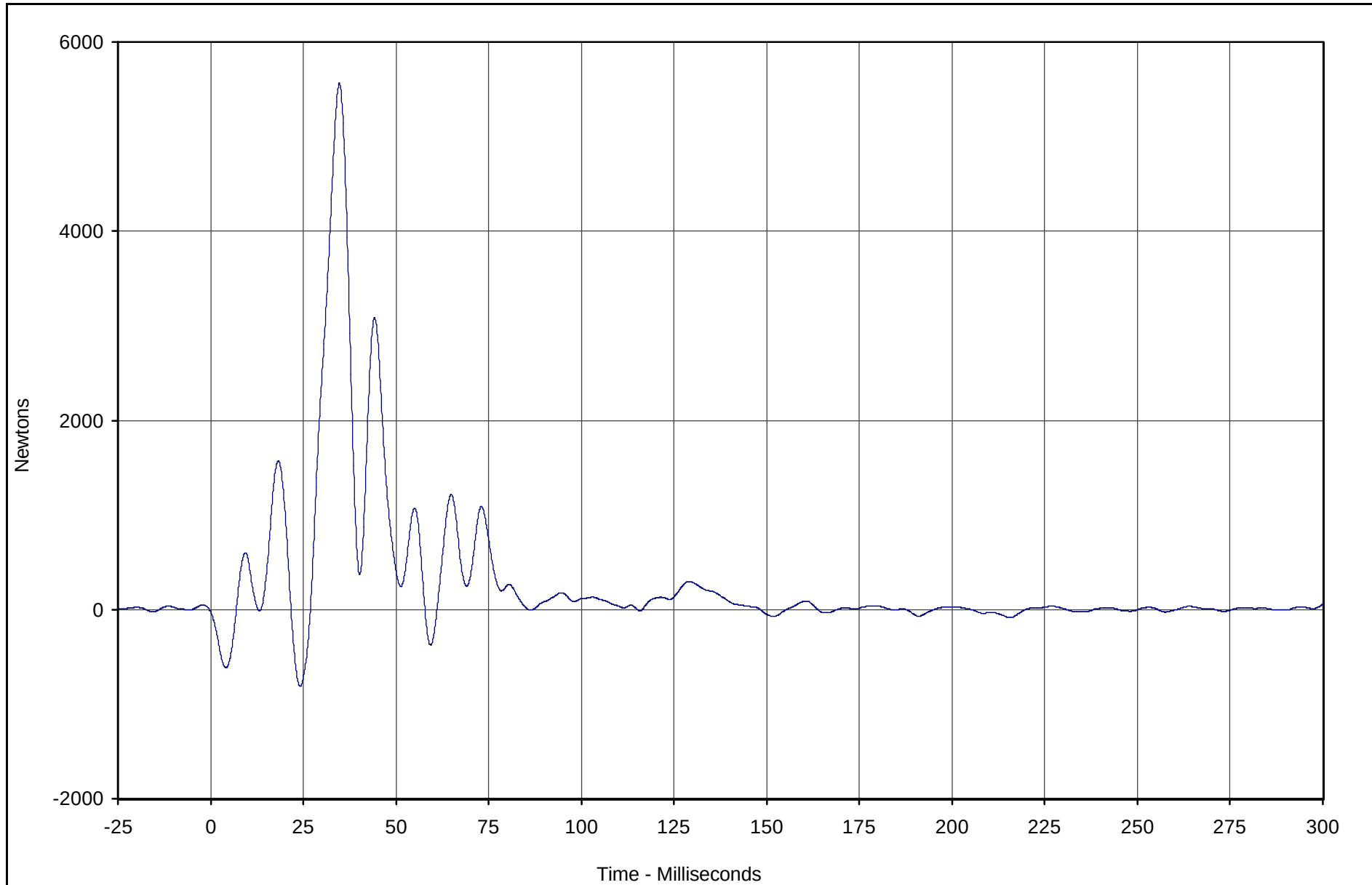
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200





Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force D4	128	FIL	Newtons	5564.9	34.7	-812.2	24.1	60

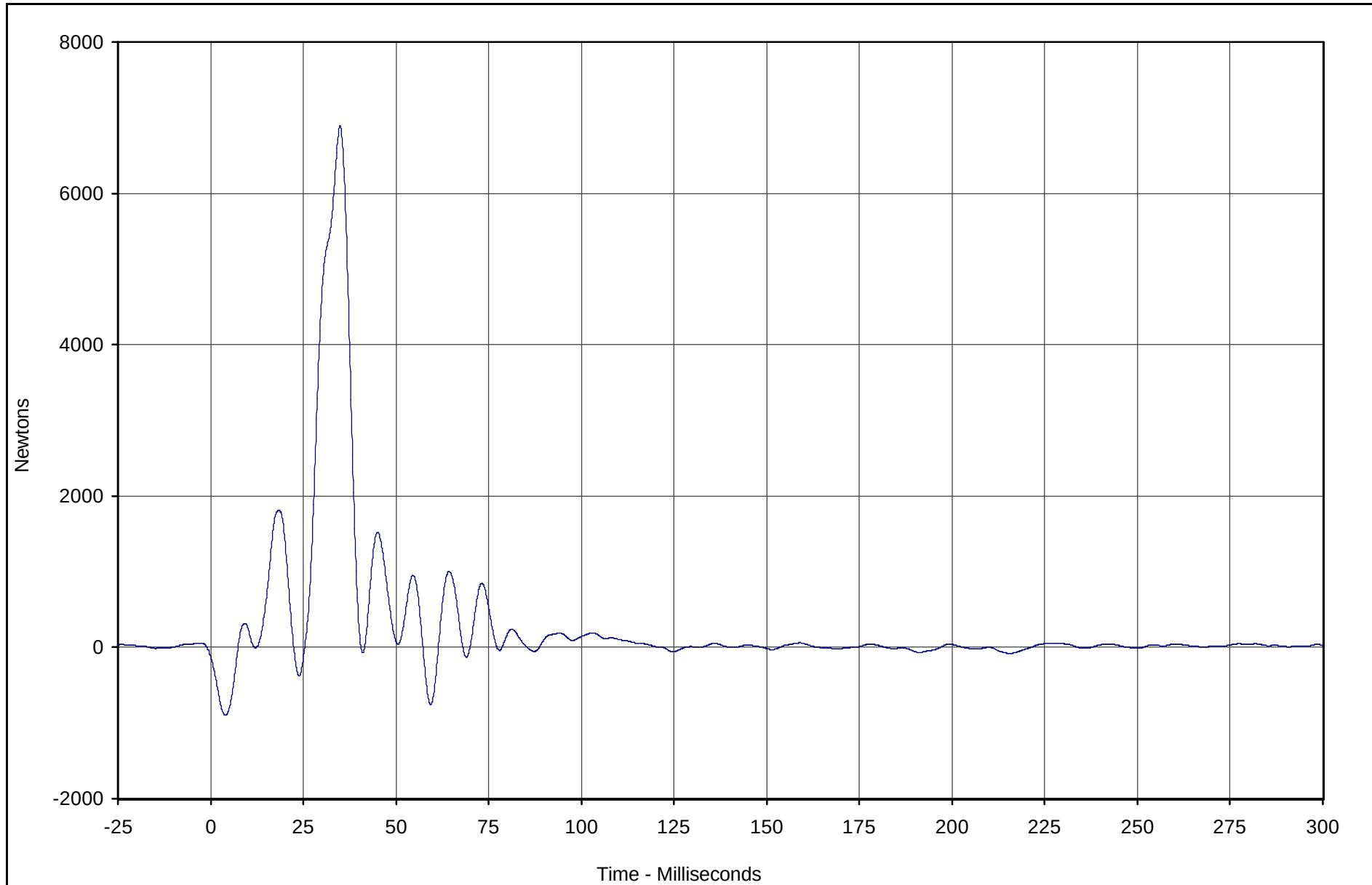


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force D5	129	FIL	Newtons	6890.3	34.9	-897.7	4.0	60

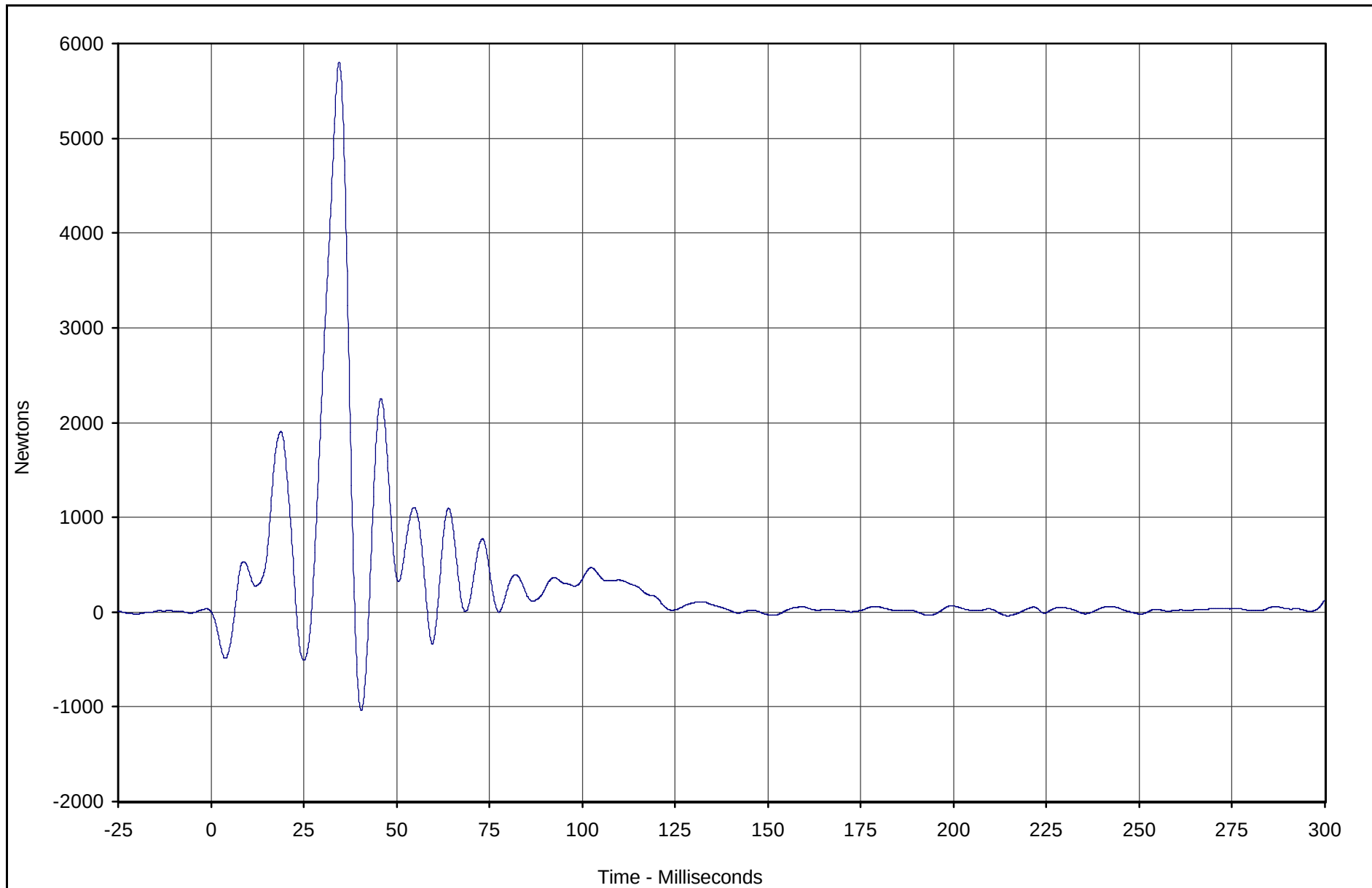


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force D6	130	FIL	Newtons	5808.1	34.5	-1039.8	40.5	60



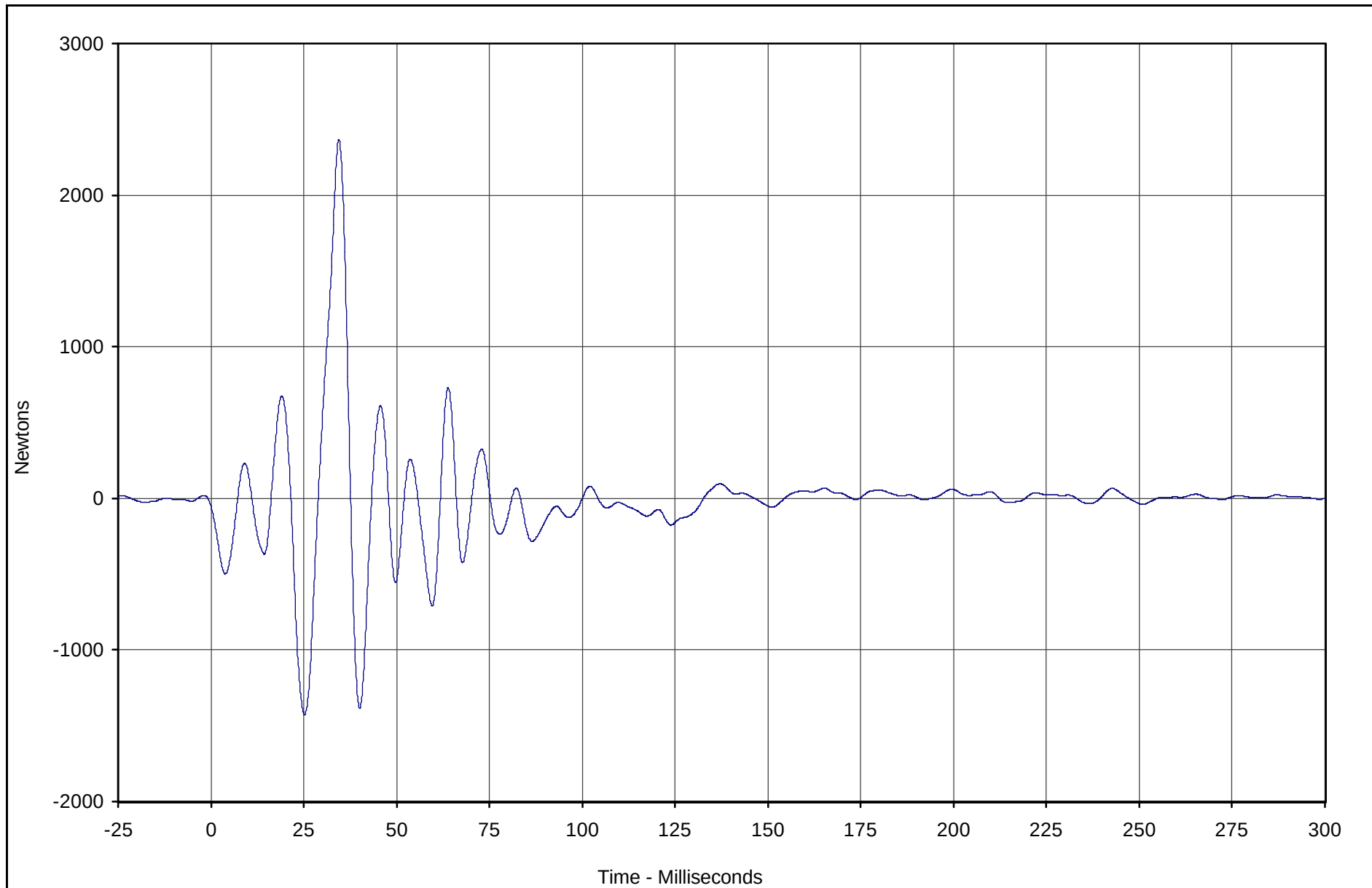
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200

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Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force D7	131	FIL	Newtons	2369.6	34.5	-1427.6	25.2	60

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

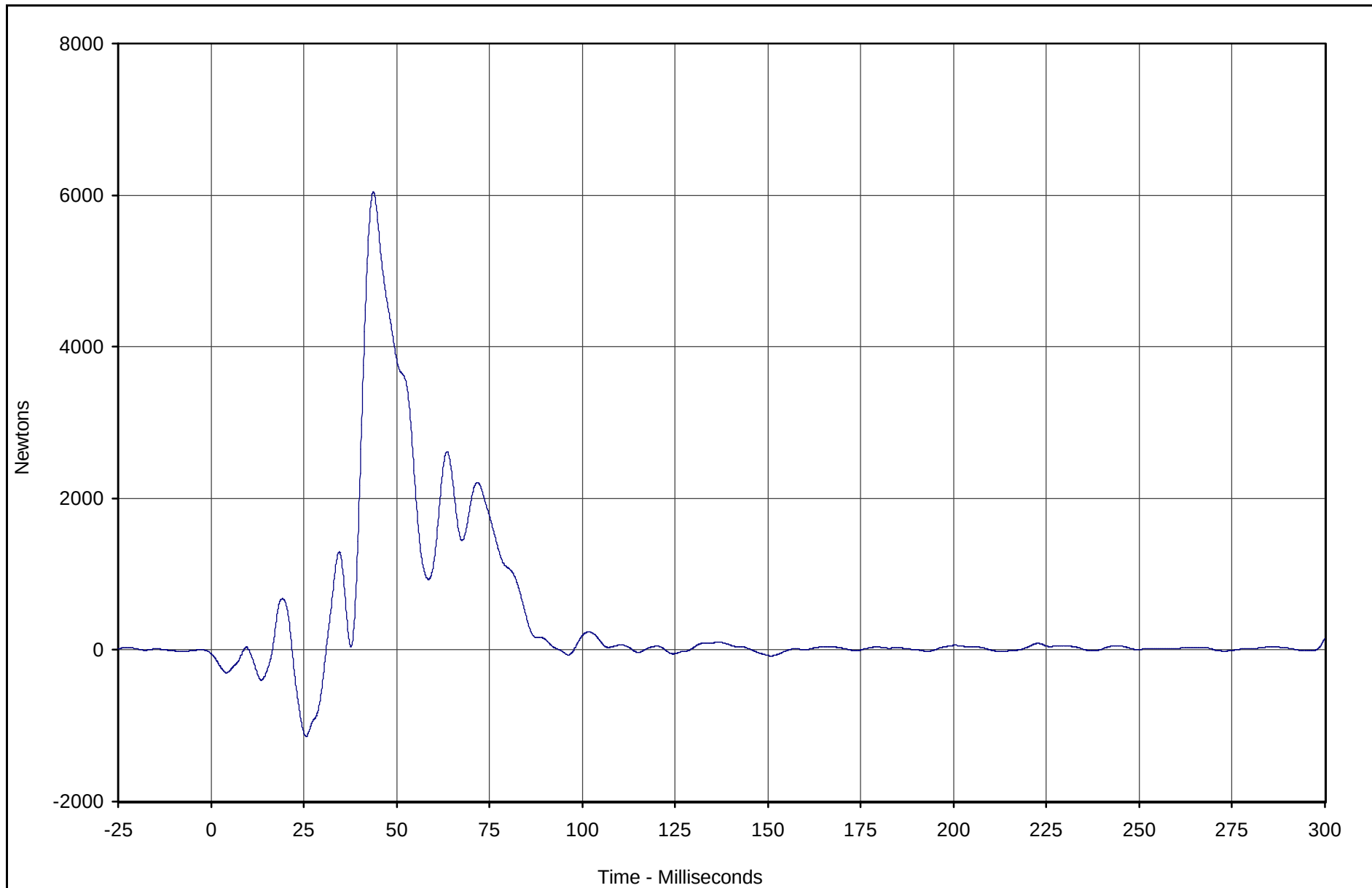
Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



TR-P23001-19-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force D8	132	FIL	Newtons	6039.1	43.7	-1141.9	25.7	60

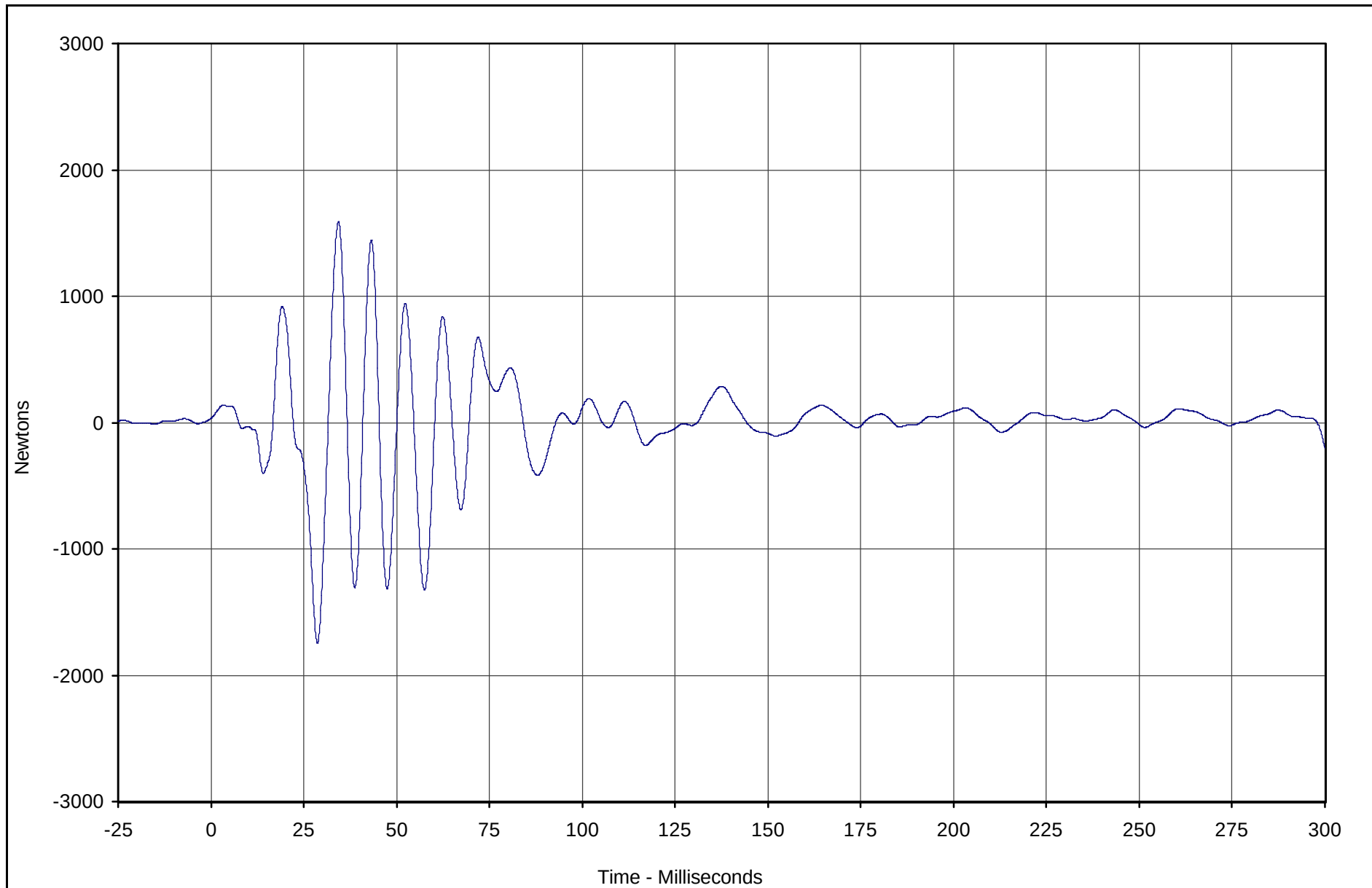


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force D9	133	FIL	Newtons	1591.2	34.4	-1746.0	28.7	60

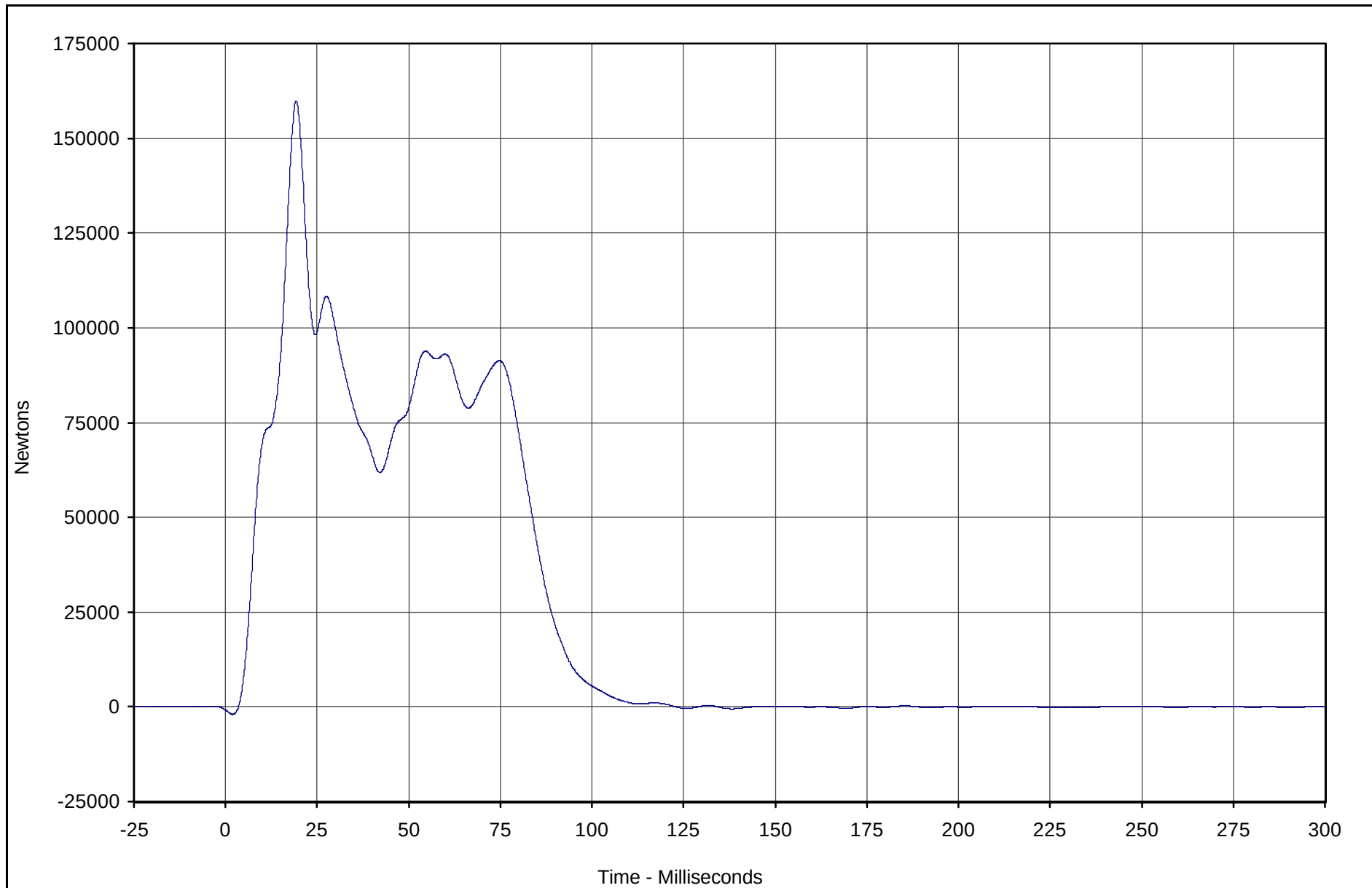


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force Sum Group 1	001	SUM	Newtons	159857.5	19.3	-2023.8	2.0	60

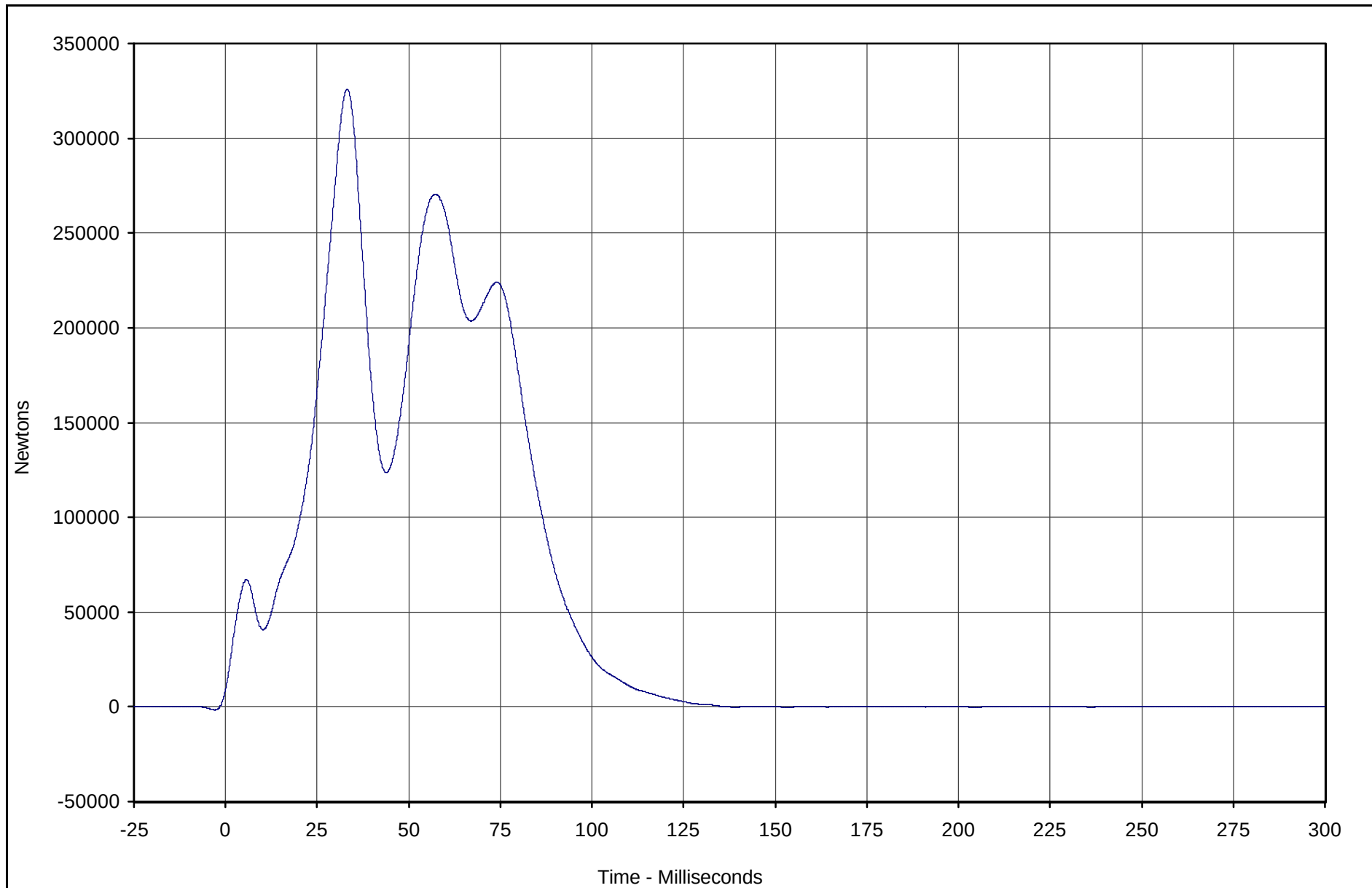
Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200





Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force Sum Group 2	002	SUM	Newtons	326127.1	33.2	-200.6	153.3	60

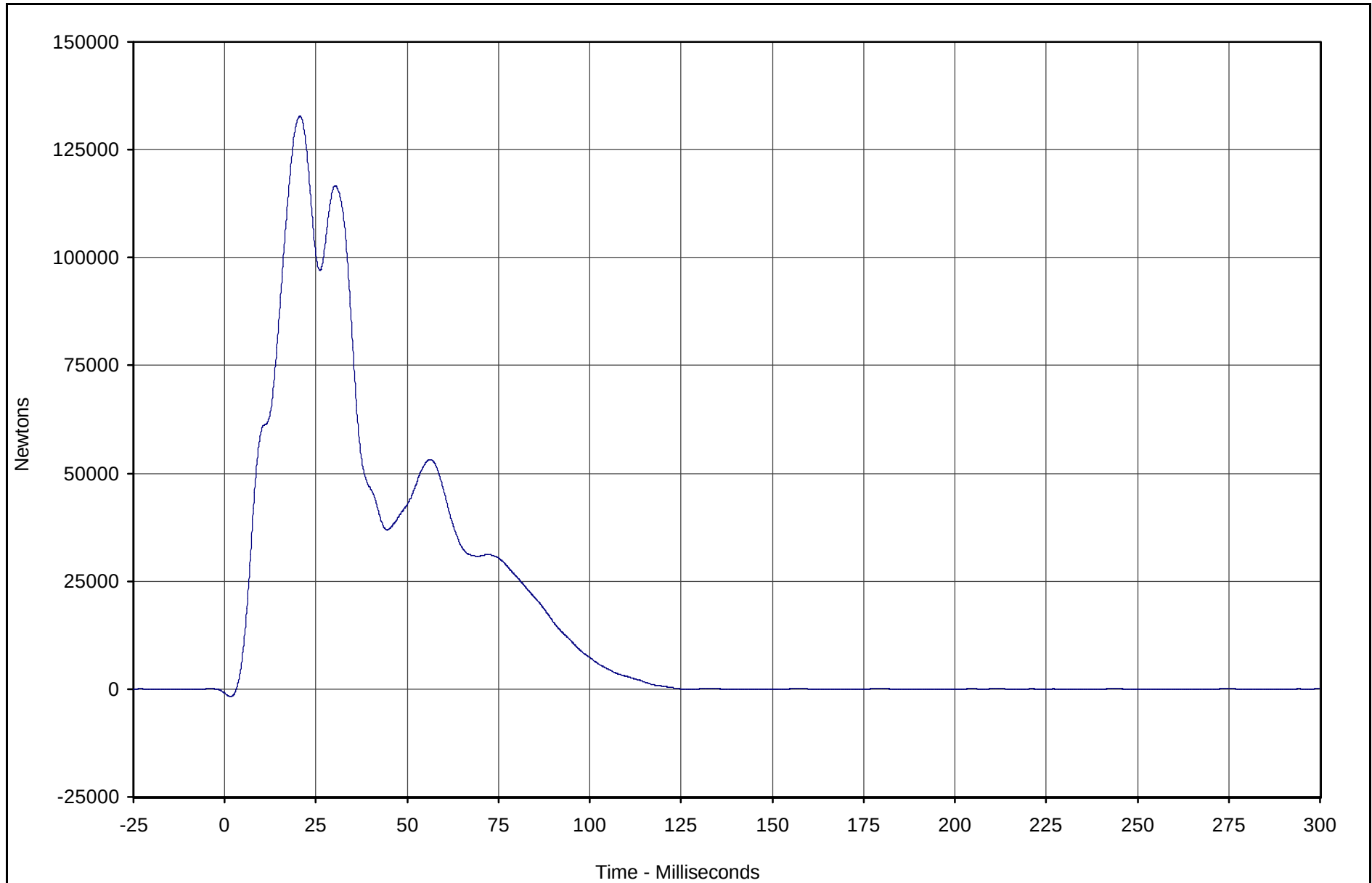


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force Sum Group 3	003	SUM	Newtons	132748.9	20.6	-1785.2	1.6	60

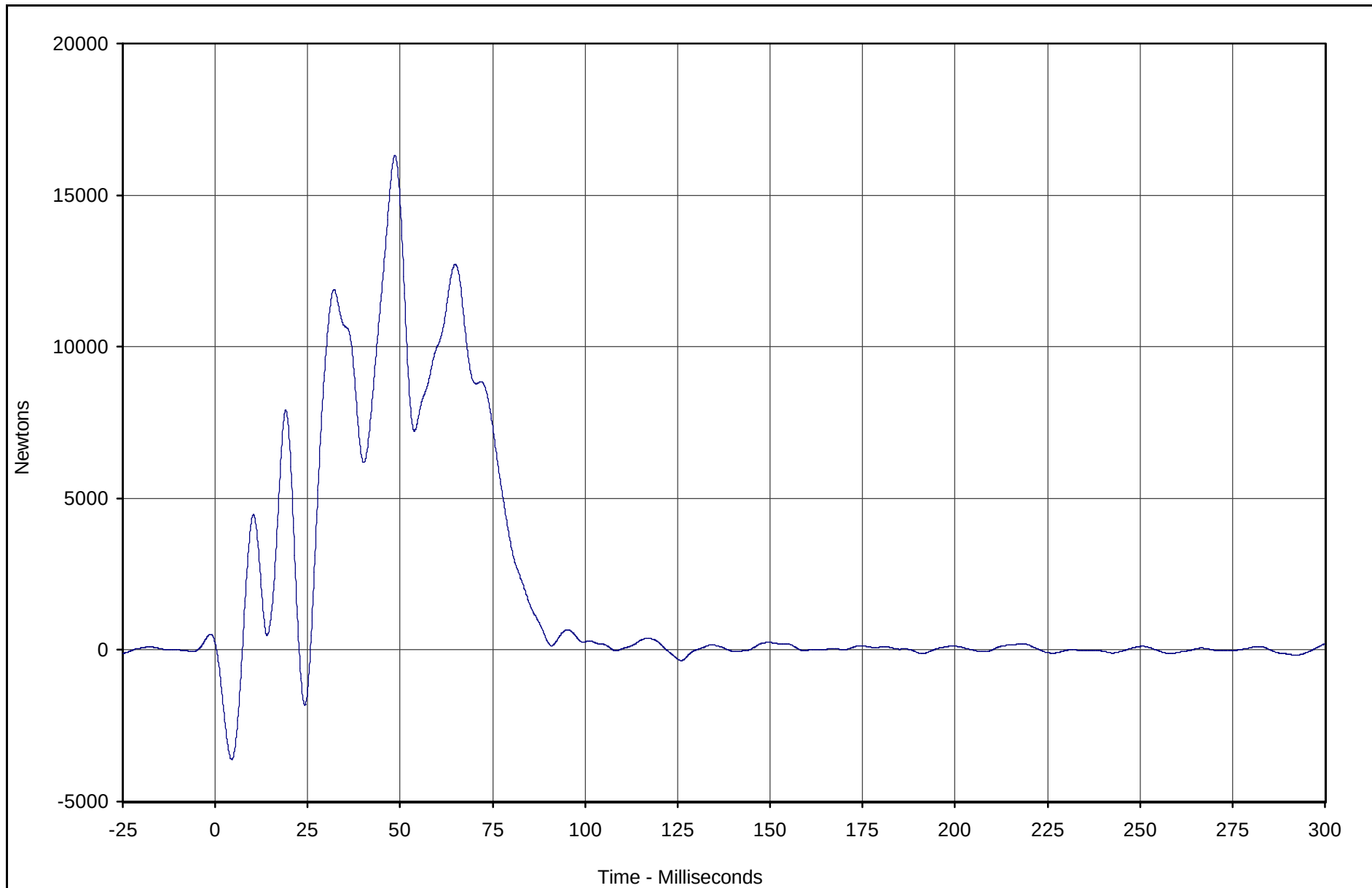


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force Sum Group 4	004	SUM	Newtons	16302.4	48.6	-3602.6	4.5	60

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

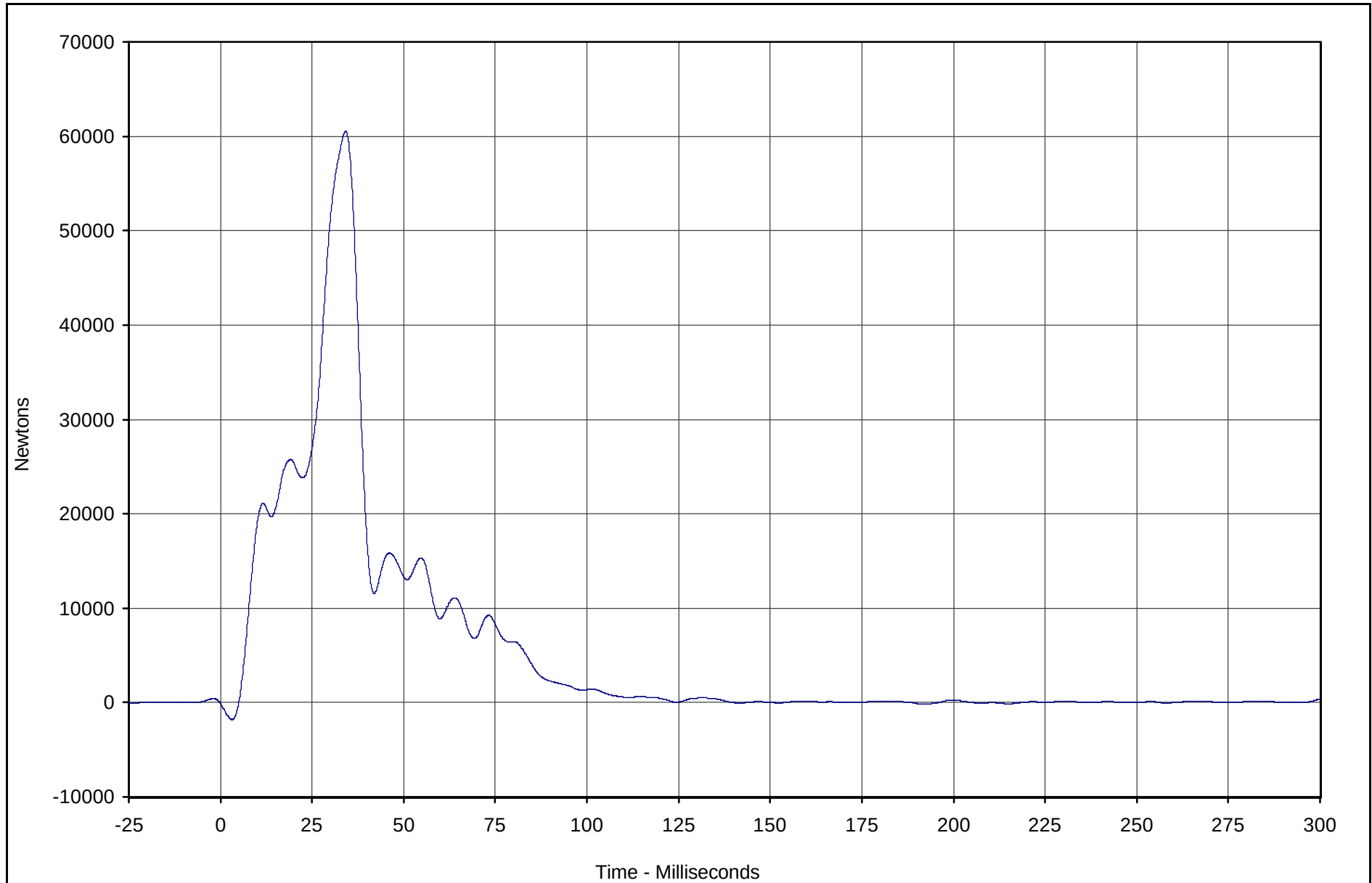
Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



C-41



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force Sum Group 5	005	SUM	Newtons	60536.8	34.2	-1805.6	3.2	60

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

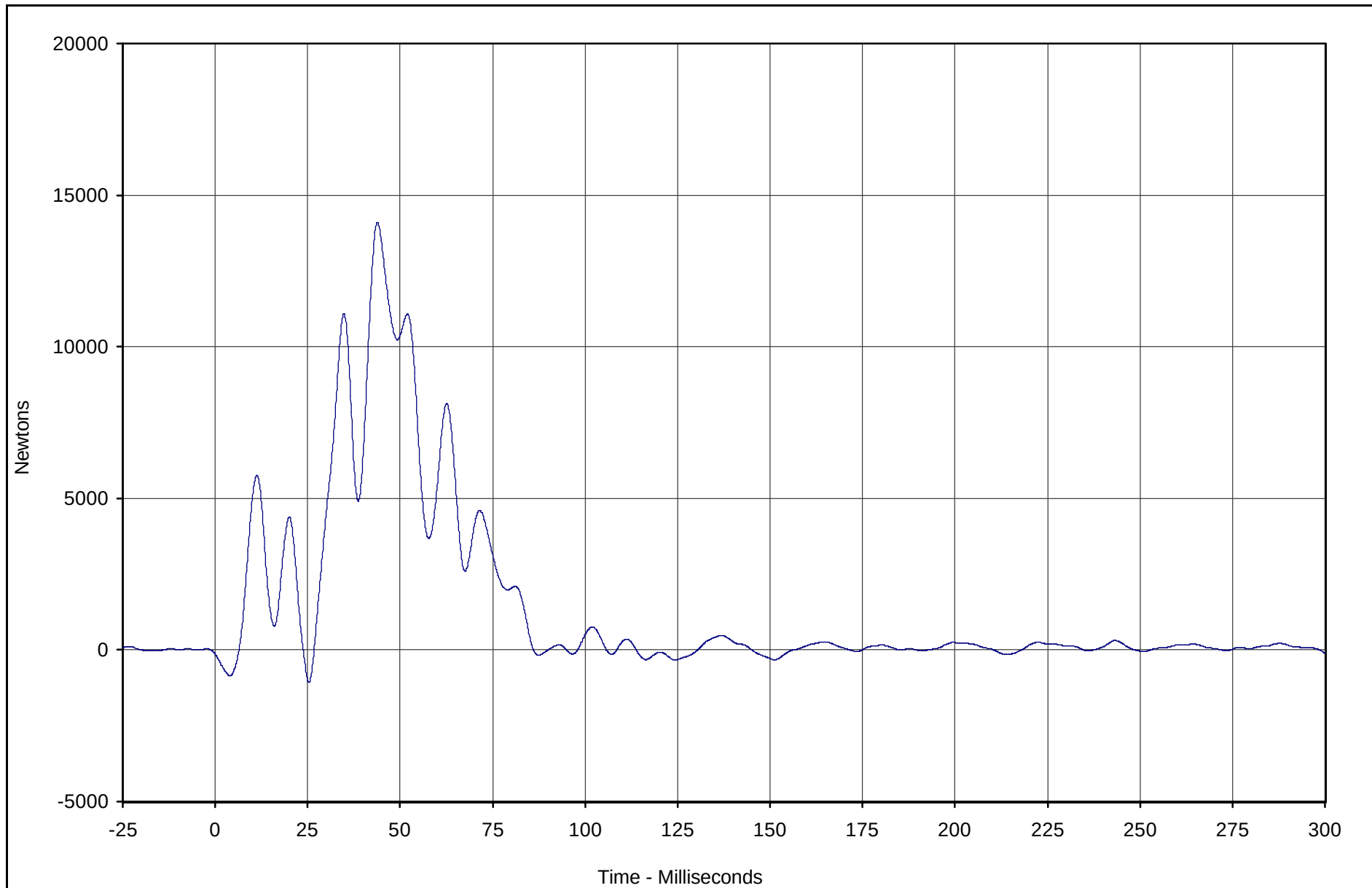
Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



TR-P23001-19-NC



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force Sum Group 6	006	SUM	Newtons	14095.6	43.9	-1066.2	25.3	60

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

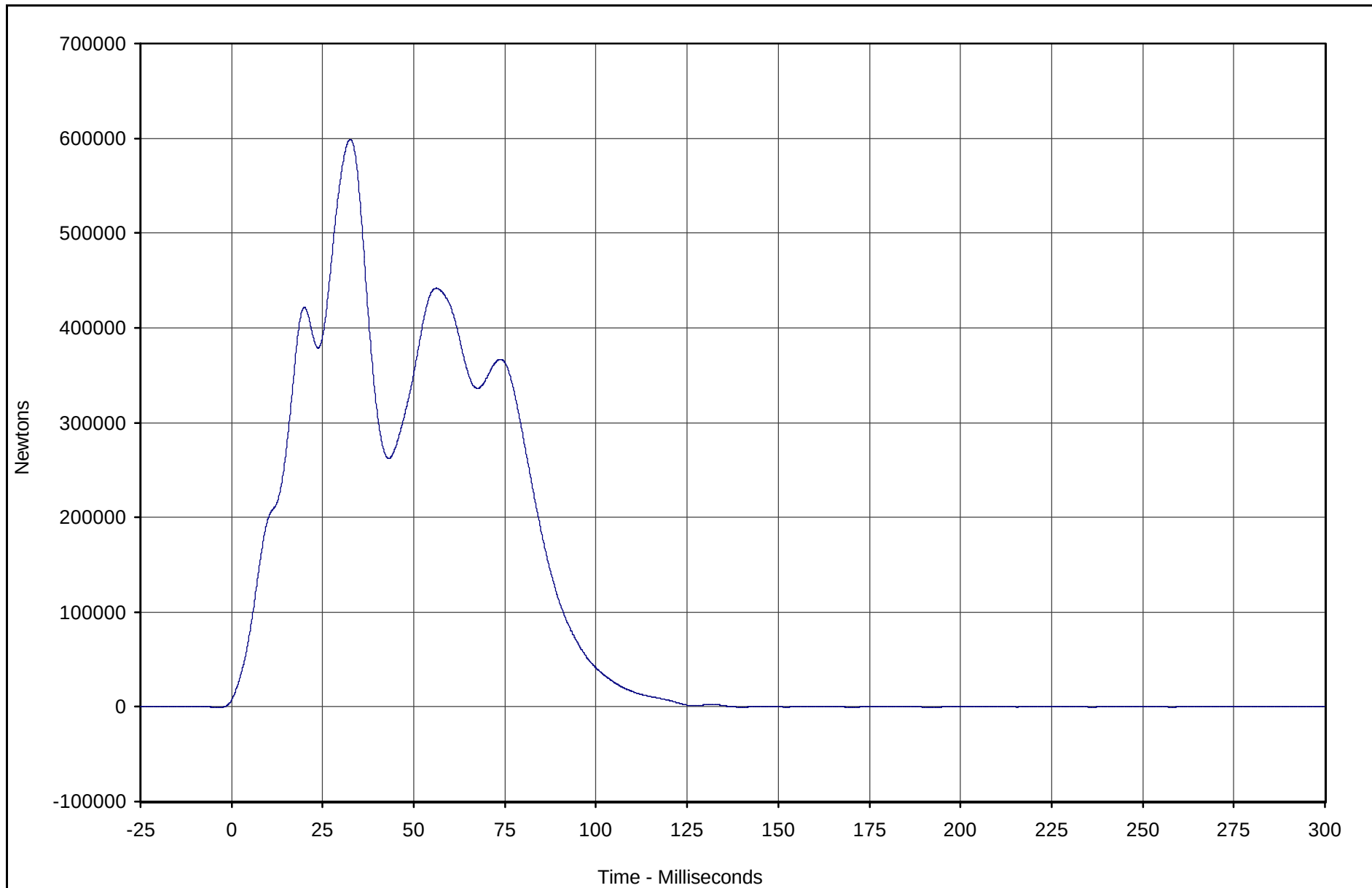
Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



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Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Barrier Force Total Sum	007	SUM	Newtons	599015	32.6	-639.3	191.5	60

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

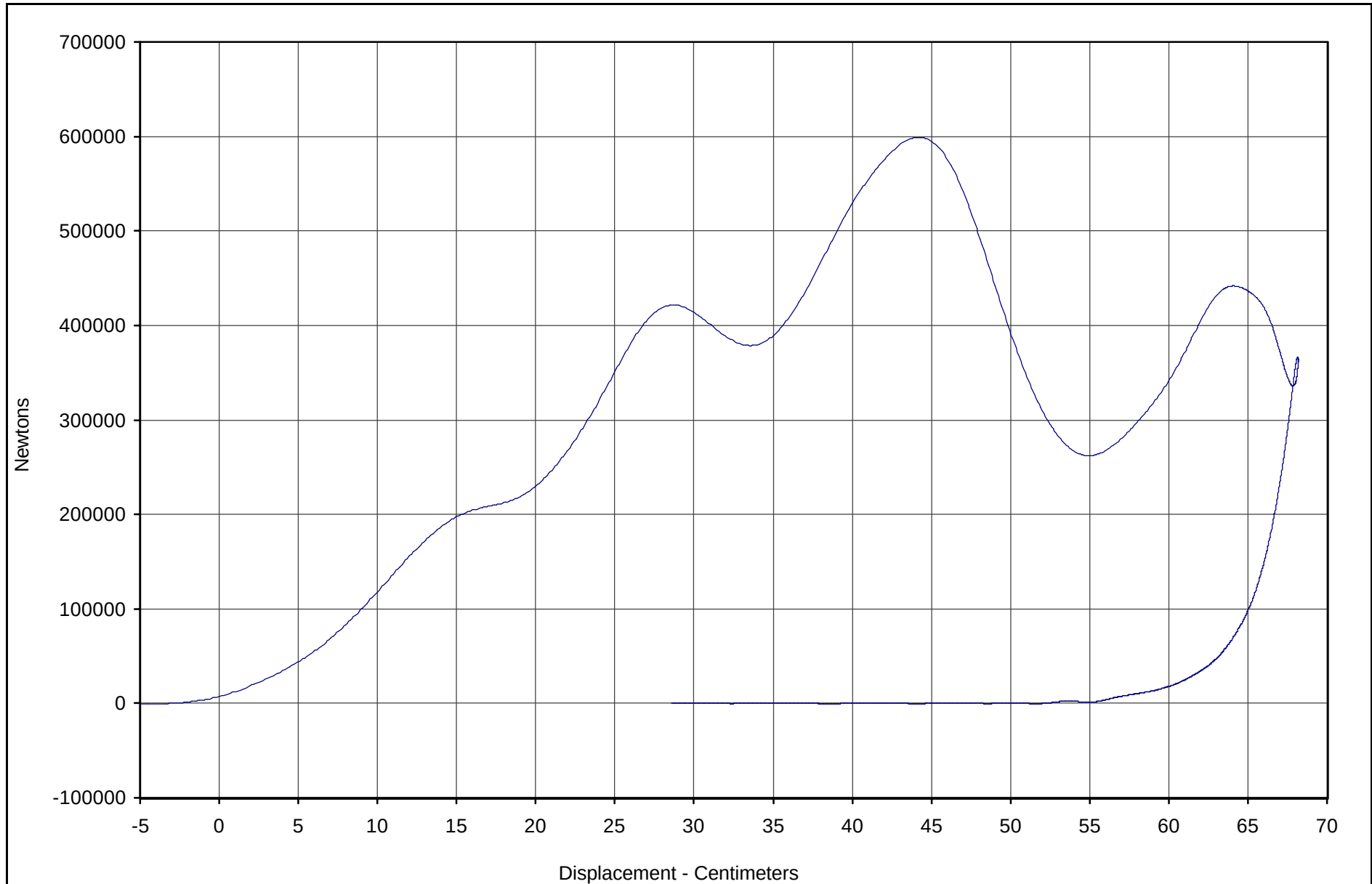
Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



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C-44



Curve Description	CURNO	Type	Units	Max	CM	Energy (Joules)	SAE Class
Barrier Force Total Sum vs. Displ.	001	XVY	Newtons	599015	44.3	207853	60



Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200

TR-P23001-19-NC

BARRIER LOAD CELL SUMMARY DATA

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03

Location	Units	Max	Time	Min	Time
Barrier Force A1	Newtons	4693.4	60.4	-2902.2	33.6
Barrier Force A2	Newtons	8065.8	19.5	-983.0	4.2
Barrier Force A3	Newtons	44900.8	54.4	-1032.5	2.9
Barrier Force A4	Newtons	24940.6	54.8	-213.0	153.5
Barrier Force A5	Newtons	44132.7	55.8	-54.9	235.0
Barrier Force A6	Newtons	25784.3	31.2	-263.2	0.5
Barrier Force A7	Newtons	26825.9	20.9	-430.3	1.9
Barrier Force A8	Newtons	3175.8	57.7	-464.1	37.2
Barrier Force A9	Newtons	3665.6	59.9	-1026.3	33.2
Barrier Force B1	Newtons	3373.2	47.2	-1843.8	34.0
Barrier Force B2	Newtons	20002.5	18.6	-957.2	3.6
Barrier Force B3	Newtons	105073.0	19.1	-662.0	0.3
Barrier Force B4	Newtons	65908.5	58.5	-64.9	193.7
Barrier Force B5	Newtons	91674.1	33.6	-51.9	285.1
Barrier Force B6	Newtons	96910.7	32.1	-62.0	299.9
Barrier Force B7	Newtons	102926.6	30.1	-1343.1	1.5
Barrier Force B8	Newtons	8179.3	61.4	-115.9	299.9
Barrier Force B9	Newtons	1982.4	56.3	-651.7	28.9
Barrier Force C1	Newtons	2558.6	50.0	-963.2	4.6
Barrier Force C2	Newtons	5097.4	19.5	-650.5	4.3
Barrier Force C3	Newtons	4735.0	36.4	-520.0	4.0
Barrier Force C4	Newtons	25129.7	32.7	-355.4	2.4
Barrier Force C5	Newtons	0.0	0.0	0.0	0.0 *
Barrier Force C6	Newtons	18890.9	32.0	-97.9	0.1
Barrier Force C7	Newtons	8213.9	47.2	-350.2	4.0
Barrier Force C8	Newtons	0.0	0.0	0.0	0.0 *
Barrier Force C9	Newtons	1099.7	33.6	-875.0	27.4
Barrier Force D1	Newtons	0.0	0.0	0.0	0.0 *
Barrier Force D2	Newtons	6579.1	65.3	-1256.4	39.2
Barrier Force D3	Newtons	2094.0	34.2	-1536.1	40.2
Barrier Force D4	Newtons	5564.9	34.7	-812.2	24.1
Barrier Force D5	Newtons	6890.3	34.9	-897.7	4.0
Barrier Force D6	Newtons	5808.1	34.5	-1039.8	40.5
Barrier Force D7	Newtons	2369.6	34.5	-1427.6	25.2
Barrier Force D8	Newtons	6039.1	43.7	-1141.9	25.7
Barrier Force D9	Newtons	1591.2	34.4	-1746.0	28.7
Barrier Force Sum Group 1	Newtons	159857.5	19.3	-2023.8	2.0
Barrier Force Sum Group 2	Newtons	326127.1	33.2	-200.6	153.3
Barrier Force Sum Group 3	Newtons	132748.9	20.6	-1785.2	1.6
Barrier Force Sum Group 4	Newtons	16302.4	48.6	-3602.6	4.5
Barrier Force Sum Group 5	Newtons	60536.8	34.2	-1805.6	3.2
Barrier Force Sum Group 6	Newtons	14095.6	43.9	-1066.2	25.3
Barrier Force Total Sum	Newtons	599014.8	32.6	-639.3	191.5

* Channels failed, no data

APPENDIX D

INSTRUMENTATION DATA CHANNEL ASSIGNMENTS

2003 NHTSA 35mph NCAP
Instrumentation Data Channel Assignments
Driver A.T.D. Serial Number 35
9/3/03
2004 Nissan Maxima 3.5 SE 4 Door Sedan

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
1	HEAD, PRIMARY	X	GPAC027	Accel., 1/2 bridge	Endevco	7264-2000	G
2	HEAD, PRIMARY	Y	GPAC002	Accel., 1/2 bridge	Endevco	7264-2000	G
3	HEAD, PRIMARY	Z	GPAC003	Accel., 1/2 bridge	Endevco	7264-2000	G
4	HEAD, REDUNDANT	X	GPAC032	Accel., 1/2 bridge	Endevco	7264-2000	G
5	HEAD, REDUNDANT	Y	GPAC021	Accel., 1/2 bridge	Endevco	7264-2000	G
6	HEAD, REDUNDANT	Z	GPAC026	Accel., 1/2 bridge	Endevco	7264-2000	G
7	NECK FORCE	X	GPUN01FX	Load cell, six axis neck	R. A. Denton	1716A	N
8	NECK FORCE	Y	GPUN01FY	Load cell, six axis neck	R. A. Denton	1716A	N
9	NECK FORCE	Z	GPUN01FZ	Load cell, six axis neck	R. A. Denton	1716A	N
10	NECK MOMENT	X	GPUN01MX	Load cell, six axis neck	R. A. Denton	1716A	Nm
11	NECK MOMENT	Y	GPUN01MY	Load cell, six axis neck	R. A. Denton	1716A	Nm
12	NECK MOMENT	Z	GPUN01MZ	Load cell, six axis neck	R. A. Denton	1716A	Nm
13	CHEST , PRIMARY	X	GPAC005	Accel., 1/2 bridge	Endevco	7264-2000	G
14	CHEST , PRIMARY	Y	GPAC011	Accel., 1/2 bridge	Endevco	7264-2000	G
15	CHEST , PRIMARY	Z	GPAC010	Accel., 1/2 bridge	Endevco	7264-2000	G
16	CHEST , REDUNDANT	X	GPAC034	Accel., 1/2 bridge	Endevco	7264-2000	G
17	CHEST , REDUNDANT	Y	GPAC023	Accel., 1/2 bridge	Endevco	7264-2000	G
18	CHEST , REDUNDANT	Z	GPAC020	Accel., 1/2 bridge	Endevco	7264-2000	G
19	CHEST DISPLACEMENT	X	GPCP002	Rotary Pot Chest	Servo	14CBI	MM
20	PELVIS, PRIMARY	X	GPAC025	Accel., 1/2 bridge	Endevco	7264-2000	G
21	PELVIS, PRIMARY	Y	GPAC022	Accel., 1/2 bridge	Endevco	7264-2000	G
22	PELVIS, PRIMARY	Z	GPAC019	Accel., 1/2 bridge	Endevco	7264-2000	G
23	LEFT FEMUR FORCE	Z	KEFF003	Load cell, Femur	R.A. Denton	2121	N
24	RIGHT FEMUR FORCE	Z	KEFF004	Load cell, Femur	R.A. Denton	2121	N

2003 NHTSA 35mph NCAP
Instrumentation Data Channel Assignments
Driver A.T.D. Serial Number 35
9/3/03
2004 Nissan Maxima 3.5 SE 4 Door Sedan

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
25	UP. TIBIA LEFT MOM.	X	GPUT09MX	2 ch., Upper tibia gage	R. A. Denton	1583	Nm
26	UP. TIBIA LEFT MOM.	Y	GPUT09MY	2 ch., Upper tibia gage	R. A. Denton	1583	Nm
27	UP. TIBIA RIGHT MOM.	X	GPUT09MX	2 ch., Upper tibia gage	R. A. Denton	1583	Nm
28	UP. TIBIA RIGHT MOM.	Y	GPUT09MY	2 ch., Upper tibia gage	R. A. Denton	1583	Nm
29	LWR. TIBIA LEFT MOM.	X	GPLT09MX	3 ch., lower tibia gage	R. A. Denton	3093	Nm
30	LWR. TIBIA LEFT MOM.	Y	GPLT09MY	3 ch., lower tibia gage	R. A. Denton	3093	Nm
31	LWR. TIBIA LEFT FORCE	Z	GPLT09FZ	3 ch., lower tibia gage	R. A. Denton	3093	N
32	LWR. TIBIA RIGHT MOM.	X	GPLT09MX	3 ch., lower tibia gage	R. A. Denton	3093	Nm
33	LWR. TIBIA RIGHT MOM.	Y	GPLT09MY	3 ch., lower tibia gage	R. A. Denton	3093	Nm
34	LWR. TIBIA RIGHT FORCE	Z	GPLT09FZ	3 ch., lower tibia gage	R. A. Denton	3093	N
35	FOOT LEFT, AFT	X	KEIC002X	Accel., Foot Triax	I.C. Sensor	3031-500	G
36	FOOT LEFT, AFT	Z	KEIC002Y	Accel., Foot Triax	I.C. Sensor	3031-500	G
37	FOOT LEFT, FORE	Z	KEIC002Z	Accel., Foot Triax	I.C. Sensor	3031-500	G
38	FOOT RIGHT, AFT	X	KEIC001X	Accel., Foot Triax	I.C. Sensor	3031-500	G
39	FOOT RIGHT, AFT	Z	KEIC001Y	Accel., Foot Triax	I.C. Sensor	3031-500	G
40	FOOT RIGHT, FORE	Z	KEIC001Z	Accel., Foot Triax	I.C. Sensor	3031-500	G
41	LAP BELT FORCE	X	KELC001	Load cell, Seat belt	Lebow	3371	N
42	SHOULDER BELT FORCE	X	KELC002	Load cell, Seat belt	Lebow	3371	N
43	SHOULDER BELT SPOOL	X	KEPP001	Pullout pot	Celesco	PTX101-0030	MM
44	SHOULDER BELT ELONG.	X	KEEP001	Linear pot., belt stretch	E.T.I.	LCP8-10 10K	MM/CM

2003 NHTSA 35mph NCAP
Instrumentation Data Channel Assignments
Passenger A.T.D. Serial Number 34
9/3/03
2004 Nissan Maxima 3.5 SE 4 Door Sedan

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
45	HEAD, PRIMARY	X	KEAC039	Accel.,1/2 bridge	Endevco	7264-2000	G
46	HEAD, PRIMARY	Y	KEAC038	Accel.,1/2 bridge	Endevco	7264-2000	G
47	HEAD, PRIMARY	Z	KEAC027	Accel.,1/2 bridge	Endevco	7264-2000	G
48	HEAD, REDUNDANT	X	KEAC031	Accel.,1/2 bridge	Endevco	7264-2000	G
49	HEAD, REDUNDANT	Y	KEAC032	Accel.,1/2 bridge	Endevco	7264-2000	G
50	HEAD, REDUNDANT	Z	KEAC026	Accel.,1/2 bridge	Endevco	7264-2000	G
51	NECK FORCE	X	GPUN02FX	Load cell, six axis neck	R. A. Denton	1716A	N
52	NECK FORCE	Y	GPUN02FY	Load cell, six axis neck	R. A. Denton	1716A	N
53	NECK FORCE	Z	GPUN02FZ	Load cell, six axis neck	R. A. Denton	1716A	N
54	NECK MOMENT	X	GPUN02MX	Load cell, six axis neck	R. A. Denton	1716A	Nm
55	NECK MOMENT	Y	GPUN02MY	Load cell, six axis neck	R. A. Denton	1716A	Nm
56	NECK MOMENT	Z	GPUN02MZ	Load cell, six axis neck	R. A. Denton	1716A	Nm
57	CHEST , PRIMARY	X	GPAC031	Accel., 1/2 bridge	Endevco	7264-2000	G
58	CHEST , PRIMARY	Y	GPAC024	Accel., 1/2 bridge	Endevco	7264-2000	G
59	CHEST , PRIMARY	Z	GPAC029	Accel., 1/2 bridge	Endevco	7264-2000	G
60	CHEST , REDUNDANT	X	KEAC023	Accel.,1/2 bridge	Endevco	7264-200	G
61	CHEST , REDUNDANT	Y	KEAC022	Accel.,1/2 bridge	Endevco	7264-200	G
62	CHEST , REDUNDANT	Z	KEAC024	Accel.,1/2 bridge	Endevco	7264-200	G
63	CHEST DISPLACEMENT	X	GPCP001	Rotary Pot Chest	Servo	14CBI	MM
64	PELVIS, PRIMARY	X	KEAC019	Accel.,1/2 bridge	Endevco	7264-200	G
65	PELVIS, PRIMARY	Y	KEAC020	Accel.,1/2 bridge	Endevco	7264-200	G
66	PELVIS, PRIMARY	Z	KEAC021	Accel.,1/2 bridge	Endevco	7264-200	G
67	LEFT FEMUR FORCE	Z	KEFF001	Load cell, Femur	R.A. Denton	2121	N
68	RIGHT FEMUR FORCE	Z	KEFF002	Load cell, Femur	R.A. Denton	2121	N

2003 NHTSA 35mph NCAP
Instrumentation Data Channel Assignments
Passenger A.T.D. Serial Number 34
9/3/03
2004 Nissan Maxima 3.5 SE 4 Door Sedan

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
69	UP. TIBIA LEFT MOM.	X	GPOT09MX	2 ch., Upper tibia gage	R. A. Denton	1583	Nm
70	UP. TIBIA LEFT MOM.	Y	GPOT09MY	2 ch., Upper tibia gage	R. A. Denton	1583	Nm
71	UP. TIBIA RIGHT MOM.	X	GPOT09MX	2 ch., Upper tibia gage	R. A. Denton	1583	Nm
72	UP. TIBIA RIGHT MOM.	Y	GPOT09MY	2 ch., Upper tibia gage	R. A. Denton	1583	Nm
73	LWR. TIBIA LEFT MOM.	X	GPLT09MX	3 ch., lower tibia gage	R. A. Denton	3093	Nm
74	LWR. TIBIA LEFT MOM.	Y	GPLT09MY	3 ch., lower tibia gage	R. A. Denton	3093	Nm
75	LWR. TIBIA LEFT FORCE	Z	GPLT09FZ	3 ch., lower tibia gage	R. A. Denton	3093	N
76	LWR. TIBIA RIGHT MOM.	X	GPLT09MX	3 ch., lower tibia gage	R. A. Denton	3093	Nm
77	LWR. TIBIA RIGHT MOM.	Y	GPLT09MY	3 ch., lower tibia gage	R. A. Denton	3093	Nm
78	LWR. TIBIA RIGHT FORCE	Z	GPLT09FZ	3 ch., lower tibia gage	R. A. Denton	3093	N
79	FOOT LEFT, AFT	X	KEIC003X	Accel., Foot Triax	I.C. Sensor	3031-500	G
80	FOOT LEFT, AFT	Z	KEIC003Y	Accel., Foot Triax	I.C. Sensor	3031-500	G
81	FOOT LEFT, FORE	Z	KEIC003Z	Accel., Foot Triax	I.C. Sensor	3031-500	G
82	FOOT RIGHT, AFT	X	KEIC004X	Accel., Foot Triax	I.C. Sensor	3031-500	G
83	FOOT RIGHT, AFT	Z	KEIC004Y	Accel., Foot Triax	I.C. Sensor	3031-500	G
84	FOOT RIGHT, FORE	Z	KEIC004Z	Accel., Foot Triax	I.C. Sensor	3031-500	G
85	LAP BELT FORCE	X	KELC003	Load cell, Seat belt	Lebow	3371	N
86	SHOULDER BELT FORCE	X	KELC004	Load cell, Seat belt	Lebow	3371	N
87	SHOULDER BELT SPOOL	X	KEPP001	Pullout pot	Celesco	PTX101-0030	CM
88	SHOULDER BELT ELONG.	X	KEEP001	Linear pot., belt stretch	E.T.I.	LCP8-10 10K	MM/CM

**2003 NHTSA 35mph NCAP
Instrumentation Data Channel Assignments
Vehicle Accelerometers
9/3/03
2004 Nissan Maxima 3.5 SE 4 Door Sedan**

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
89	Left Rear	X	KEVA002	Accel., Pre-Amp	I.C.S/Karco	3031-500	G
90	Right Rear	X	KEVA006	Accel., Vehicle block	I.C. Sensor	3031-200	G
91	Engine Top	X	KEVA009	Accel., Vehicle block	I.C. Sensor	3031-500	G
92	Engine Bottom	X	KEVA007	Accel., Vehicle block	I.C. Sensor	3031-500	G
93	Left Brake Caliper	X	KEVA008	Accel., Vehicle block	I.C. Sensor	3031-500	G
94	Right Brake Caliper	X	KEVA012	Accel., Vehicle block	I.C. Sensor	3031-500	G
95	Instrument Panel	X	KEVA011	Accel., Vehicle block	I.C. Sensor	3031-200	G
96	Left Rear	Z	KEVA001	Accel., Vehicle block	I.C. Sensor	3031-500	G
97	Right Rear	Z	KEVA010	Accel., Vehicle block	I.C. Sensor	3031-200	G

2003 NHTSA 35mph NCAP
Instrumentation Data Channel Assignments
Rigid Load Cell Barrier
9/3/03
2004 Nissan Maxima 3.5 SE 4 Door Sedan

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
98	BARRIER FORCE A1	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
99	BARRIER FORCE A2	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
100	BARRIER FORCE A3	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
101	BARRIER FORCE A4	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
102	BARRIER FORCE A5	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
103	BARRIER FORCE A6	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
104	BARRIER FORCE A7	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
105	BARRIER FORCE A8	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
106	BARRIER FORCE A9	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
107	BARRIER FORCE B1	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
108	BARRIER FORCE B2	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
109	BARRIER FORCE B3	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
110	BARRIER FORCE B4	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
111	BARRIER FORCE B5	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
112	BARRIER FORCE B6	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
113	BARRIER FORCE B7	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
114	BARRIER FORCE B8	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
115	BARRIER FORCE B9	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N

2003 NHTSA 35mph NCAP
Instrumentation Data Channel Assignments
Rigid Load Cell Barrier
9/3/03
2004 Nissan Maxima 3.5 SE 4 Door Sedan

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
116	BARRIER FORCE C1	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
117	BARRIER FORCE C2	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
118	BARRIER FORCE C3	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
119	BARRIER FORCE C4	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
120	BARRIER FORCE C5	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
121	BARRIER FORCE C6	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
122	BARRIER FORCE C7	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
123	BARRIER FORCE C8	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
124	BARRIER FORCE C9	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
125	BARRIER FORCE D1	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
126	BARRIER FORCE D2	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
127	BARRIER FORCE D3	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
128	BARRIER FORCE D4	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
129	BARRIER FORCE D5	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
130	BARRIER FORCE D6	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
131	BARRIER FORCE D7	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
132	BARRIER FORCE D8	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N
133	BARRIER FORCE D9	X	BARRIER	Load Cell, LCB	Interface	1220-FS	N

APPENDIX E
DUMMY CALIBRATION DATA



Calibration Data Sheet

Hybrid III 50th Percentile Male

Knee Impact Test

ATD Serial No.: 034

Location: Left Knee

Test I.D.: LK08A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity at T=0	m/sec	2.07 to 2.13	2.10	Pass
Peak Probe Force	N	4715 to 5782	5285	Pass
Overall Test Results				Pass

ATD Serial No.: 034

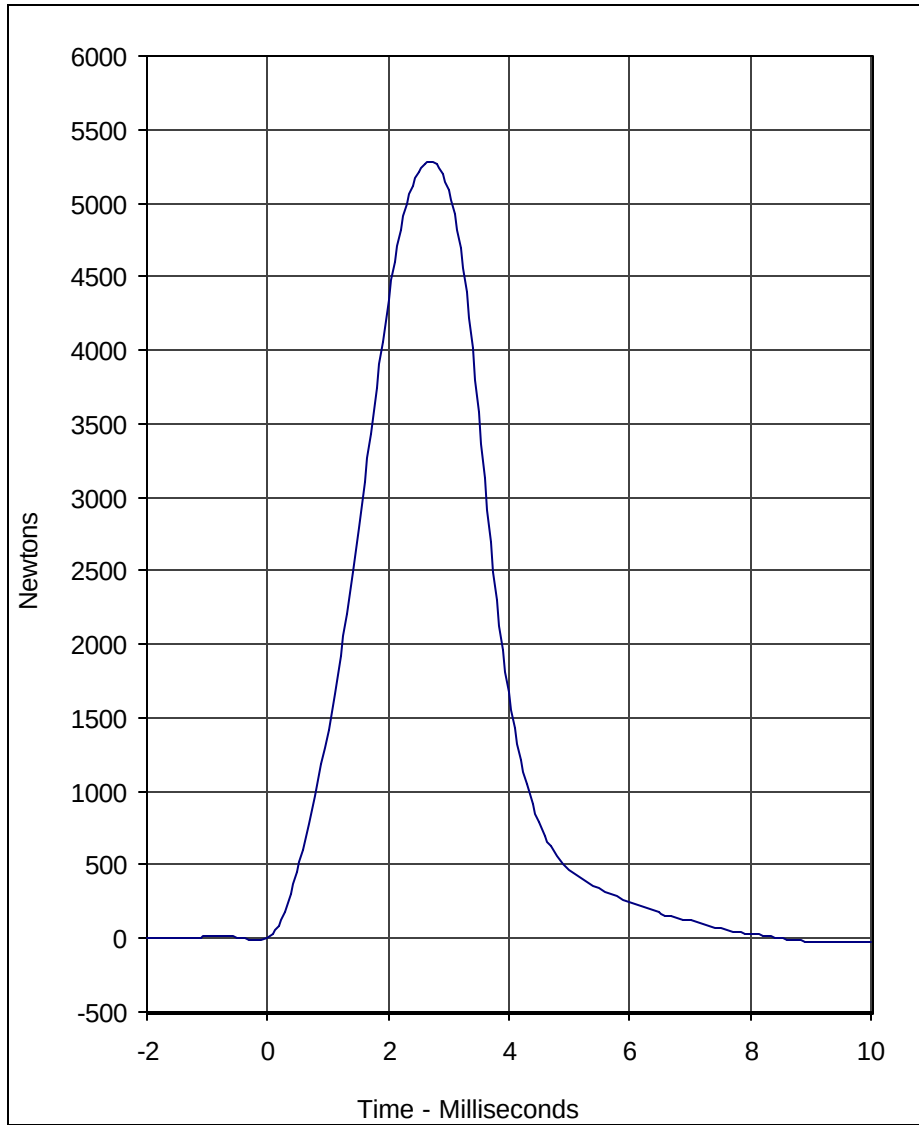
Location: Right Knee

Test I.D.: RK08A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity at T=0	m/sec	2.07 to 2.13	2.13	Pass
Peak Probe Force	N	4715 to 5782	4972	Pass
Overall Test Results				Pass

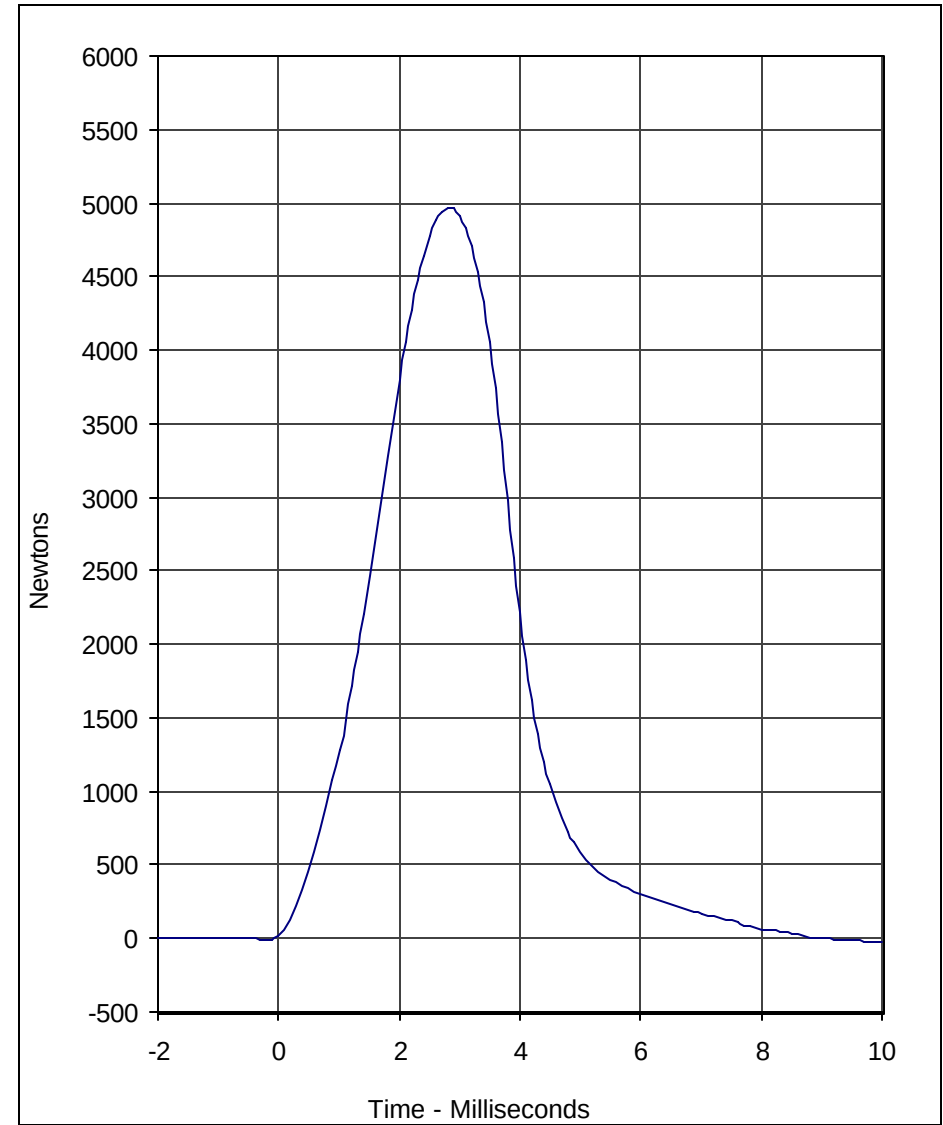
Laboratory Technician

August 25, 2003
Test Date



Curve Description		Location	Test I.D.	CURNO	Type
Probe Force		Left Knee	LK08A	001	FIL
Units	Max	Time	Min	Time	SAE Class
Newtons	5284.8	2.7	-23.7	9.7	600

Test Program: Hybrid III 50th Percentile Male Knee Impact Test
 Test Date: 8/25/03



Curve Description		Location	Test I.D.	CURNO	Type
Probe Force		Right Knee	RK08A	002	FIL
Units	Max	Time	Min	Time	SAE Class
Newtons	4971.8	2.8	-21.6	10.0	600

A.T.D. Serial No.: 034





Calibration Data Sheet

Hybrid III 50th Percentile Male

Head Drop Test

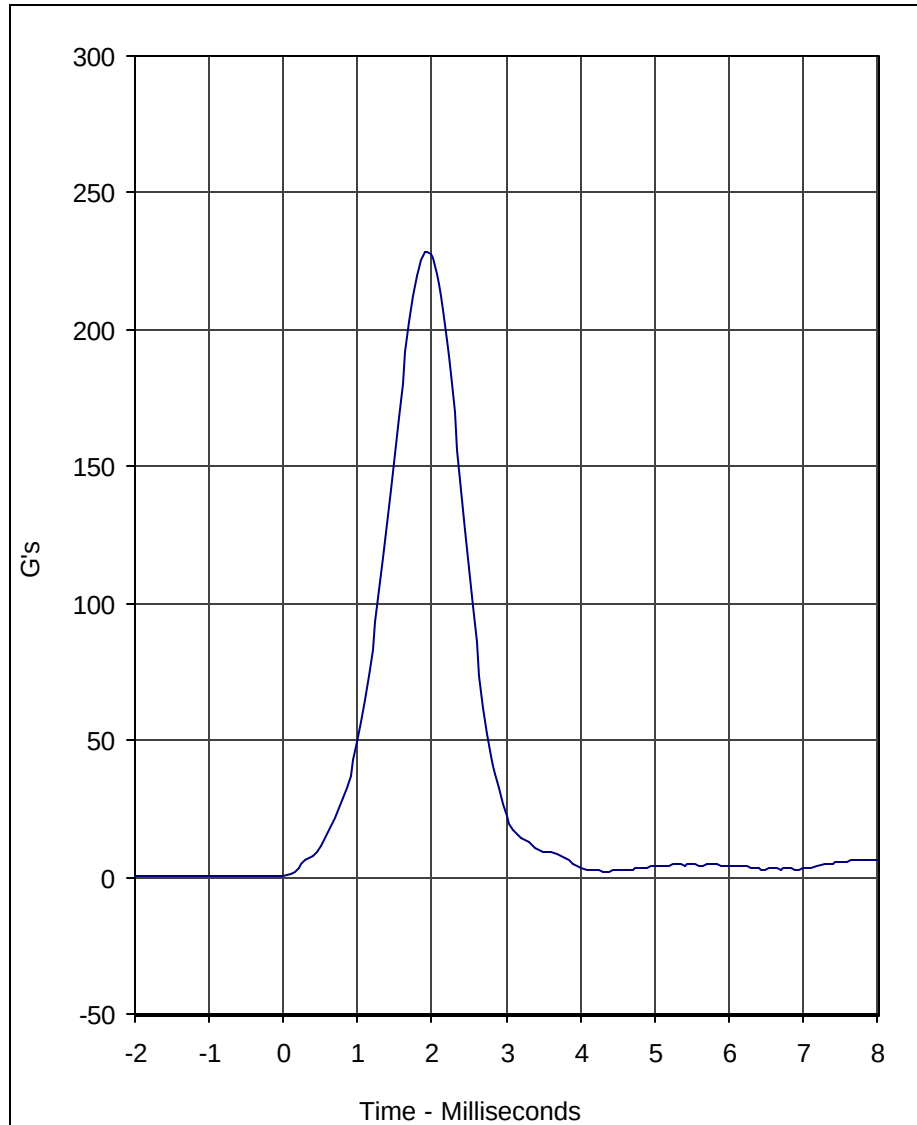
ATD Serial No.: 034

Test I.D.: HD08A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	225.0 to 275.0	228.3	Pass
Peak Lateral Acceleration	G's	≤15.0	12.6	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass

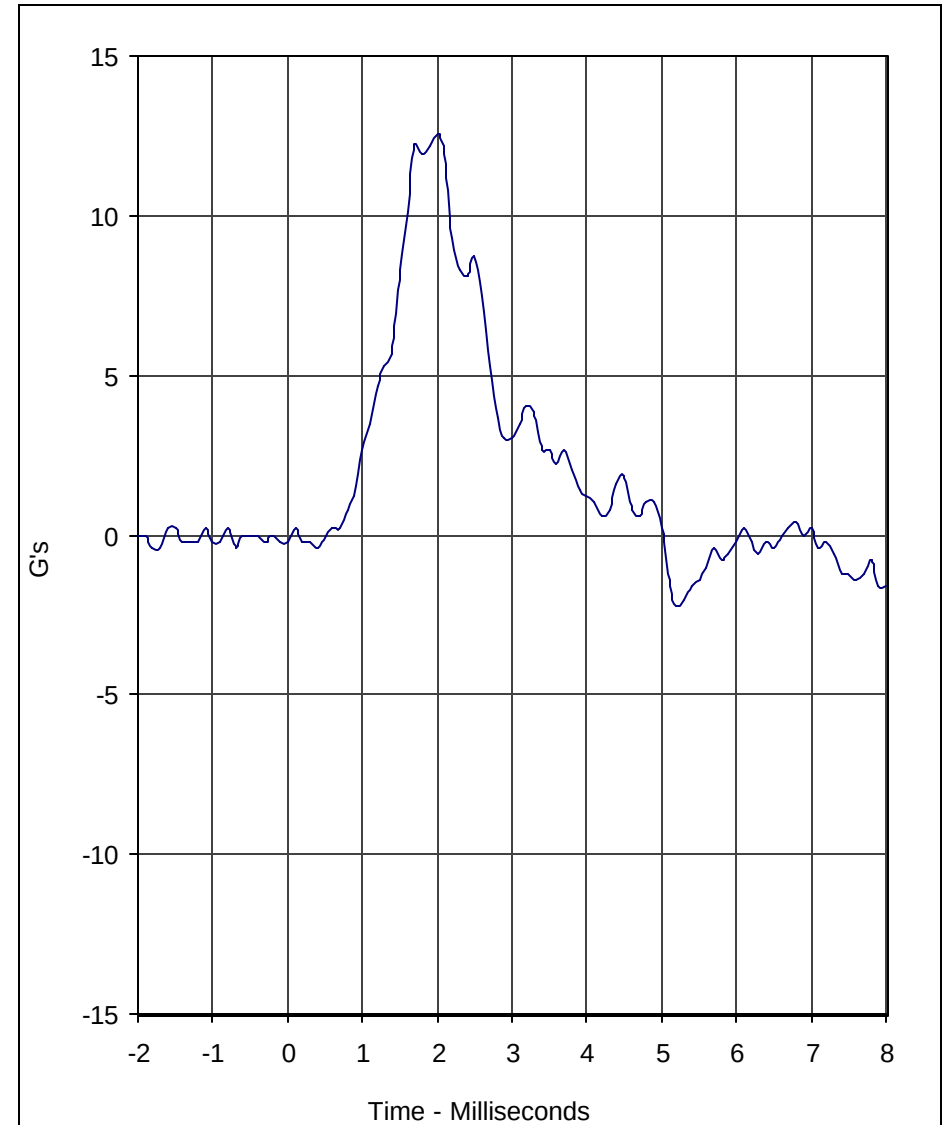
Laboratory Technician

August 25, 2003
Test Date



Curve Description				CURNO	Type
Head Resultant				001	RES
Units	Max	Time	Min	Time	SAE Class
G's	228.3	1.9	0.2	-1.9	1000

Test Program: Hybrid III 50th Percentile Male Head Drop Test
 Test Date: 8/25/03



Curve Description				CURNO	Type
Head Y				002	FIL
Units	Max	Time	Min	Time	SAE Class
G's	12.6	2.0	-2.2	5.2	1000

A.T.D. Serial No.: 034
 Test I.D.: HD08A





Calibration Data Sheet

Hybrid III 50th Percentile Male

Thorax Impact Test

ATD Serial No.: 034

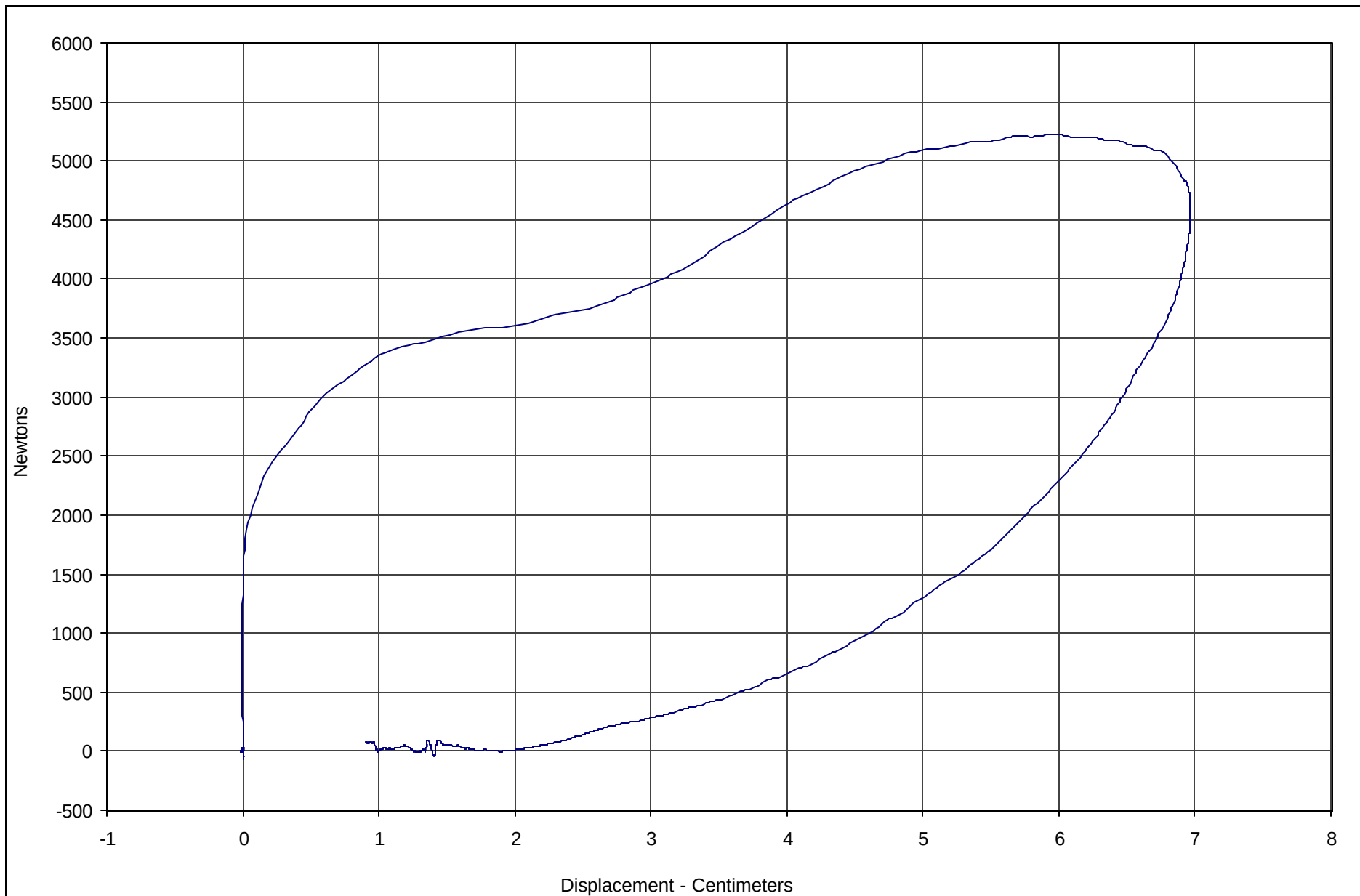
Test I.D.: CH12A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	6.58 to 6.82	6.74	Pass
Peak Probe Force	Newtons	5159 to 5893	5223	Pass
Peak Sternum Displacement	CM	6.35 to 7.26	6.96	Pass
Internal Hysteresis	%	69 to 85	78.4	Pass
Overall Test Results				Pass

Laboratory Technician

August 26, 2003

Test Date



Curve Description	CURNO	Type	Hysteresis	Peak Chest Displ.	Peak Probe Force	SAE Class
Probe Force vs. Chest Displacement	001	FIL	78.4	6.96	5223.0	180



Test Program: Hybrid III 50th Percentile Male Thorax Impact

A.T.D. Serial No.: 034

Test Date: 8/26/03

Test I.D.: CH12A



Calibration Data Sheet

Hybrid III 50th Percentile Male

Neck Flexion Test

ATD Serial No.: 034

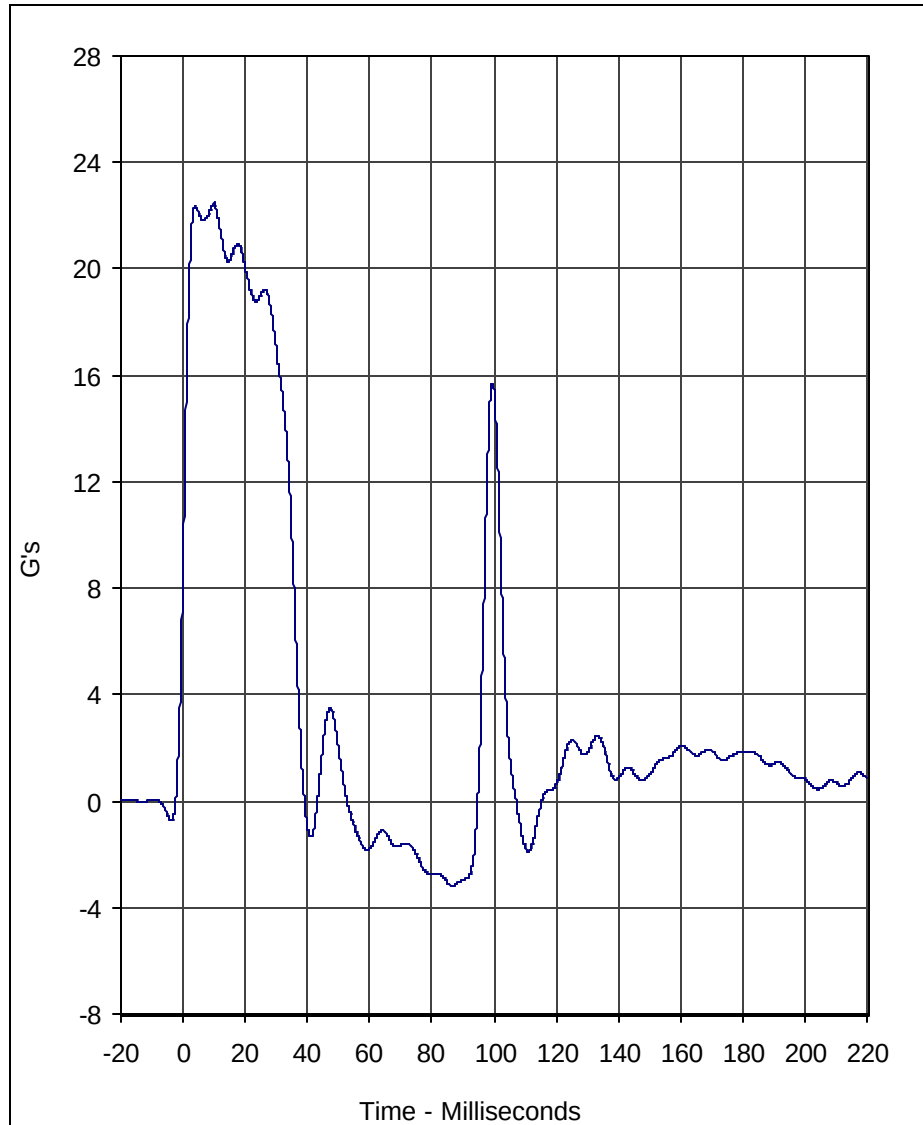
Test I.D.: NF08C

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	6.89 to 7.13	6.98	Pass
Pendulum Deceleration	10 Msec.	G's	22.5 to 27.5	22.5	Pass
	20 Msec.	G's	17.6 to 22.6	20.1	Pass
	30 Msec.	G's	12.5 to 18.5	17.0	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 29.0	17.0	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	34.0 to 42.0	36.8	Pass
Maximum "D" Plane Rotation	Maximum	Degrees	64.0 to 78.0	66.9	Pass
	Time	Msec.	57.0 to 64.0	62.5	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	113.0 to 128.0	119.2	Pass
Moment About Occipital Condyle	Maximum	Nm	84.1 to 108.5	87.3	Pass
	Time	Msec.	47.0 to 58.0	52.2	Pass
Positive Moment Decay, Time To Zero Crossing		Msec.	97.0 to 107.0	100.5	Pass
Overall Test Results					Pass

Laboratory Technician

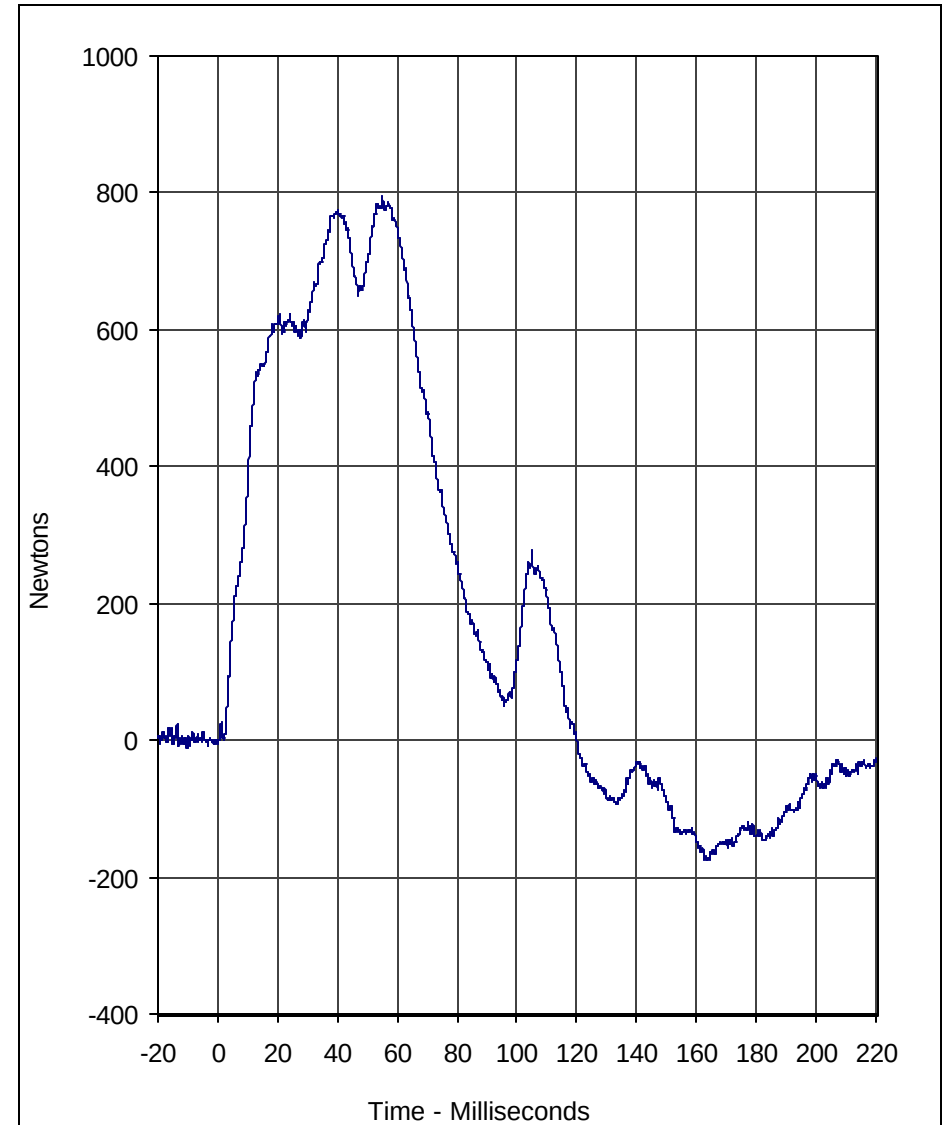
August 26, 2003

Test Date



Curve Description				CURNO	Type
Pendulum Deceleration				001	FIL
Units	Max	Time	Min	Time	SAE Class
G's	22.5	10.0	-3.2	86.7	60

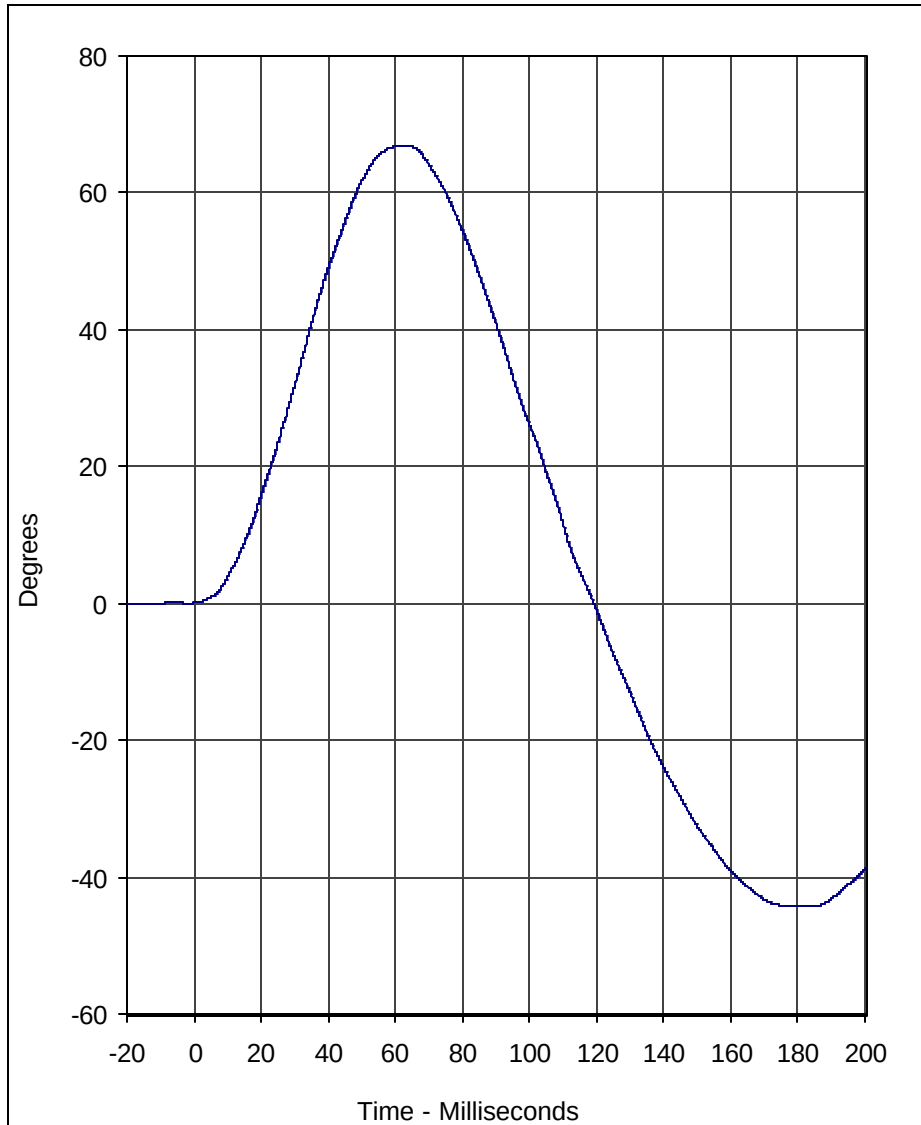
Test Program: Hybrid III 50th Percentile Male Neck Flexion Test
 Test Date: 8/26/03



Curve Description				CURNO	Type
Neck Force X				002	FIL
Units	Max	Time	Min	Time	SAE Class
Newtons	794.7	55.1	-176.0	162.7	600

A.T.D. Serial No.: 034
 Test I.D.: NF08C

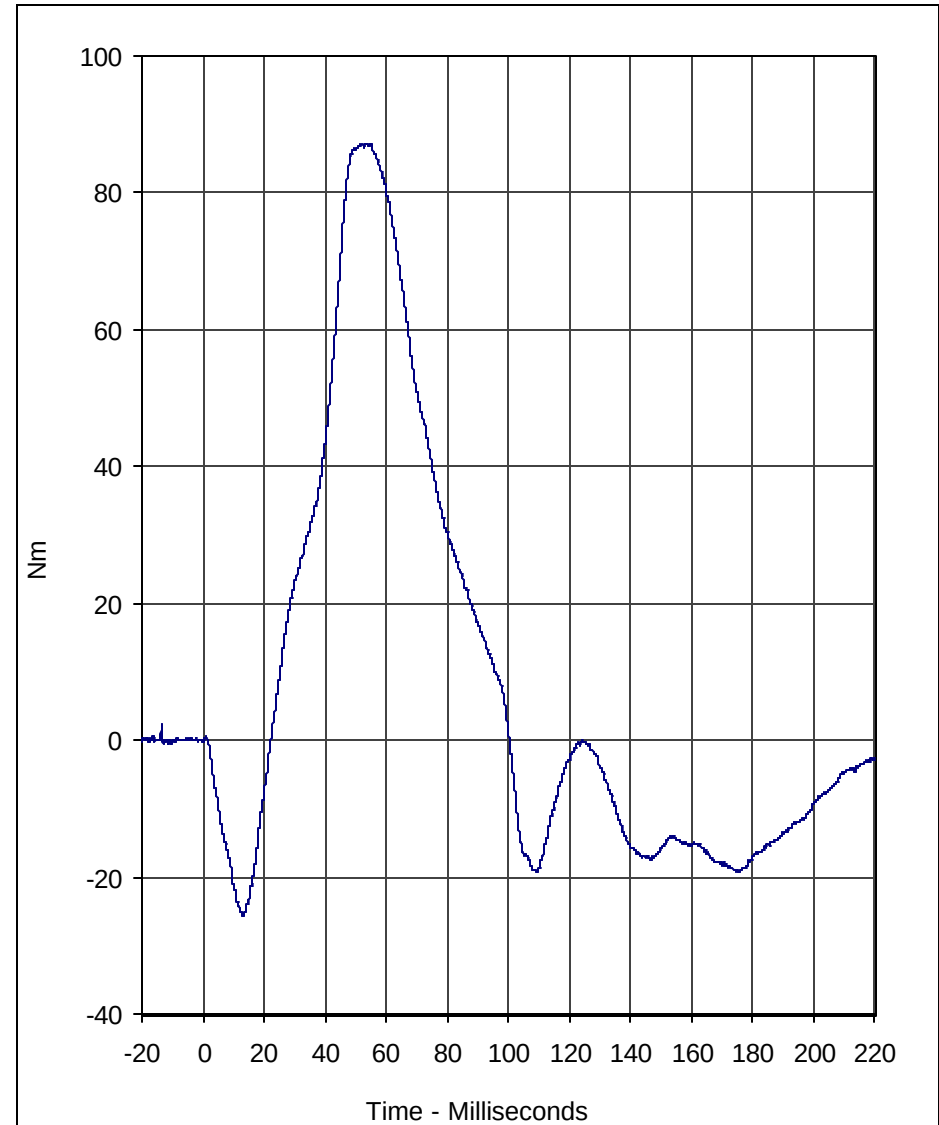




Curve Description				CURNO	Type
"D" Plane Rotation				003	FIL

Units	Max	Time	Min	Time	SAE Class
Degrees	66.9	62.5	-44.3	182.3	60

Test Program: Hybrid III 50th Percentile Male Neck Flexion Test
 Test Date: 8/26/03



Curve Description				CURNO	Type
Moment About Occipital Condyle				004	FIL

Units	Max	Time	Min	Time	SAE Class
Nm	87.3	52.2	-25.6	13.2	600

A.T.D. Serial No.: 034
 Test I.D.: NF08C





Calibration Data Sheet

Hybrid III 50th Percentile Male

Neck Extension Test

ATD Serial No.: 034

Test I.D.: NE08C

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	5.94 to 6.19	6.16	Pass
Pendulum Deceleration	10 Msec.	G's	17.2 to 21.2	19.3	Pass
	20 Msec.	G's	14.0 to 19.0	18.7	Pass
	30 Msec.	G's	11.0 to 16.0	15.4	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 22.0	15.4	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	38.0 to 46.0	39.3	Pass
Maximum "D" Plane Rotation	Maximum	Degrees	81.0 to 106.0	86.0	Pass
	Time	Msec.	72.0 to 82.0	75.7	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	147.0 to 174.0	151.8	Pass
Moment About Occipital Condyle	Maximum	Nm	-52.9 to- 79.9	-77.6	Pass
	Time	Msec.	65.0 to 79.0	68.2	Pass
Positive Moment Decay, Time To Zero Crossing		Msec.	120.0 to 148.0	147.9	Pass
Overall Test Results					Pass

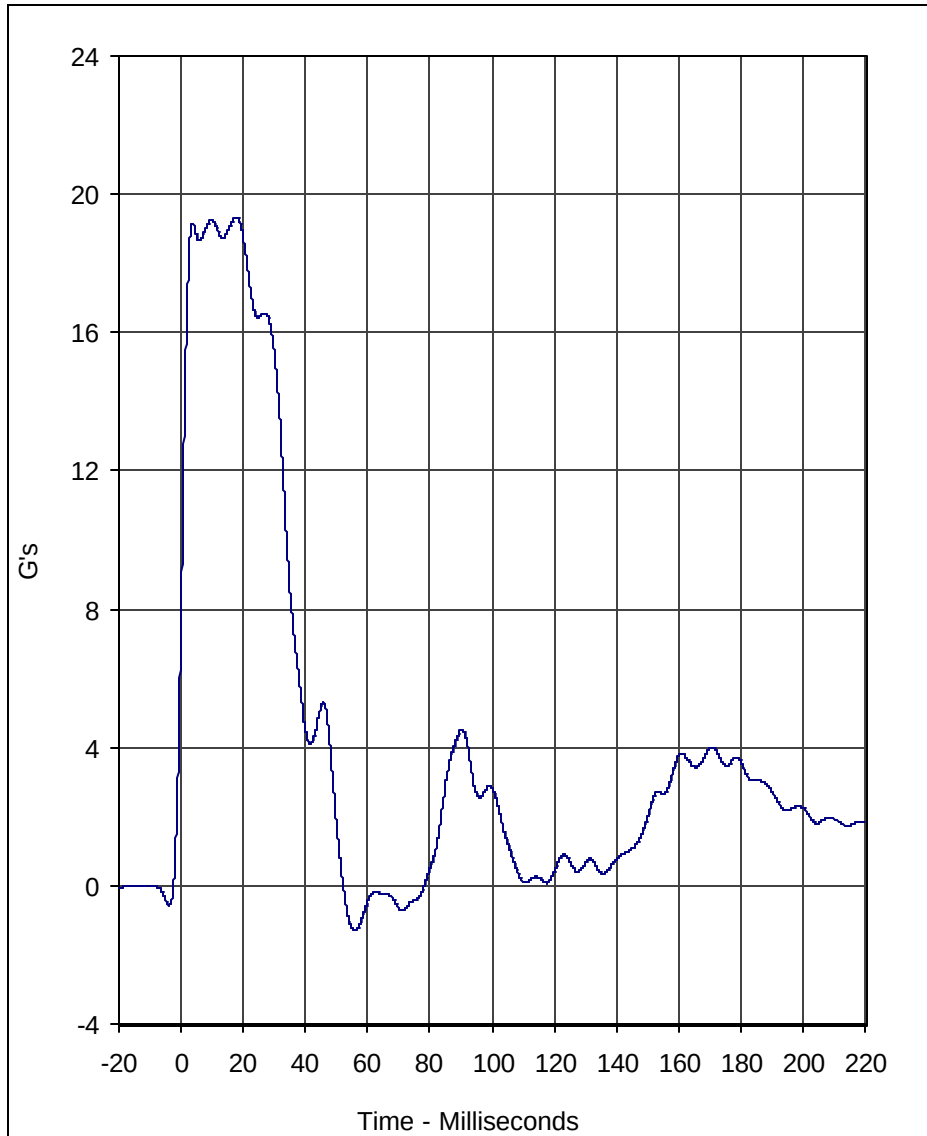
E-10

TR-P23001-19-NC

Laboratory Technician

August 26, 2003

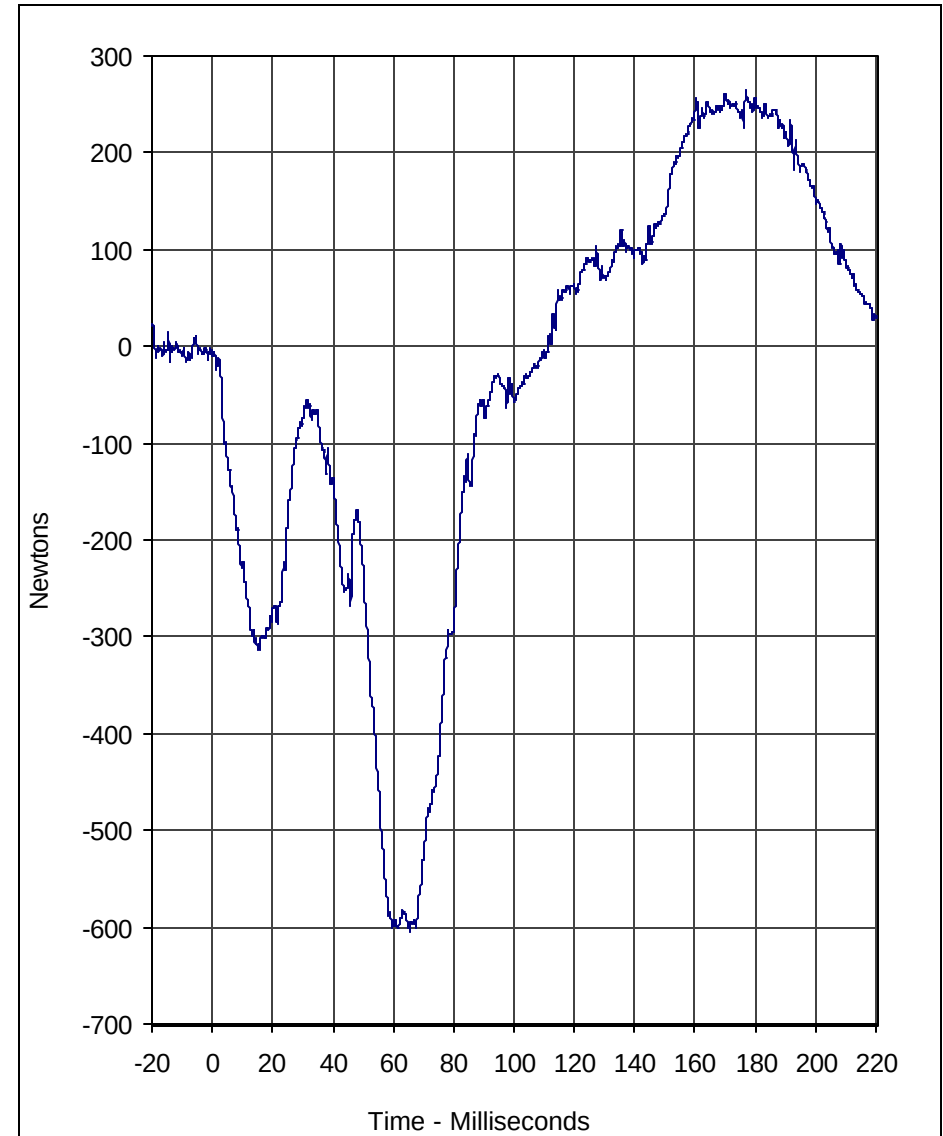
Test Date



Curve Description				CURNO	Type
Pendulum Deceleration				001	FIL

Units	Max	Time	Min	Time	SAE Class
G's	19.3	17.8	-1.3	55.8	60

Test Program: Hybrid III 50th Percentile Male Neck Extension Test
 Test Date: 8/26/03

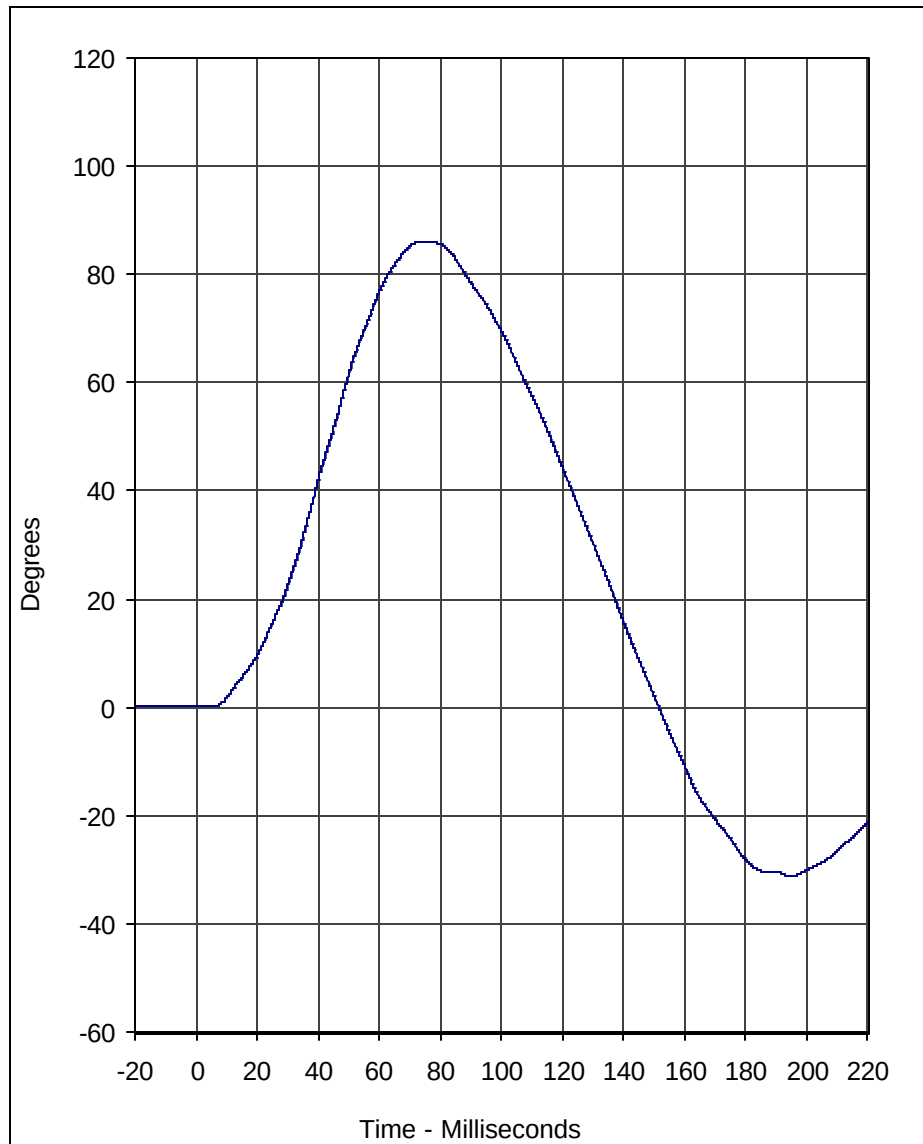


Curve Description				CURNO	Type
Neck Force X				002	FIL

Units	Max	Time	Min	Time	SAE Class
Newtons	264.9	176.9	-604.3	65.4	600

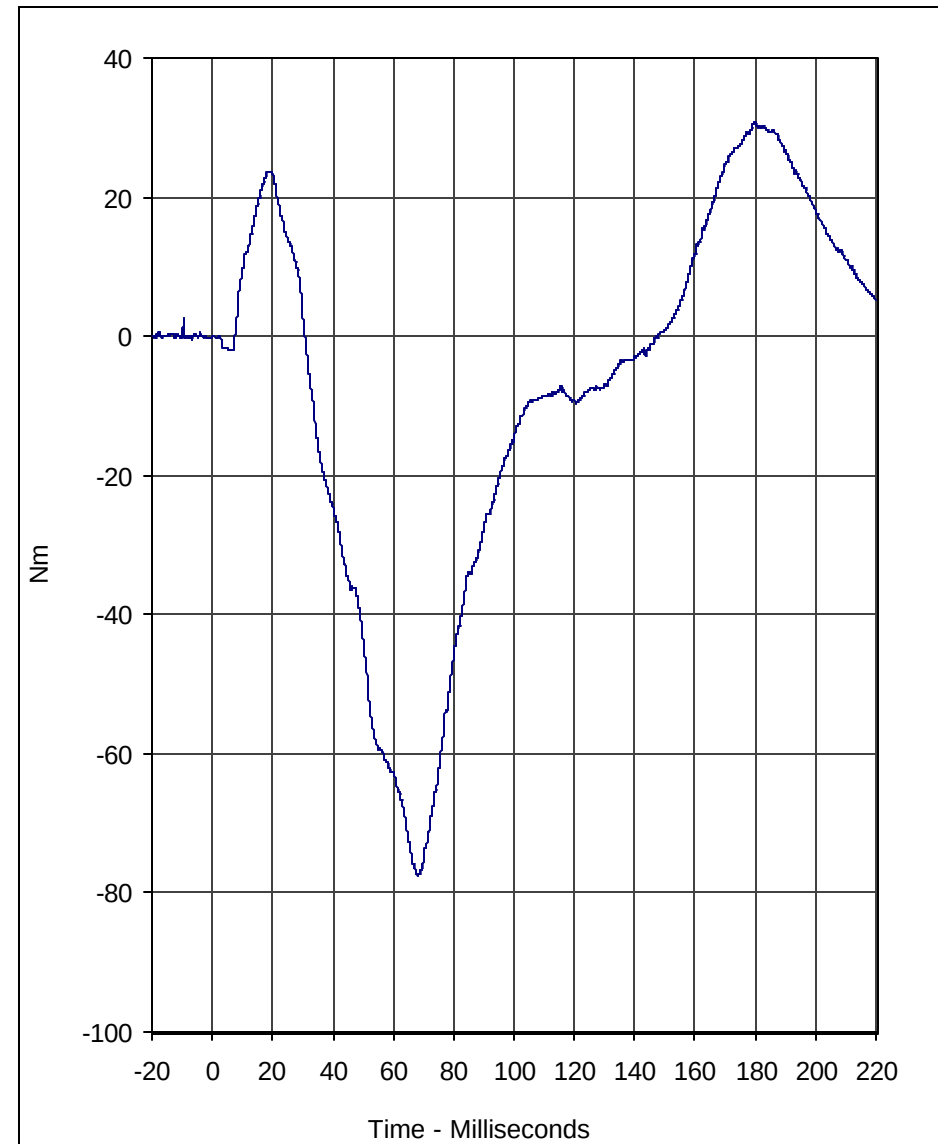
A.T.D. Serial No.: 034
 Test I.D.: NE08C





Curve Description				CURNO	Type
"D" Plane Rotation				003	FIL
Units	Max	Time	Min	Time	SAE Class
Degrees	86.0	75.7	-31.2	195.2	60

Test Program: Hybrid III 50th Percentile Male Neck Extension Test
 Test Date: 8/26/03



Curve Description				CURNO	Type
Moment About Occipital Condyle				004	FIL
Units	Max	Time	Min	Time	SAE Class
Nm	30.9	179.7	-77.6	68.2	600

A.T.D. Serial No.: 034
 Test I.D.: NE08C





Calibration Data Sheet

Hybrid III 50th Percentile Male

External Measurements

ATD Serial No.: 034

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
A - Total sitting height	mm	879 to 889	880	Pass
B - Shoulder pivot height	mm	505 to 521	515	Pass
C - "H" point height	mm	84 to 89	85	Pass
D - "H" point from seat back	mm	135 to 140	135	Pass
E - Shoulder pivot from back	mm	84 to 94	90	Pass
F - Thigh clearance	mm	140 to 155	150	Pass
G - Elbow back to wrist pivot	mm	290 to 305	300	Pass
H - Skull cap to back line	mm	41 to 46	45	Pass
I - Shoulder to elbow length	mm	330 to 345	335	Pass
J - Elbow rest height	mm	190 to 211	195	Pass
K - Buttock to knee length	mm	579 to 604	585	Pass
L - Popliteal length	mm	429 to 455	440	Pass
M - Knee pivot height	mm	485 to 500	490	Pass
N - Buttock popliteal length	mm	452 to 477	460	Pass
O - Chest depth	mm	213 to 229	220	Pass
P - Foot length	mm	251 to 267	255	Pass
V - Shoulder breadth	mm	422 to 437	435	Pass
W - Foot breadth	mm	91 to 107	100	Pass
Y - Chest circumference	mm	970 to 1001	990	Pass
Z - Waist circumference	mm	836 to 866	860	Pass
AA - Location for chest circumference	mm	429 to 434	430	Pass
BB - Location for waist circumference	mm	226 to 231	230	Pass
Overall Test Results				Pass

Laboratory Technician

August 26, 2003

Test Date



Calibration Data Sheet

Hybrid III 50th Percentile Male

Knee Impact Test

ATD Serial No.: 035

Location: Left Knee

Test I.D.: LK08B

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity at T=0	m/sec	2.07 to 2.13	2.08	Pass
Peak Probe Force	N	4715 to 5782	5452	Pass
Overall Test Results				Pass

ATD Serial No.: 035

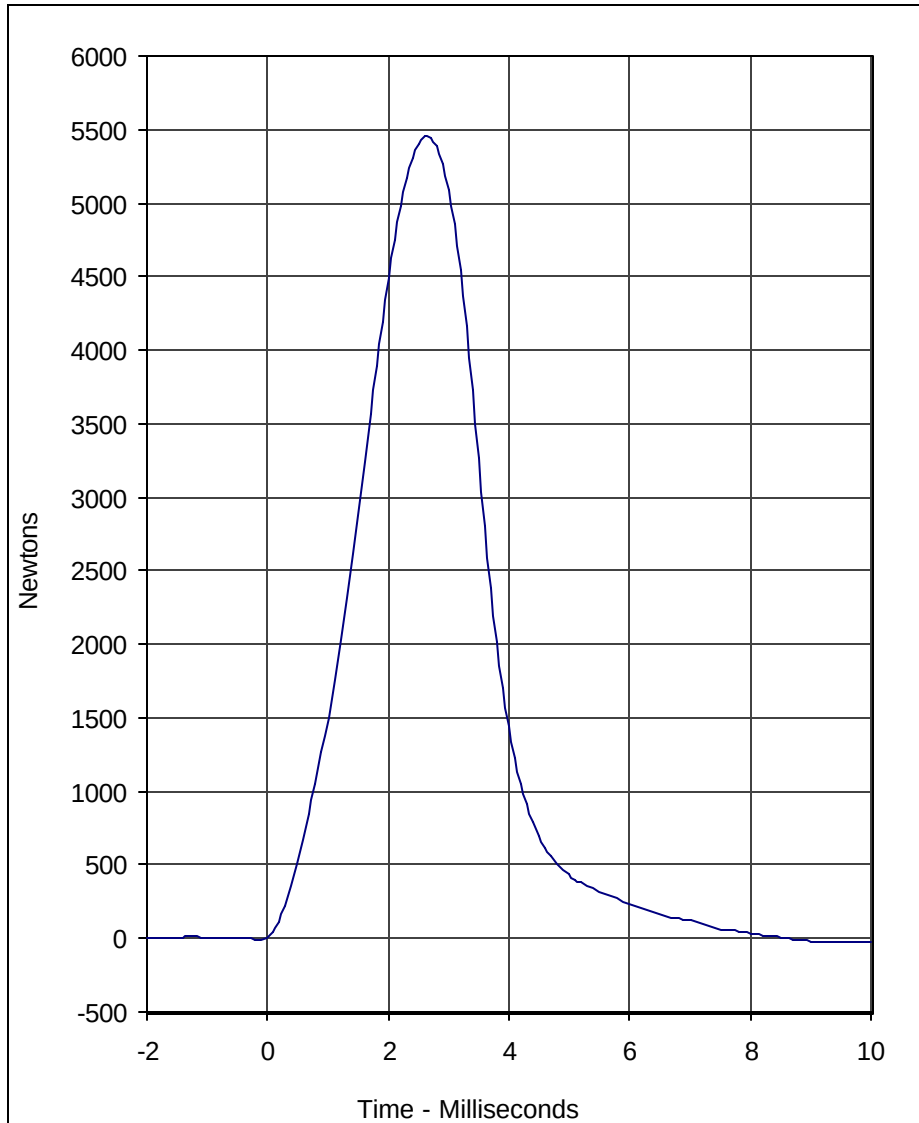
Location: Right Knee

Test I.D.: RK08B

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Pendulum Velocity at T=0	m/sec	2.07 to 2.13	2.12	Pass
Peak Probe Force	N	4715 to 5782	5092	Pass
Overall Test Results				Pass

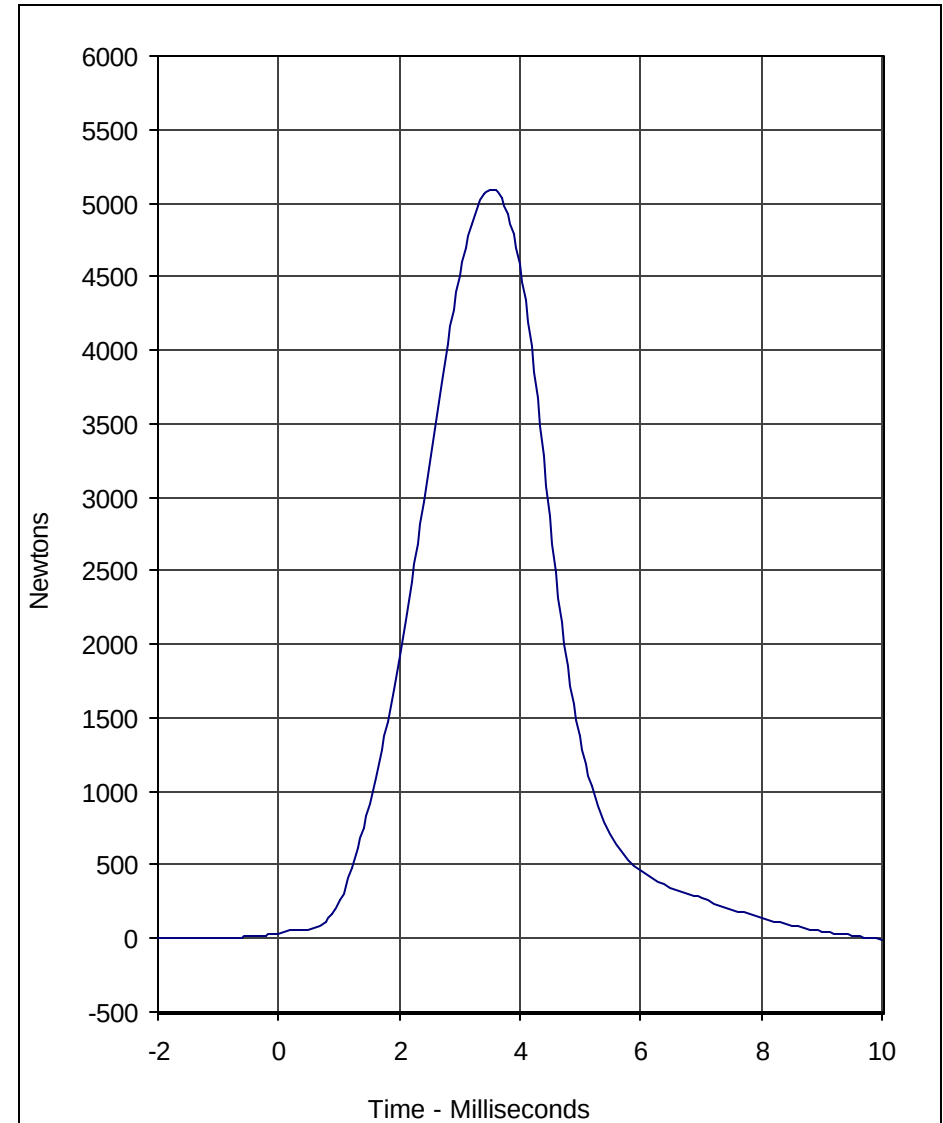
Laboratory Technician

August 25, 2003
Test Date



Curve Description		Location	Test I.D.	CURNO	Type
Probe Force		Left Knee	LK08B	001	FIL
Units	Max	Time	Min	Time	SAE Class
Newtons	5452.1	2.6	-26.6	9.2	600

Test Program: Hybrid III 50th Percentile Male Knee Impact Test
 Test Date: 8/25/03



Curve Description		Location	Test I.D.	CURNO	Type
Probe Force		Right Knee	RK08B	002	FIL
Units	Max	Time	Min	Time	SAE Class
Newtons	5092.2	3.5	-5.3	10.0	600

A.T.D. Serial No.: 035





Calibration Data Sheet

Hybrid III 50th Percentile Male

Head Drop Test

ATD Serial No.: 035

Test I.D.: HD08B

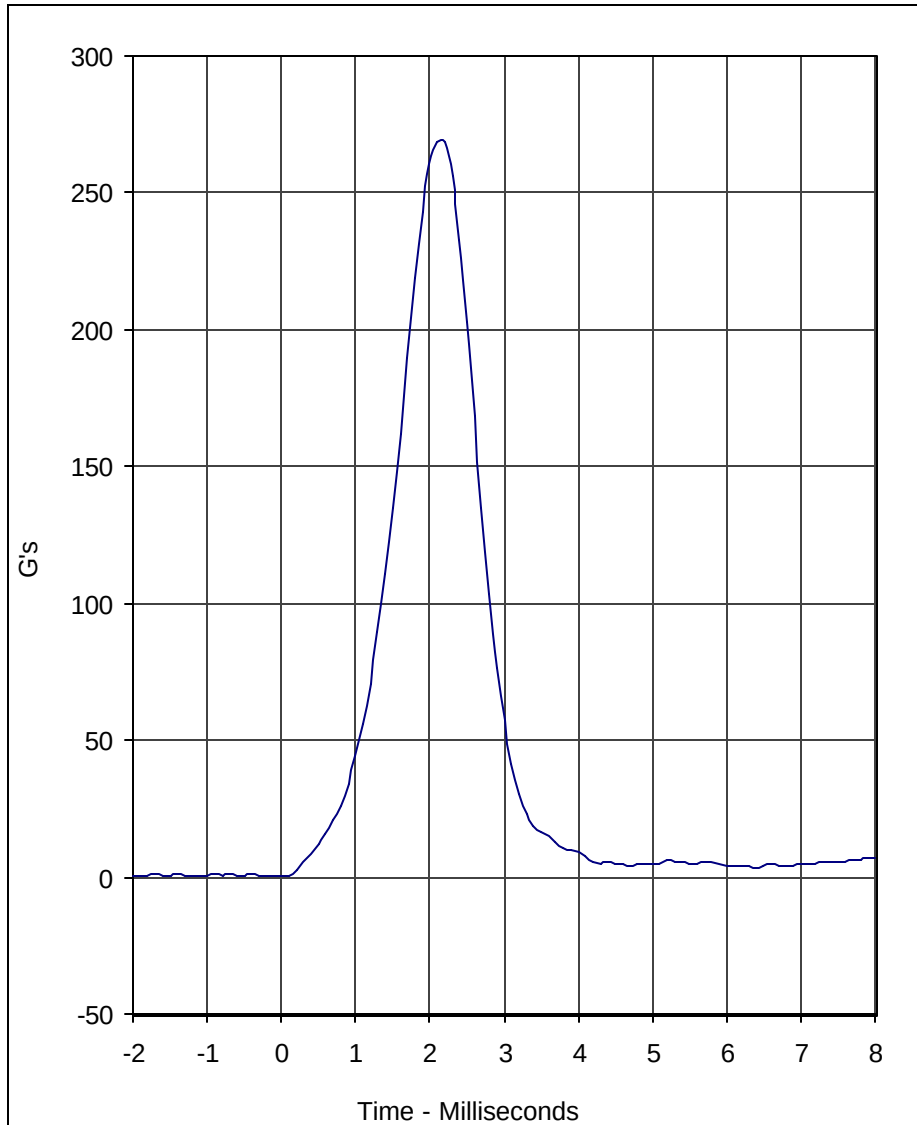
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	225.0 to 275.0	268.9	Pass
Peak Lateral Acceleration	G's	≤15.0	7.9	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass

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TR-P23001-19-NC

Laboratory Technician

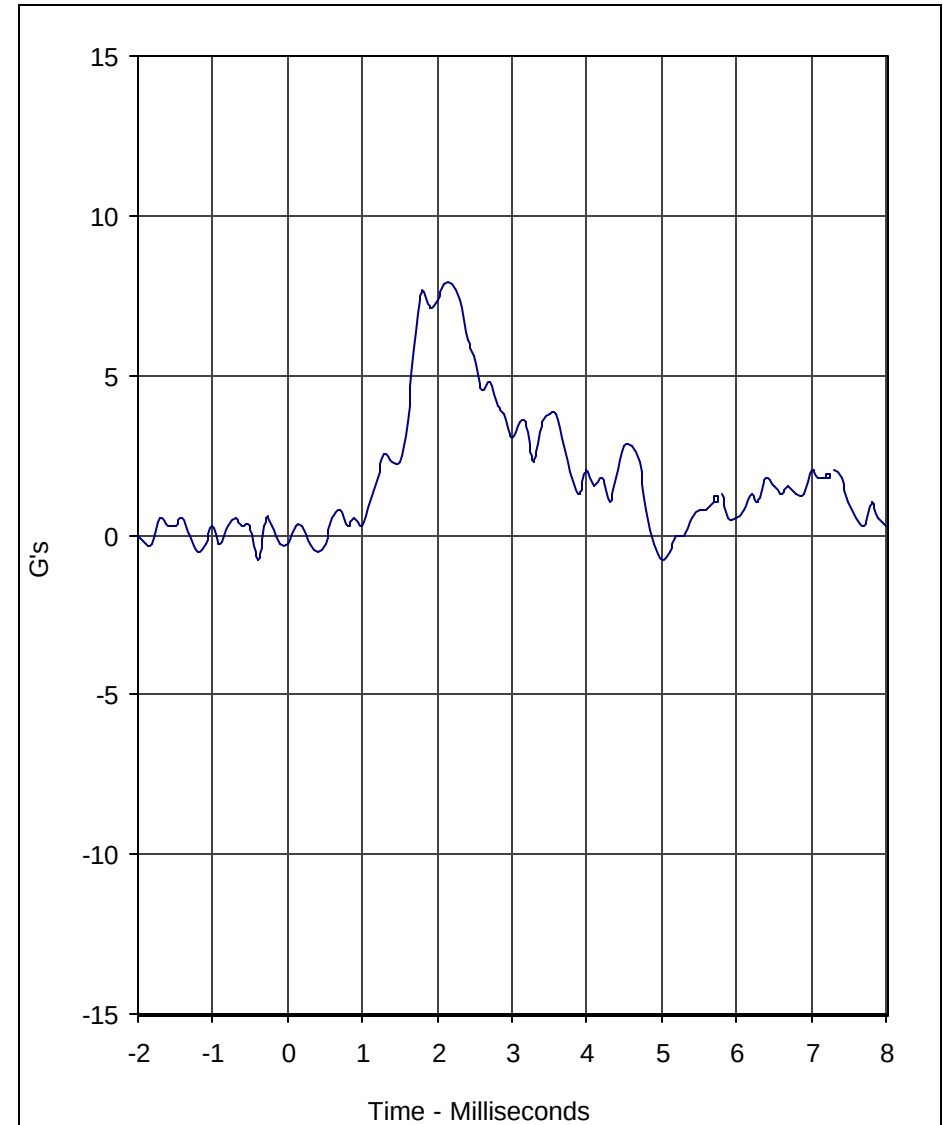
August 25, 2003
Test Date



Curve Description				CURNO	Type
Head Resultant				001	RES

Units	Max	Time	Min	Time	SAE Class
G's	268.9	2.1	0.3	-1.8	1000

Test Program: Hybrid III 50th Percentile Male Head Drop Test
 Test Date: 8/25/03



Curve Description				CURNO	Type
Head Y				002	FIL

Units	Max	Time	Min	Time	SAE Class
G's	7.9	2.1	-0.8	-0.4	1000

A.T.D. Serial No.: 035
 Test I.D.: HD08B





Calibration Data Sheet

Hybrid III 50th Percentile Male

Thorax Impact Test

ATD Serial No.: 034

Test I.D.: CH12B

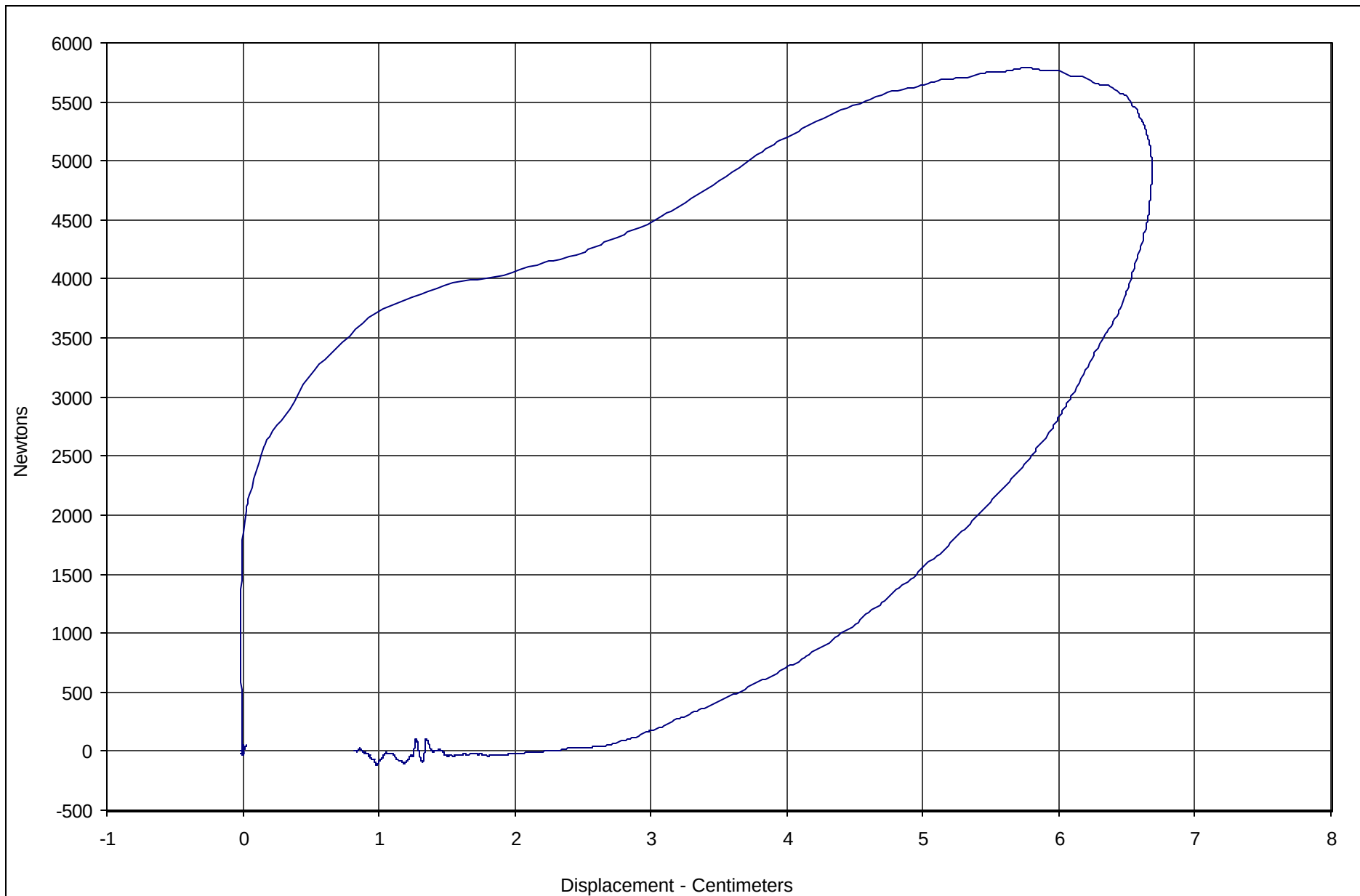
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	6.58 to 6.82	6.67	Pass
Peak Probe Force	Newtons	5159 to 5893	5789	Pass
Peak Sternum Displacement	CM	6.35 to 7.26	6.68	Pass
Internal Hysteresis	%	69 to 85	80.2	Pass
Overall Test Results				Pass

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TR-P23001-19-NC

Laboratory Technician

August 26, 2003
Test Date



Curve Description	CURNO	Type	Hysteresis	Peak Chest Displ.	Peak Probe Force	SAE Class
Probe Force vs. Chest Displacement	001	FIL	80.2	6.68	5789.1	180



Test Program: Hybrid III 50th Percentile Male Thorax Impact

A.T.D. Serial No.: 034

Test Date: 8/26/03

Test I.D.: CH12B



Calibration Data Sheet

Hybrid III 50th Percentile Male

Neck Flexion Test

ATD Serial No.: 035

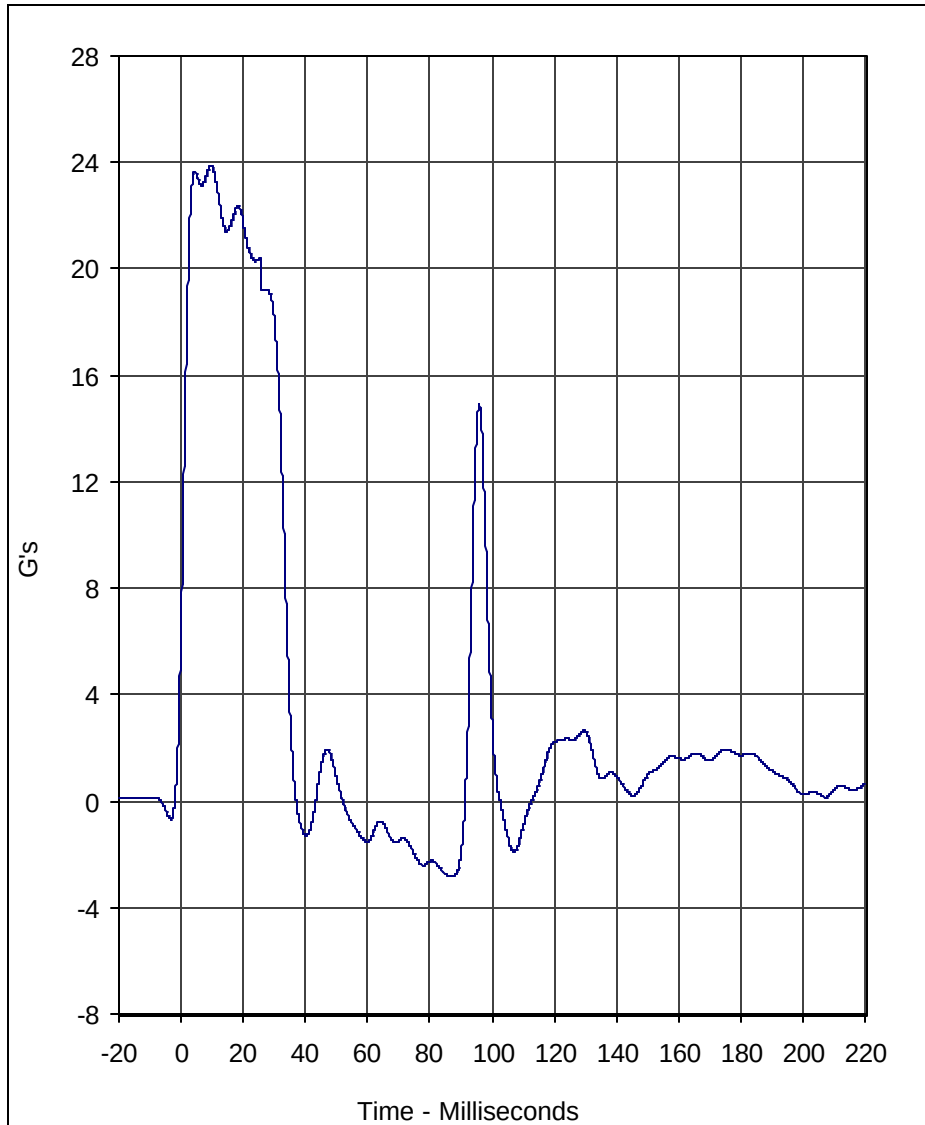
Test I.D.: NF08D

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	6.89 to 7.13	7.12	Pass
Pendulum Deceleration	10 Msec.	G's	22.5 to 27.5	23.8	Pass
	20 Msec.	G's	17.6 to 22.6	21.8	Pass
	30 Msec.	G's	12.5 to 18.5	18.1	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 29.0	18.1	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	34.0 to 42.0	34.5	Pass
Maximum "D" Plane Rotation	Maximum	Degrees	64.0 to 78.0	66.8	Pass
	Time	Msec.	57.0 to 64.0	59.2	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	113.0 to 128.0	113.1	Pass
Moment About Occipital Condyle	Maximum	Nm	84.1 to 108.5	91.2	Pass
	Time	Msec.	47.0 to 58.0	47.1	Pass
Positive Moment Decay, Time To Zero Crossing		Msec.	97.0 to 107.0	97.2	Pass
Overall Test Results					Pass

Laboratory Technician

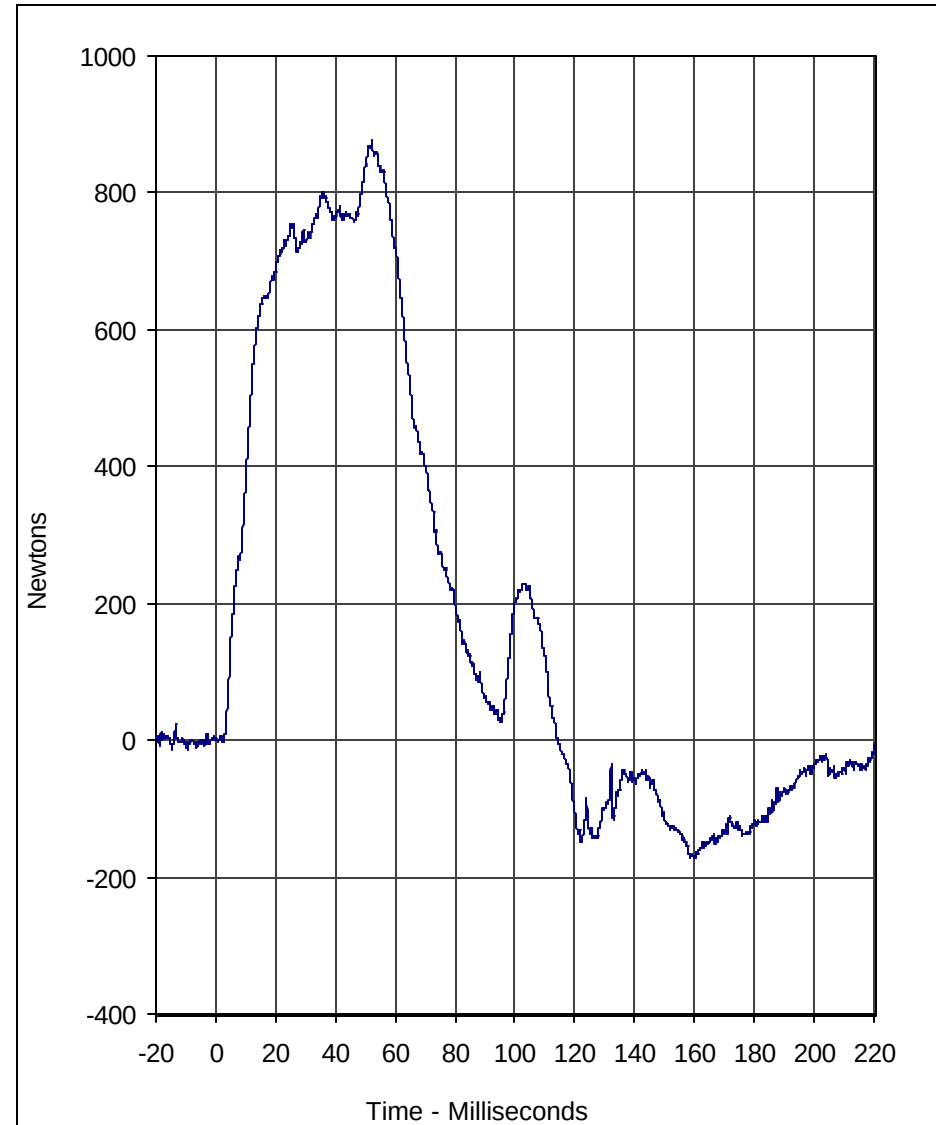
August 26, 2003

Test Date



Curve Description				CURNO	Type
Pendulum Deceleration				001	FIL
Units	Max	Time	Min	Time	SAE Class
G's	23.9	9.6	-2.8	87.2	60

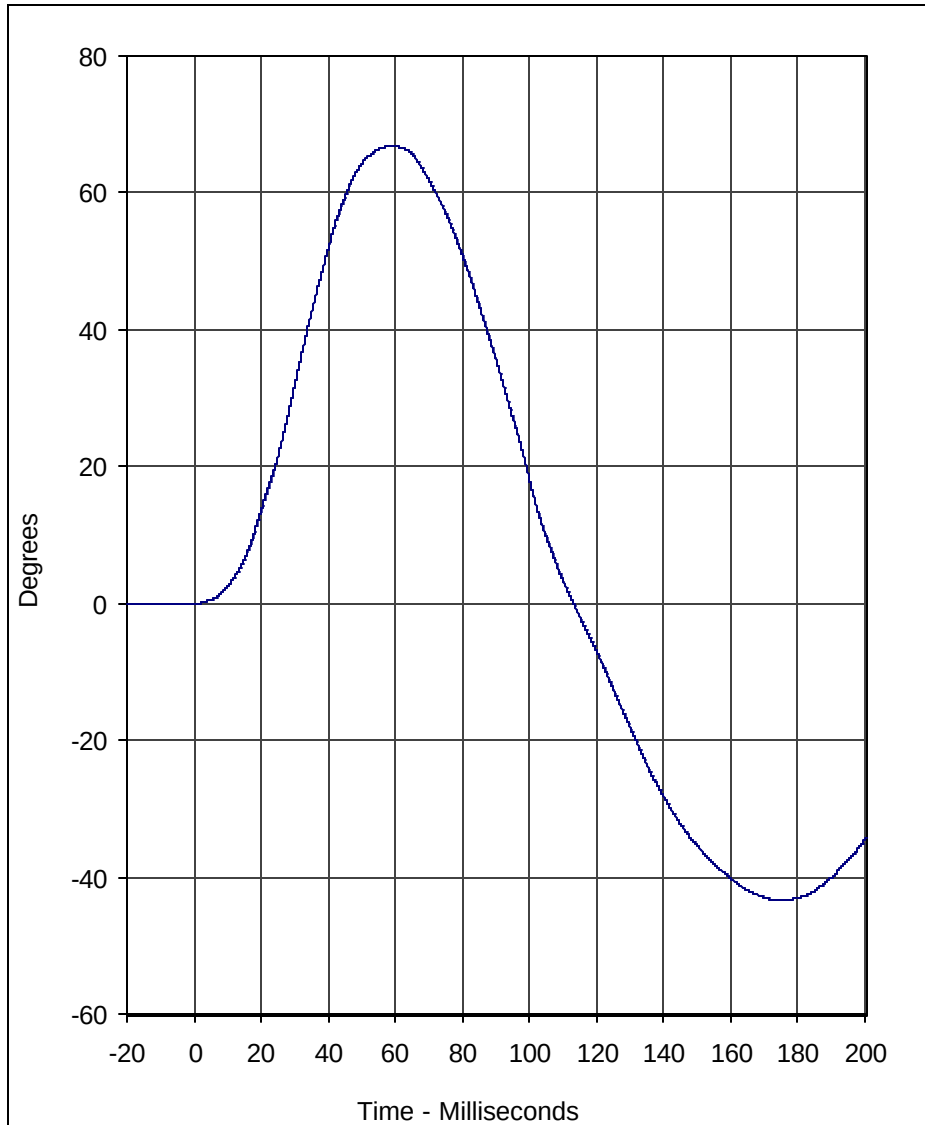
Test Program: Hybrid III 50th Percentile Male Neck Flexion Test
 Test Date: 8/26/03



Curve Description				CURNO	Type
Neck Force X				002	FIL
Units	Max	Time	Min	Time	SAE Class
Newtons	876.0	52.2	-171.9	160.2	600

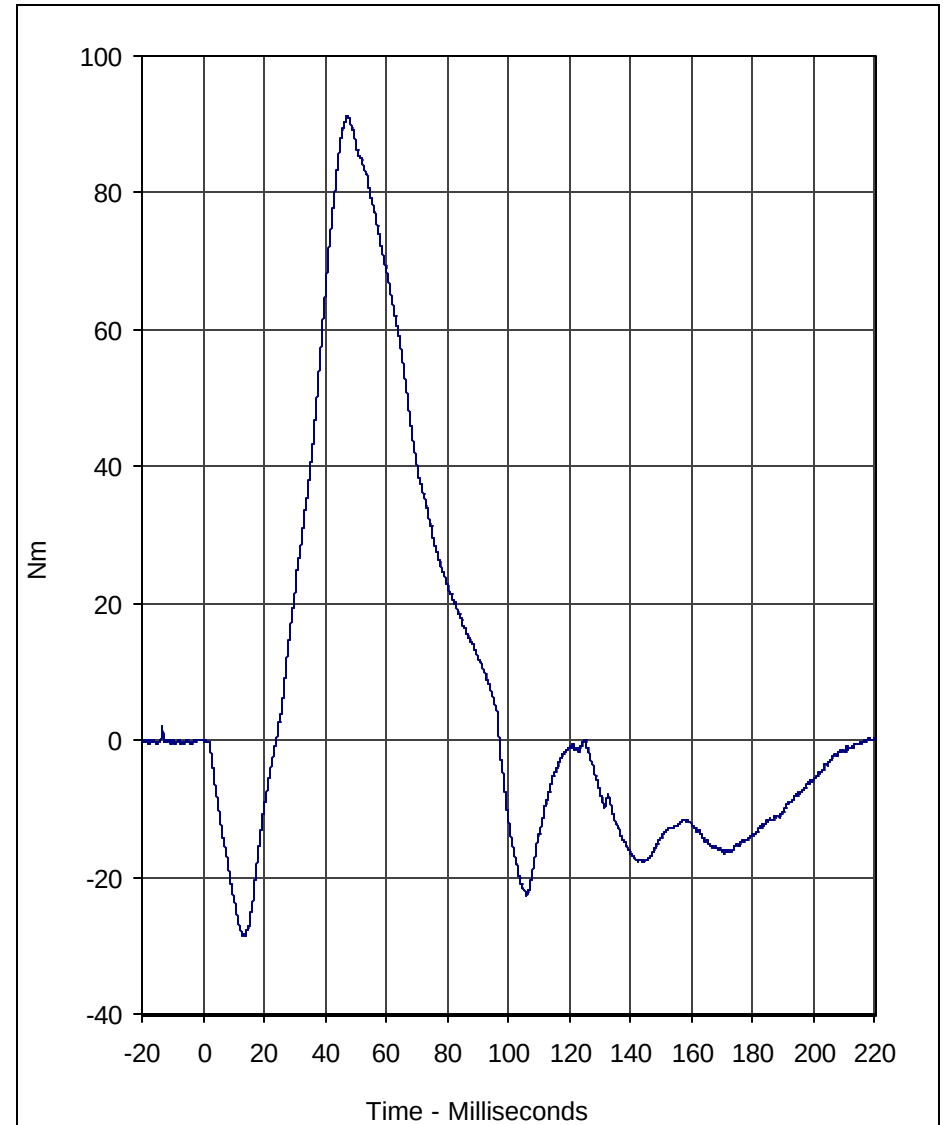
A.T.D. Serial No.: 035
 Test I.D.: NF08D





Curve Description				CURNO	Type
"D" Plane Rotation				003	FIL
Units	Max	Time	Min	Time	SAE Class
Degrees	66.8	59.2	-43.3	174.1	60

Test Program: Hybrid III 50th Percentile Male Neck Flexion Test
 Test Date: 8/26/03



Curve Description				CURNO	Type
Moment About Occipital Condyle				004	FIL
Units	Max	Time	Min	Time	SAE Class
Nm	91.2	47.1	-28.5	13.0	600

A.T.D. Serial No.: 035
 Test I.D.: NF08D





Calibration Data Sheet

Hybrid III 50th Percentile Male

Neck Extension Test

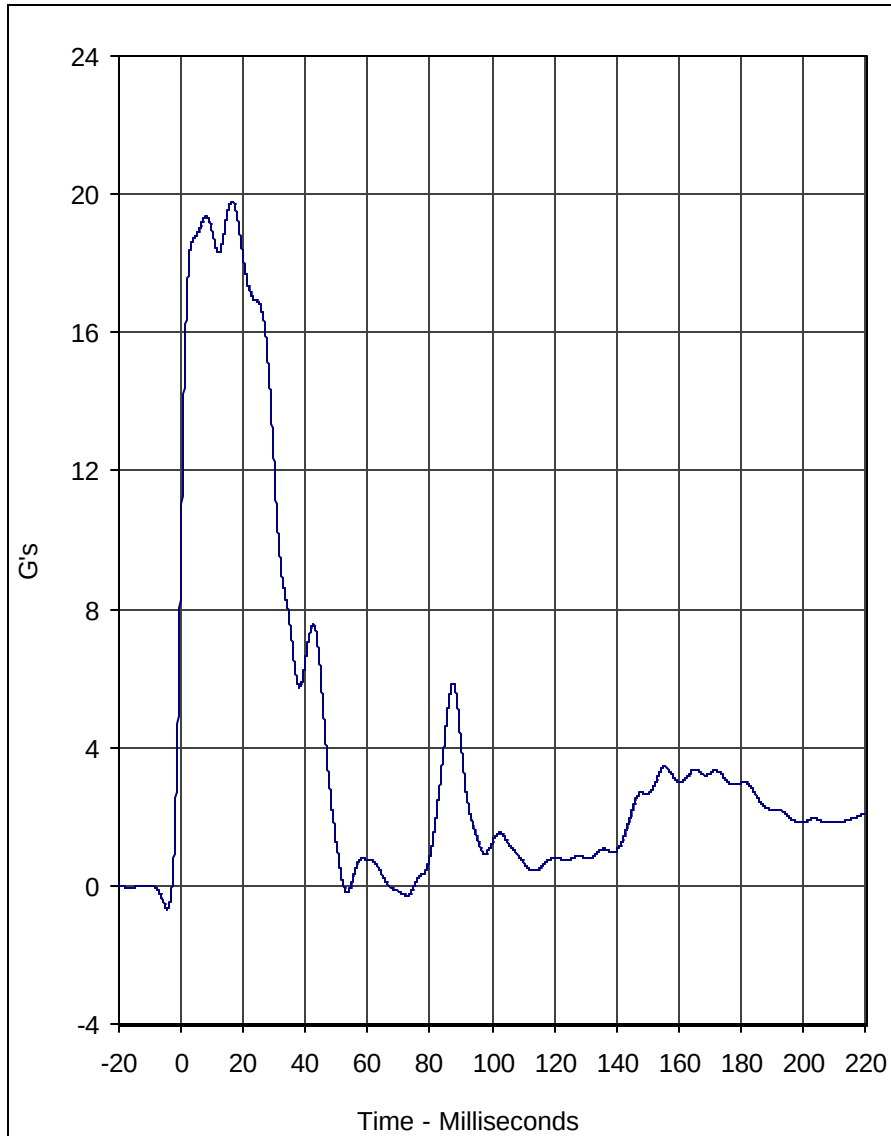
ATD Serial No.: 035

Test I.D.: NE08B

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	5.94 to 6.19	6.01	Pass
Pendulum Deceleration	10 Msec.	G's	17.2 to 21.2	18.9	Pass
	20 Msec.	G's	14.0 to 19.0	18.2	Pass
	30 Msec.	G's	11.0 to 16.0	12.1	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 22.0	12.1	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	38.0 to 46.0	45.9	Pass
Maximum "D" Plane Rotation	Maximum	Degrees	81.0 to 106.0	87.3	Pass
	Time	Msec.	72.0 to 82.0	73.5	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	147.0 to 174.0	148.1	Pass
Moment About Occipital Condyle	Maximum	Nm	-52.9 to- 79.9	-77.7	Pass
	Time	Msec.	65.0 to 79.0	65.8	Pass
Positive Moment Decay, Time To Zero Crossing		Msec.	120.0 to 148.0	132.3	Pass
Overall Test Results					Pass

Laboratory Technician

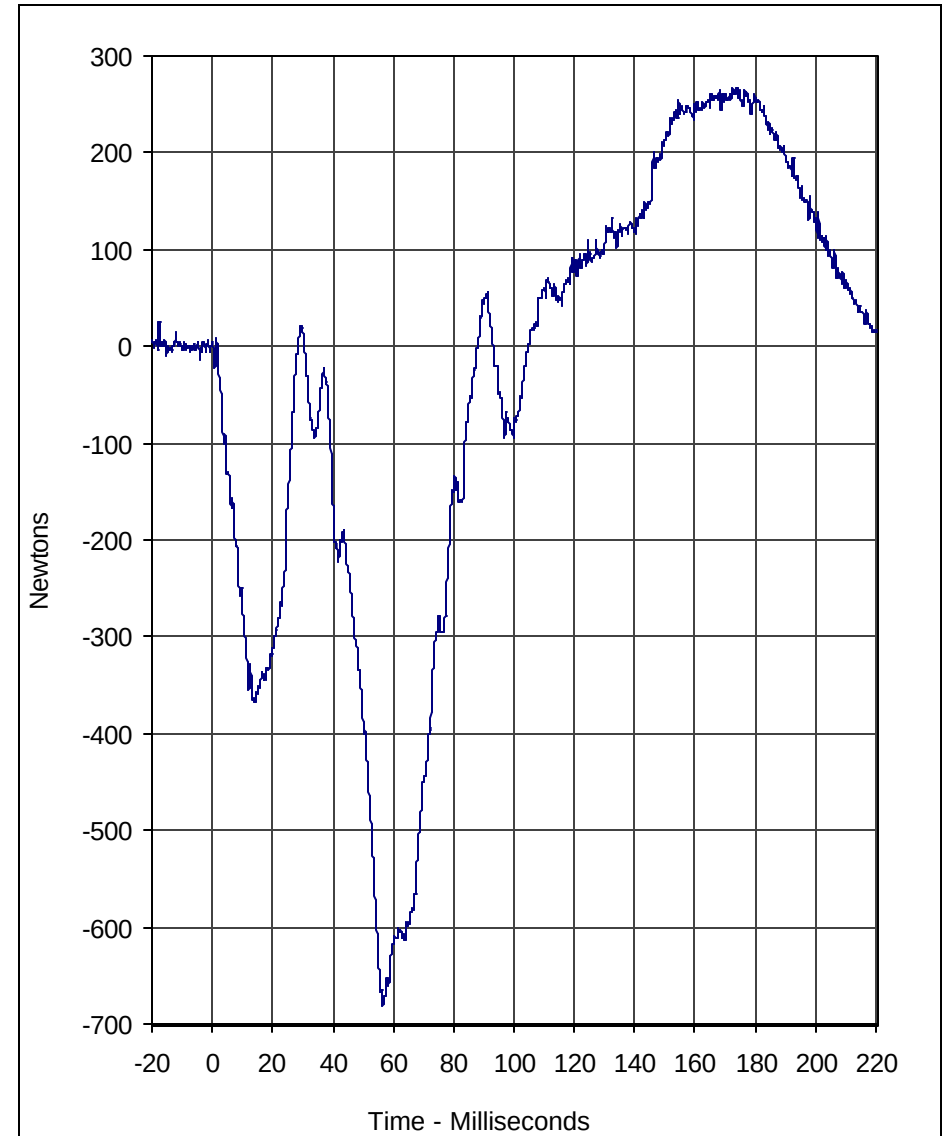
August 26, 2003
Test Date



Curve Description				CURNO	Type
Pendulum Deceleration				001	FIL

Units	Max	Time	Min	Time	SAE Class
G's	19.8	16.4	-0.7	-4.4	60

Test Program: Hybrid III 50th Percentile Male Neck Extension Test
 Test Date: 8/26/03

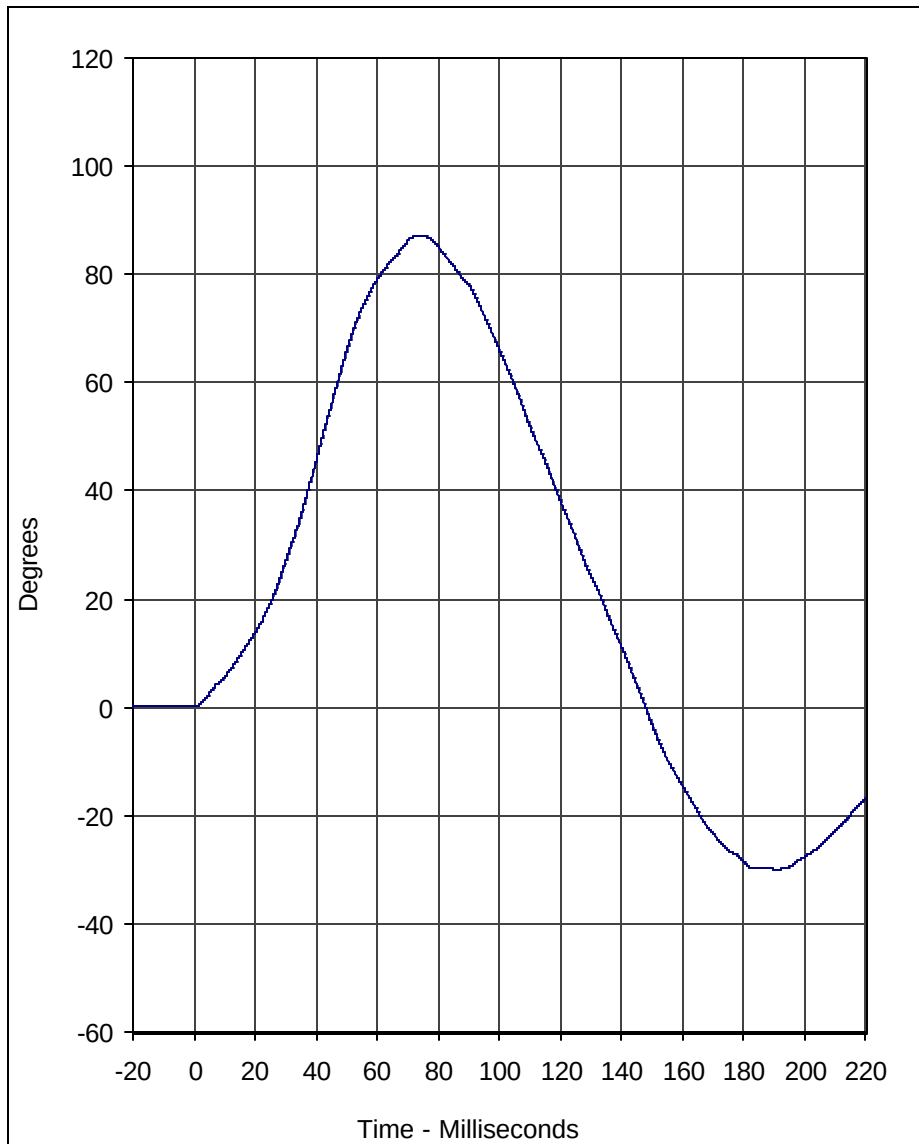


Curve Description				CURNO	Type
Neck Force X				002	FIL

Units	Max	Time	Min	Time	SAE Class
Newtons	266.4	173.9	-680.6	56.5	600

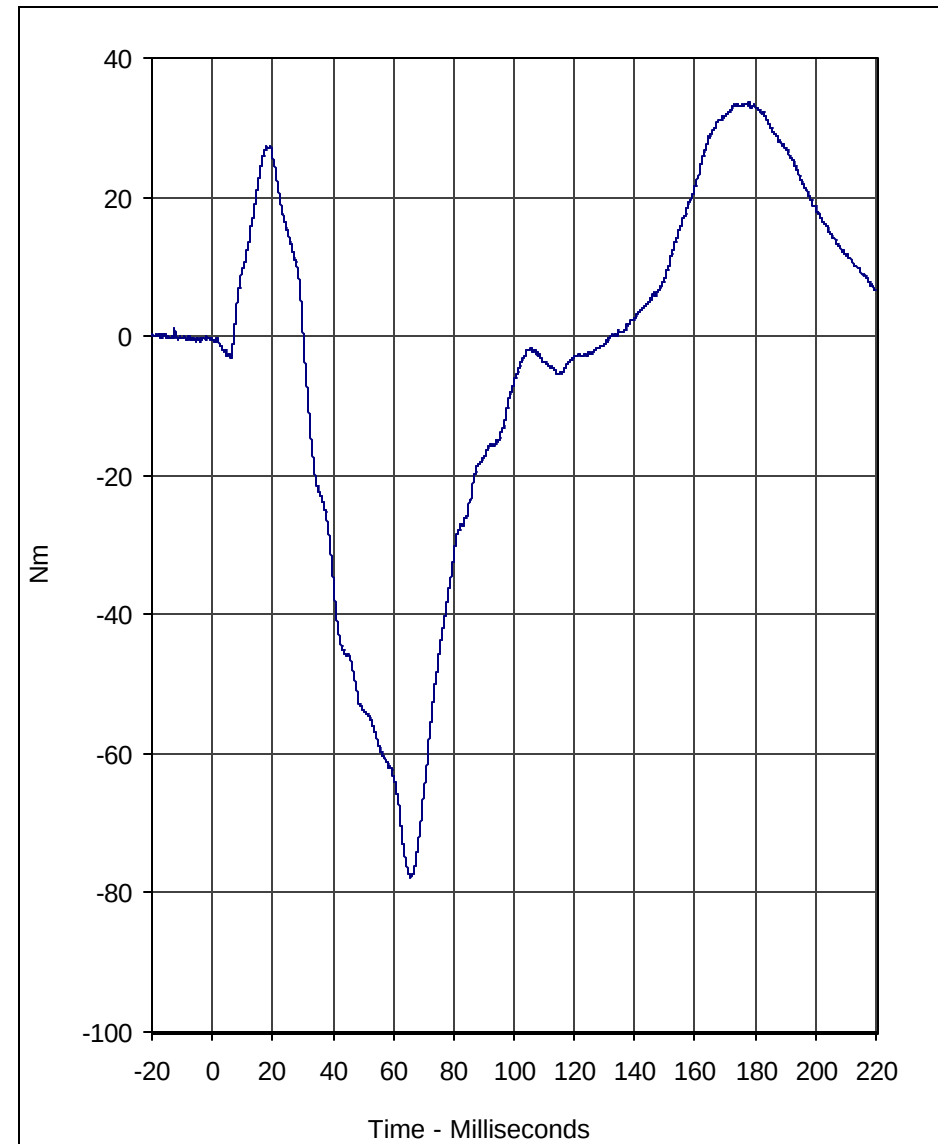
A.T.D. Serial No.: 035
 Test I.D.: NE08B





Curve Description				CURNO	Type
"D" Plane Rotation				003	FIL
Units	Max	Time	Min	Time	SAE Class
Degrees	87.3	73.5	-29.9	191.1	60

Test Program: Hybrid III 50th Percentile Male Neck Extension Test
 Test Date: 8/26/03



Curve Description				CURNO	Type
Moment About Occipital Condyle				004	FIL
Units	Max	Time	Min	Time	SAE Class
Nm	33.7	178.1	-77.7	65.8	600

A.T.D. Serial No.: 035
 Test I.D.: NE08B





Calibration Data Sheet Hybrid III 50th Percentile Male External Measurements

ATD Serial No.: 035

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
A - Total sitting height	mm	879 to 889	880	Pass
B - Shoulder pivot height	mm	505 to 521	510	Pass
C - "H" point height	mm	84 to 89	85	Pass
D - "H" point from seat back	mm	135 to 140	135	Pass
E - Shoulder pivot from back	mm	84 to 94	90	Pass
F - Thigh clearance	mm	140 to 155	145	Pass
G - Elbow back to wrist pivot	mm	290 to 305	295	Pass
H - Skull cap to back line	mm	41 to 46	45	Pass
I - Shoulder to elbow length	mm	330 to 345	340	Pass
J - Elbow rest height	mm	190 to 211	200	Pass
K - Buttock to knee length	mm	579 to 604	600	Pass
L - Popliteal length	mm	429 to 455	430	Pass
M - Knee pivot height	mm	485 to 500	495	Pass
N - Buttock popliteal length	mm	452 to 477	470	Pass
O - Chest depth	mm	213 to 229	225	Pass
P - Foot length	mm	251 to 267	260	Pass
V - Shoulder breadth	mm	422 to 437	430	Pass
W - Foot breadth	mm	91 to 107	105	Pass
Y - Chest circumference	mm	970 to 1001	980	Pass
Z - Waist circumference	mm	836 to 866	855	Pass
AA - Location for chest circumference	mm	429 to 434	430	Pass
BB - Location for waist circumference	mm	226 to 231	230	Pass
Overall Test Results			Pass	

Laboratory Technician

August 26, 2003
Test Date

APPENDIX F
CHILD RESTRAINT SYSTEM

**NEW CAR ASSESSMENT PROGRAM
FRONTAL BARRIER IMPACT TEST**

**NISSAN MOTOR COMPANY
2004 NISSAN MAXIMA 3.5 SE
4 DOOR SEDAN**

NHTSA NUMBER: M45200

**PREPARED BY:
KARCO ENGINEERING, LLC
9270 HOLLY ROAD
ADELANTO, CALIFORNIA 92301**



9/3/03

FINAL REPORT

**PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
RULEMAKING
OFFICE OF CRASHWORTHINESS STANDARDS
MAIL CODE: NVS-111
400 SEVENTH STREET, SW, ROOM 5311
WASHINGTON, D.C. 20590**

This final test report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, in response to Contract Number DTNH22-01-D-02005.

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KARCO Engineering, LLC

Date: September 15, 2003

Approved by: _____
Mr. Frank D. Richardson, Program Manager
KARCO Engineering, LLC

Date: September 15, 2003

FINAL REPORT ACCEPTED BY:

Manager, New Car Assessment Program

Date of Acceptance

COTR, NCAP Frontal Impact Program

Date of Acceptance

Technical Report Documentation Page

1. Report No. TR-P23001-19-NC		2. Government Accession No.		3. Recipients Catalog No.	
4. Title and Subtitle Final Report of Evenflo Vanguard 5 Final Report of Britax Expressway NHTSA No. M45200				5. Report Date September 15, 2003	
				6. Performing Organization Code	
7. Authors Mr. James E. Gorth, Project Engineer, Karco Mr. Frank Richardson, Program Manager, Karco				8. Performing Organization Report No. TR-P23001-19-NC	
9. Performing Organization Name and Address Karco Engineering, LLC 9270 Holly Rd. Adelanto, CA, 92301				10. Work Unit No.	
				11. Contract or Grant No.	
12. Sponsoring Agency Name and Address U. S. Department of Transportation National Highway Traffic Safety Administration Rulemaking Office of Crashworthiness Standards Mail Code NVS-111 400 Seventh Street, SW, Room 5311 Washington, D.C 20590				13. Type of Report and Period Covered Final Test Report Option Year 2	
				14. Sponsoring Agency Code DOT/NHTSA/NRM/OCS	
15. Supplementary Notes					
16. Abstract A frontal test was conducted on the subject CRS's Evenflo Vanguard 5 and a Britax Expressway in conjunction with frontal NCAP testing on a 2004 Nissan Maxima 3.5 SE 4 Door Sedan and in accordance with the specifications of the Office of Crashworthiness Standards Test Procedure					
Measurement Description		Units		Left Rear	
Head Injury Criteria (HIC) 36		N/A		605.7	
Head Injury Criteria (HIC) 15		N/A		403.9	
3 msec. Chest Clip		G's		40.9	
Peak Chest Displacement		mm		-19.6	
17. Key Words 56.3 km/h NCAP Frontal Barrier Impact Test New Car Assessment Program (NCAP) 2004 Nissan Maxima 3.5 SE 4 Door Sedan NHTSA No. M45200				18. Distribution of Statement Copies of this report available from: NHTSA Technical Reference Division National Highway Traffic Safety Admin. 400 Seventh St., SW, Room 5108 Washington, D.C. 20590	
19. Security Classification (this report) Unclassified		20. Security Classification (this page) Unclassified		21. No. of Pages 148	
				22. Price	

Form DOT F1700.7 (8-72)

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SECTION F-1

PURPOSE AND SUMMARY OF TEST M45200

The purpose of this test is to obtain CRS performance data during an NCAP (35mph) frontal impact test.

The 56.10 km/h NCAP frontal impact test was conducted in accordance with the Office of Crashworthiness Standards (OCS) NCAP Laboratory Test Procedure.

SUMMARY

The three-year-old child dummies were instrumented with head, chest, and pelvic triaxial accelerometers. In addition, redundant head z acceleration, chest displacement and upper and lower six axial neck force and moment load cell sensors were utilized. Triaxial accelerometers were installed on the CRS and a load cell on the upper tether.

The right rear (Position 3) child dummy (Serial No. 139) and the left rear (Position 4) child dummy (Serial No. 082) were calibrated prior to this test. Child dummy certification information is found in Section F-5.

CHILD DUMMY VALUES

Location	HIC 36 Values	HIC 15 Values	3 Msec. Chest Clip	Peak Chest Disp.
Right Rear Child	655.5	421.1	42.9	-14.1
Left Rear Child	605.7	403.9	40.9	-19.6

SECTION F-1**DATA SHEET NO.1.....CRASH TEST SUMMARY**Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door SedanNHTSA No.: M45200Test Program: 2003 NHTSA 35mph NCAPTest Date: 9/3/03**CHILD RESTRAINT DEVICE INFORMATION**

Description	Position # 3 CRS	Position #4 CRS
Manufacturer	Evenflo	Britax
Model Name	Vanguard 5	Expressway
Serial No.	3691261P1	E9L2906
Type	Convertible	Convertible
Forward/Rearward	Forward	Forward

VISIBLE DUMMY CONTACT POINTS

Description	Position #3 CRS	Position #4 CRS
Head Contact	CRS/Chin to Retainer Clip	CRS/Chin to Retainer Clip
Chest Contact	None	None
Abdomen Contact	None	None
Left Knee Contact	None	None
Right Knee Contact	None	None
Left Toe Contact	None	None
Right Toe Contact	None	None

POST TEST DOOR OPENINGS

Description	Position #3 CRS	Position #4 CRS
Left Side Doors	Remained closed/latched, opened w/o tools	Remained closed/latched, opened w/o tools
Right Side Doors	Remained closed/latched, opened w/o tools	Remained closed/latched, opened w/o tools
Hatch/Other Door	None	None

POST TEST SEAT DATA

Location	Seat Movement (mm)	Seat Back Failure
Left Front	None	None
Right Front	4mm Forward	None
Left Rear	None	None
Right Rear	None	None

CAMERA COVERAGE

High Speed	3
Real Time	1
Total	4

SECTION F-1**DATA SHEET NO.2.....CRS PARAMETER DATA**Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door SedanNHTSA No.: M45200Test Program: 2003 NHTSA 35mph NCAPTest Date: 9/3/03**TEST VEHICLE WEIGHTS**

	Units	As Delivered Weights (UVW)			As Tested Weights (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	495	318		541	383	
Right	kg	479	314		511	373	
Ratio	%	60.6	39.4		58.2	41.8	
Totals	kg	974	632	1606	1052	756	1808

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1606
Weight of 2 P572 ATD's	kg	152
Rated Cargo/Luggage Wt. (RCLW)	kg	50
Calculated Vehicle Target Wt. (TVTW)	kg	1808

SECTION F-1

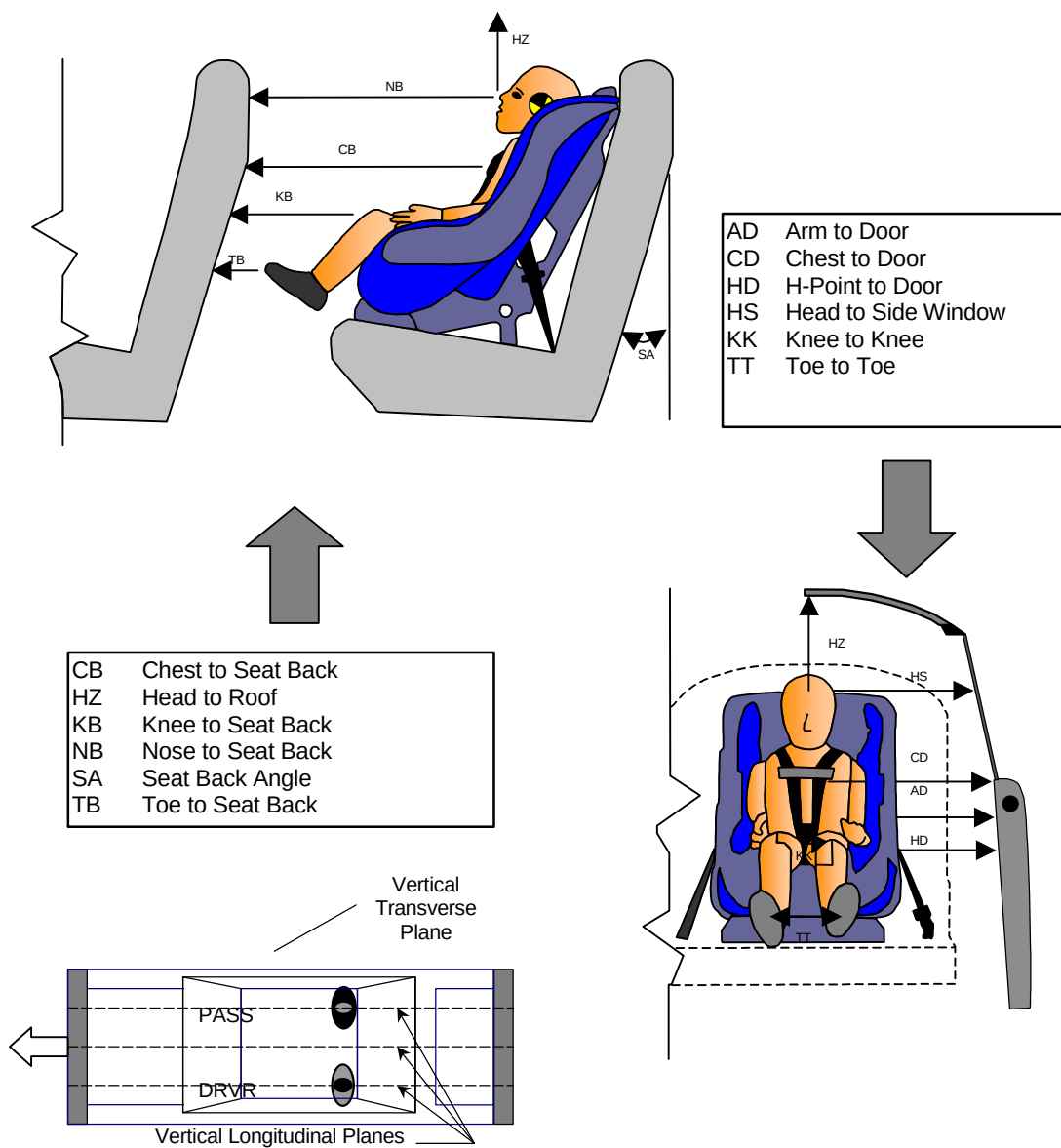
DATA SHEET NO.3.....CHILD DUMMY POSITIONING IN VEHICLE

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03



DUMMY MEASUREMENTS FOR REAR SEAT OCCUPANTS

SECTION F-1

DATA SHEET NO.3.....CHILD DUMMY POSITIONING IN VEHICLE...(continued)

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03

CHILD DUMMY POSITION MEASUREMENTS

Code	Measurement	Units	P3 CRS Serial No. 139			P4 CRS Serial No. 082		
			Pre-Test	Post-Test	Diff.	Pre-Test	Post-Test	Diff.
SA	Seat Back Angle	deg.	67	67	0	66	66	0
HS	Head to Side Window	mm	435	440	5	420	433	13
CD	Chest to Door	mm	385	395	10	385	385	0
AD	Arm to Door	mm	195	270	75	215	250	35
HD	H-Point to Door (Y)	mm	240	307	67	280	305	25
HZ	Head to Roof (Z)	mm	360	335	-25	330	330	0
NB	Nose to Seat Back	mm	580	620	40	555	597	42
CB	Chest to Seat Back	mm	560	628	68	555	600	45
KK	Knee to Knee	mm	185	190	5	225	242	17
FF	Foot to Foot	mm	170	195	25	275	335	60
KB-Left	Knee to Seat Back	mm	365	490	125	425	425	0
KB-Right	Knee to Seat Back	mm	350	455	105	430	440	10
TB-Left	Toe to Seat Back	mm	90	204	114	200	195	-5
TB-Right	Toe to Seat Back	mm	80	120	40	170	170	0

DATA SHEET NO. 4 - 3 YEAR OLD HYBRID III ATD INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03

HEAD PRIMARY PEAK ACCELERATIONS

Location	Axis	Units	Left Rear (3 Yr.)				Right Rear (3 Yr.)			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	25.0	214.8	-56.5	85.6	34.1	204.7	-24.6	86.6
Head CG	Y	G's	38.2	85.5	-24.5	99.5	5.8	110.4	-11.6	89.8
Head CG	Z	G's	57.2	85.3	-0.5	32.1	60.3	82.3	-9.0	43.0
Head CG Resultant	N/A	G's	88.6	85.5			64.0	82.3		

PRIMARY HEAD INJURY CRITERIAS (HIC)

Location	Left Rear (3 Yr.)				Right Rear (3 Yr.)			
	HIC	T ¹	T ²	Avg G	HIC	T ¹	T ²	Avg G
Head CG Primary (HIC36)	605.7	64.5	100.5	49.0	655.5	67.6	103.6	50.6
Head CG Primary (HIC15)	403.9	73.1	88.1	59.1	421.1	74.9	89.9	60.1

CHEST PRIMARY PEAK ACCELERATIONS

Location	Axis	Units	Left Rear (3 Yr.)				Right Rear (3 Yr.)			
			Max	Time	Min	Time	Max	Time	Min	Time
Chest CG	X	G's	6.7	240.6	-35.4	57.1	5.0	218.5	-34.3	79.2
Chest CG	Y	G's	3.3	102.6	-2.3	68.6	2.5	218.3	-10.9	75.7
Chest CG	Z	G's	8.6	85.6	-22.3	59.4	20.3	88.9	-32.8	60.7
Chest CG Resultant	N/A	G's	41.2	57.7			43.3	61.4		

PRIMARY CHEST CLIP (3MSEC)

Location	Left Rear (3 Yr.)			Right Rear (3 Yr.)		
	CLIP	T ¹	T ²	CLIP	T ¹	T ²
Chest CG Primary	40.9	25.8	55.8	42.9	30.3	60.3

CHEST PEAK DISPLACEMENTS

Location	Axis	Units	Left Rear (3 Yr.)				Right Rear (3 Yr.)			
			Max	Time	Min	Time	Max	Time	Min	Time
Chest CG	X	MM	0.0	7.0	-19.6	93.8	0.0	0.1	-14.1	104.4

PELVIC PEAK ACCELERATIONS

Location	Axis	Units	Left Rear (3 Yr.)				Right Rear (3 Yr.)			
			Max	Time	Min	Time	Max	Time	Min	Time
Pelvis	X	G's	4.7	108.0	-38.5	45.4	11.9	128.2	-37.6	71.2
Pelvis	Y	G's	8.1	42.8	-3.5	129.4	5.0	88.0	-17.2	72.1
Pelvis	Z	G's	4.5	185.4	-36.4	72.6	12.6	209.2	-35.2	59.8
Pelvis Resultant	N/A	G's	47.0	66.2			52.4	71.2		

DATA SHEET NO. 4...(continued)

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03

UPPER NECK PEAK FORCES AND MOMENTS

Location	Axis	Units	Left Rear (3 Yr.)				Right Rear (3 Yr.)			
			Max	Time	Min	Time	Max	Time	Min	Time
Neck Force	X	Newtons	46.5	259.6	-577.2	84.0	31.5	188.0	-605.5	86.7
Neck Force	Y	Newtons	63.5	114.1	-82.1	96.8	26.0	132.8	-259.1	86.6
Neck Force	Z	Newtons	1681.1	81.7	-148.9	231.1	1782.0	85.0	-227.1	43.3
Neck Force Resultant	N/A	Newtons	1761.8	81.7			1870.0	85.0		
Neck Moment	X	Nm	3.4	94.9	-3.9	102.7	3.4	137.6	-17.4	97.5
Neck Moment	Y	Nm	5.8	138.9	-11.6	230.1	5.4	79.7	-15.3	218.4
Neck Moment	Z	Nm	3.1	98.4	-1.7	117.9	1.9	270.1	-3.0	180.7
Neck Moment Resultant	N/A	Nm	11.7	229.3			17.4	97.5		

LOWER NECK PEAK FORCES AND MOMENTS

Location	Axis	Units	Left Rear (3 Yr.)				Right Rear (3 Yr.)			
			Max	Time	Min	Time	Max	Time	Min	Time
Neck Force	X	Newtons	141.0	201.9	-1367.4	84.6	196.4	204.5	-436.4	85.7
Neck Force	Y	Newtons	36.4	102.9	-99.9	95.6	29.3	77.4	-262.8	95.7
Neck Force	Z	Newtons	908.2	80.9	-56.6	40.3	1236.8	82.2	-355.5	43.7
Neck Force Resultant	N/A	Newtons	1576.0	81.5			1301.8	83.5		
Neck Moment	X	Nm	3.8	115.2	-9.6	98.3	3.1	134.1	-57.1	89.4
Neck Moment	Y	Nm	110.1	84.6	-14.1	206.8	94.7	86.2	-13.4	204.3
Neck Moment	Z	Nm	1.2	93.5	-5.9	87.1	3.2	137.3	-22.0	86.1
Neck Moment Resultant	N/A	Nm	110.2	84.6			111.1	88.9		

CHILD SEAT TETHER BELT SENSOR PEAK VALUES

Location	Axis	Units	Left Rear (3 Yr.)				Right Rear (3 Yr.)			
			Max	Time	Min	Time	Max	Time	Min	Time
Tether Belt Force	N/A	Newtons	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

1.) Not installed

CHILD SEAT ACCELEROMETER PEAK VALUES

Location	Axis	Units	Left Rear (3 Yr.)				Right Rear (3 Yr.)			
			Max	Time	Min	Time	Max	Time	Min	Time
Child Seat	X	G's	4.8	113.0	-39.5	53.0	7.5	202.8	-46.8	52.0
Child Seat	Y	G's	0.0	0.0	0.0	0.0	3.0	75.1	-3.2	127.6
Child Seat	Z	G's	7.9	223.5	-13.8	57.9	11.1	222.9	-21.7	54.7
Child Seat Resultant	N/A	G's	40.3	53.0			49.8	52.7		

SECTION F-1

DATA SHEET NO.5CRS PERFORMANCE DATA

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03

CRS PERFORMANCE DATA

Location	P3 CRS Serial No. 139		P4 CRS Serial No. 082	
	Damage	Description	Damage	Description
Upper Tether Strap	No	None	No	None
Upper Tether Buckle	No	None	No	None
Upper Tether Hook	No	None	No	None
Veh. Upper Tether Anchor	No	None	No	None
Lower Anchor Strap	No	None	N/A	N/A
Lower Anchor Buckle	No	None	N/A	N/A
Lower Anchor Hooks	No	None	No	None
Veh. Lower CRS Anchors	No	None	No	None
5 Point Harness Connections	No	None	No	None
Cracks on CRS	No	None	No	None
Fabric Tears on CRS	No	None	No	None
Vehicle Seat Structure	No	None	No	None
Vehicle Seat Fabric Tears	No	None	No	None

SECTION F-1

DATA SHEET NO.6CRS CAMERA DATA

Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

NHTSA No.: M45200

Test Program: 2003 NHTSA 35mph NCAP

Test Date: 9/3/03

CAMERA LOCATIONS

No.	Camera View	Location(mm)			Angle (Deg.)	Film Plane to Head	Lens (mm)	Speed (fps)
		X	Y	Z				
1	Real Time	9144	-6096	1372	0	N/A	N/A	30
2	Driver Side Child Dummy	2489	8230	2388	50	7944	6	990
3	Driver Side Child Dummy	2489	8230	1346	50	7848	50	DNR
4	Passenger Side Child Dummy	3048	-8839	2032	20	8459	35-85	1010
5	Passenger Side Child Dummy	2845	-8230	1524	10	7824	50	1100

X = Barrier Face Y = Monorail Centerline Z = Ground DNR = Did Not Run

SECTION F-2
PHOTOGRAPHS

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HIS PRODUCT AFTER D

Manufactured in 13AUG03

Model # 3691261 P1

Figure F2-1: Close-up View Position 3 CRS Label



Figure F2-2: Pre-Test Frontal View of Position 3 CRS



Figure F2-3: Post-Test Frontal View of Position 3 CRS



Figure F2-4: Pre-Test Rear View of Position 3 CRS



Figure F2-5: Post-Test Rear View of Position 3 CRS



Figure F2-6: Pre-Test Left Side View of Position 3 CRS



Figure F2-7: Post-Test Left Side View of Position 3 CRS



Figure F2-8: Pre-Test Right Side View of Position 3 CRS



Figure F2-9: Post-Test Right Side View of Position 3 CRS



Figure F2-10: Pre-Test Position 3 Front View



Figure F2-11: Post-Test Position 3 Front View



Figure F2-12: Pre-Test Position 3 Left Side View



Figure F2-13: Post-Test Position 3 Left Side View



Figure F2-14: Pre-Test Position 3 Right Side View



Figure F2-15: Post-Test Position 3 Right Side View



Figure F2-16: Post-Test Position 3 Contact Point (Back of Right Front Seat)



A close-up photograph of a white rectangular label with rounded corners, mounted on a dark, textured surface. The label contains four lines of black text, each with a label on the left and a value on the right. The text is as follows:

RESTRAINT MODEL:	E9L2906
SERIAL NUMBER:	E9L29061244
MANUFACTURED IN:	July 18, 2003
BATCH NUMBER:	504273

Figure F2-17: Close-up View Position 4 CRS Label



Figure F2-18: Pre-Test Frontal View of Position 4 CRS



Figure F2-19: Post-Test Front View of Position 4 CRS



Figure F2-20: Pre-Test Rear View of Position 4 CRS



Figure F2-21: Post-Test Rear View of Position 4 CRS



Figure F2-22: Pre-Test Left Side View of Position 4 CRS



Figure F2-23: Post-Test Left Side View of Position 4 CRS



Figure F2-24: Pre-Test Right Side View of Position 4 CRS



Figure F2-25: Post-Test Right Side View of Position 4 CRS



Figure F2-26: Pre-Test Position 4 Front View



Figure F2-27: Post-Test Position 4 Front View



Figure F2-28: Pre-Test Position 4 Left Side View



Figure F2-29: Post-Test Position 4 Left Side View



Figure F2-30: Pre-Test Position 4 Right Side View



Figure F2-31: Post-Test Position 4 Right Side View



Figure F2-32: Post-Test Position 4 Contact Point (Back of Left Front Seat)

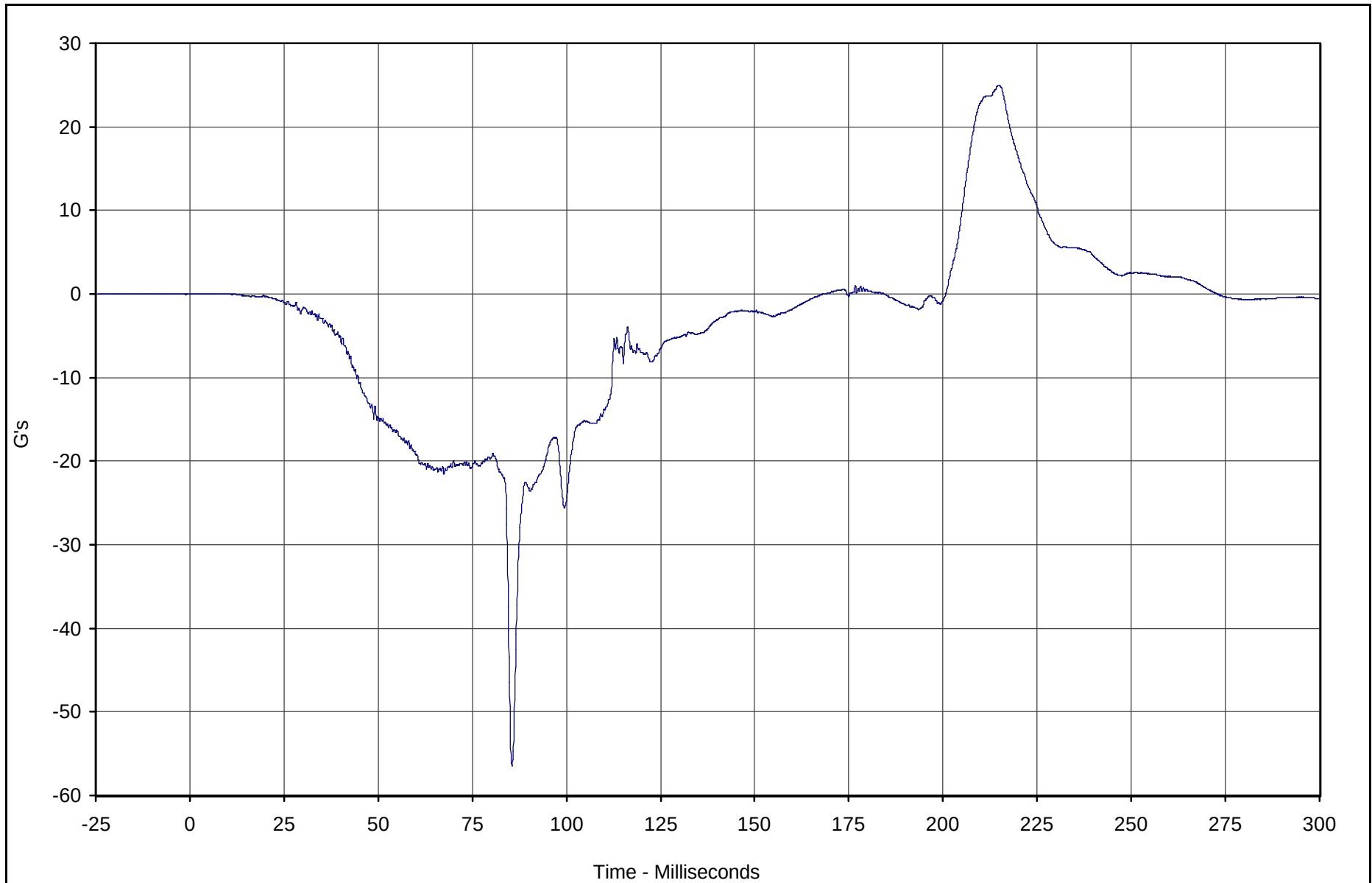
SECTION F-3
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Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Head X	134	FIL	G's	25.0	214.8	-56.5	85.6	1000

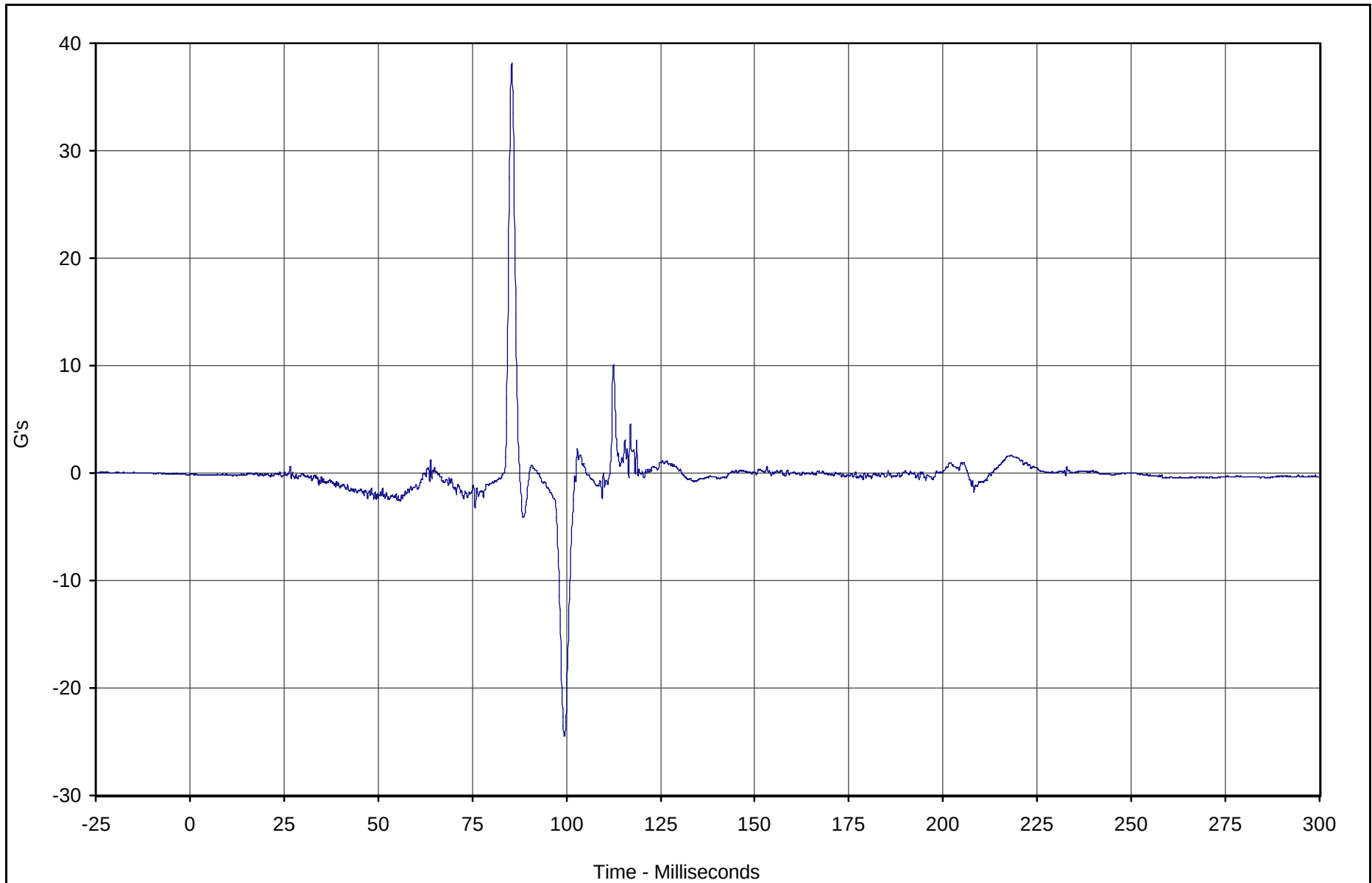


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Head Y	135	FIL	G's	38.2	85.5	-24.5	99.5	1000

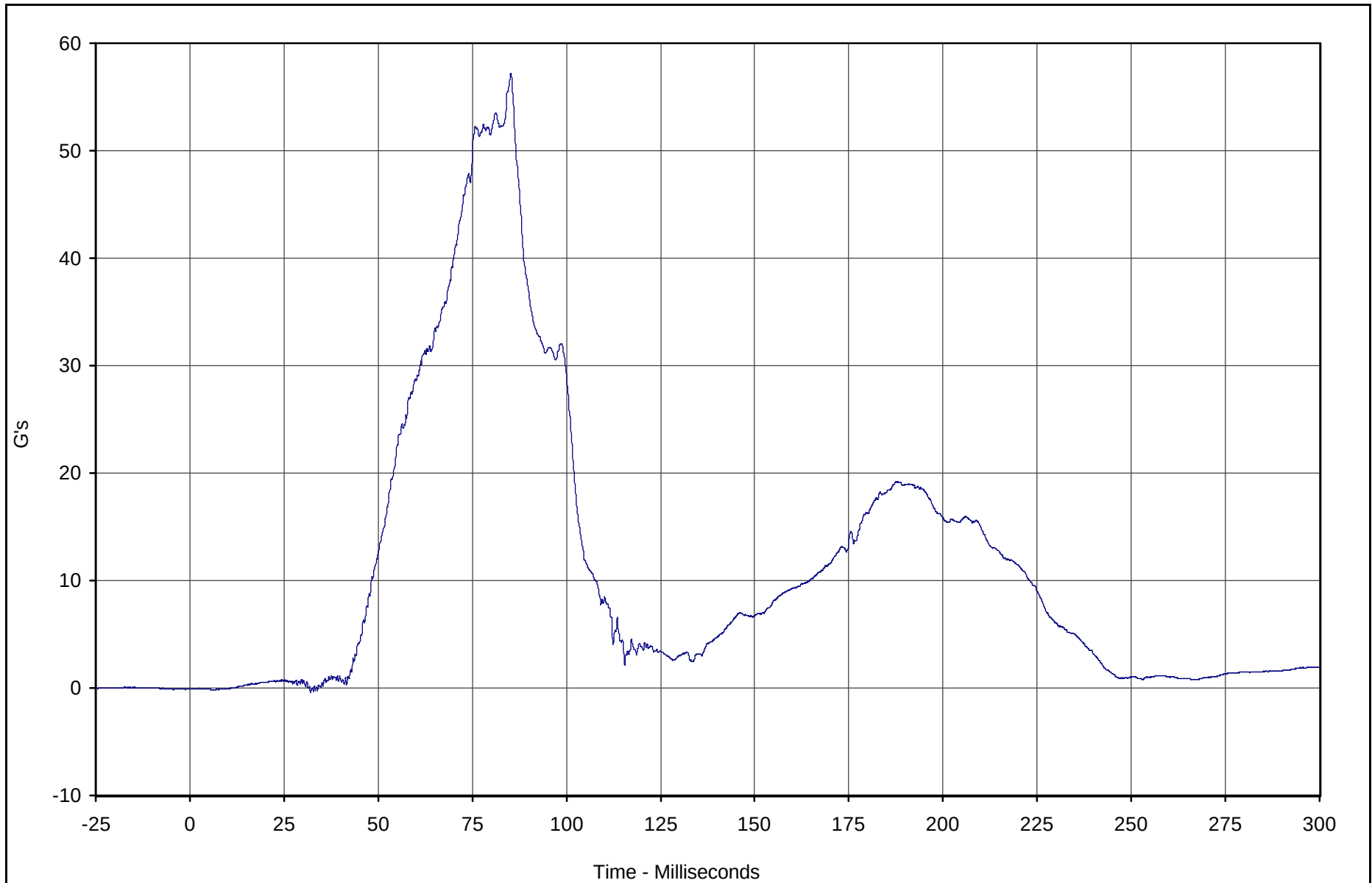


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Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Head Z	136	FIL	G's	57.2	85.3	-0.5	32.1	1000

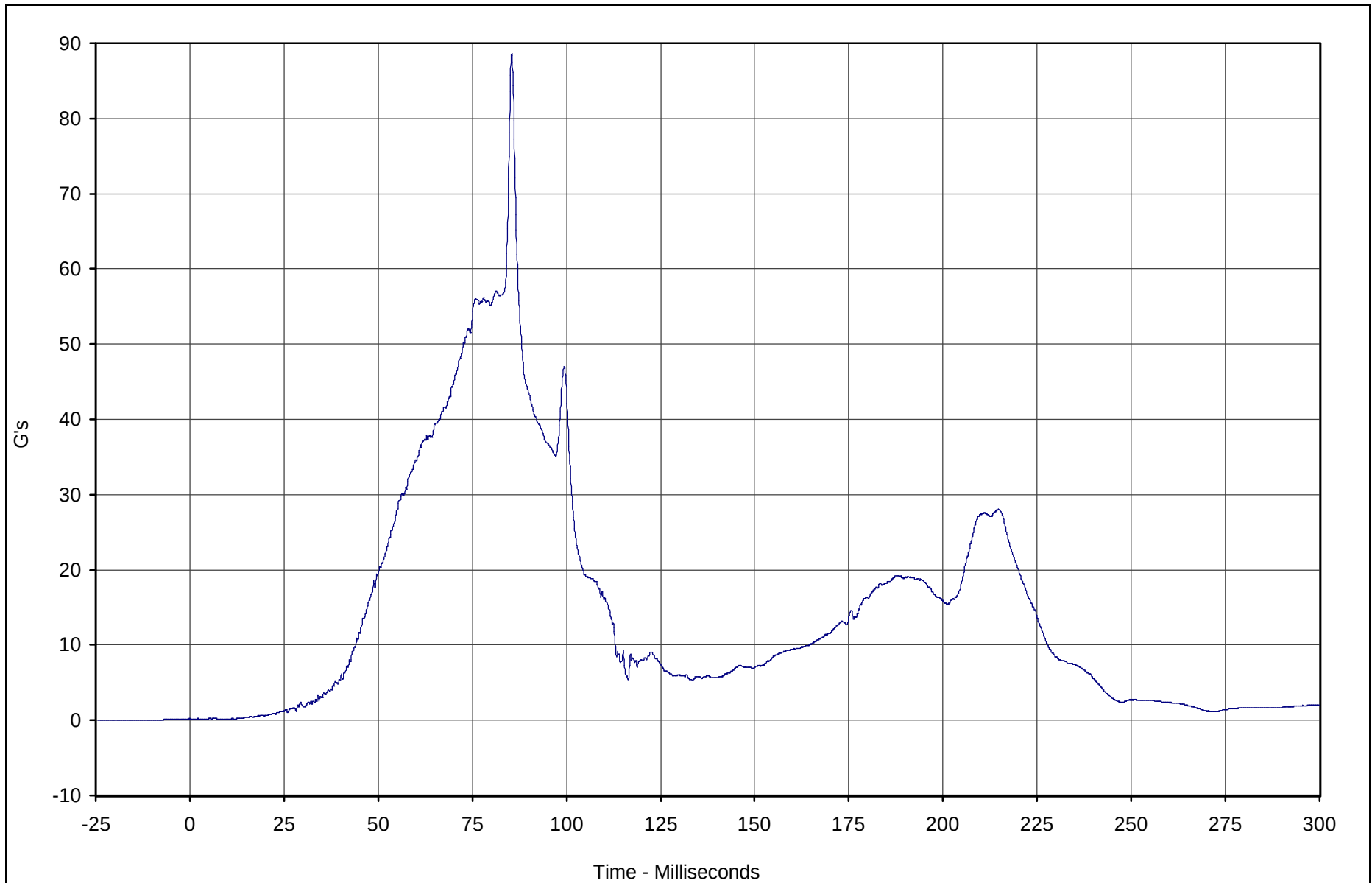


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Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Head Resultant	134	RES	G's	88.6	85.5	0.1	0.3	1000

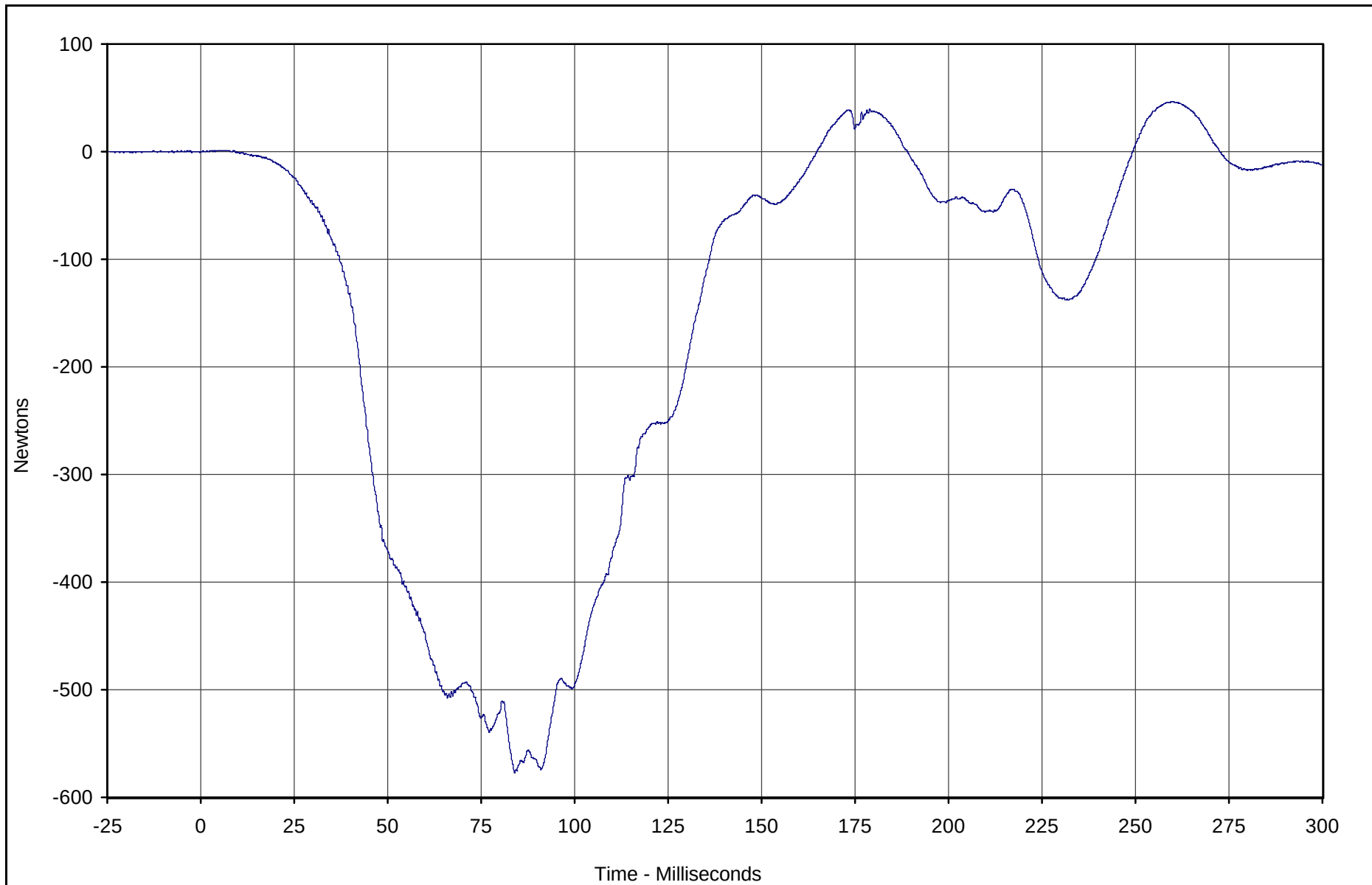


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Upper Neck Force X	137	FIL	Newtons	46.5	259.6	-577.2	84.0	1000

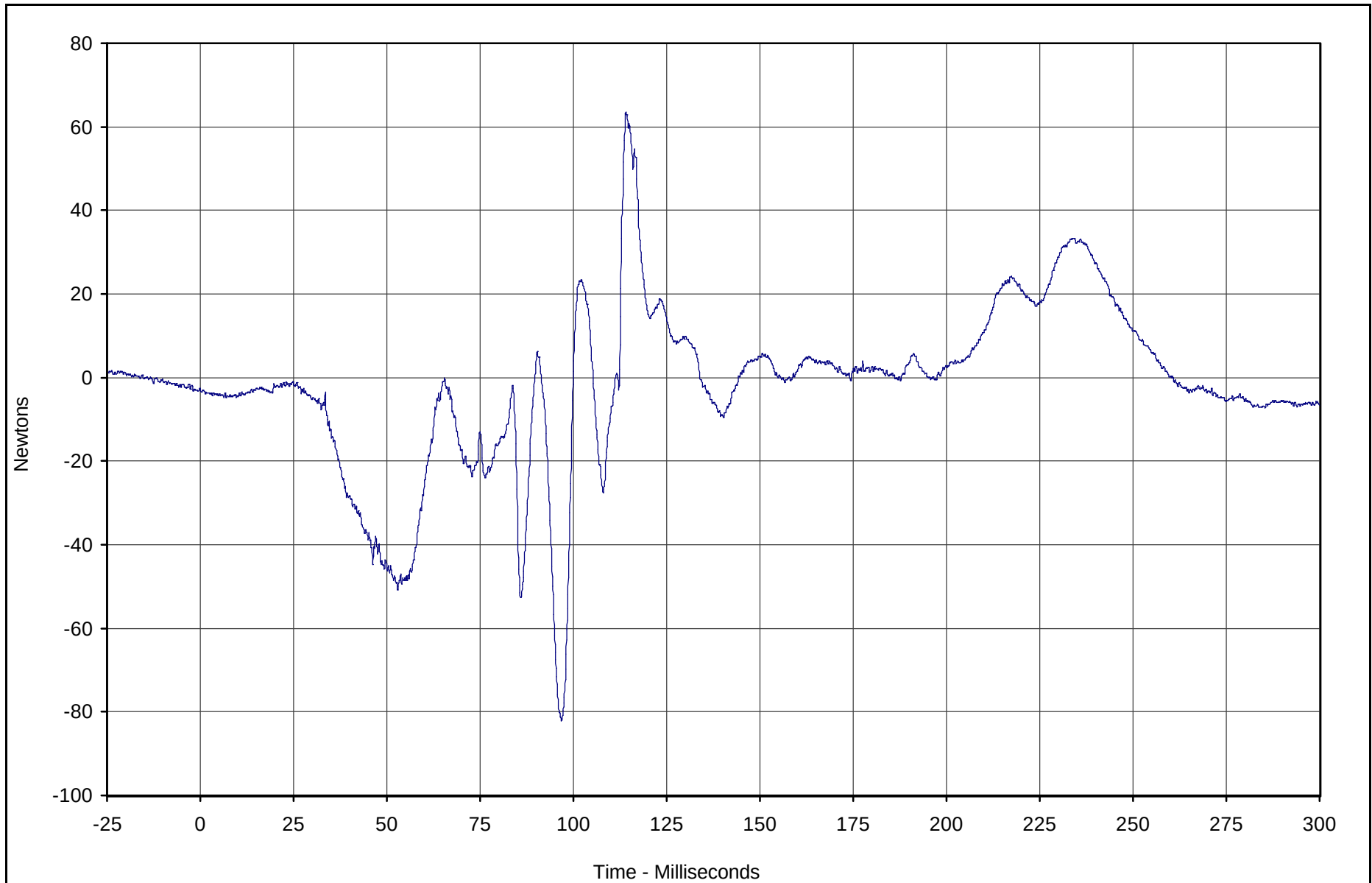


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Upper Neck Force Y	138	FIL	Newtons	63.5	114.1	-82.1	96.8	1000

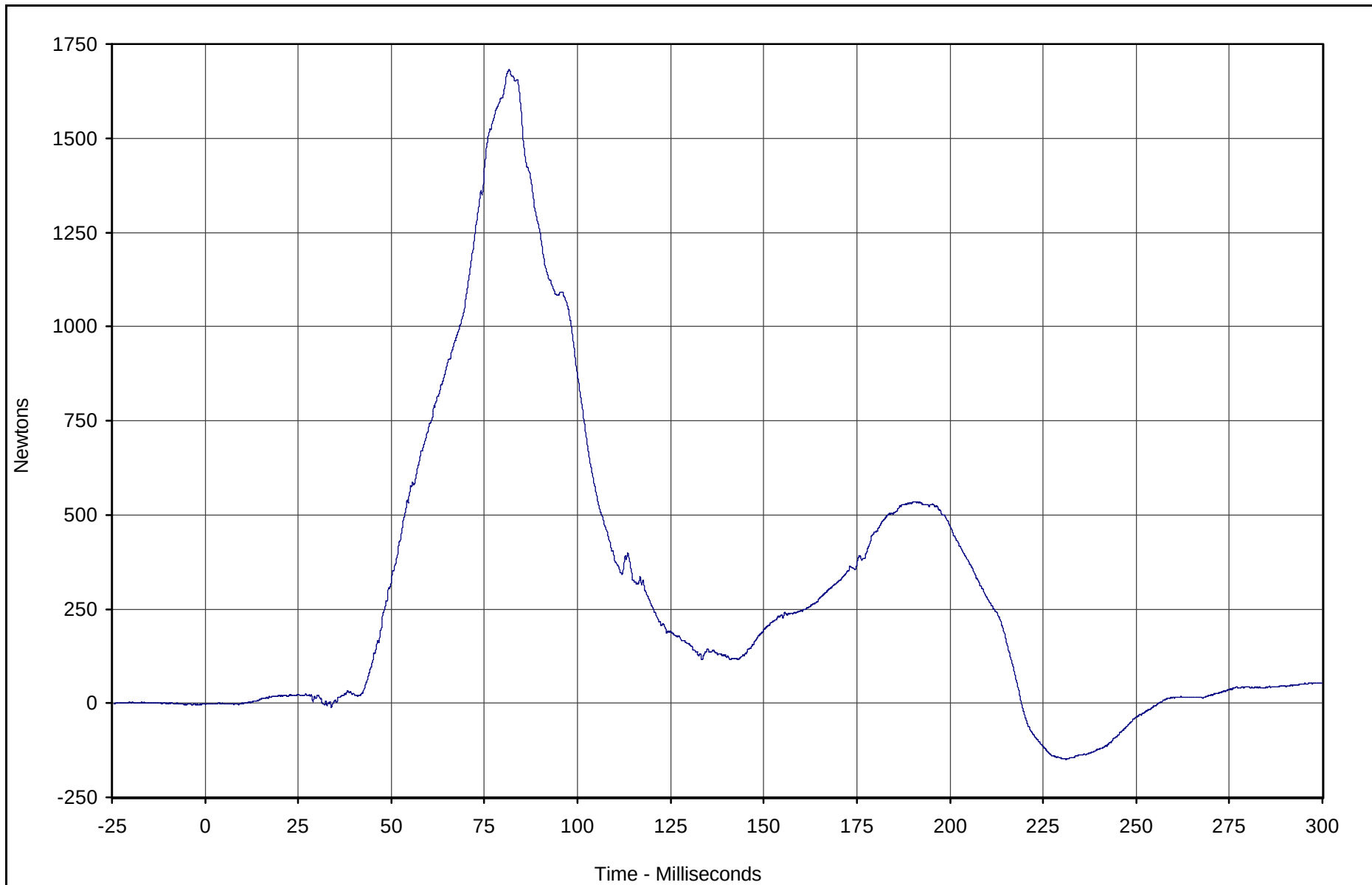


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Upper Neck Force Z	139	FIL	Newtons	1681.1	81.7	-148.9	231.1	1000

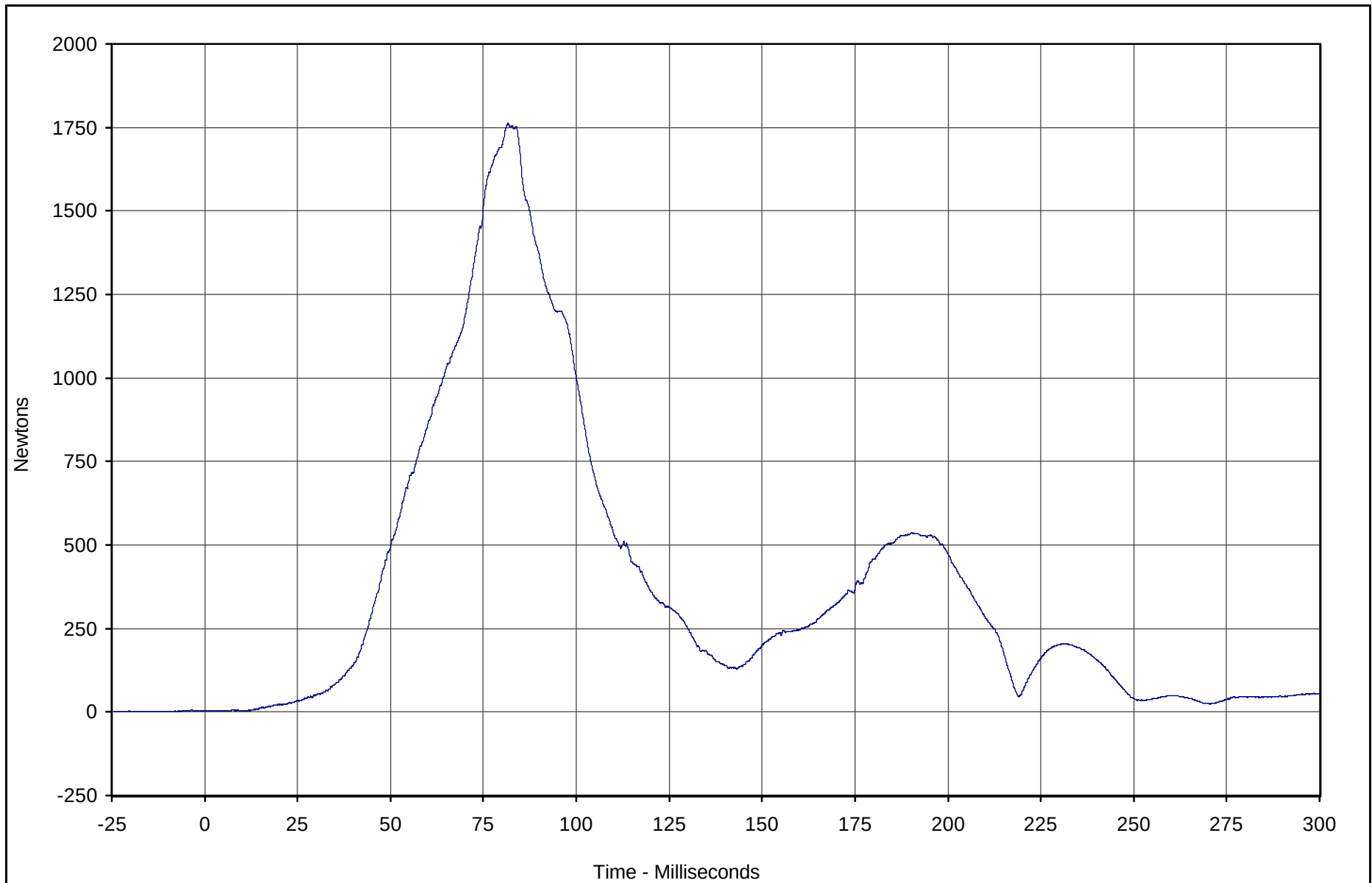


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Upper Neck Force Res.	137	RES	Newtons	1761.8	81.7	3.6	0.8	1000

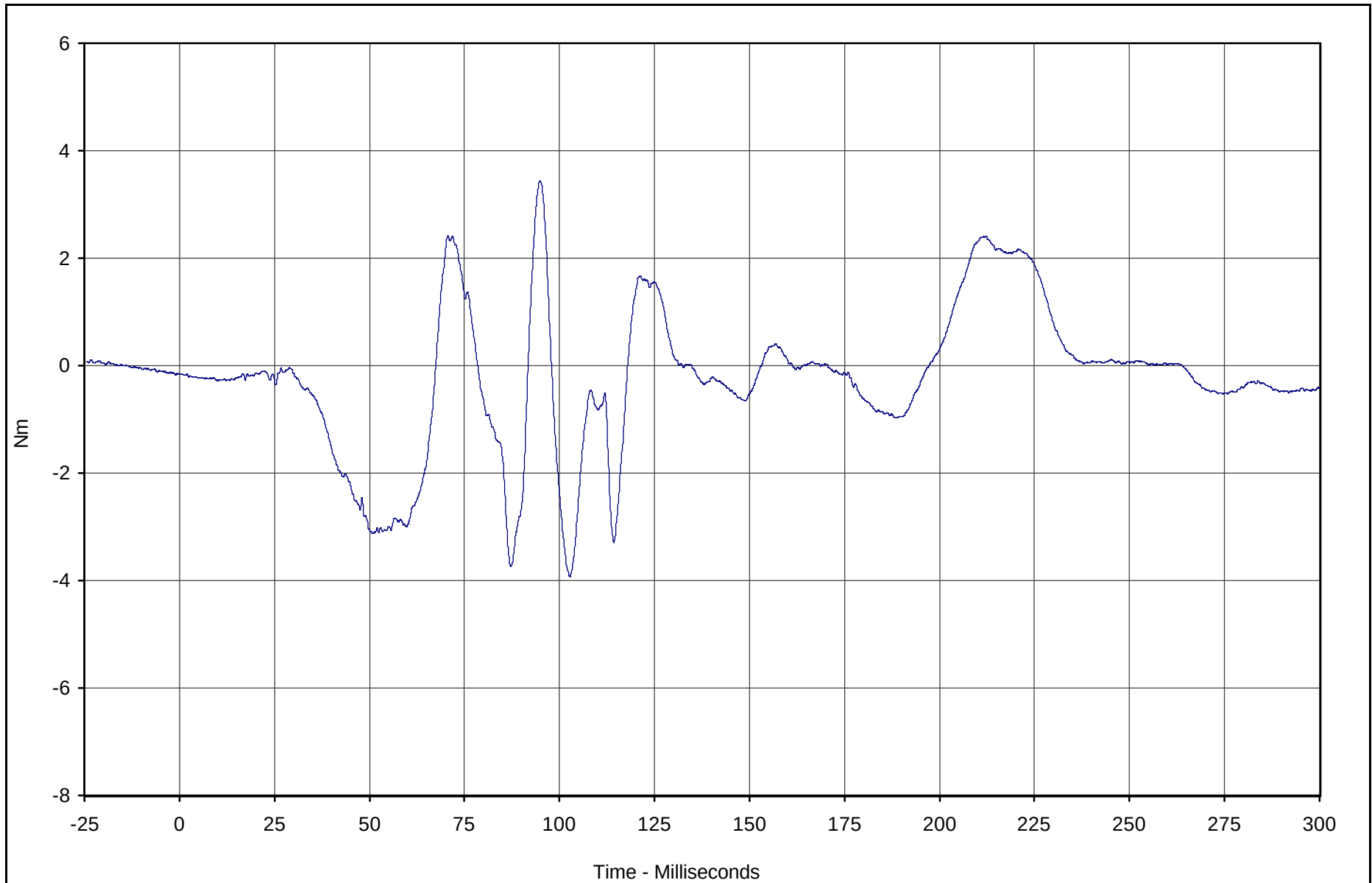


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Upper Neck Moment X	140	FIL	Nm	3.4	94.9	-3.9	102.7	600

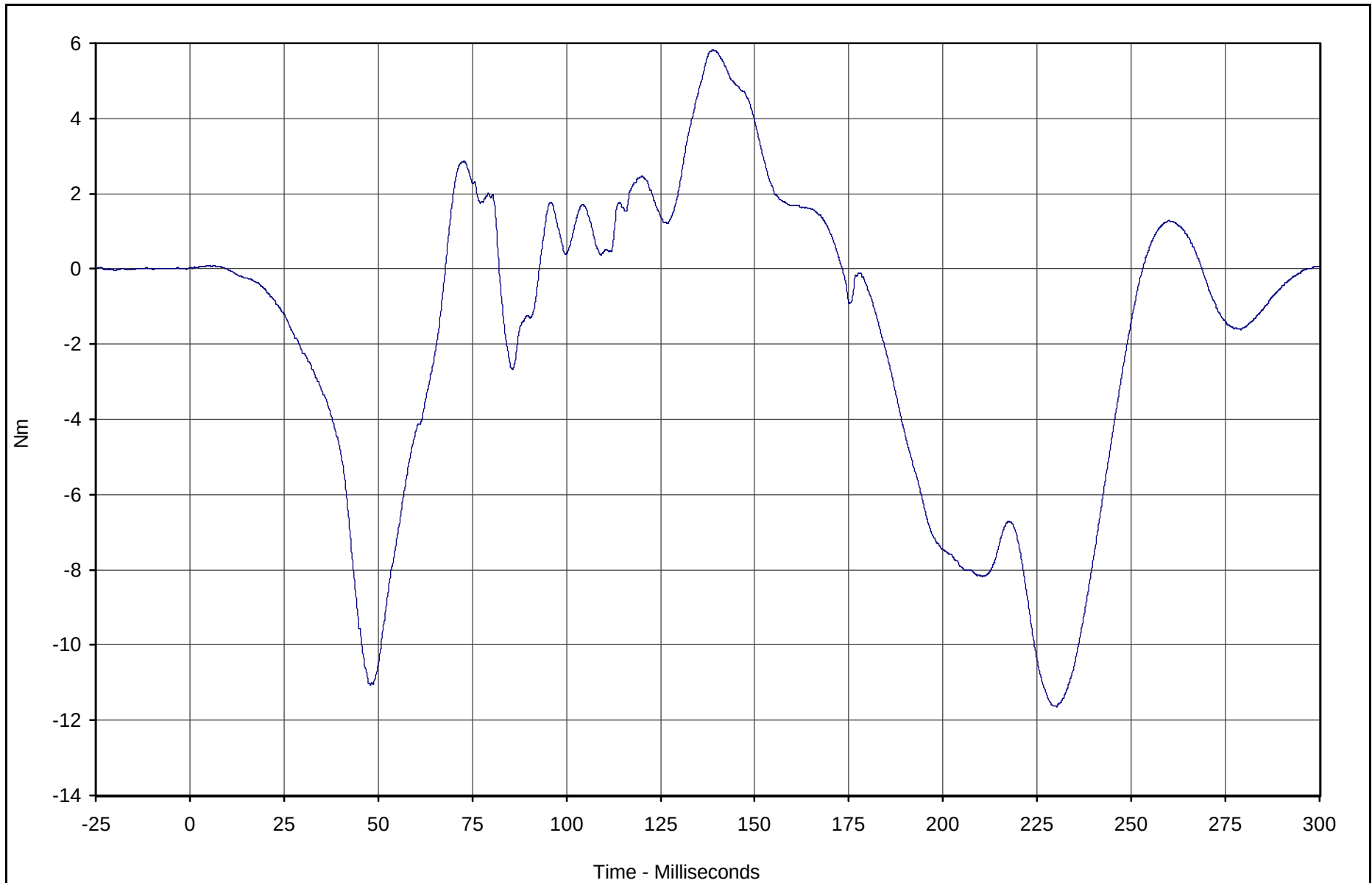


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Upper Neck Moment Y	141	FIL	Nm	5.8	138.9	-11.6	230.1	600

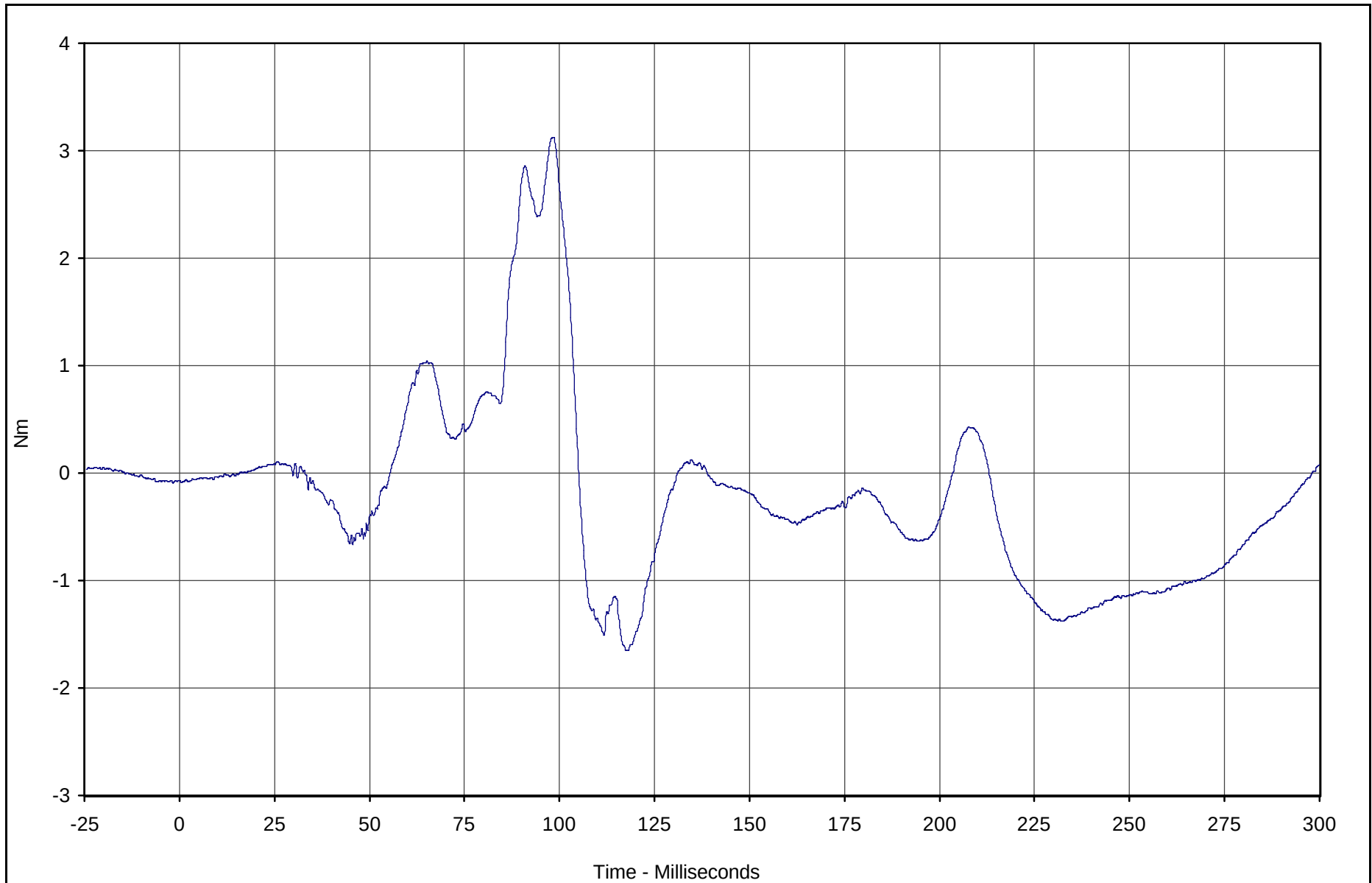


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Upper Neck Moment Z	142	FIL	Nm	3.1	98.4	-1.7	117.9	600

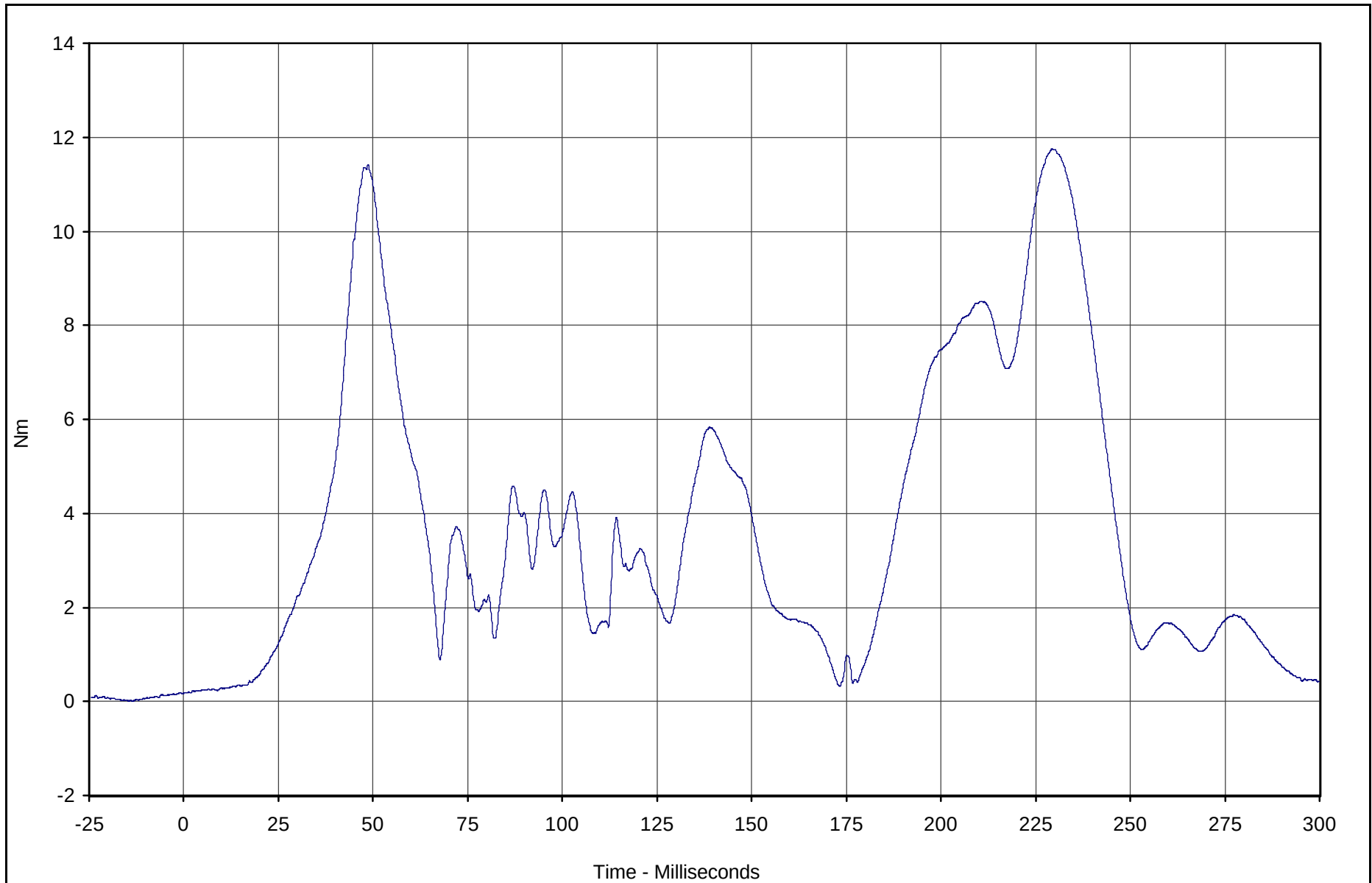


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Upper Neck Mom Res.	140	RES	Nm	11.7	229.3	0.2	0.0	600

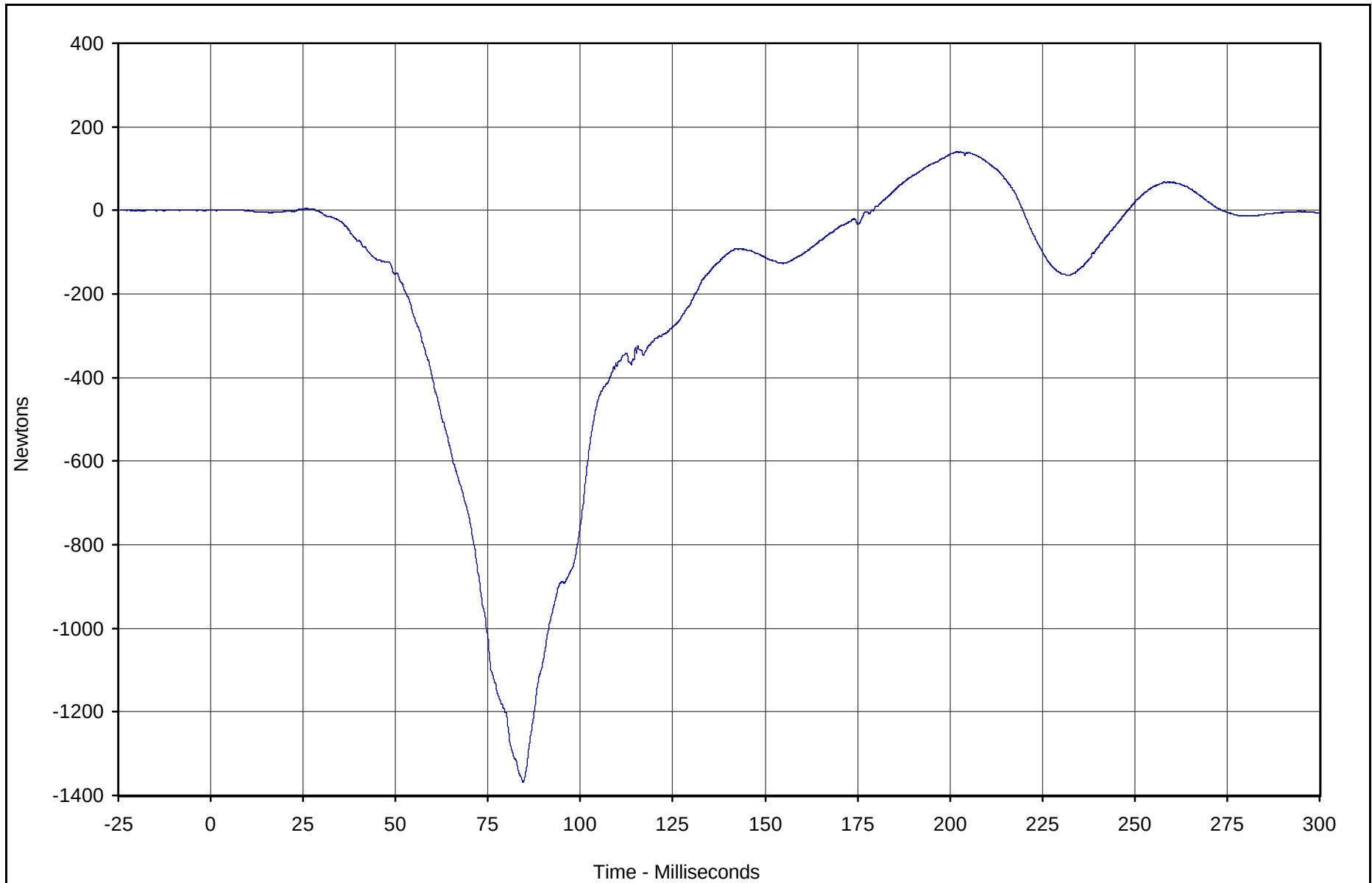


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Lower Neck Force X	143	FIL	Newtons	141.0	201.9	-1367.4	84.6	1000

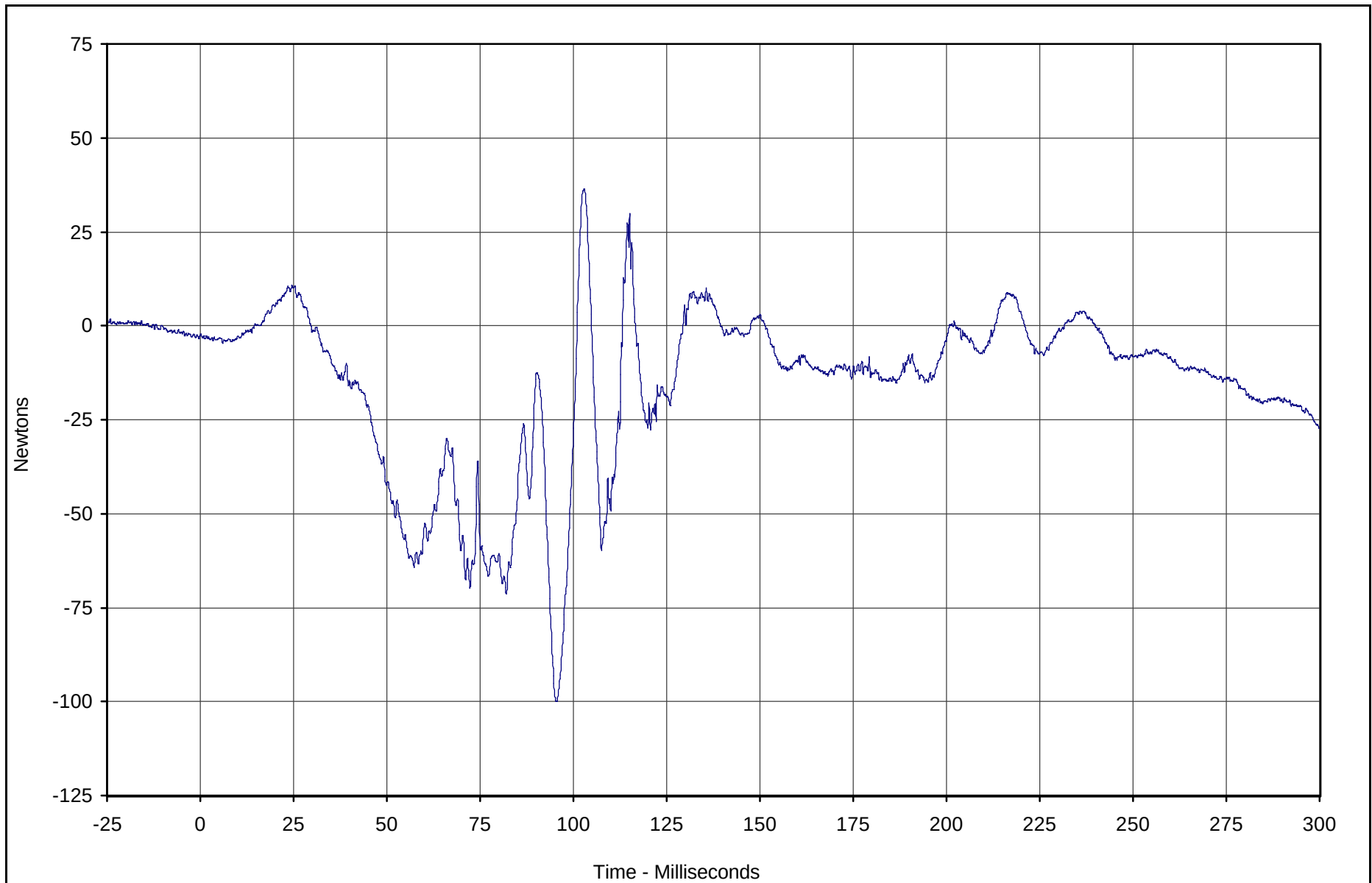


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Lower Neck Force Y	144	FIL	Newtons	36.4	102.9	-99.9	95.6	1000

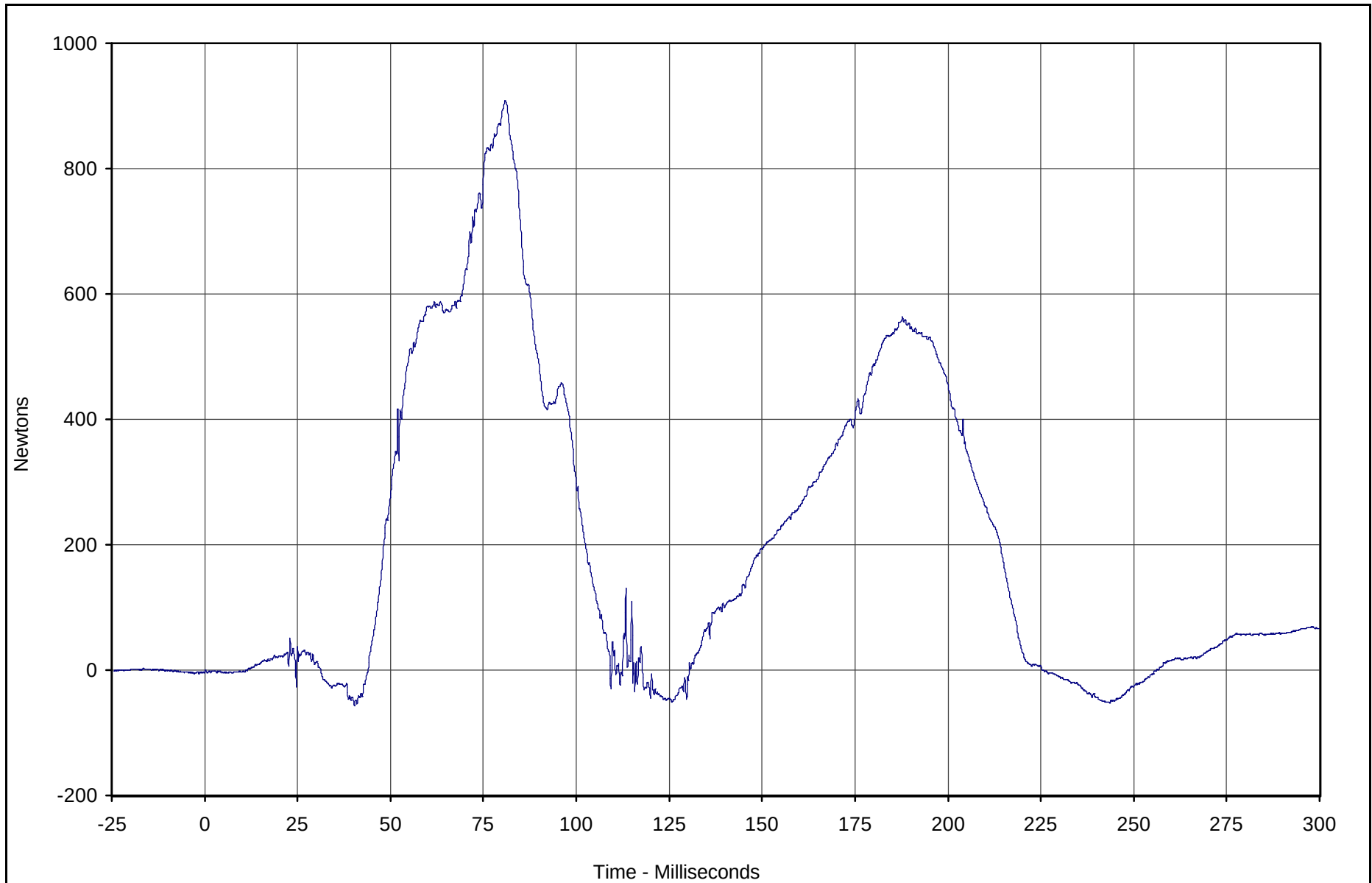


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Lower Neck Force Z	145	FIL	Newtons	908.2	80.9	-56.6	40.3	1000

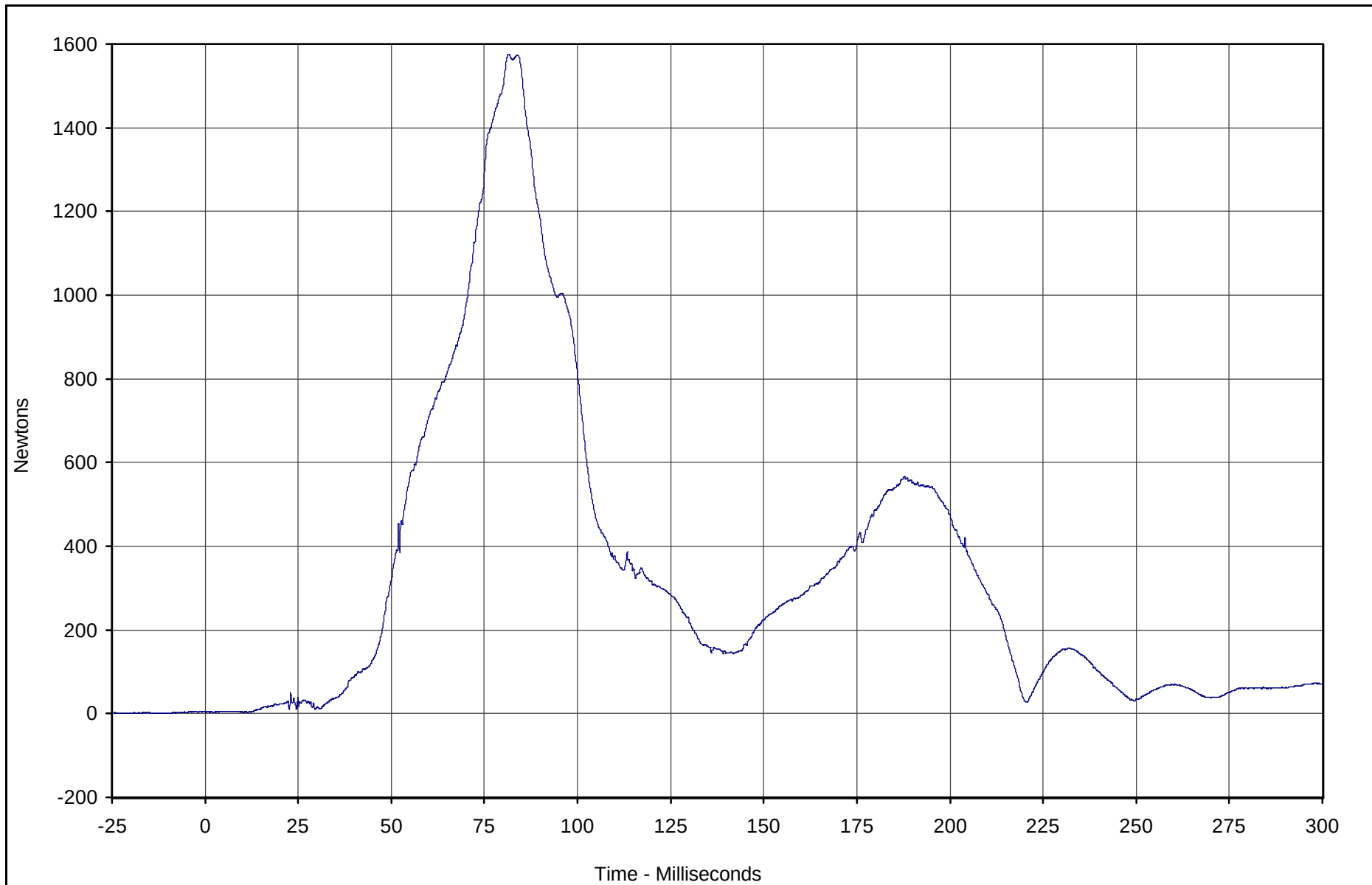


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Lower Neck Force Res.	143	RES	Newtons	1576.0	81.5	2.3	0.2	1000

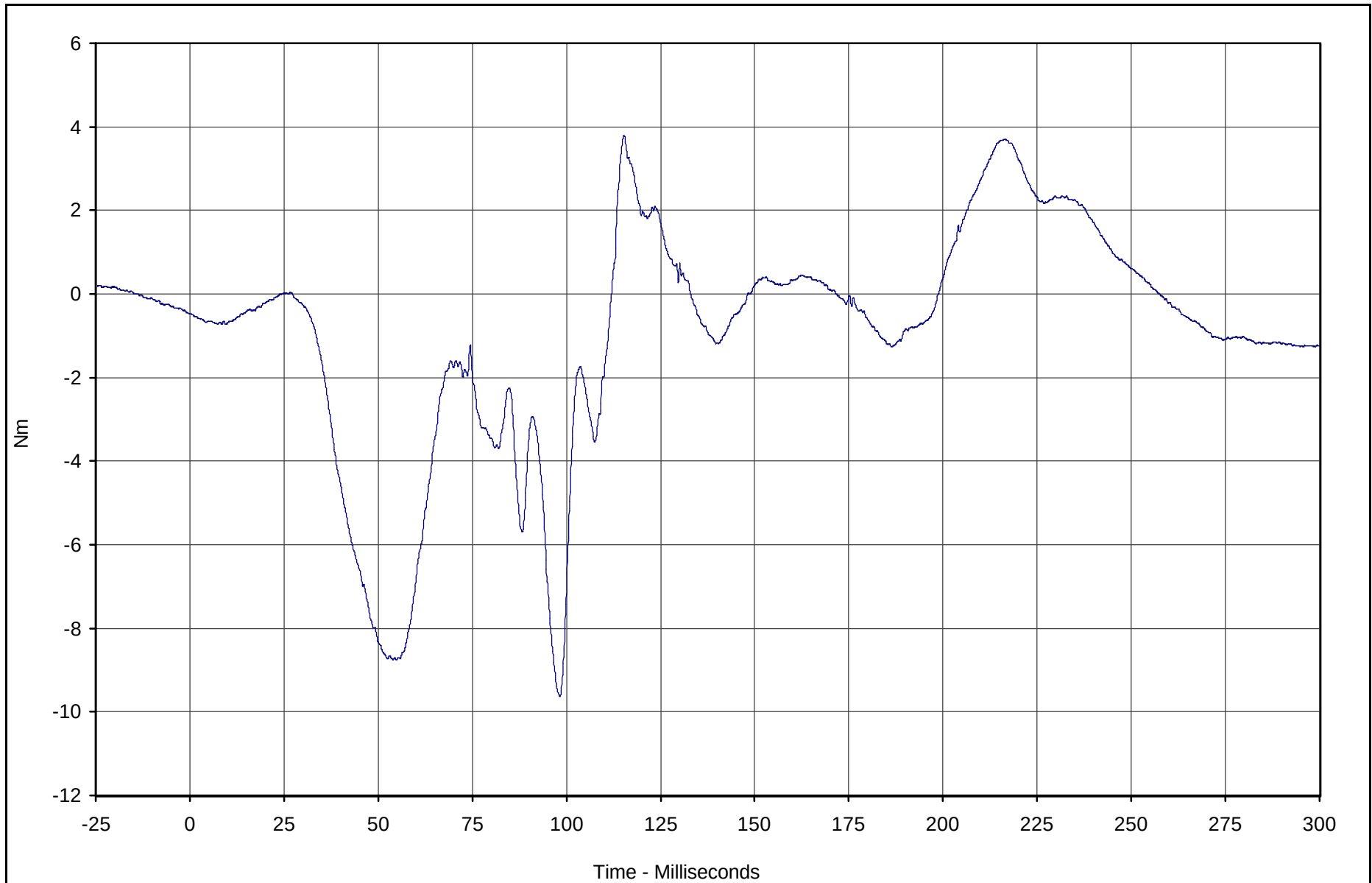


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Lower Neck Moment X	146	FIL	Nm	3.8	115.2	-9.6	98.3	600

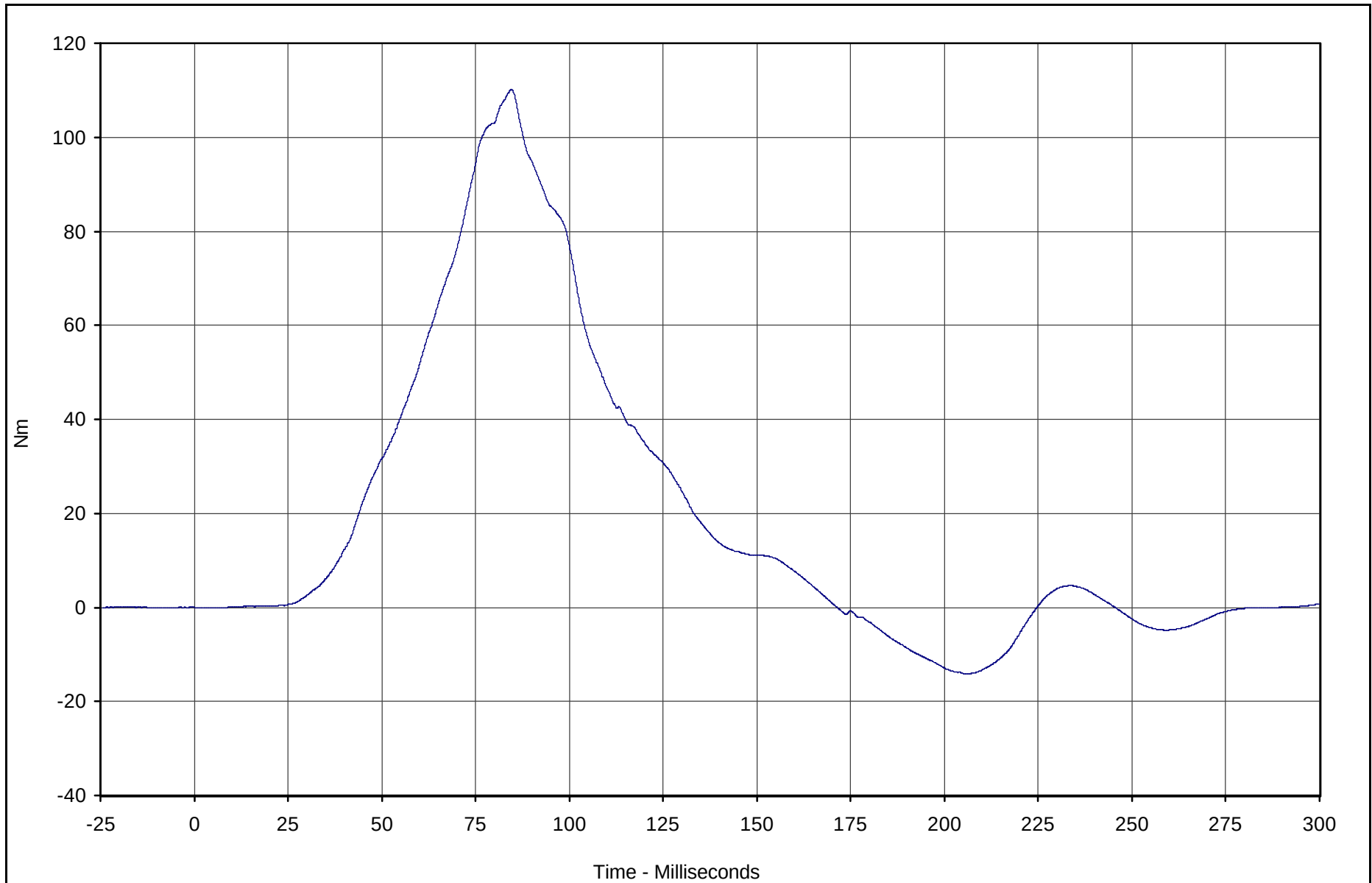


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Lower Neck Moment Y	147	FIL	Nm	110.1	84.6	-14.1	206.8	600

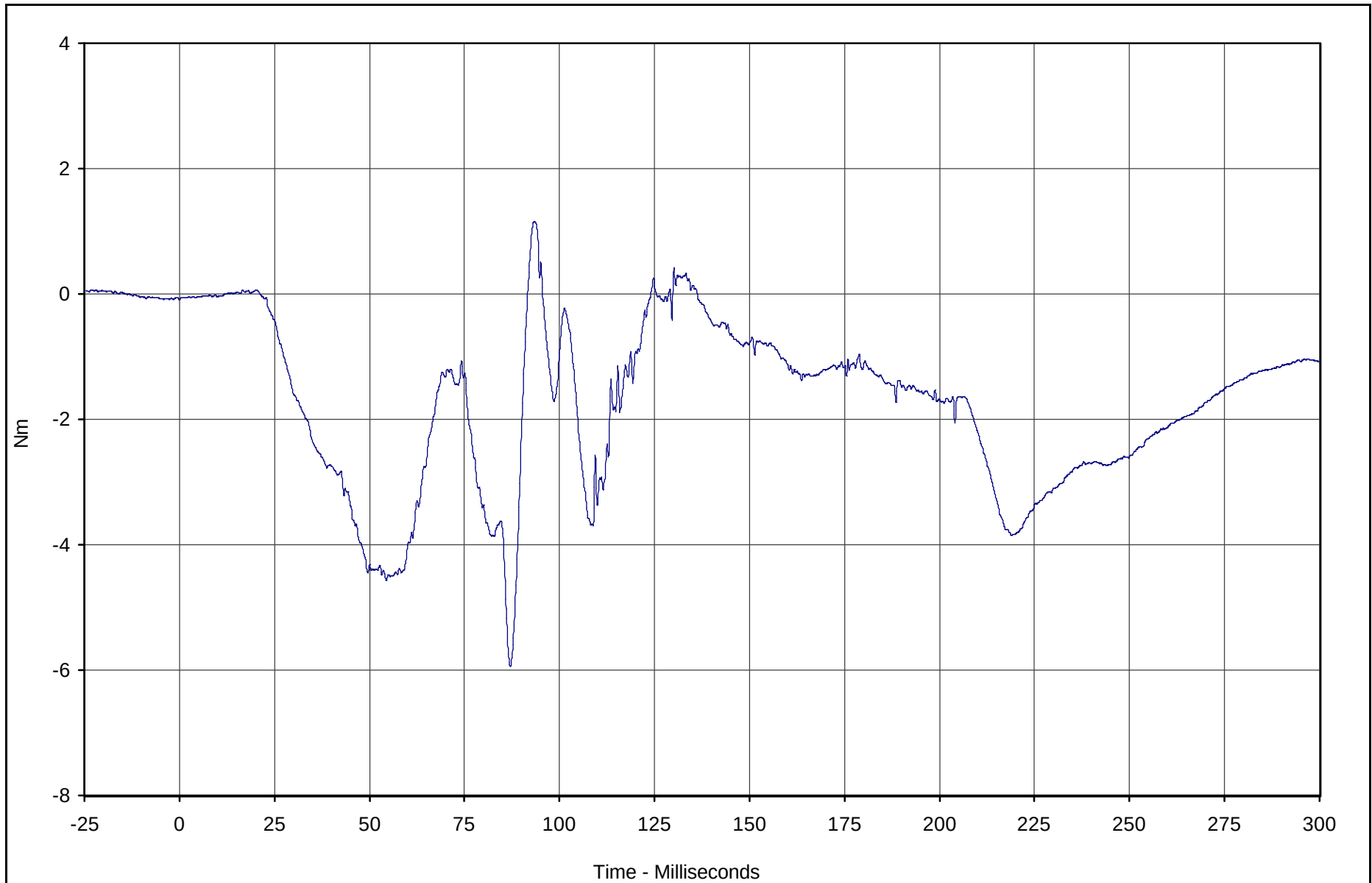


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Lower Neck Moment Z	148	FIL	Nm	1.2	93.5	-5.9	87.1	600

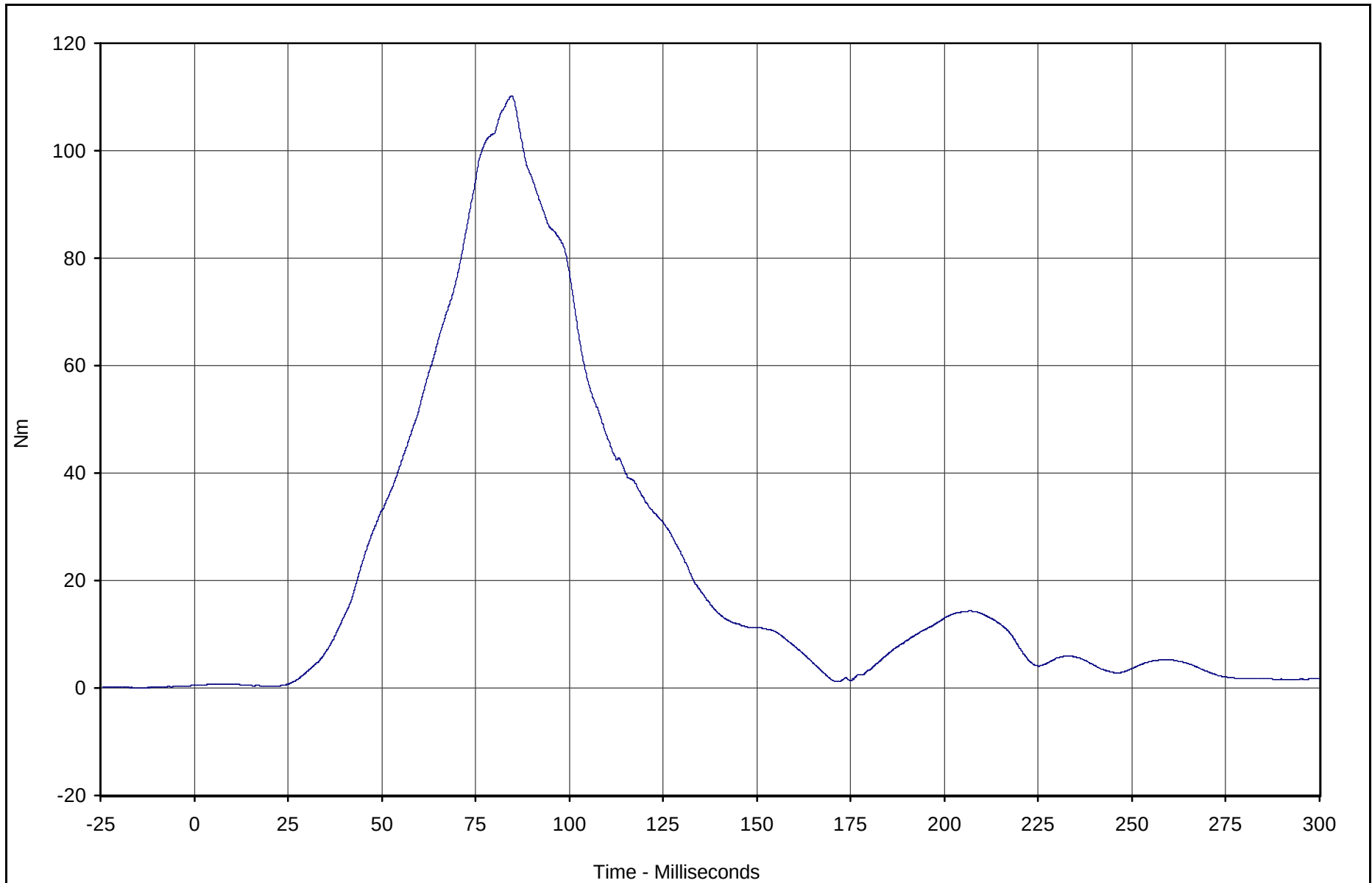


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Lower Neck Mom Res.	146	RES	Nm	110.2	84.6	0.3	21.0	600

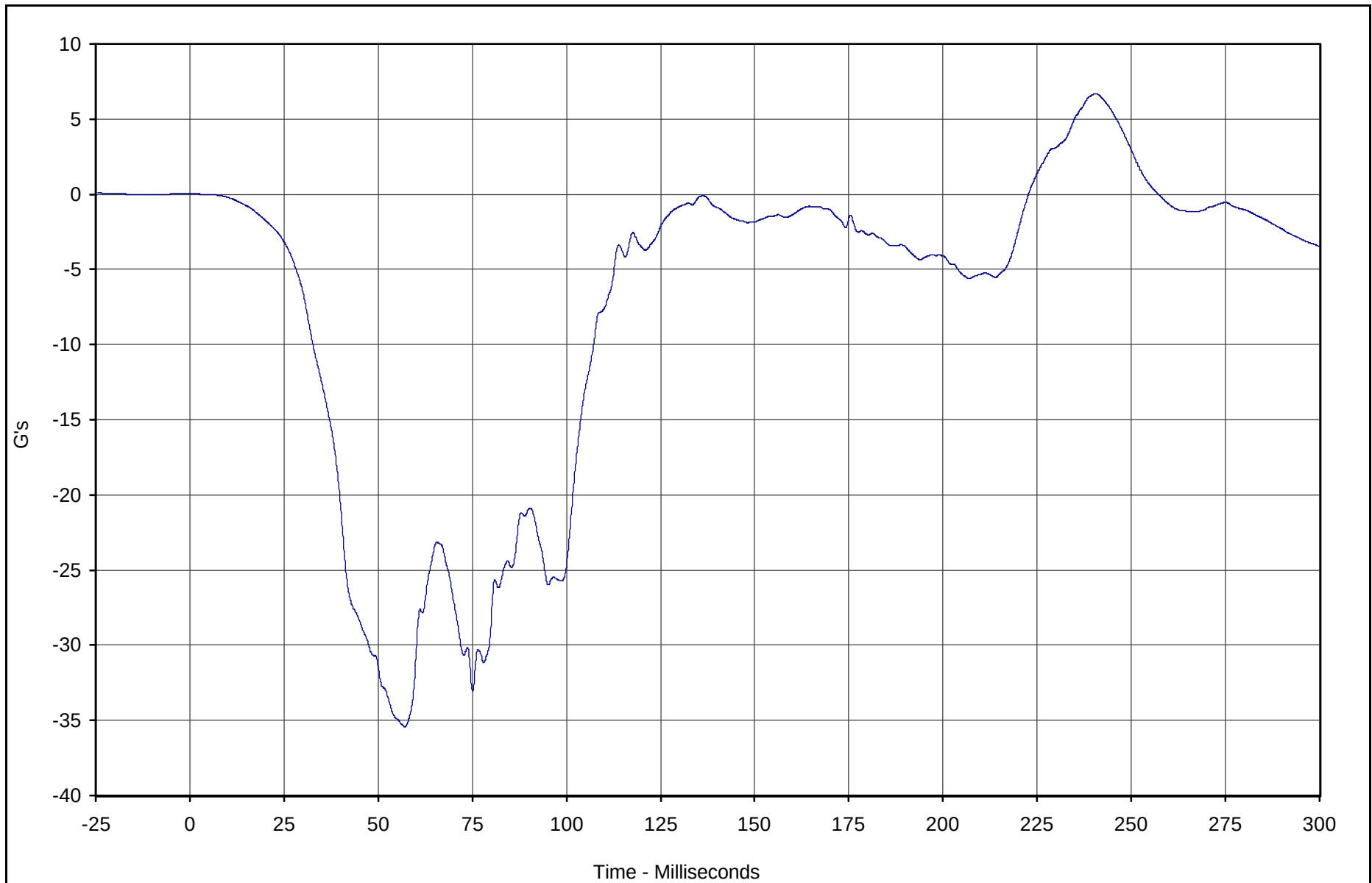


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Chest X	149	FIL	G's	6.7	240.6	-35.4	57.1	180

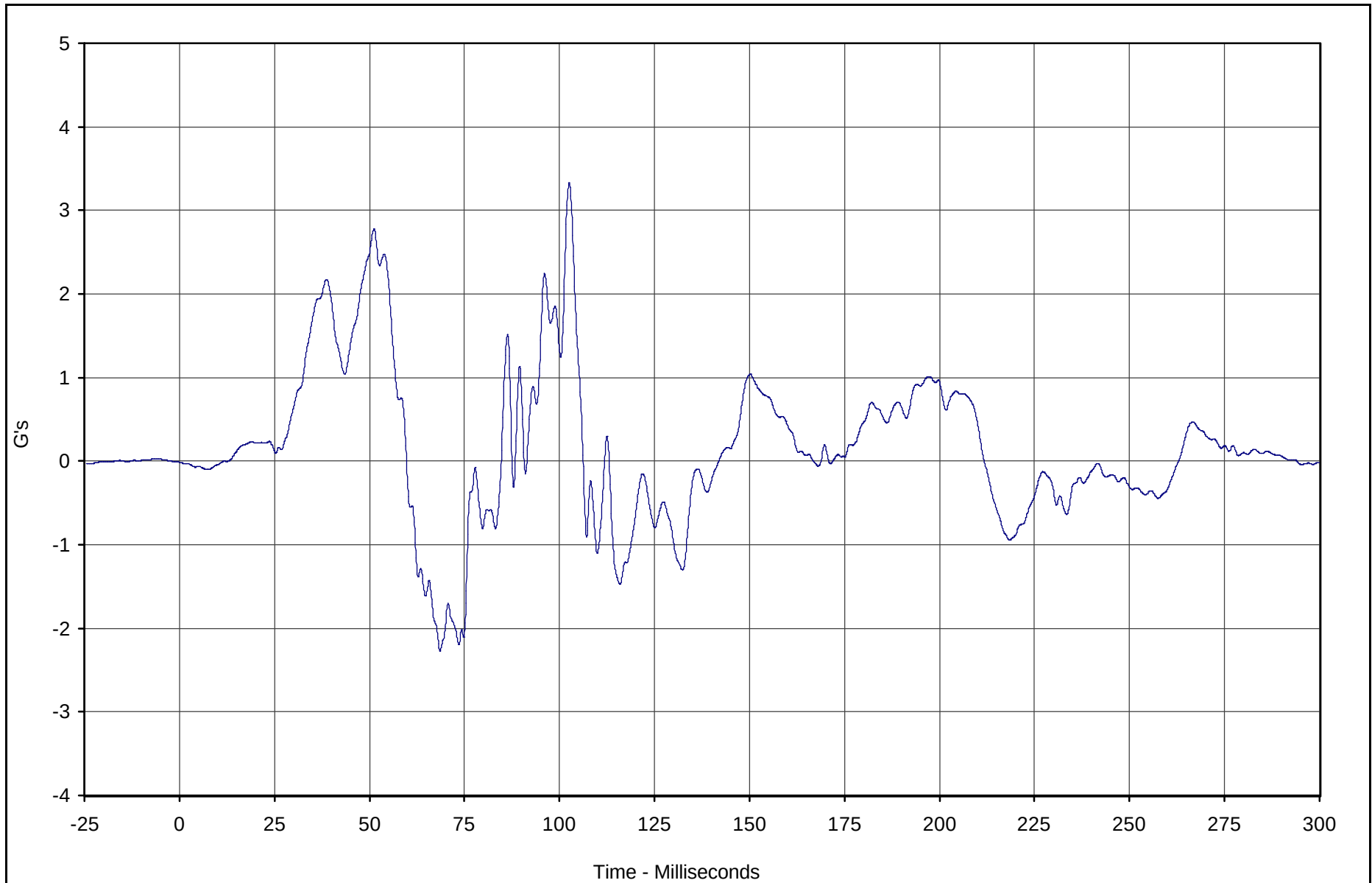


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Chest Y	150	FIL	G's	3.3	102.6	-2.3	68.6	180

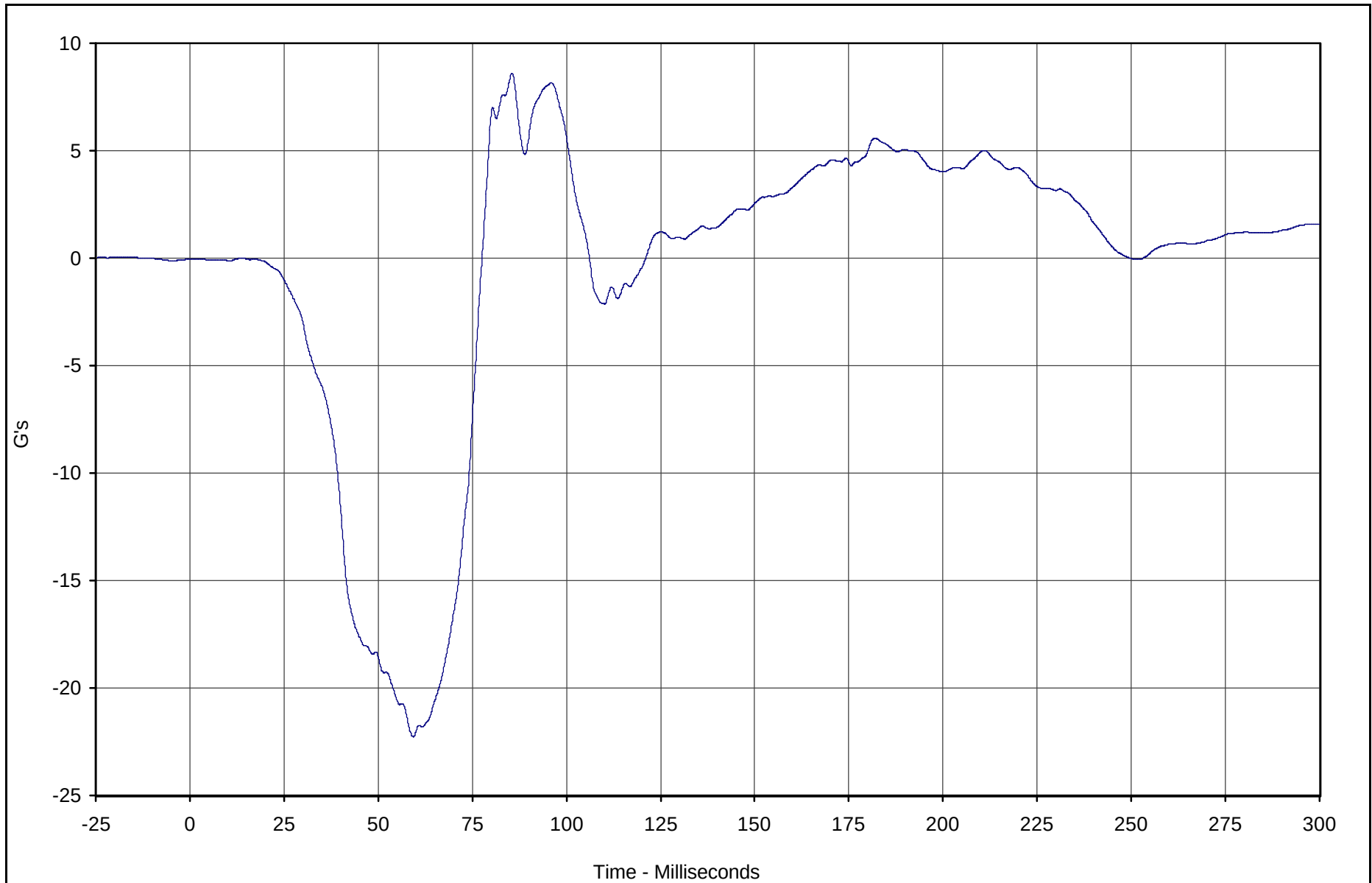


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Chest Z	151	FIL	G's	8.6	85.6	-22.3	59.4	180

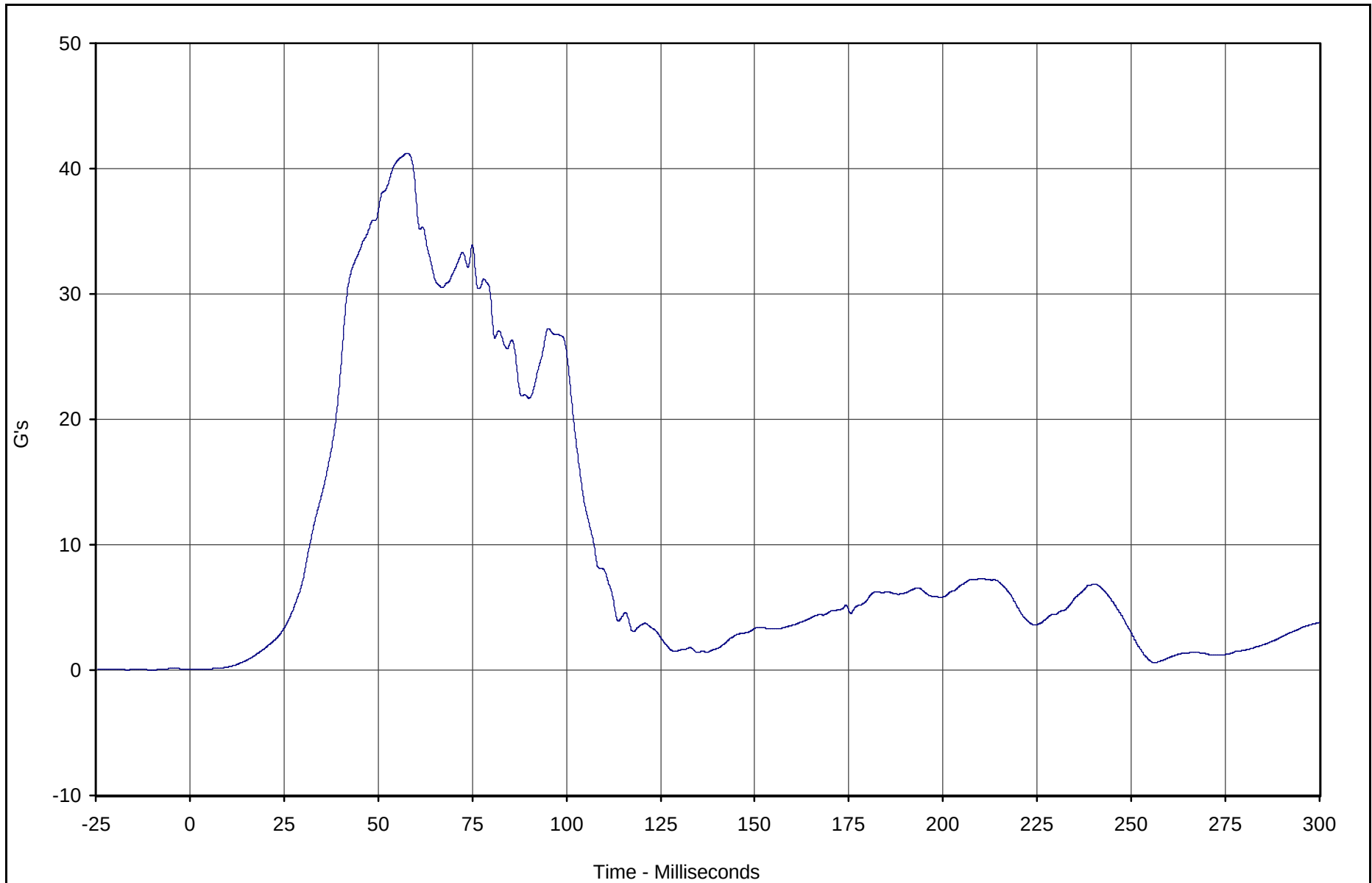


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Chest Resultant	149	RES	G's	41.2	57.7	0.1	2.2	180

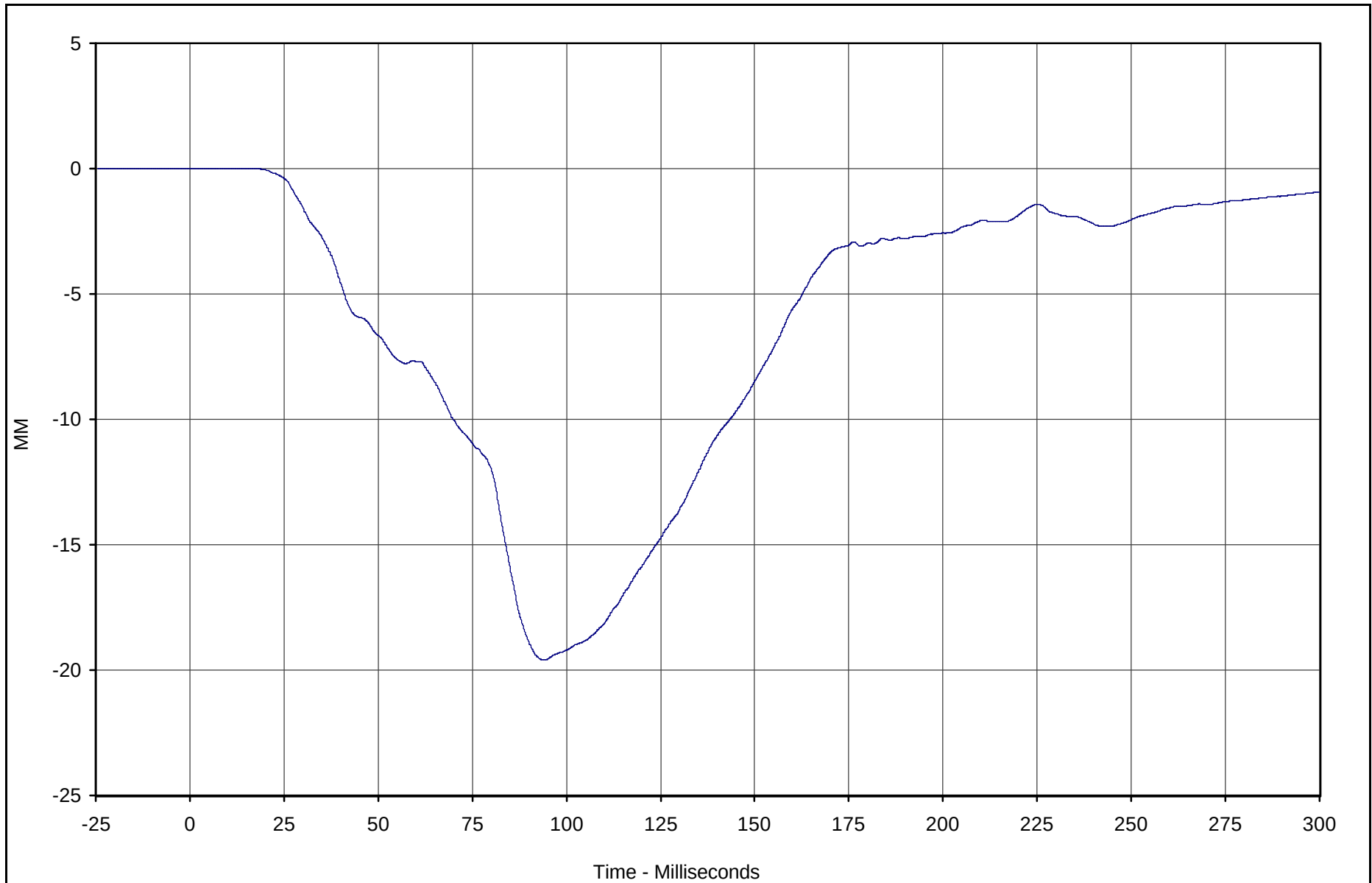


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Chest Displacement	152	FIL	MM	0.0	7.0	-19.6	93.8	600

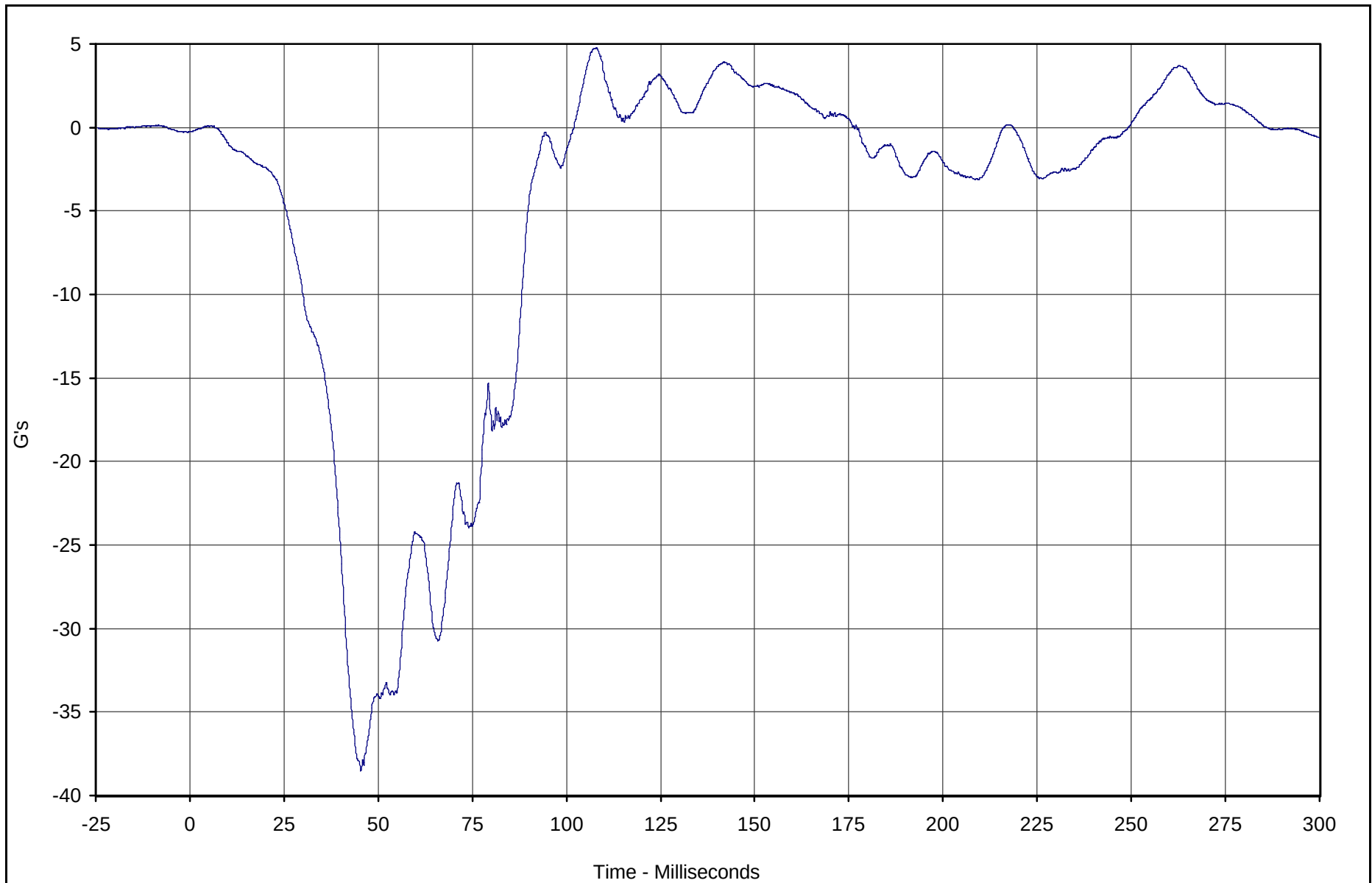


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Pelvis X	153	FIL	G's	4.7	108.0	-38.5	45.4	1000

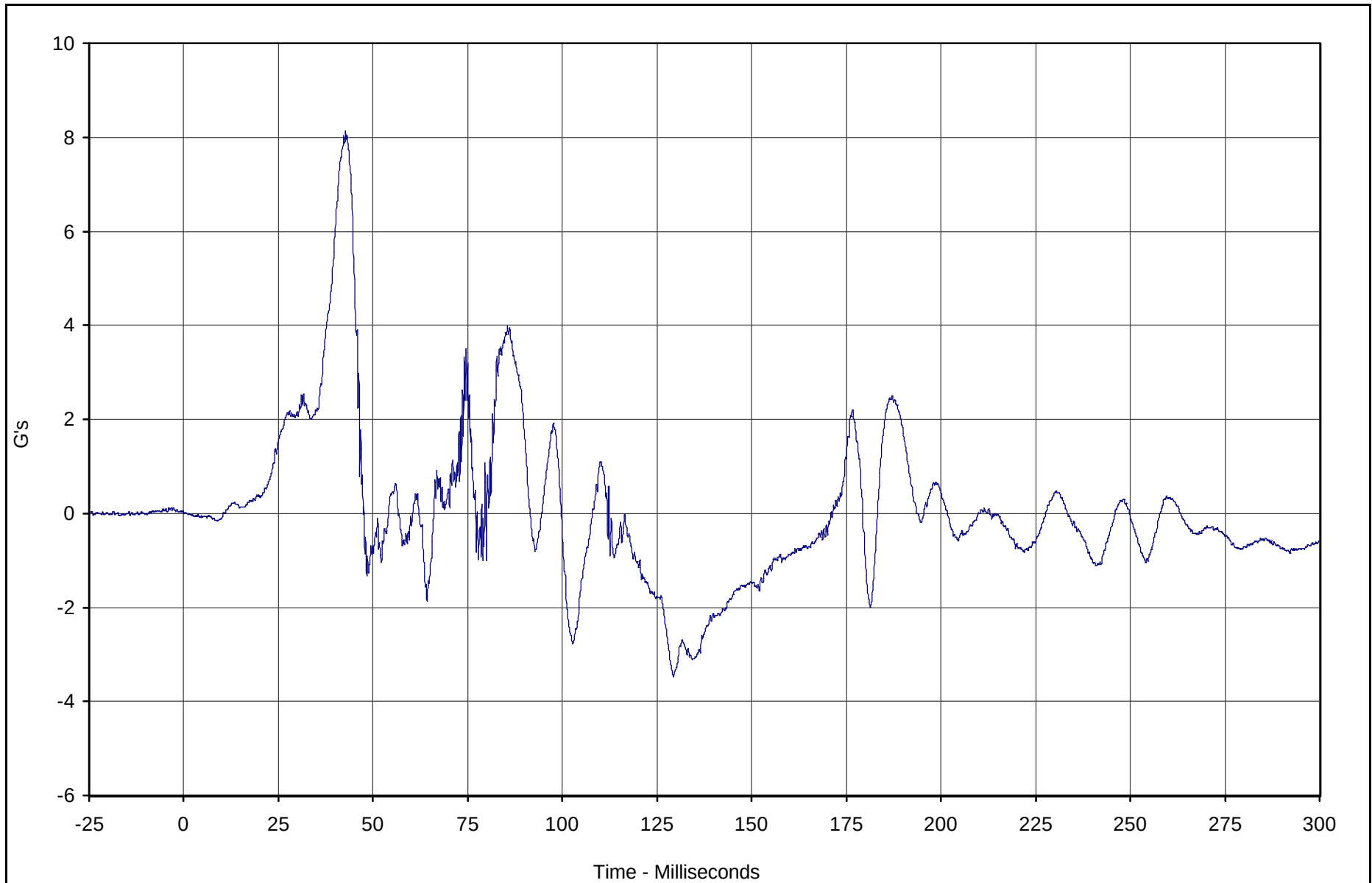


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Pelvis Y	154	FIL	G's	8.1	42.8	-3.5	129.4	1000

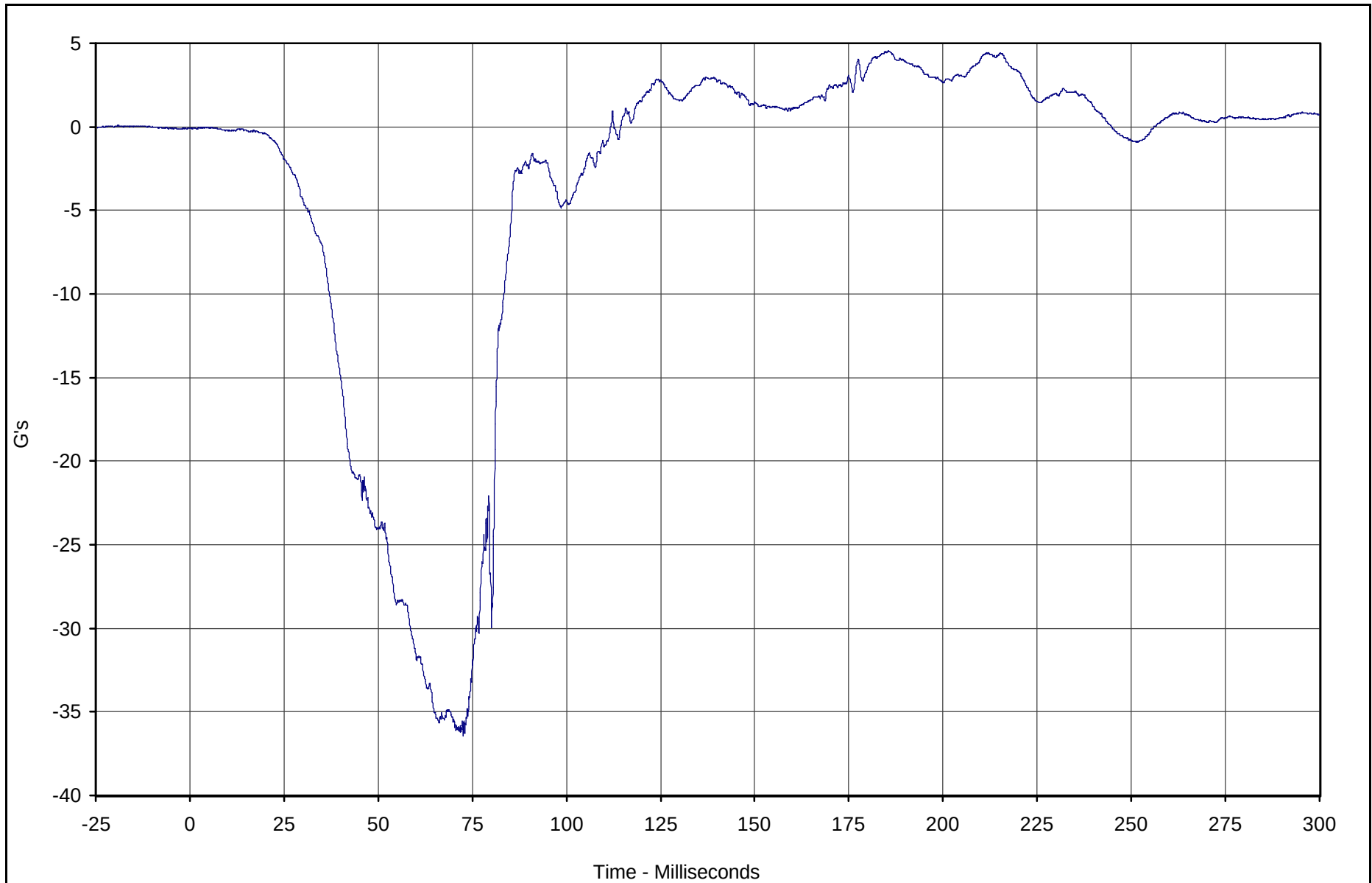


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Pelvis Z	155	FIL	G's	4.5	185.4	-36.4	72.6	1000

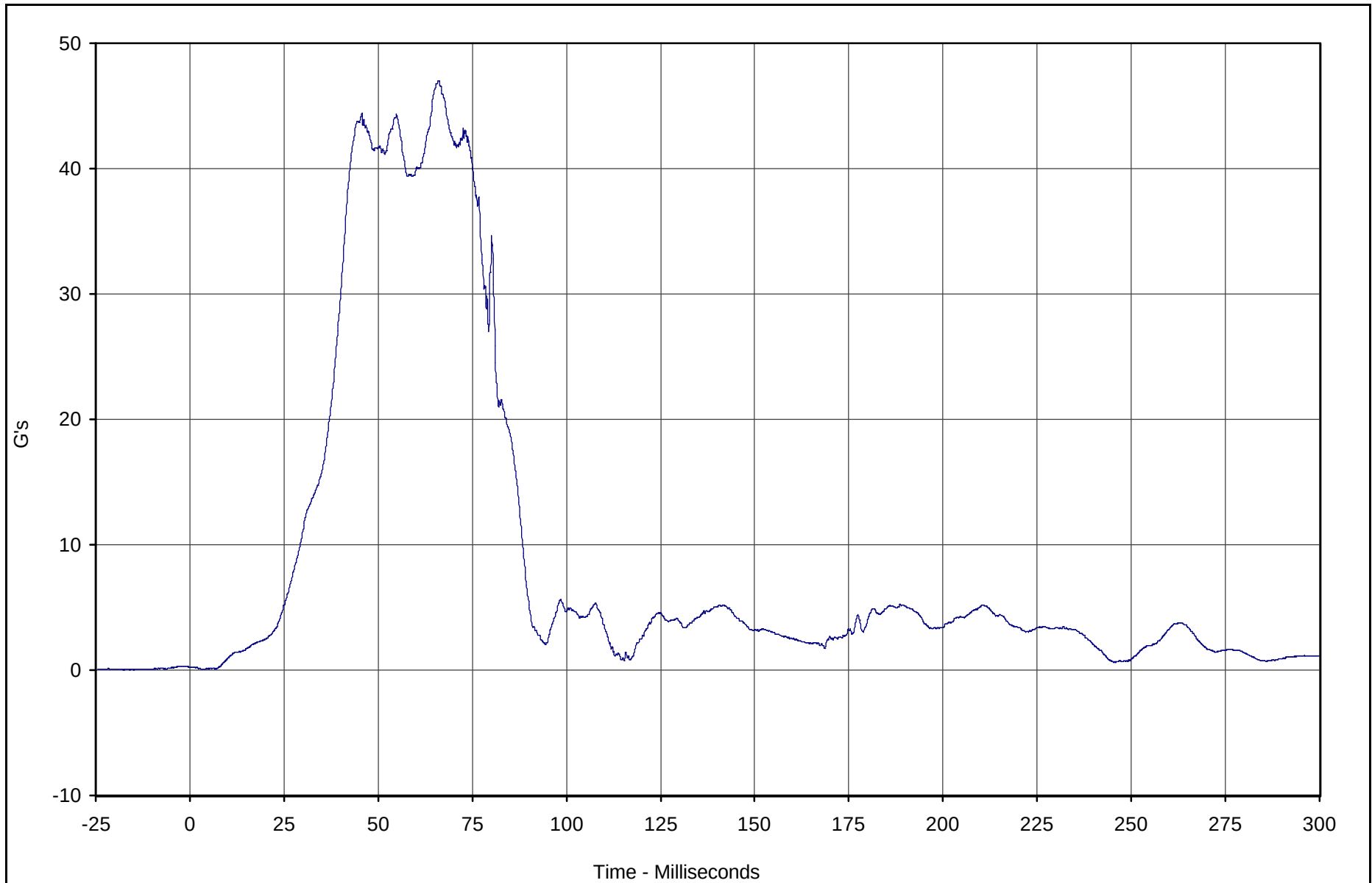


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Pelvis Resultant	153	RES	G's	47.0	66.2	0.1	3.7	1000

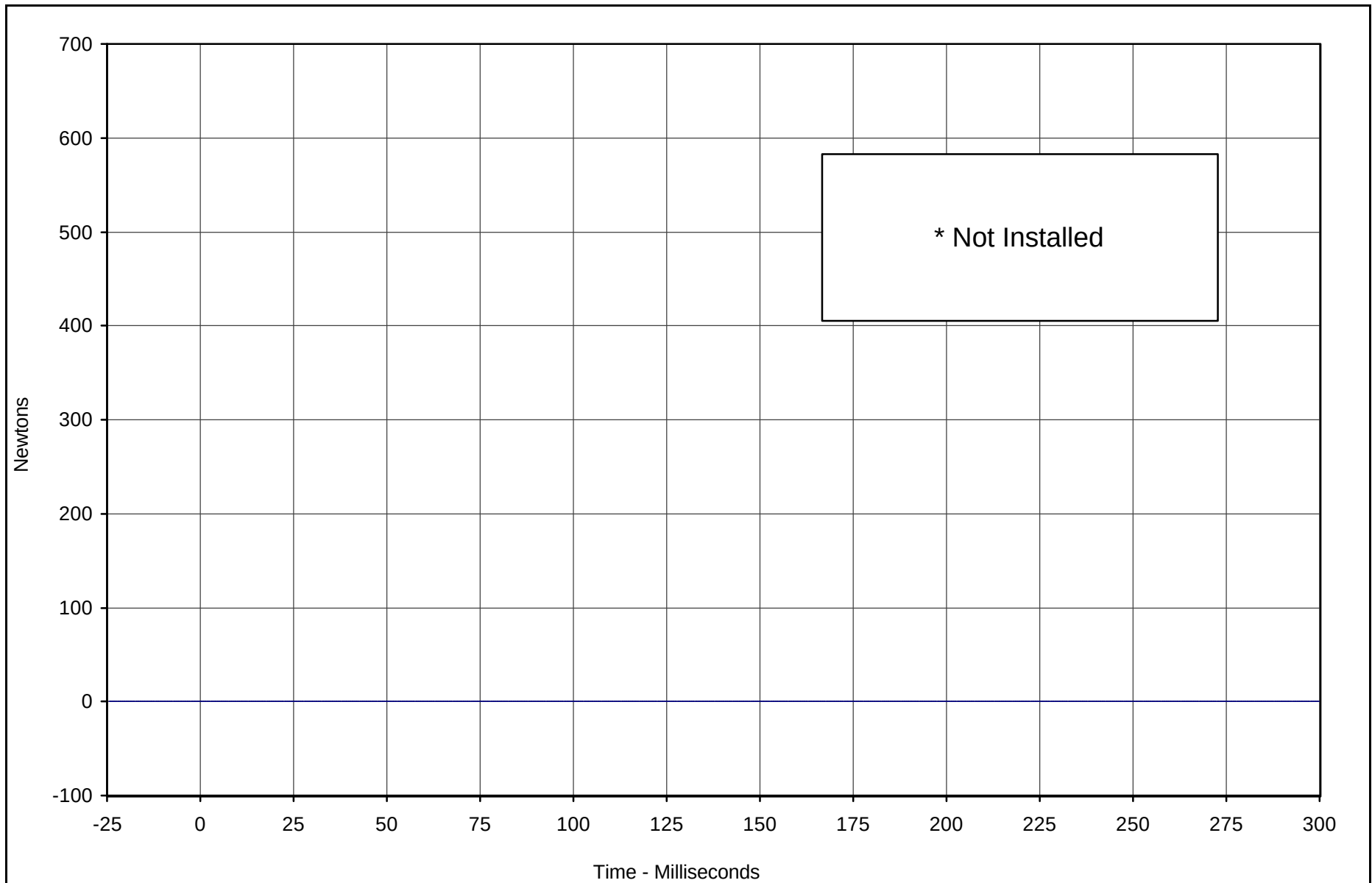


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Car Seat Tether Load	156	FIL	Newtons	0.0	0.0	0.0	0.0	60

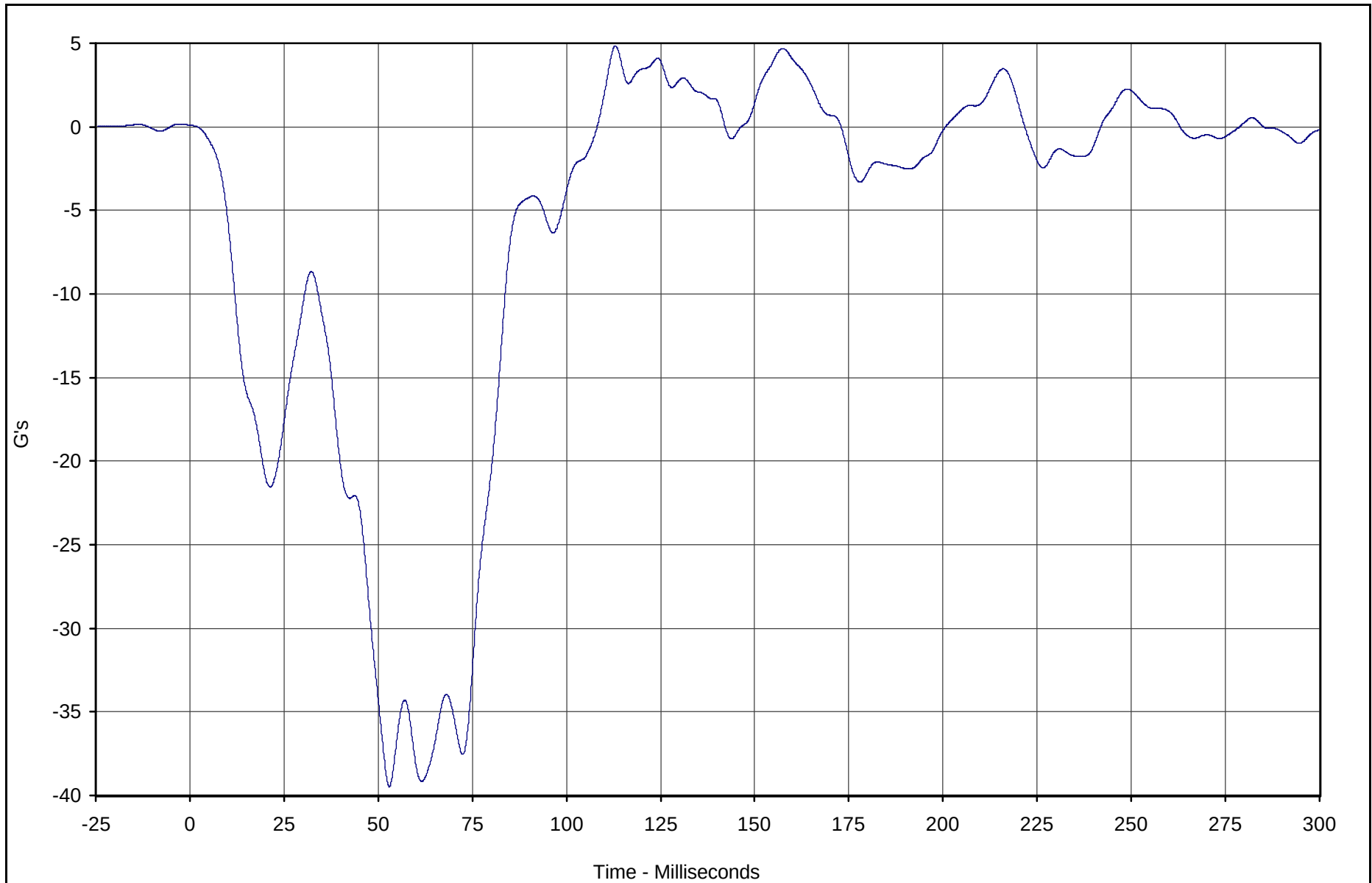


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Car Seat X	157	FIL	G's	4.8	113.0	-39.5	53.0	60

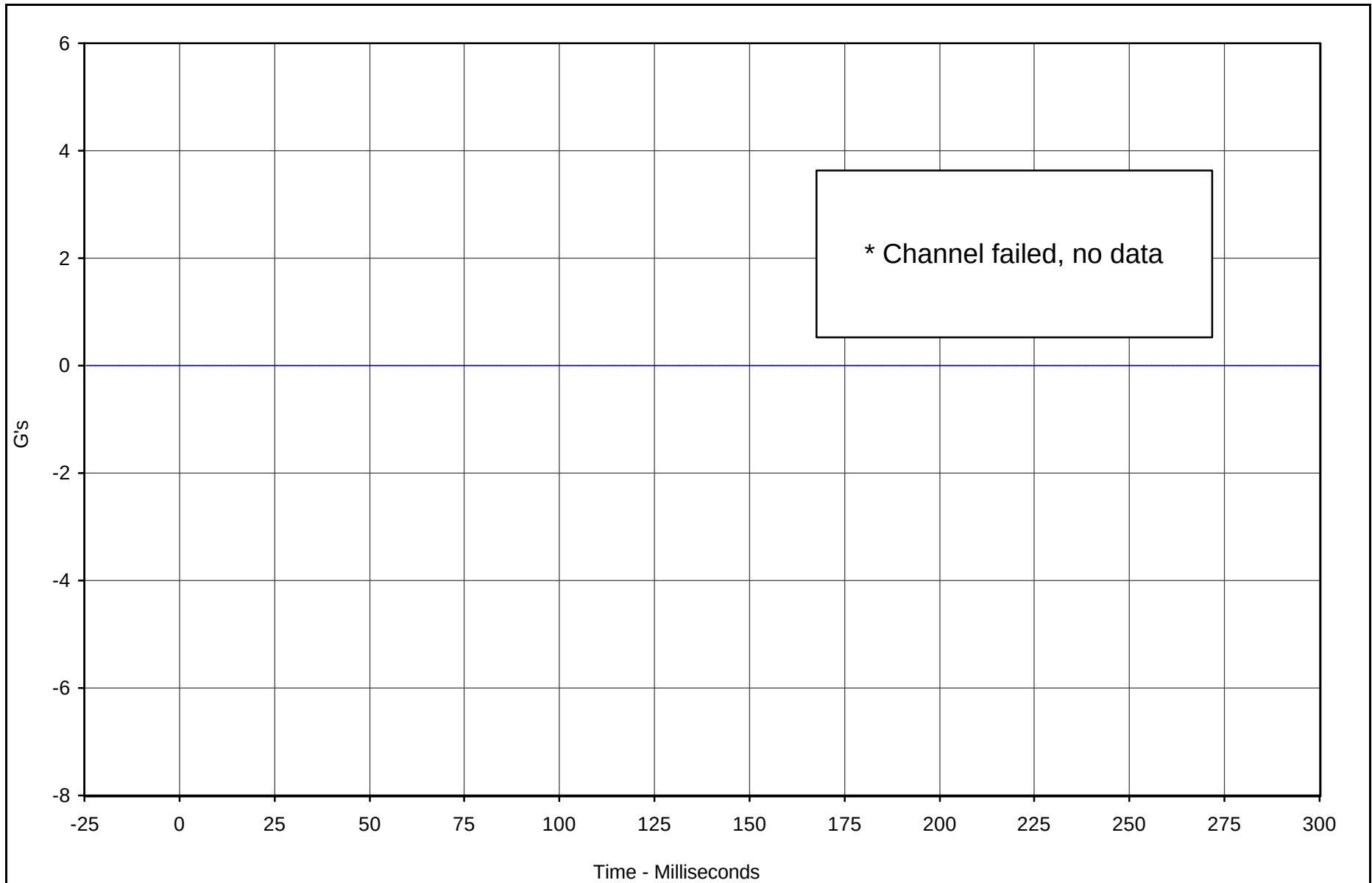


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Car Seat Y	158	FIL	G's	0.0	0.0	0.0	0.0	60

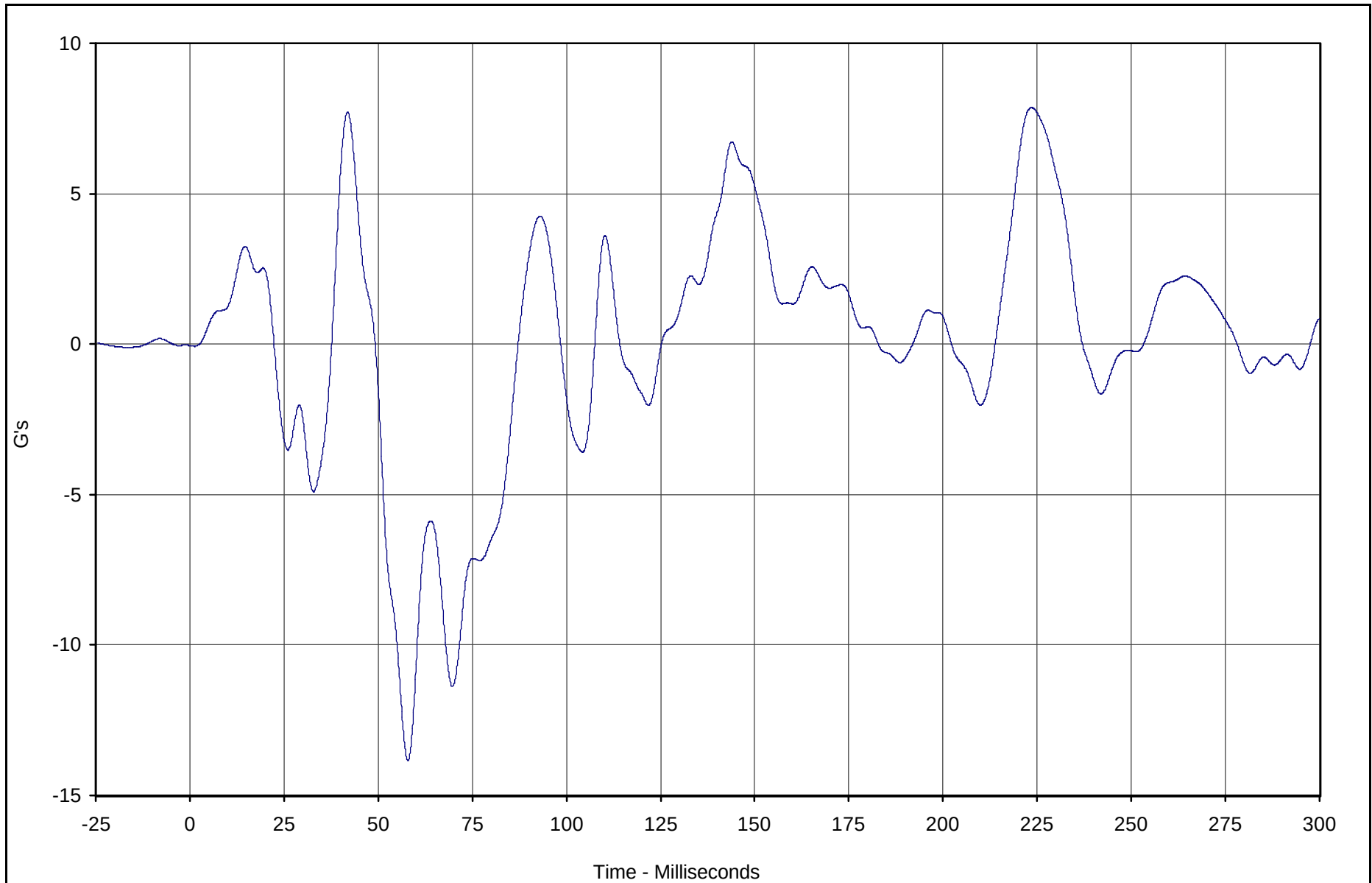


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Car Seat Z	159	FIL	G's	7.9	223.5	-13.8	57.9	60

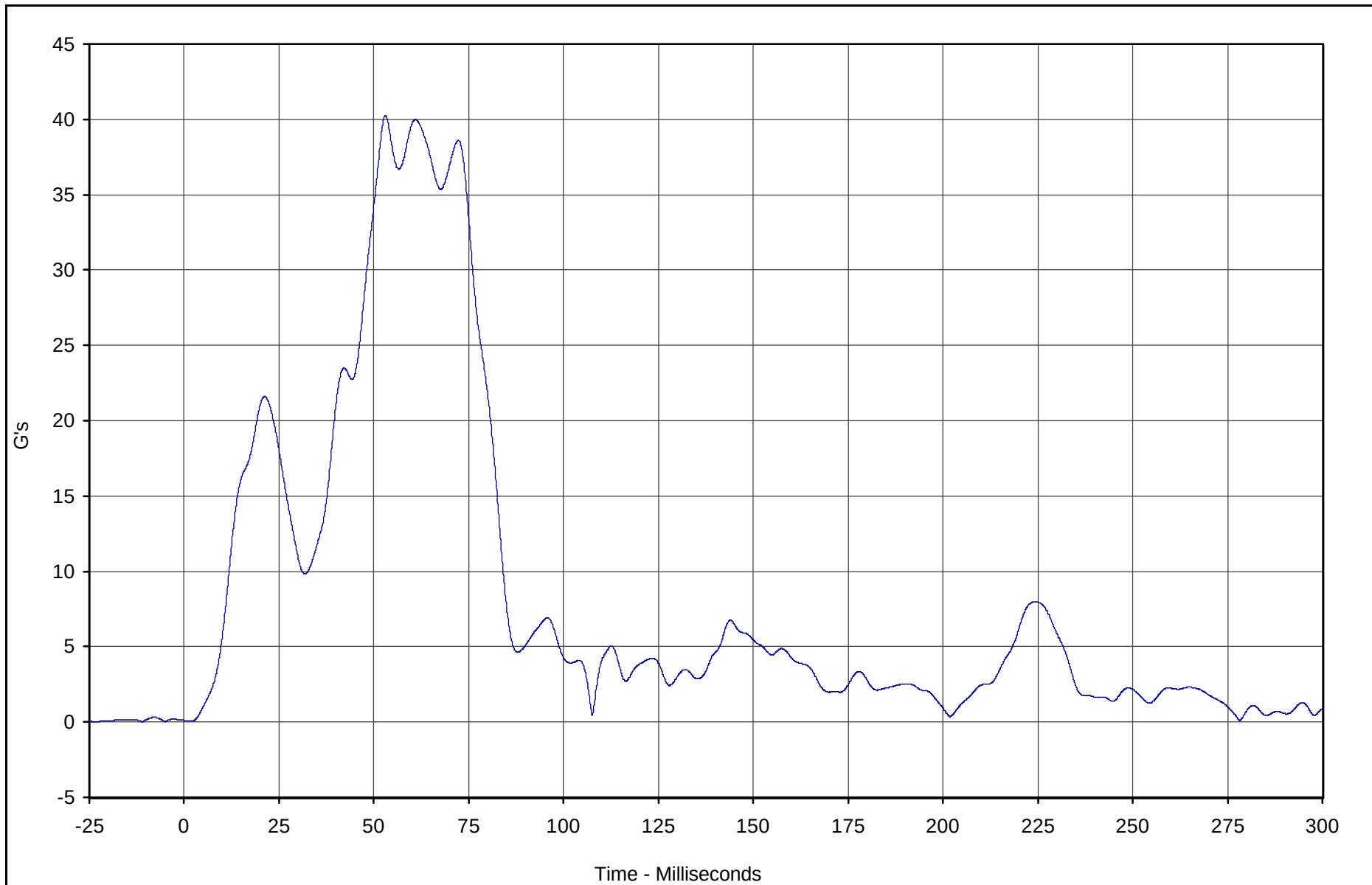


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Left Rear (3 Yr.) Car Seat Resultant	157	RES	G's	40.3	53.0	0.0	2.2	60

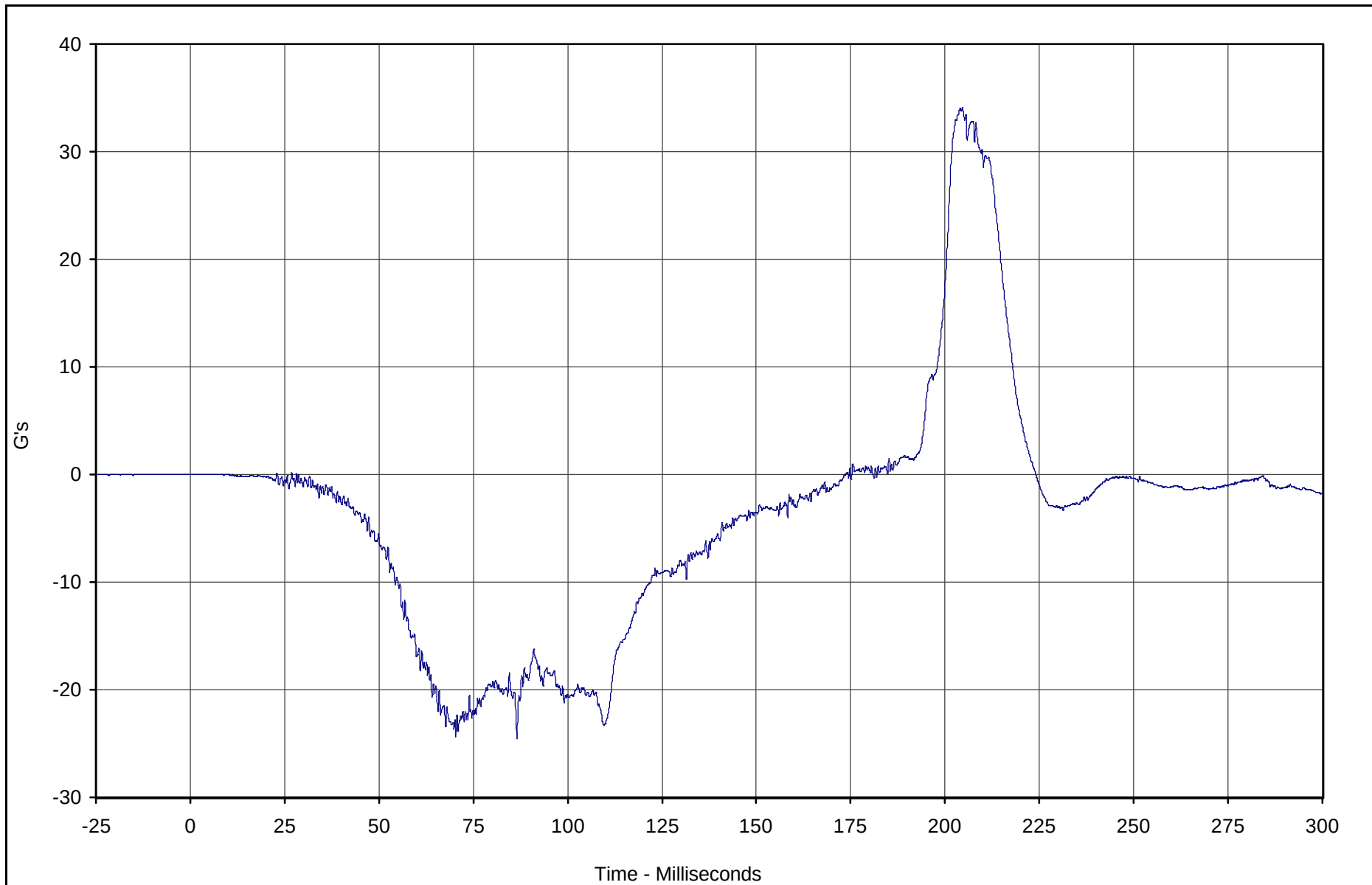


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Head X	160	FIL	G's	34.1	204.7	-24.6	86.6	1000

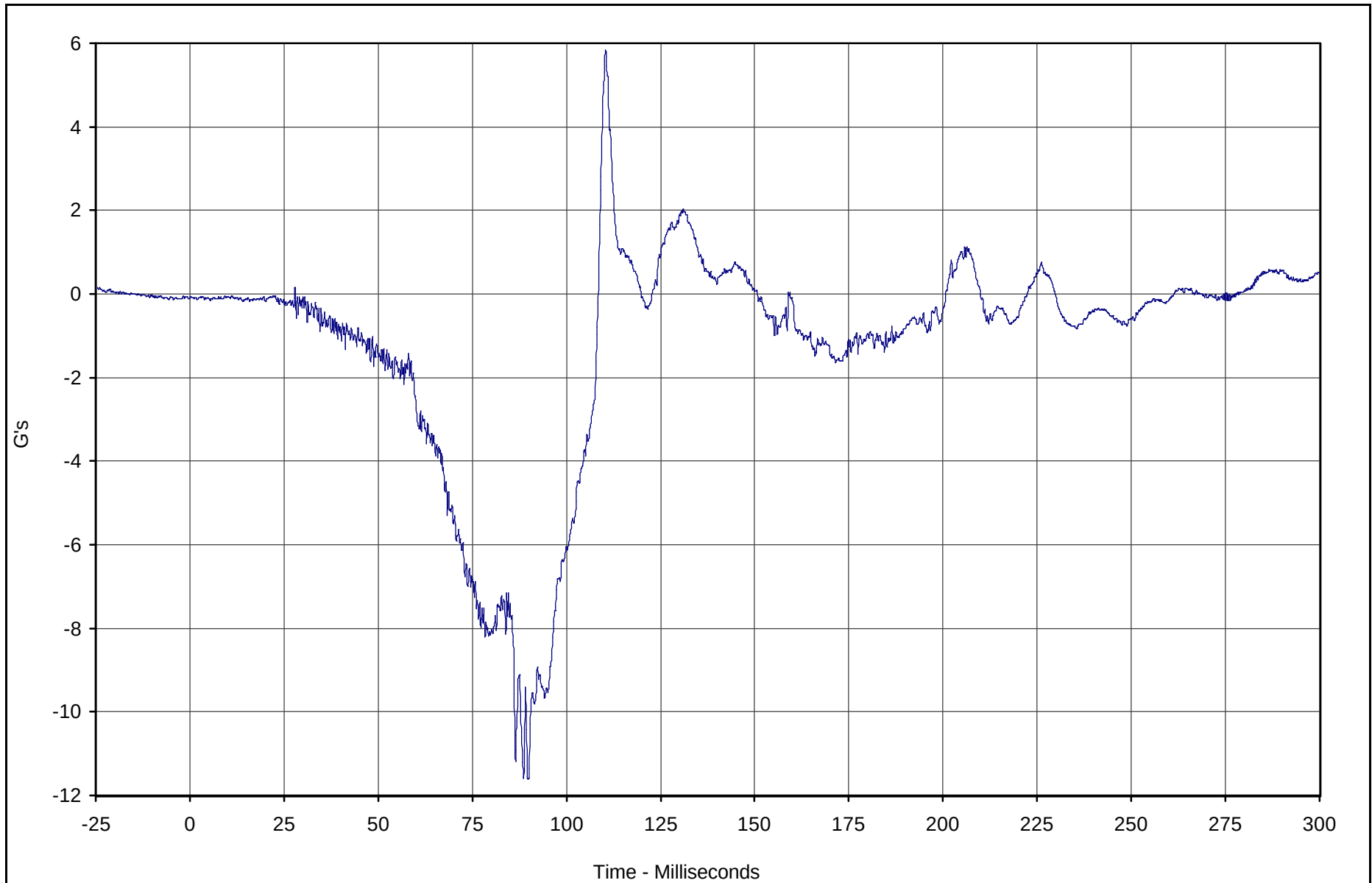


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Head Y	161	FIL	G's	5.8	110.4	-11.6	89.8	1000

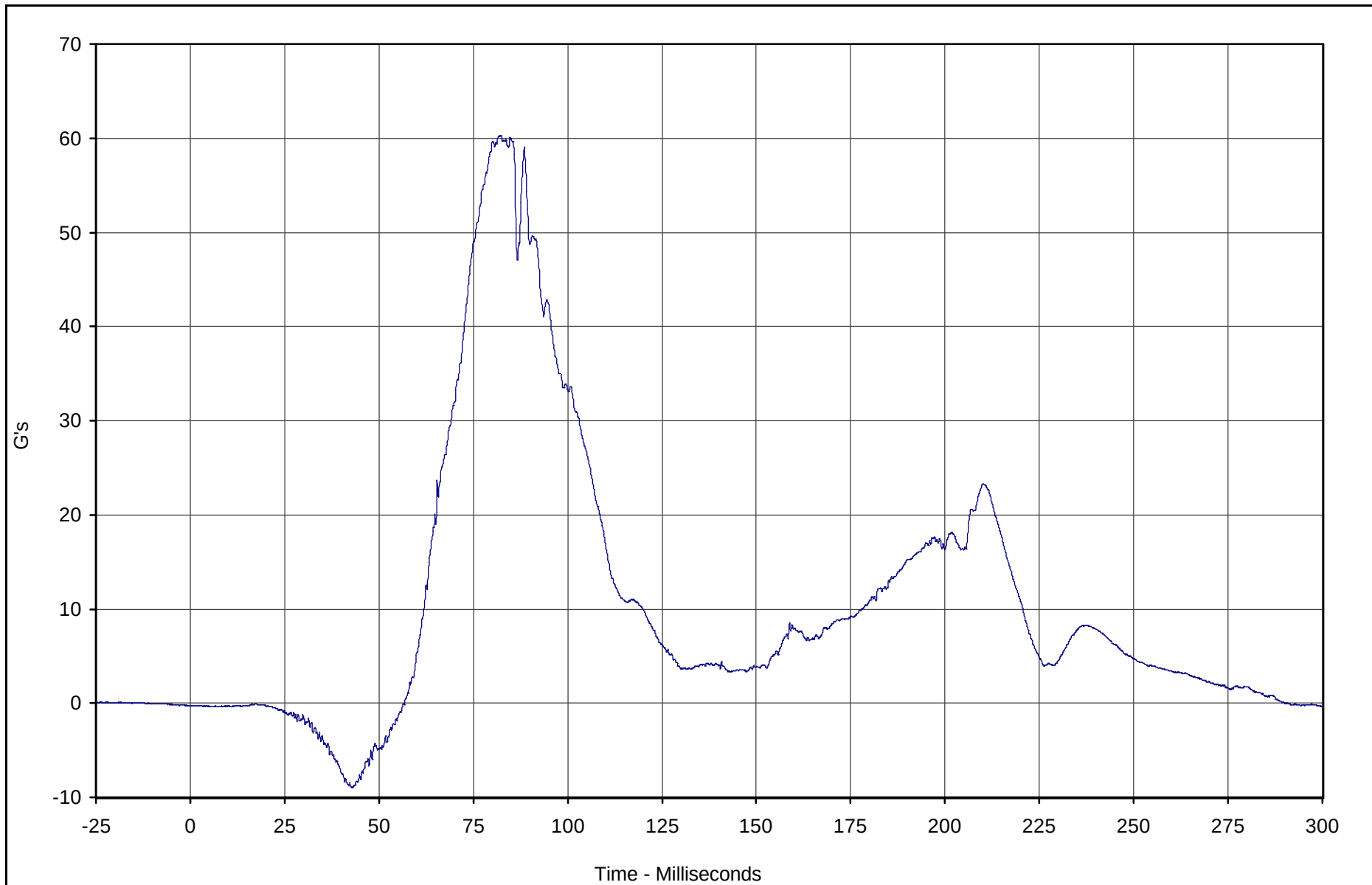


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Head Z	162	FIL	G's	60.3	82.3	-9.0	43.0	1000

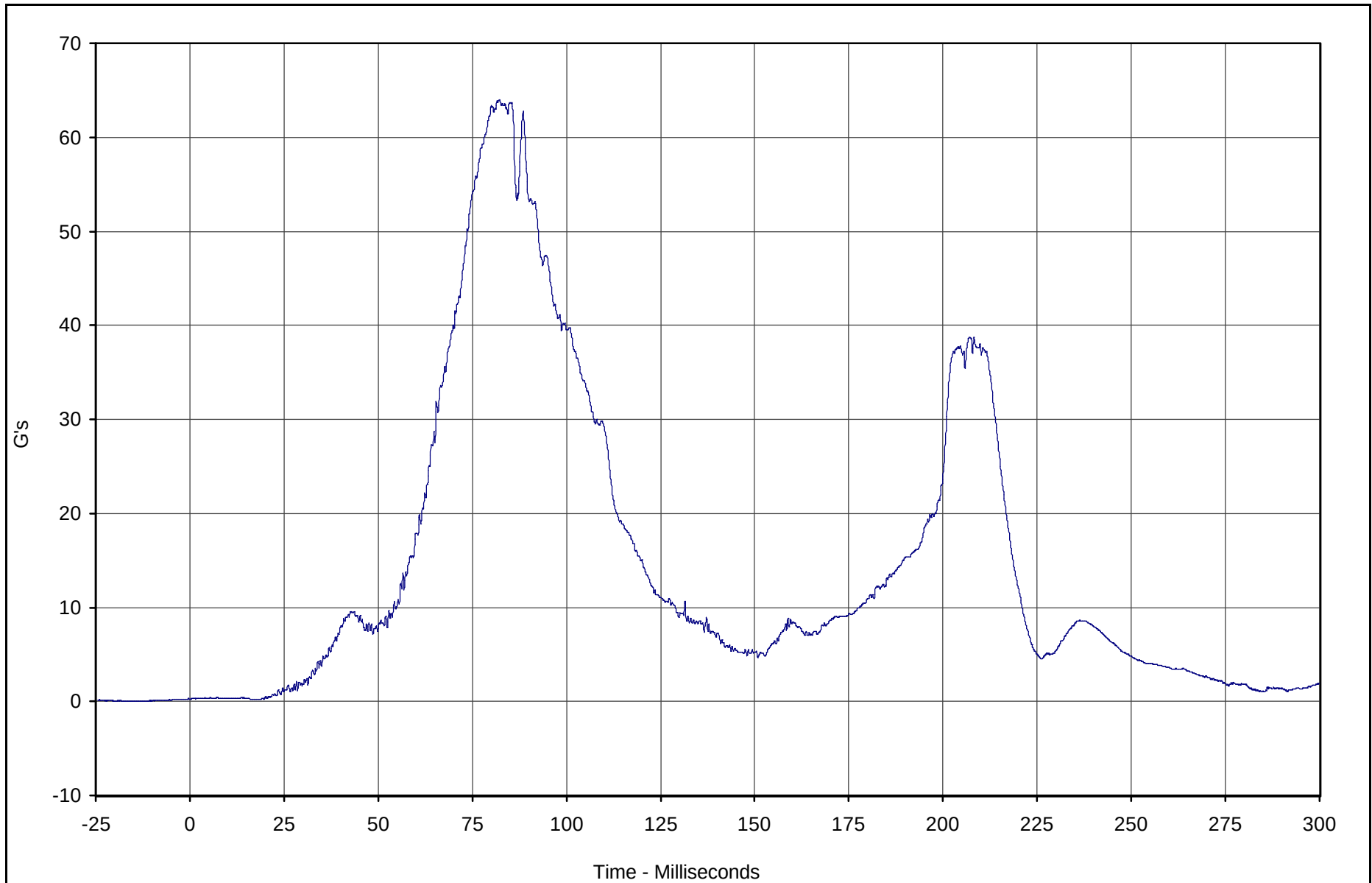


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Head Resultant	160	RES	G's	64.0	82.3	0.2	16.3	1000

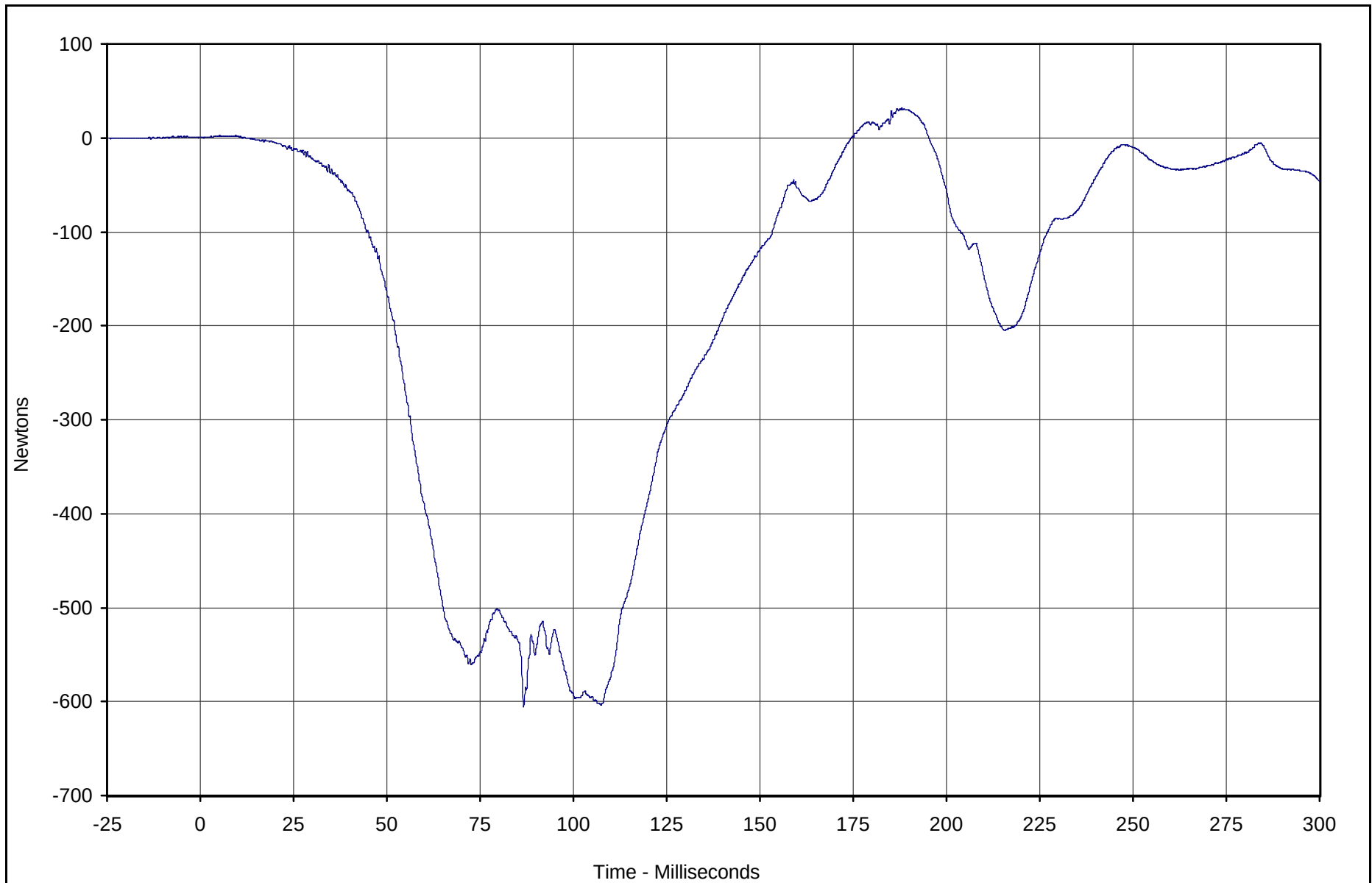


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Upper Neck Force X	163	FIL	Newtons	31.5	188.0	-605.5	86.7	1000

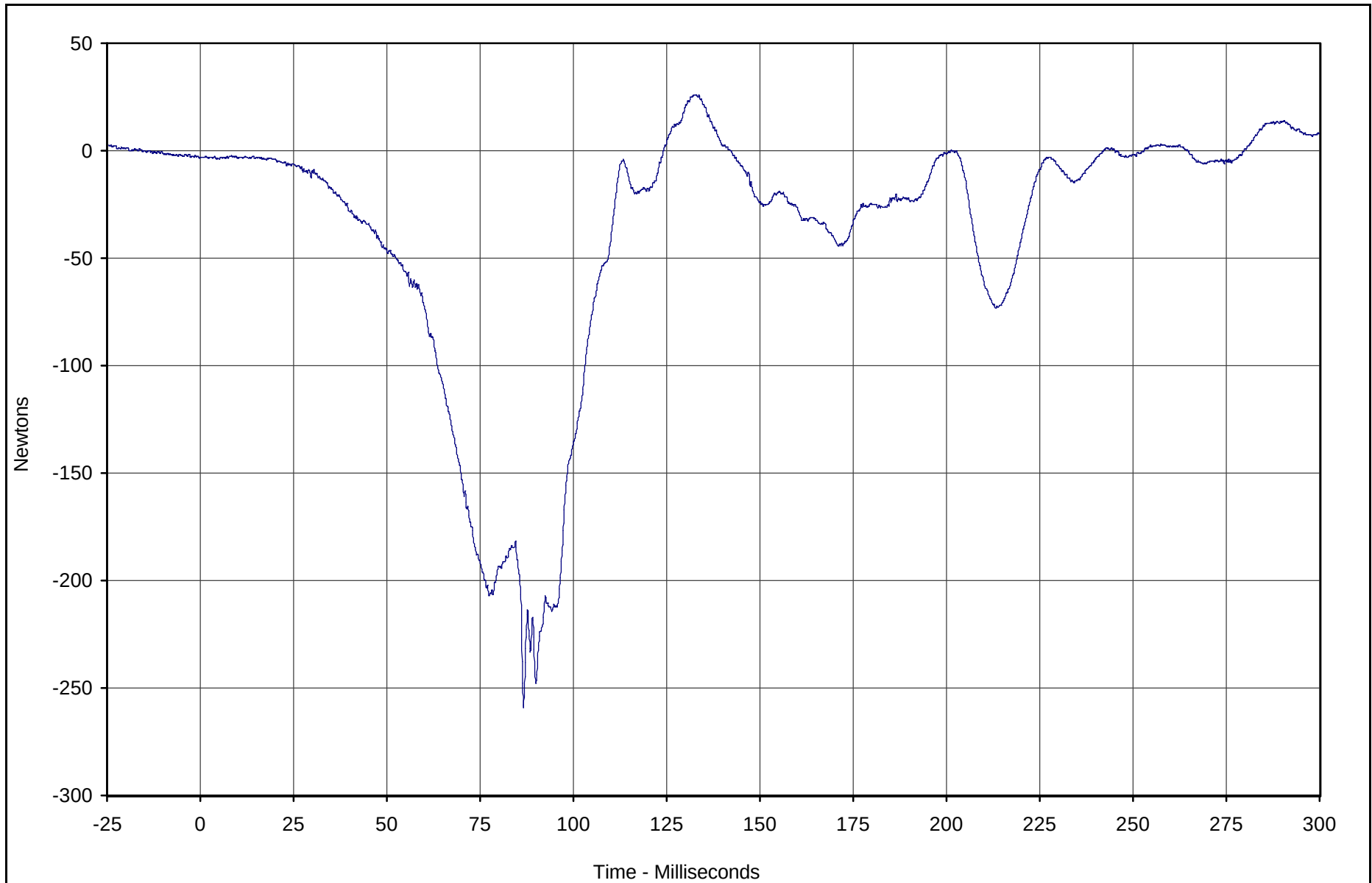


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Upper Neck Force Y	164	FIL	Newtons	26.0	132.8	-259.1	86.6	1000

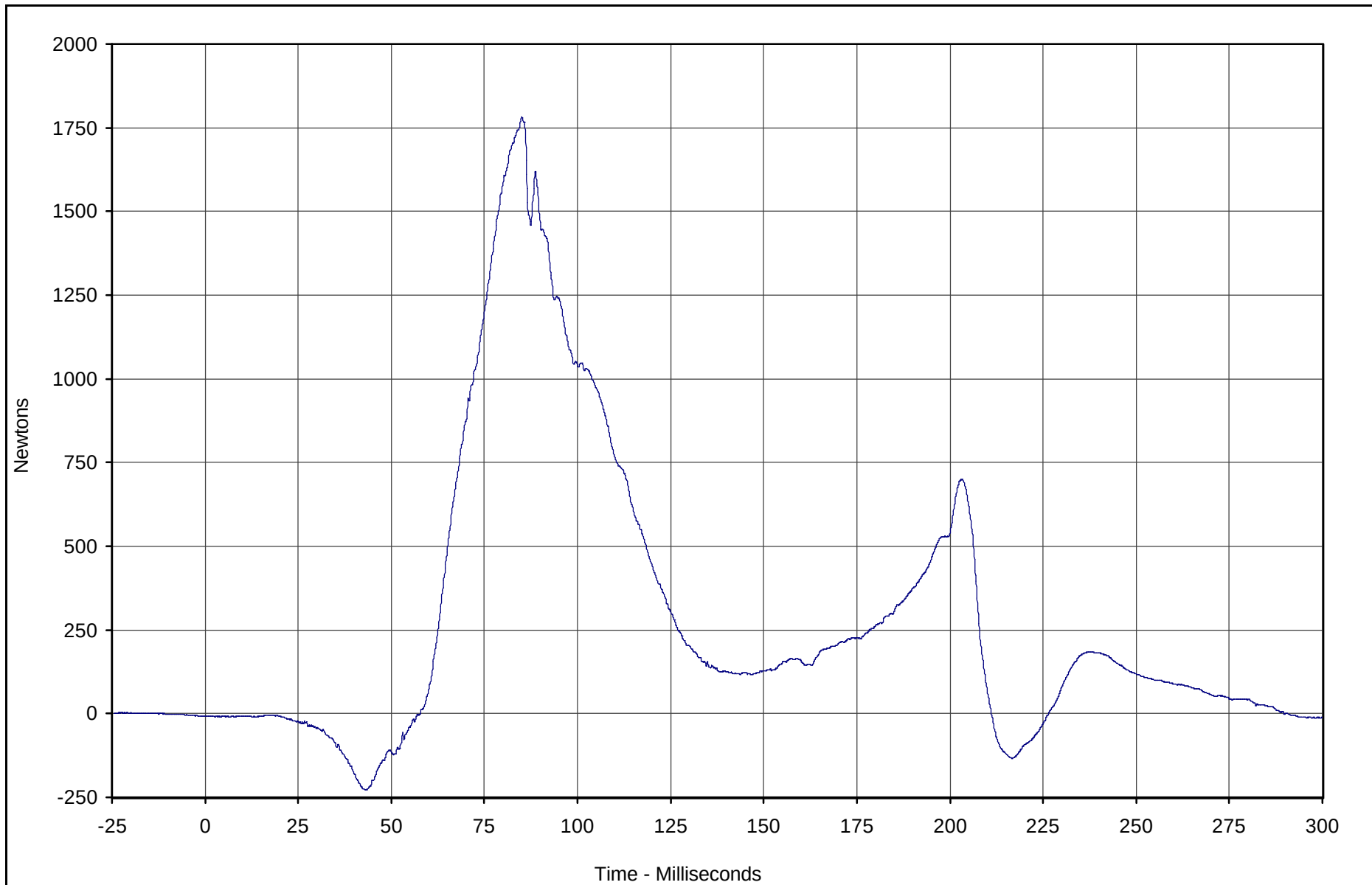


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Upper Neck Force Z	165	FIL	Newtons	1782.0	85.0	-227.1	43.3	1000

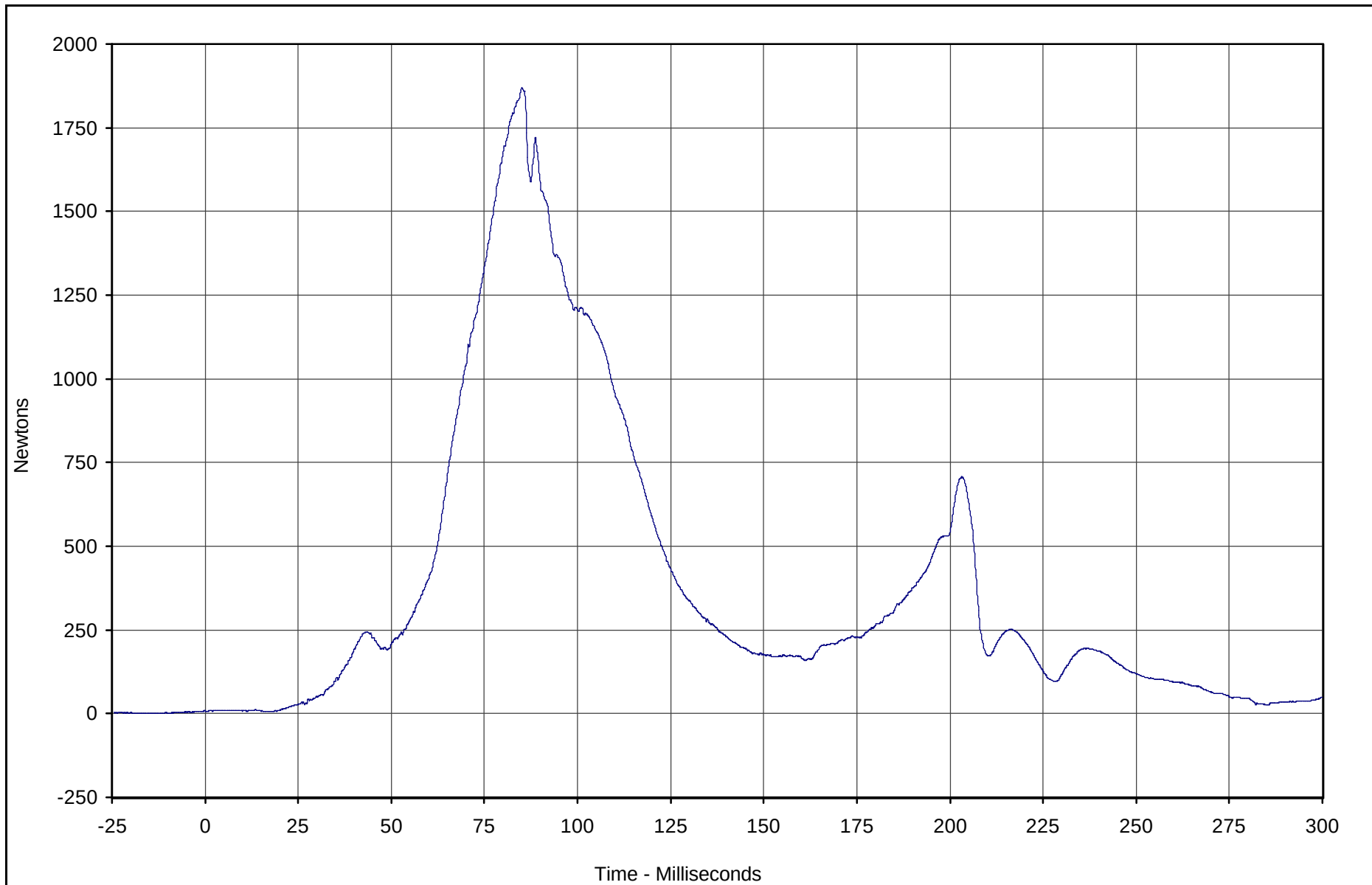


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Upper Neck Force Res.	163	RES	Newtons	1870.0	85.0	5.7	16.8	1000

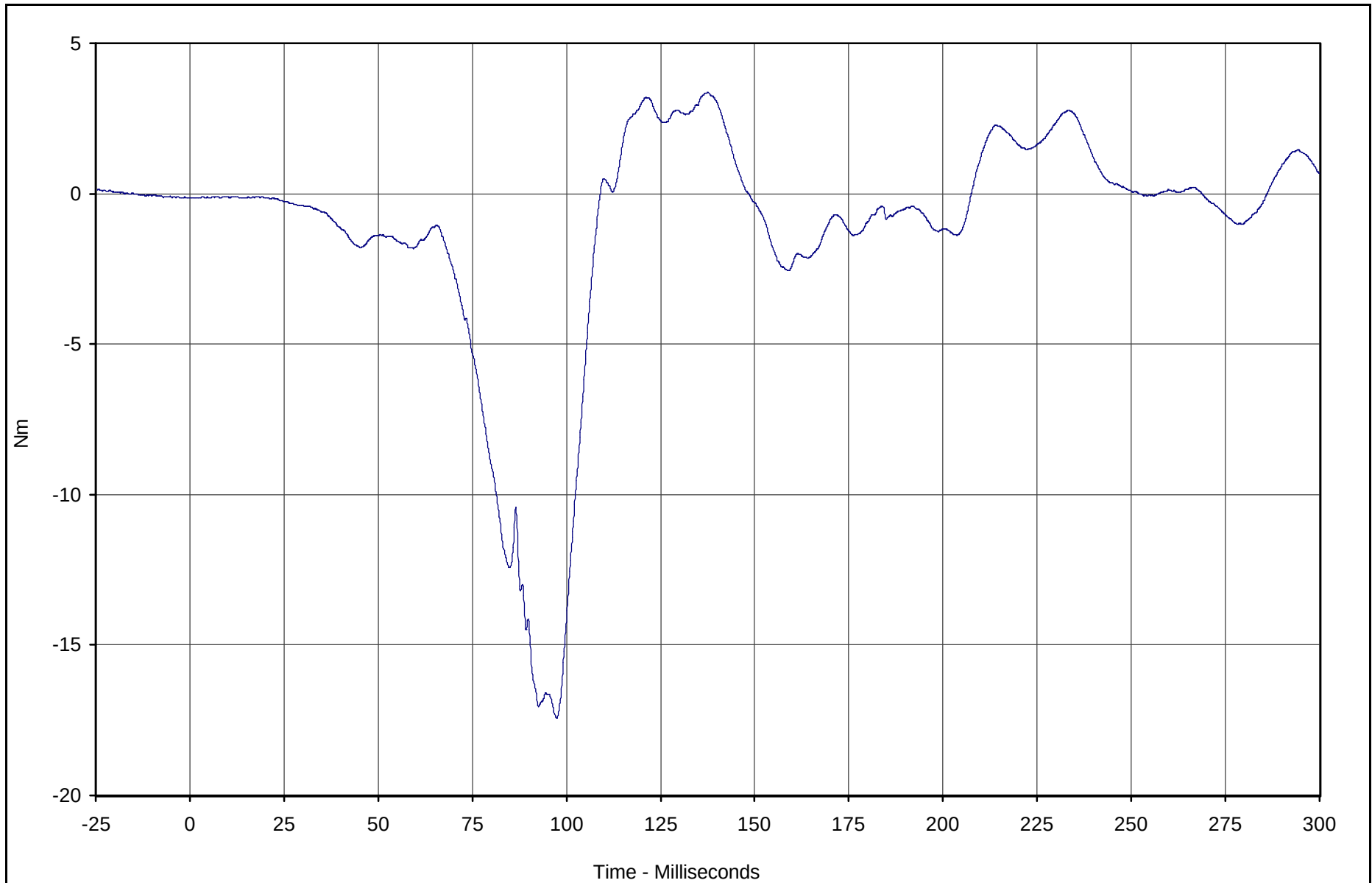


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Upper Neck Moment X	166	FIL	Nm	3.4	137.6	-17.4	97.5	600

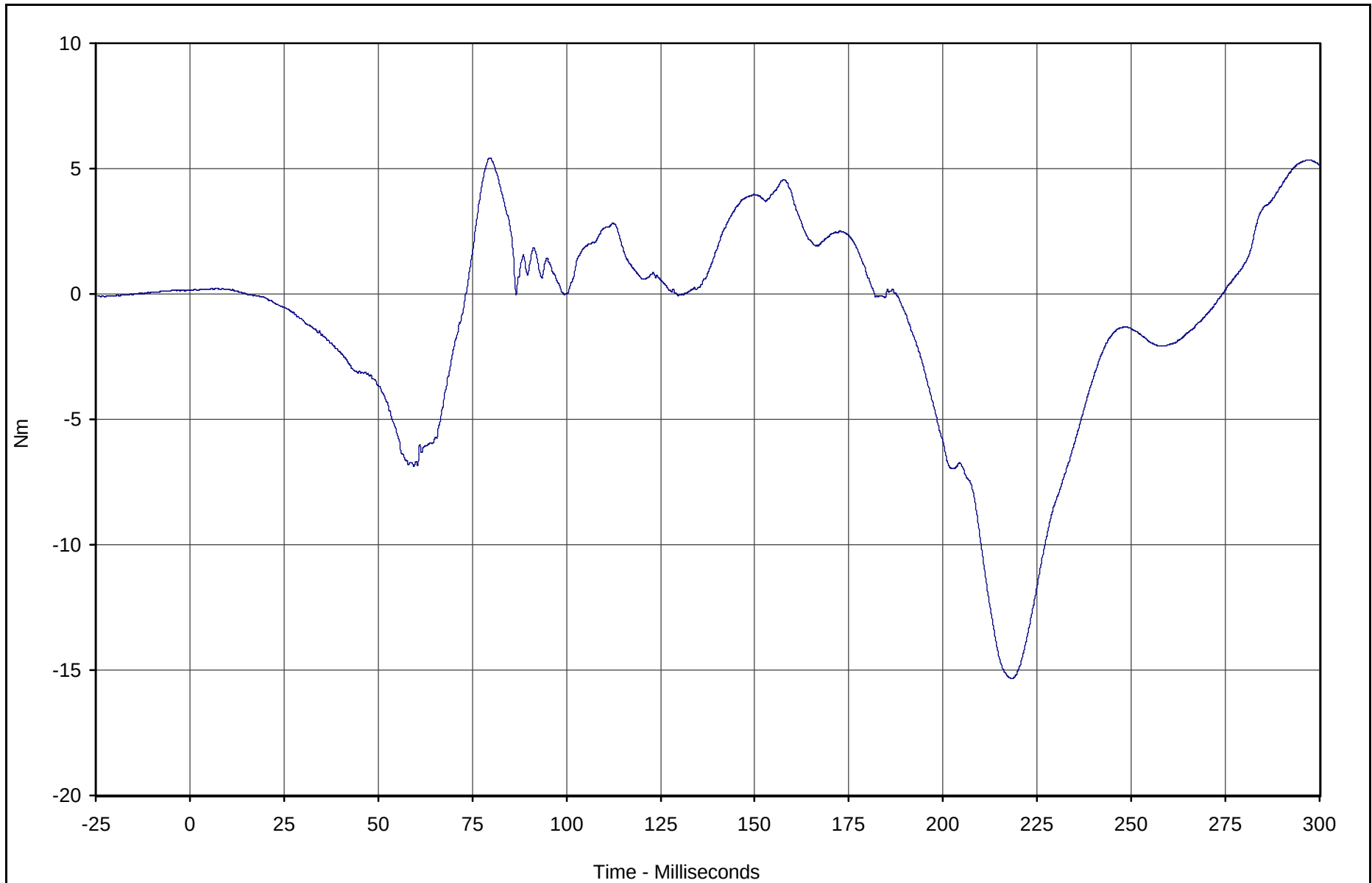


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Upper Neck Moment Y	167	FIL	Nm	5.4	79.7	-15.3	218.4	600

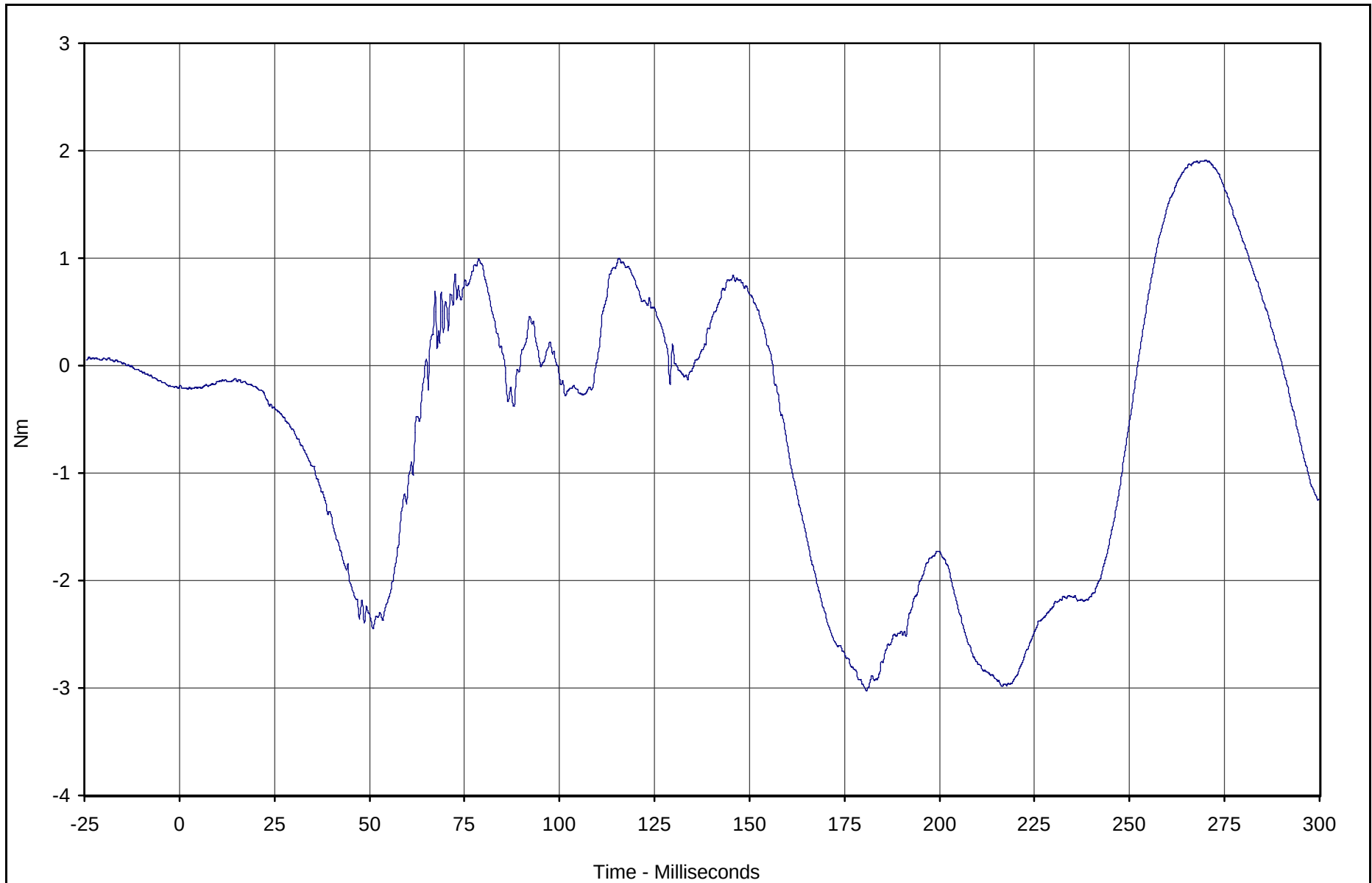


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Upper Neck Moment Z	168	FIL	Nm	1.9	270.1	-3.0	180.7	600

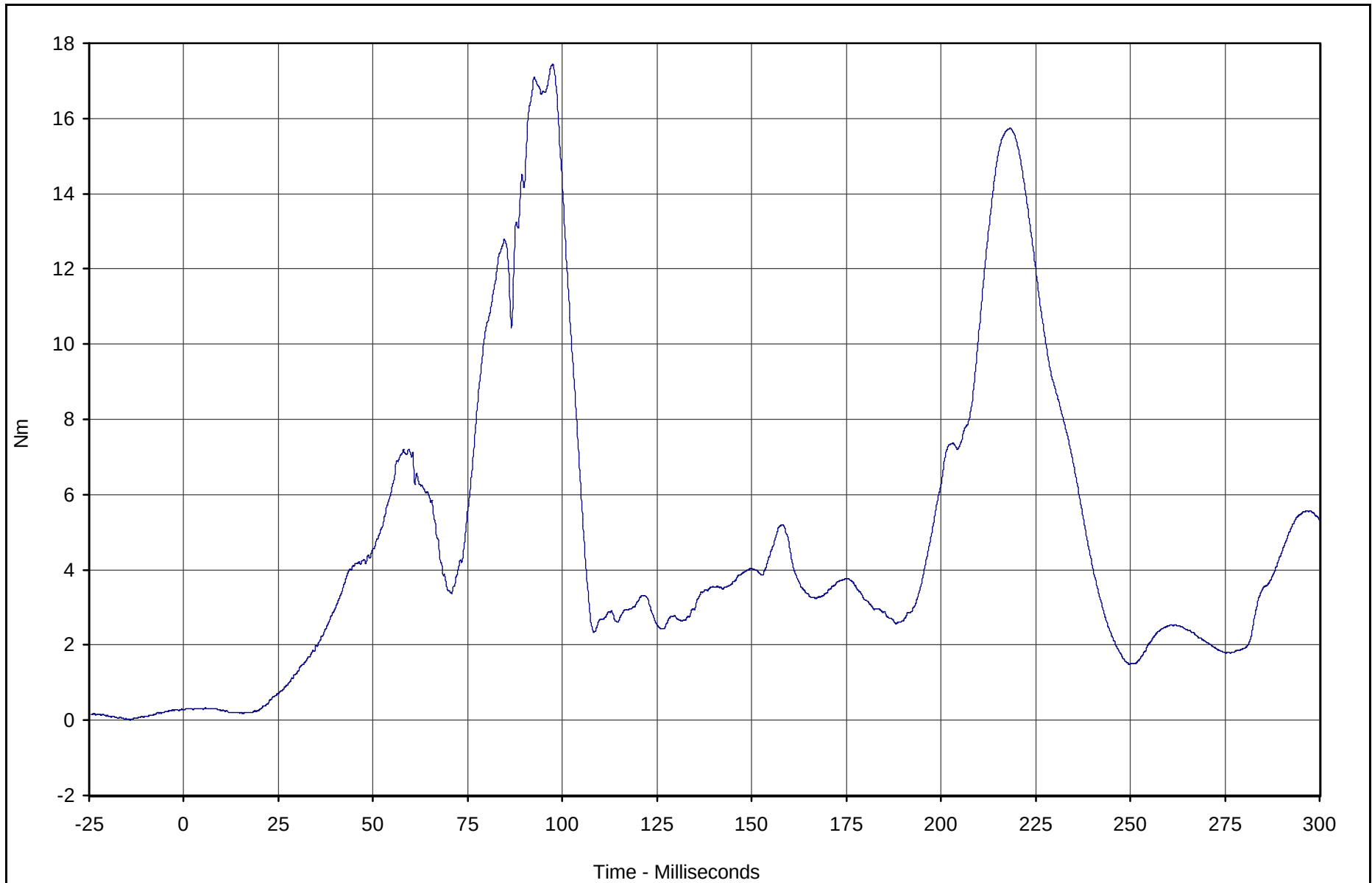


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Upper Neck Mom Res.	166	RES	Nm	17.4	97.5	0.2	15.6	600

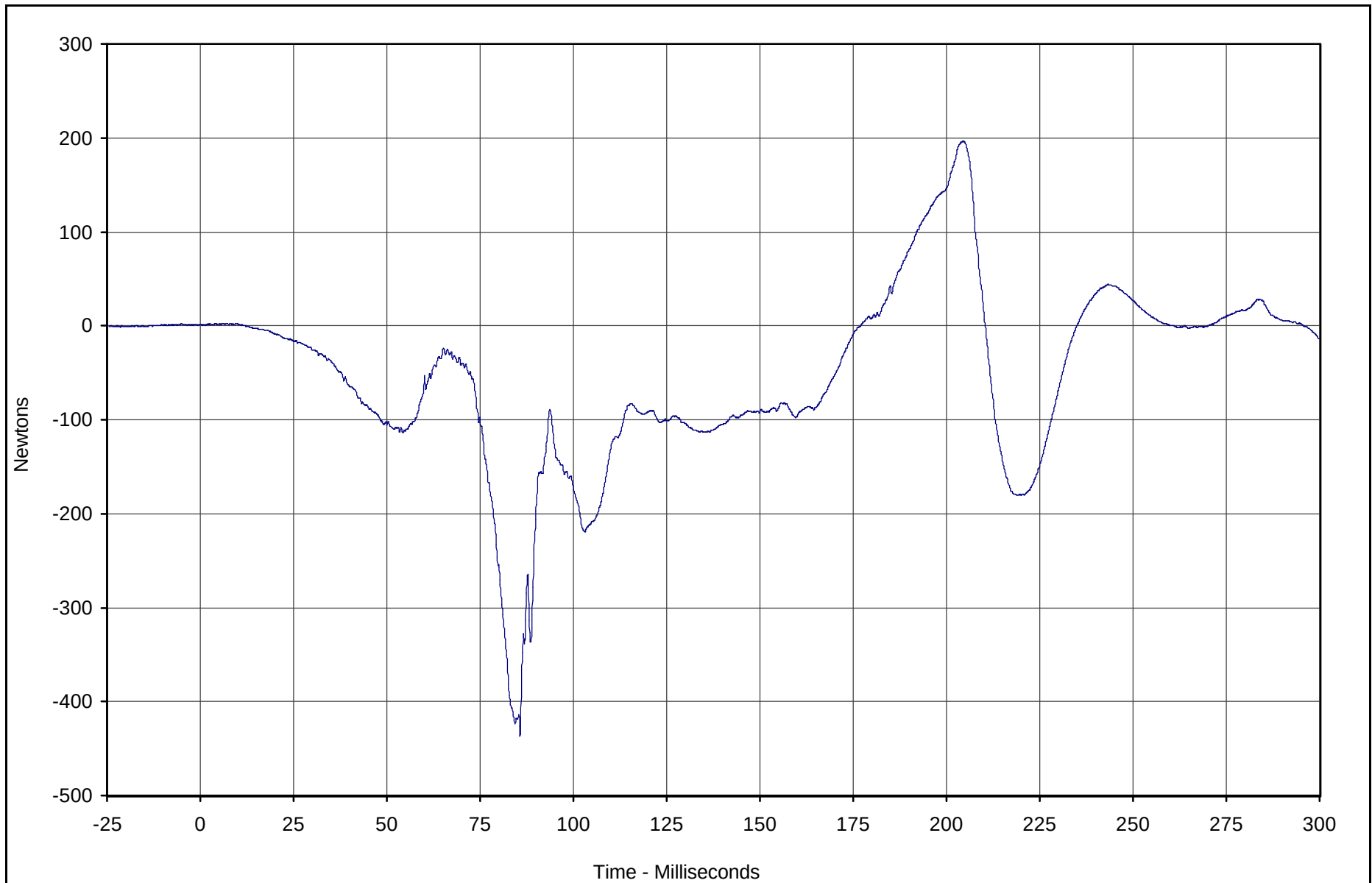


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Lower Neck Force X	169	FIL	Newtons	196.4	204.5	-436.4	85.7	1000

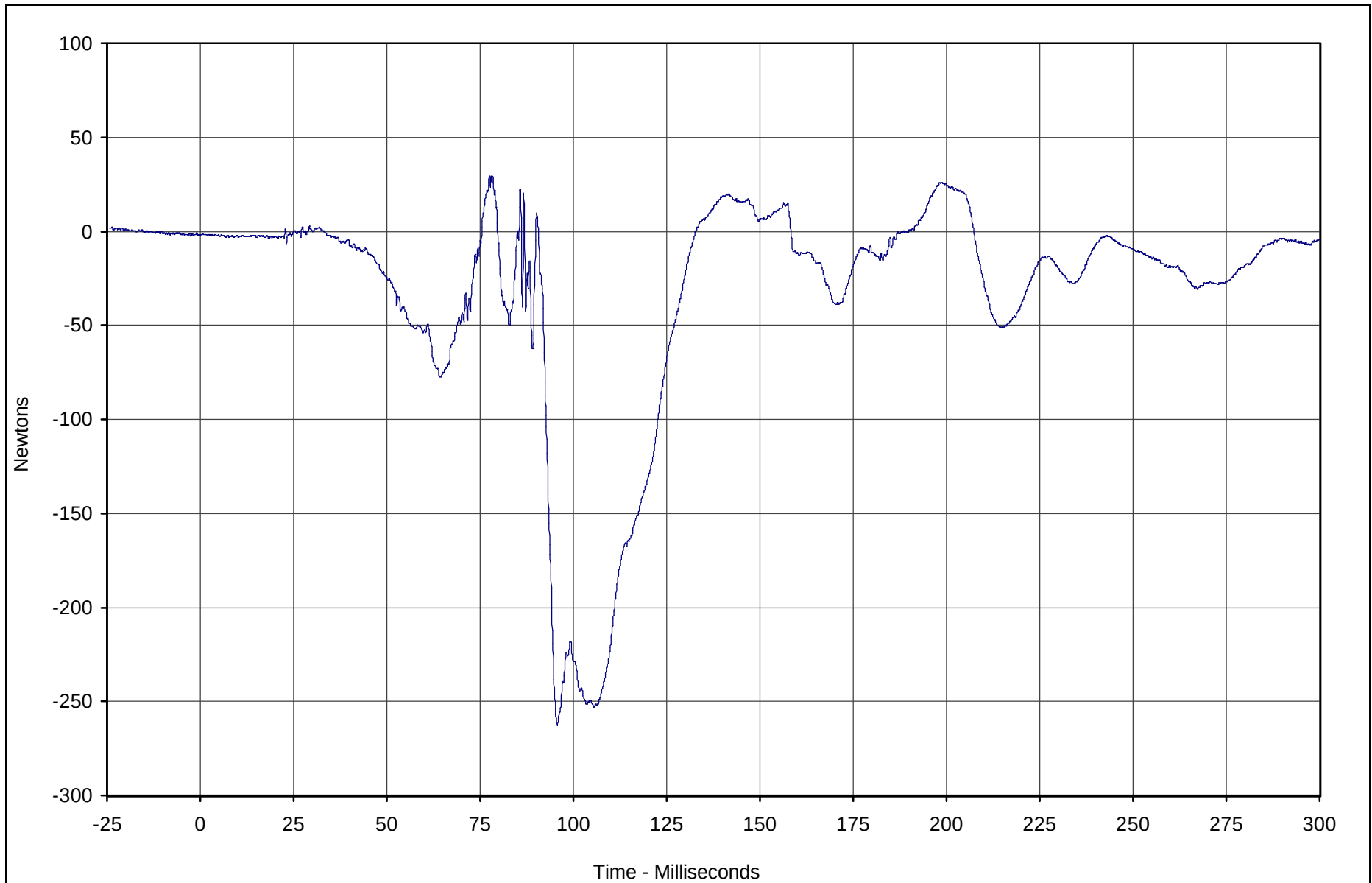


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Lower Neck Force Y	170	FIL	Newtons	29.3	77.4	-262.8	95.7	1000

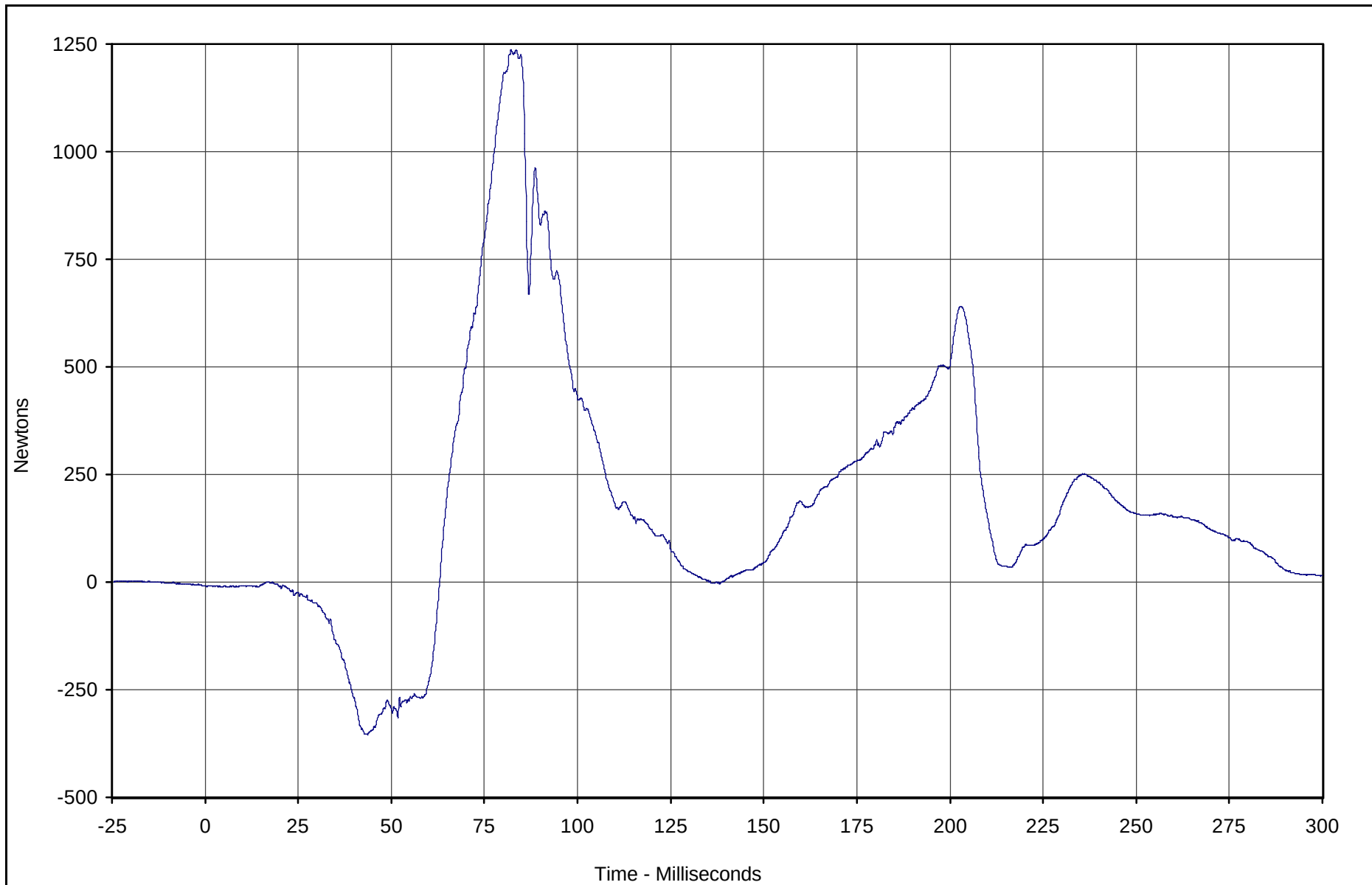


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Lower Neck Force Z	171	FIL	Newtons	1236.8	82.2	-355.5	43.7	1000

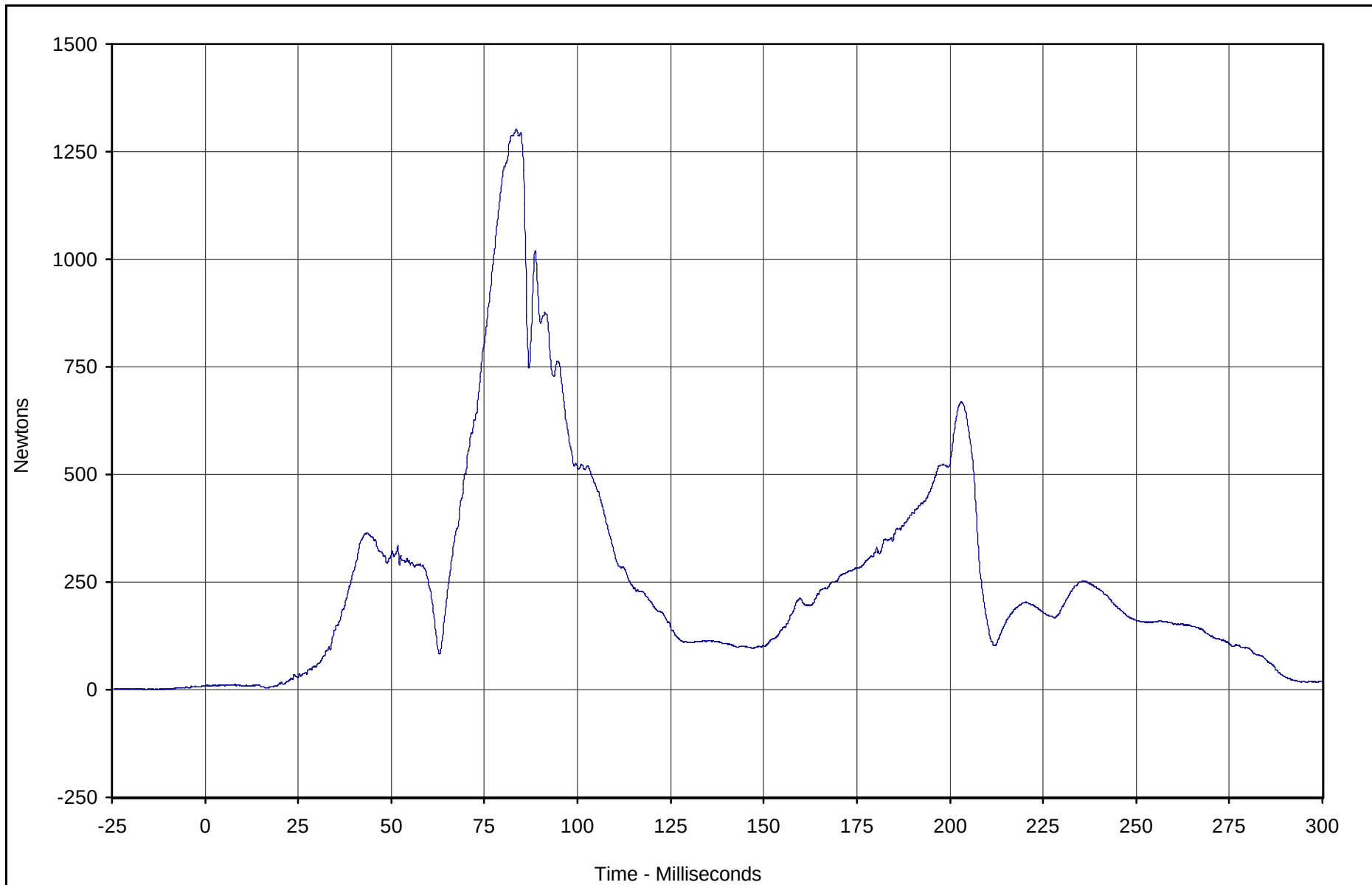


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Lower Neck Force Res.	169	RES	Newtons	1301.8	83.5	4.5	16.8	1000

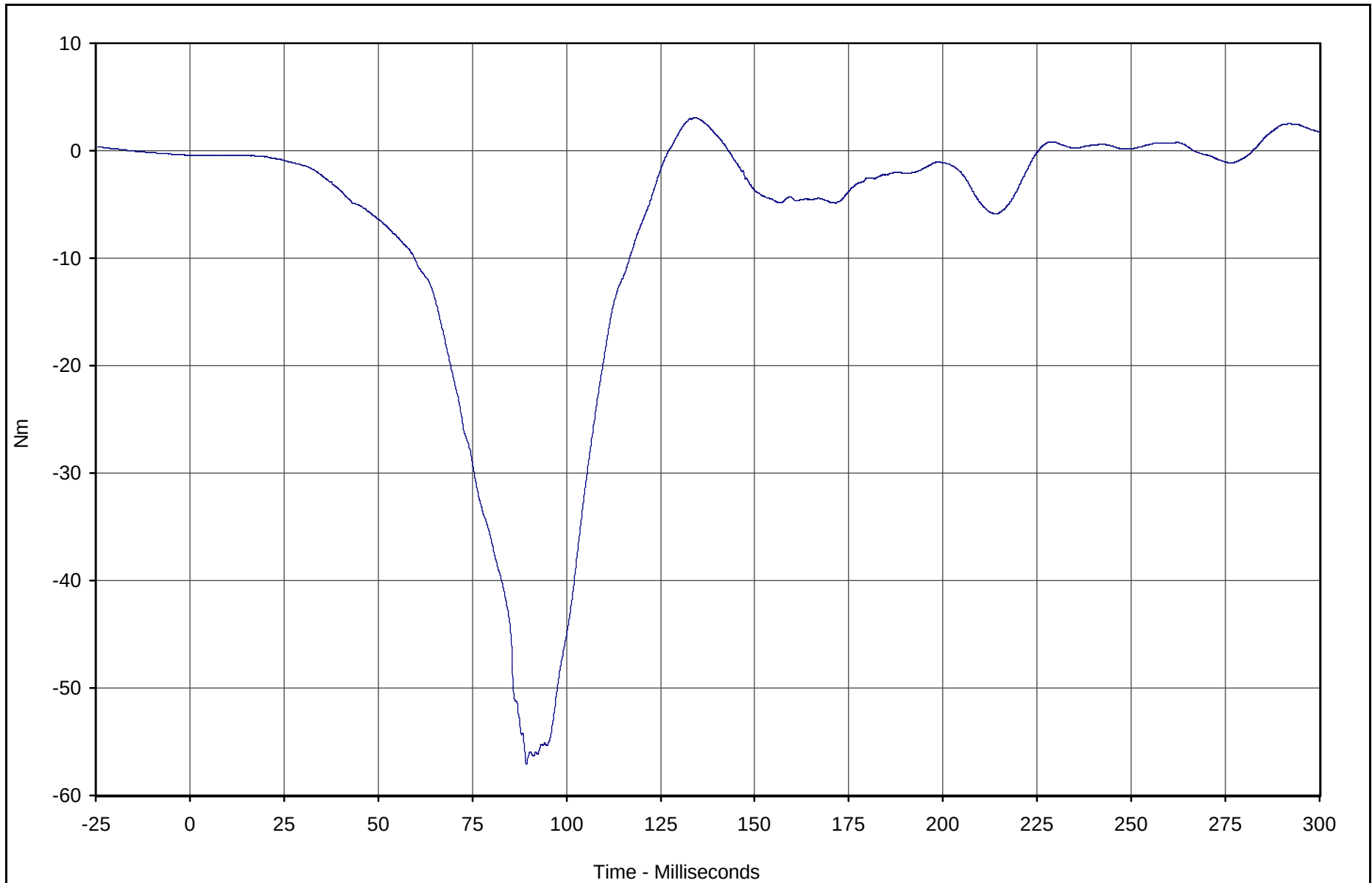


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Lower Neck Moment X	172	FIL	Nm	3.1	134.1	-57.1	89.4	600

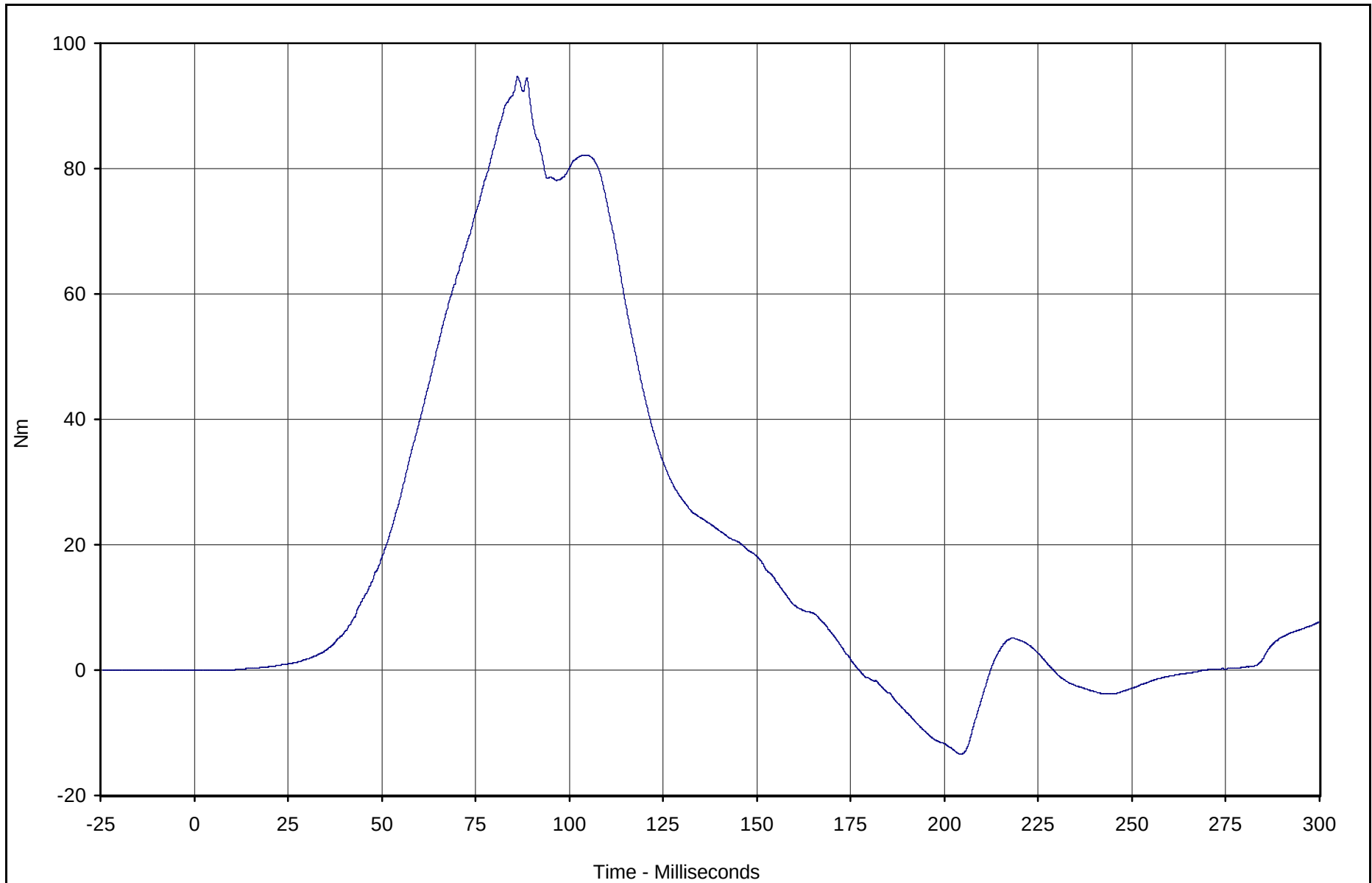


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Lower Neck Moment Y	173	FIL	Nm	94.7	86.2	-13.4	204.3	600

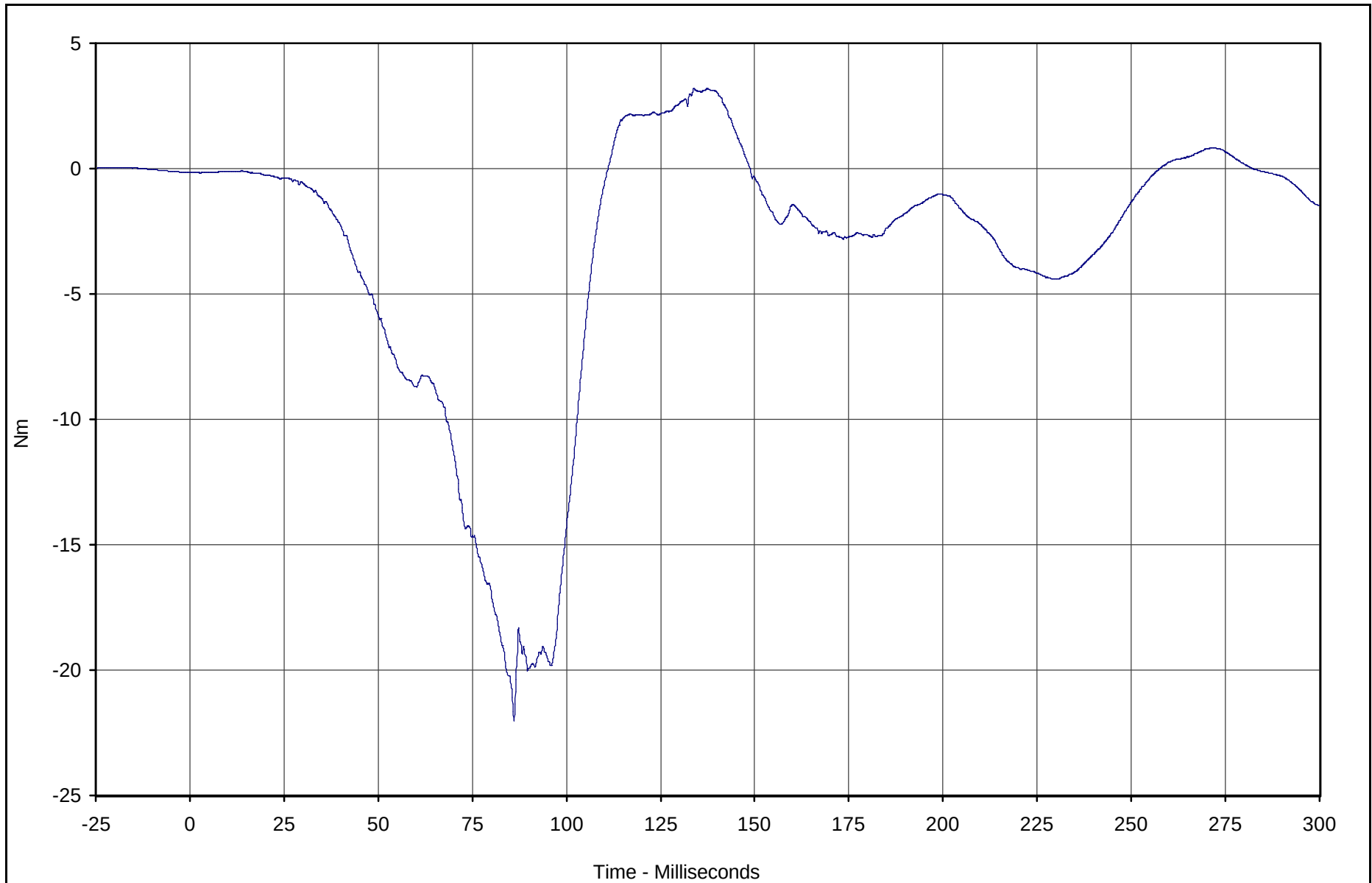


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Lower Neck Moment Z	174	FIL	Nm	3.2	137.3	-22.0	86.1	600

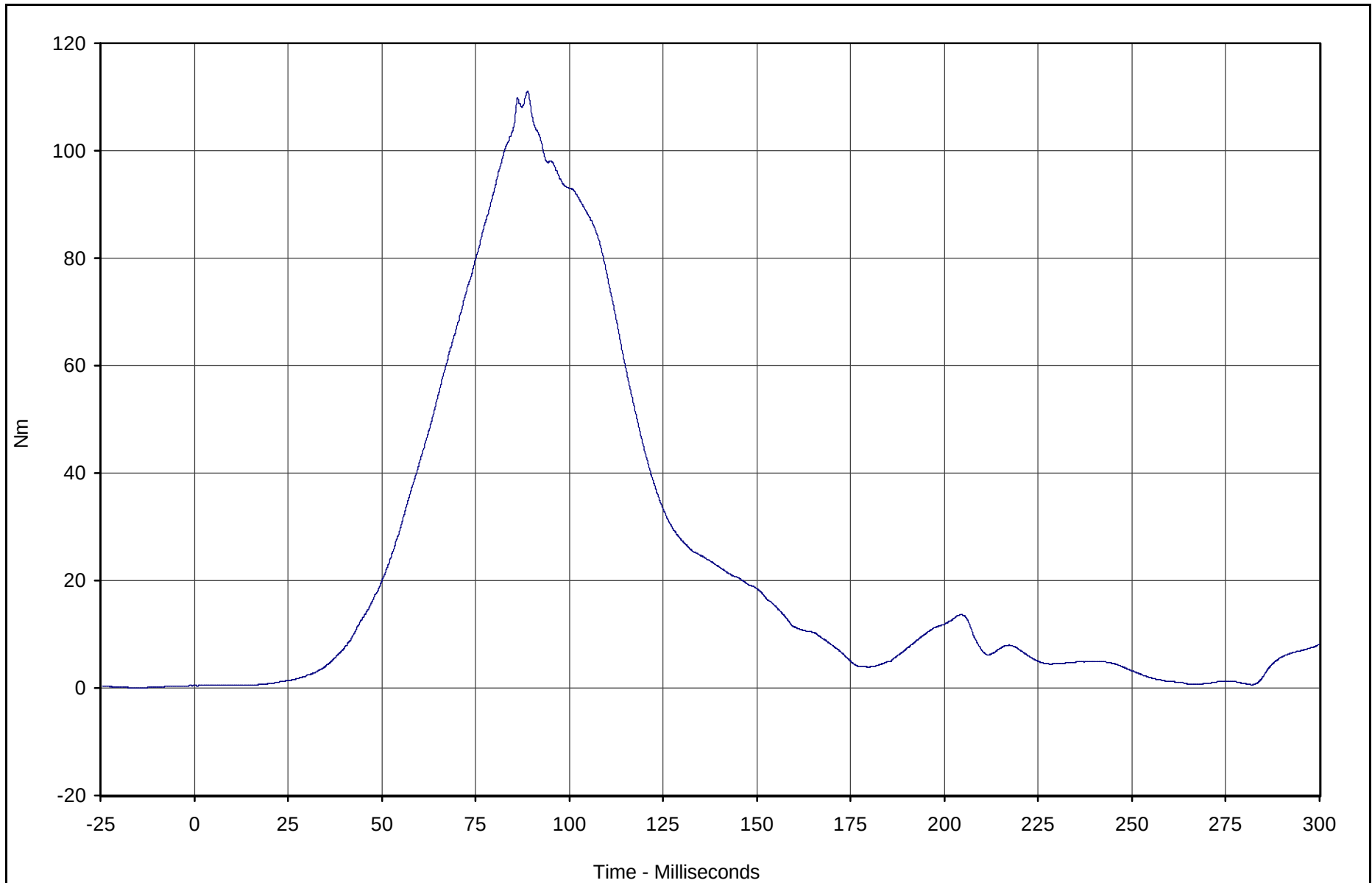


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

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NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Lower Neck Mom Res.	172	RES	Nm	111.1	88.9	0.4	0.8	600

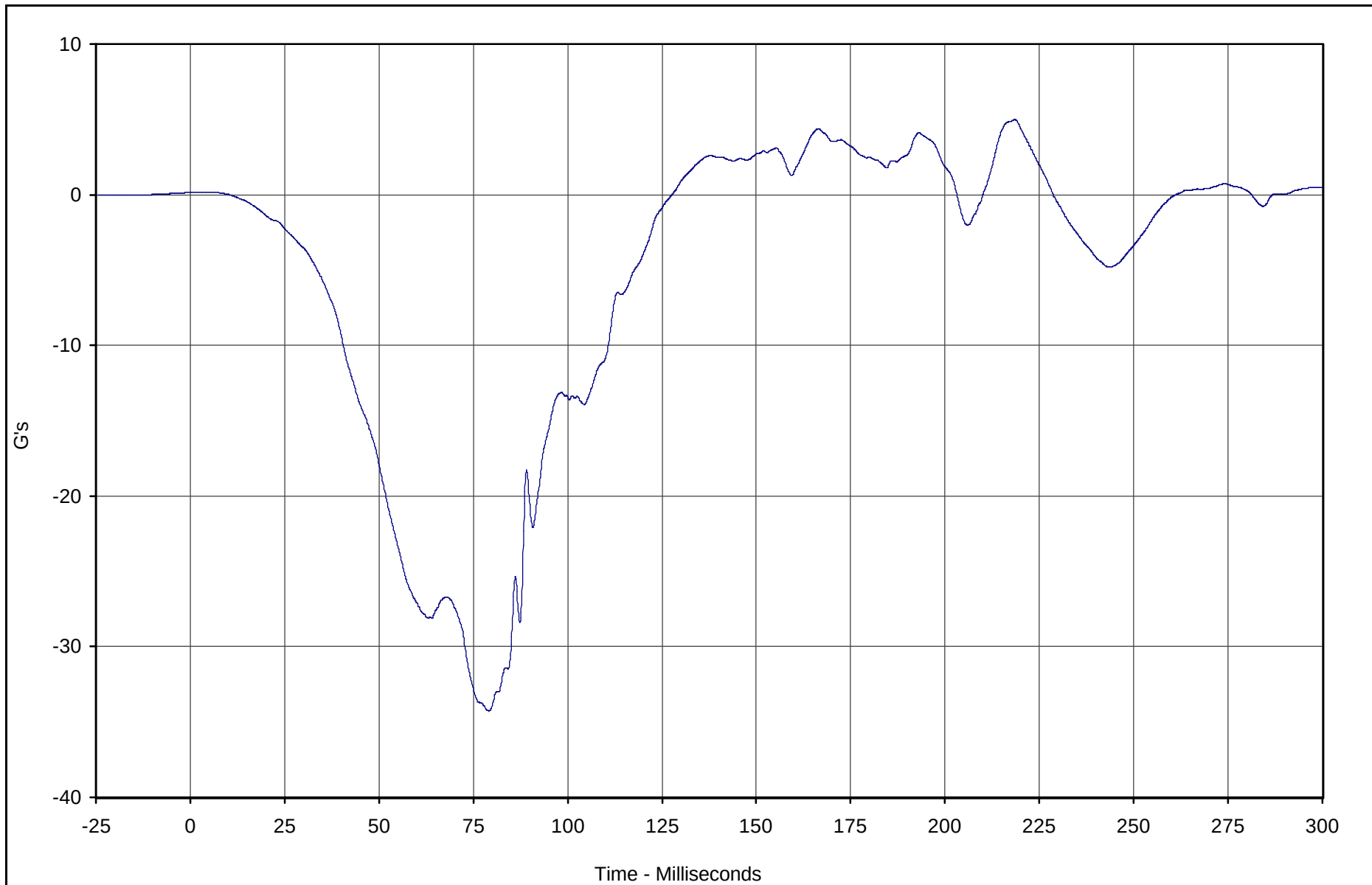


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NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Chest X	175	FIL	G's	5.0	218.5	-34.3	79.2	180

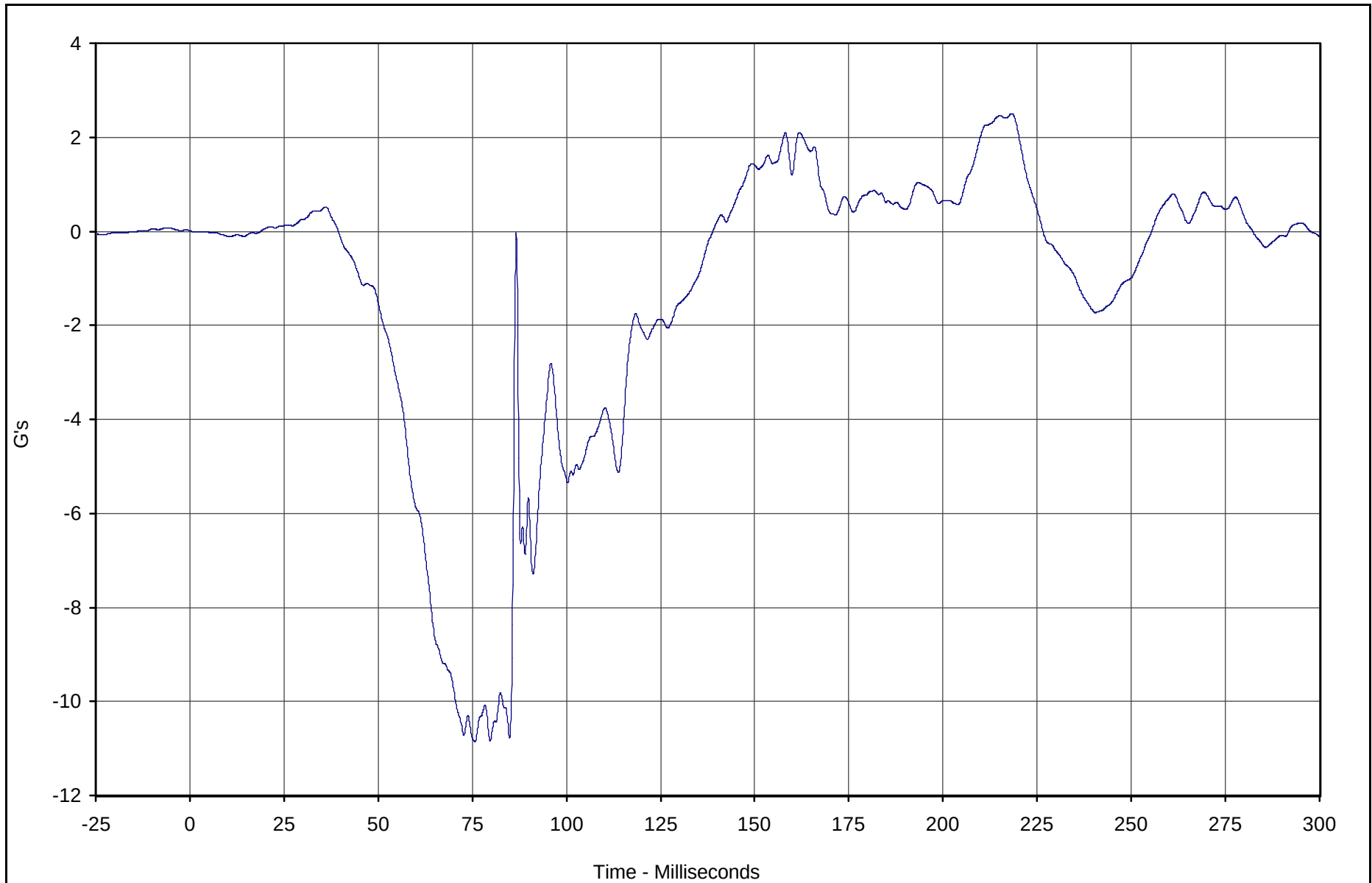


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Chest Y	176	FIL	G's	2.5	218.3	-10.9	75.7	180

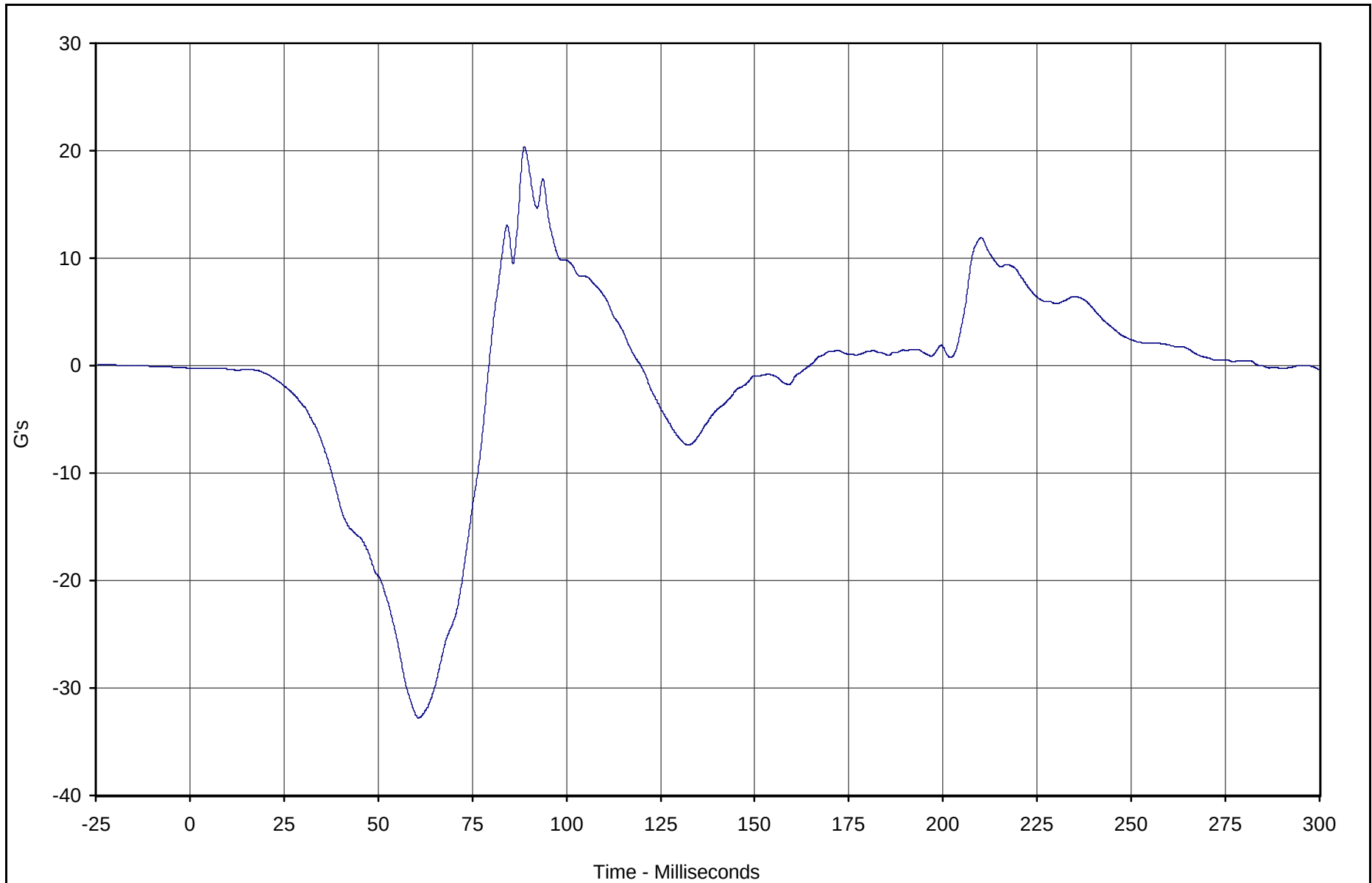


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Chest Z	177	FIL	G's	20.3	88.9	-32.8	60.7	180

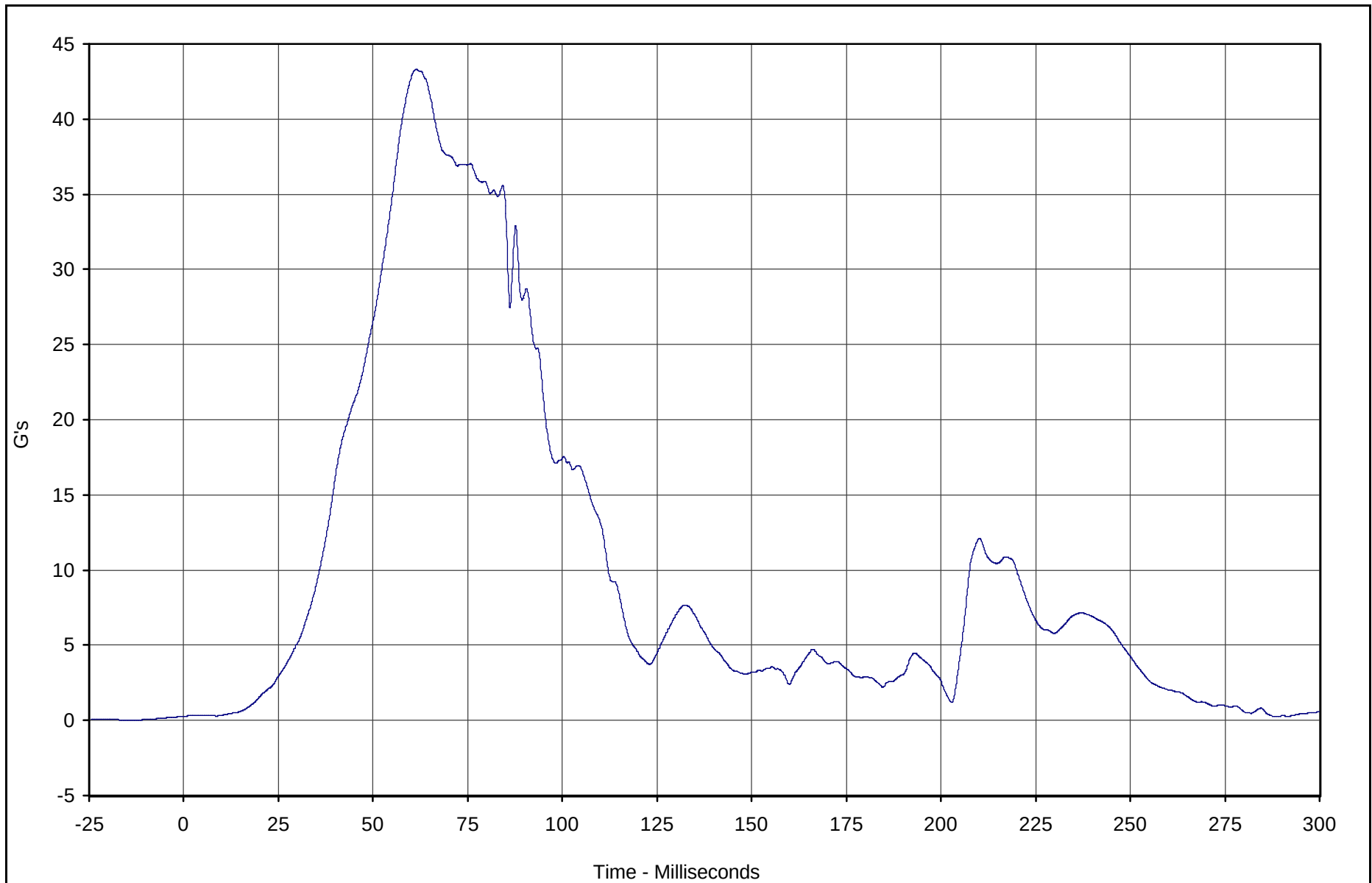


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Chest Resultant	177	RES	G's	43.3	61.4	0.2	288.6	180

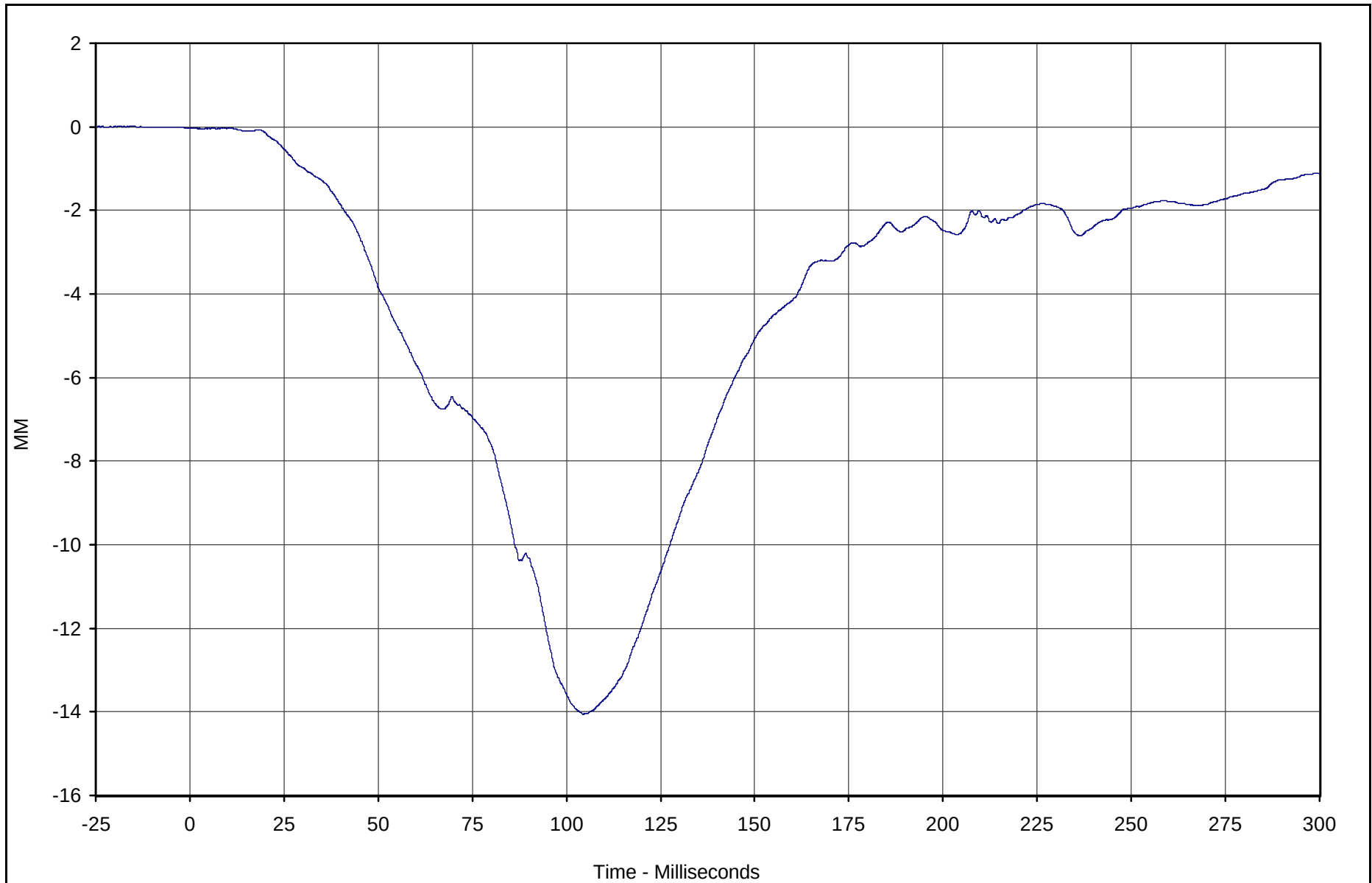


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Chest Displacement	178	FIL	MM	0.0	0.1	-14.1	104.4	600

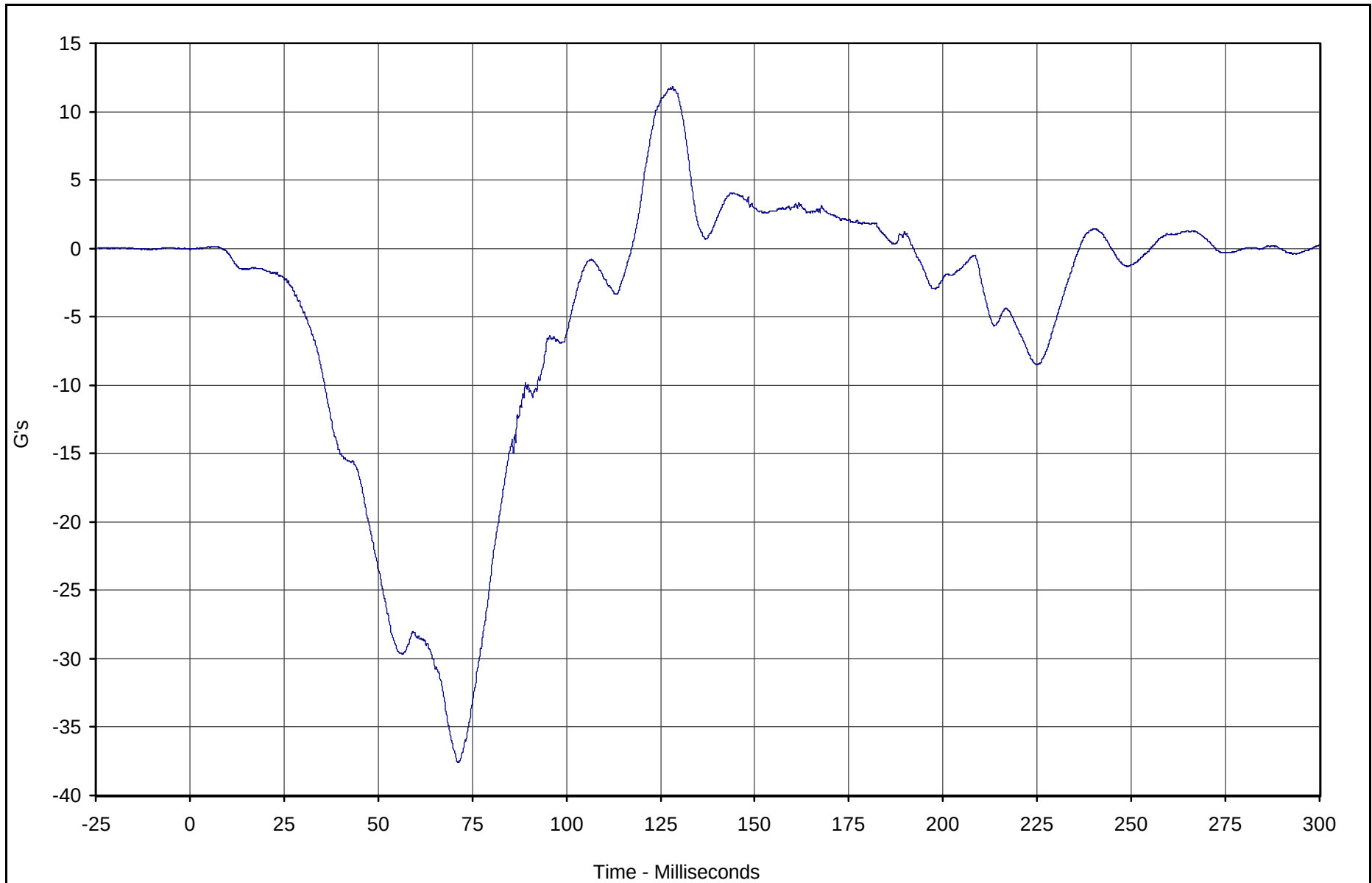


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Pelvis X	179	FIL	G's	11.9	128.2	-37.6	71.2	1000

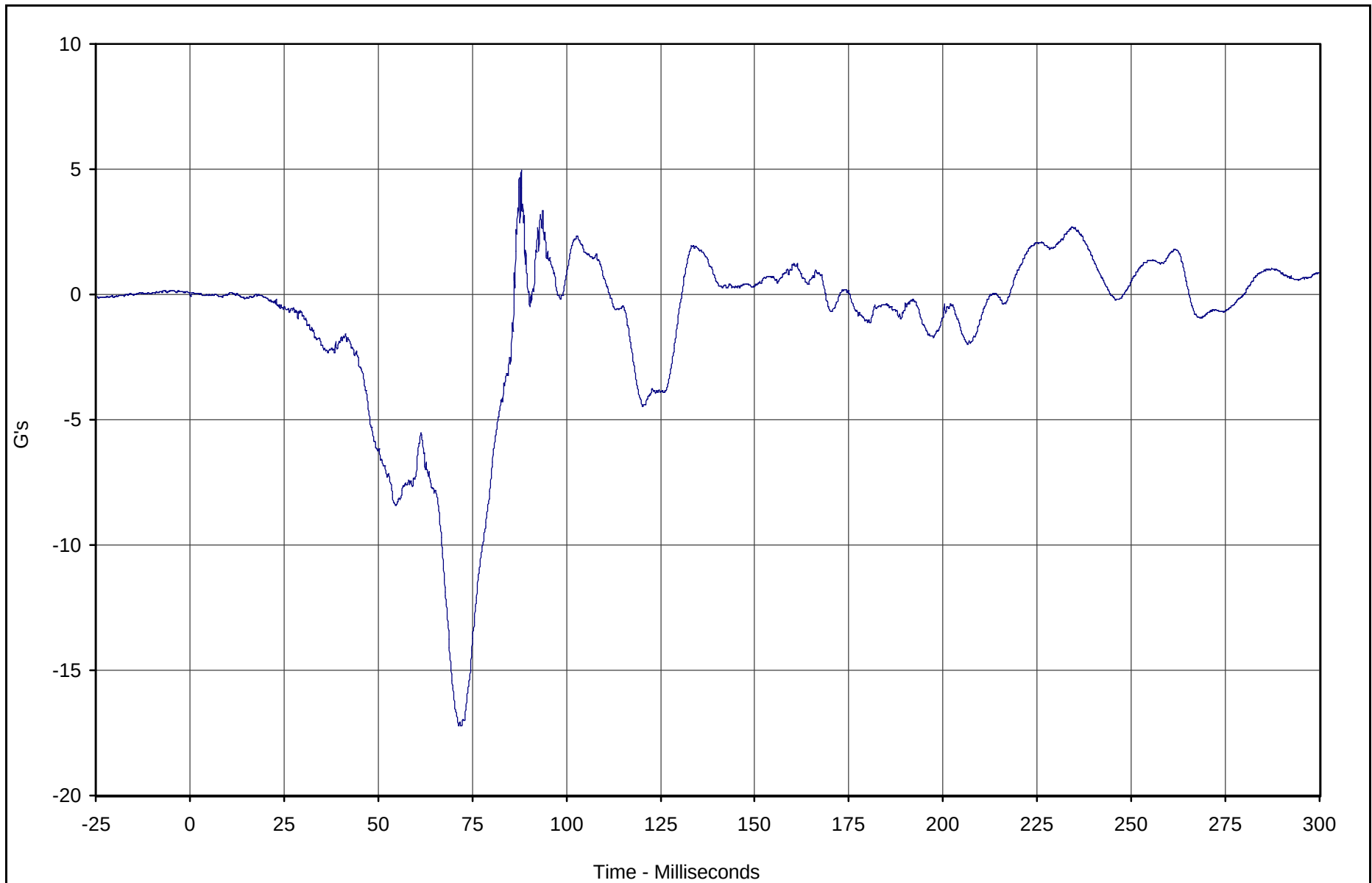


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Pelvis Y	180	FIL	G's	5.0	88.0	-17.2	72.1	1000

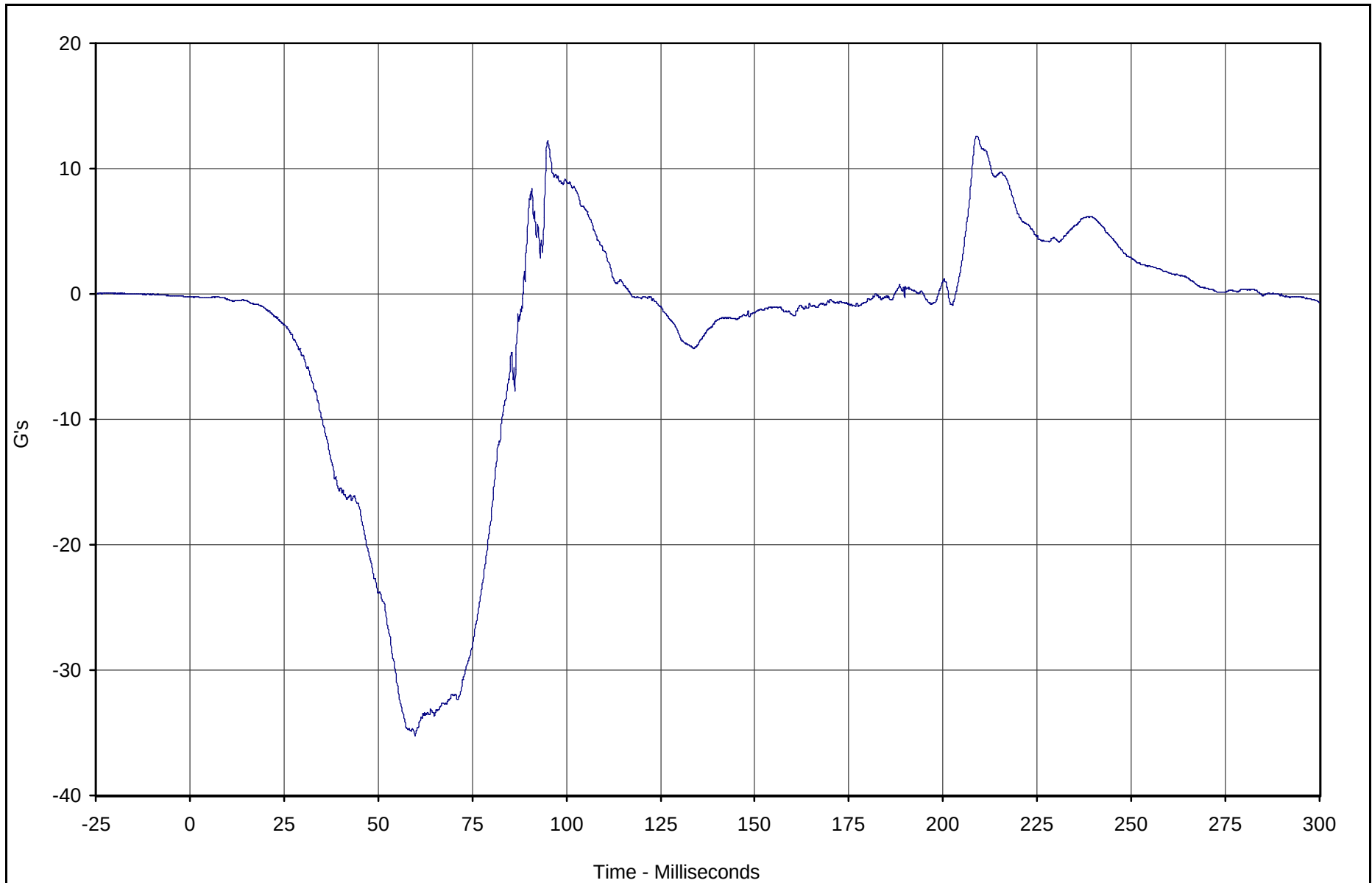


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Pelvis Z	181	FIL	G's	12.6	209.2	-35.2	59.8	1000

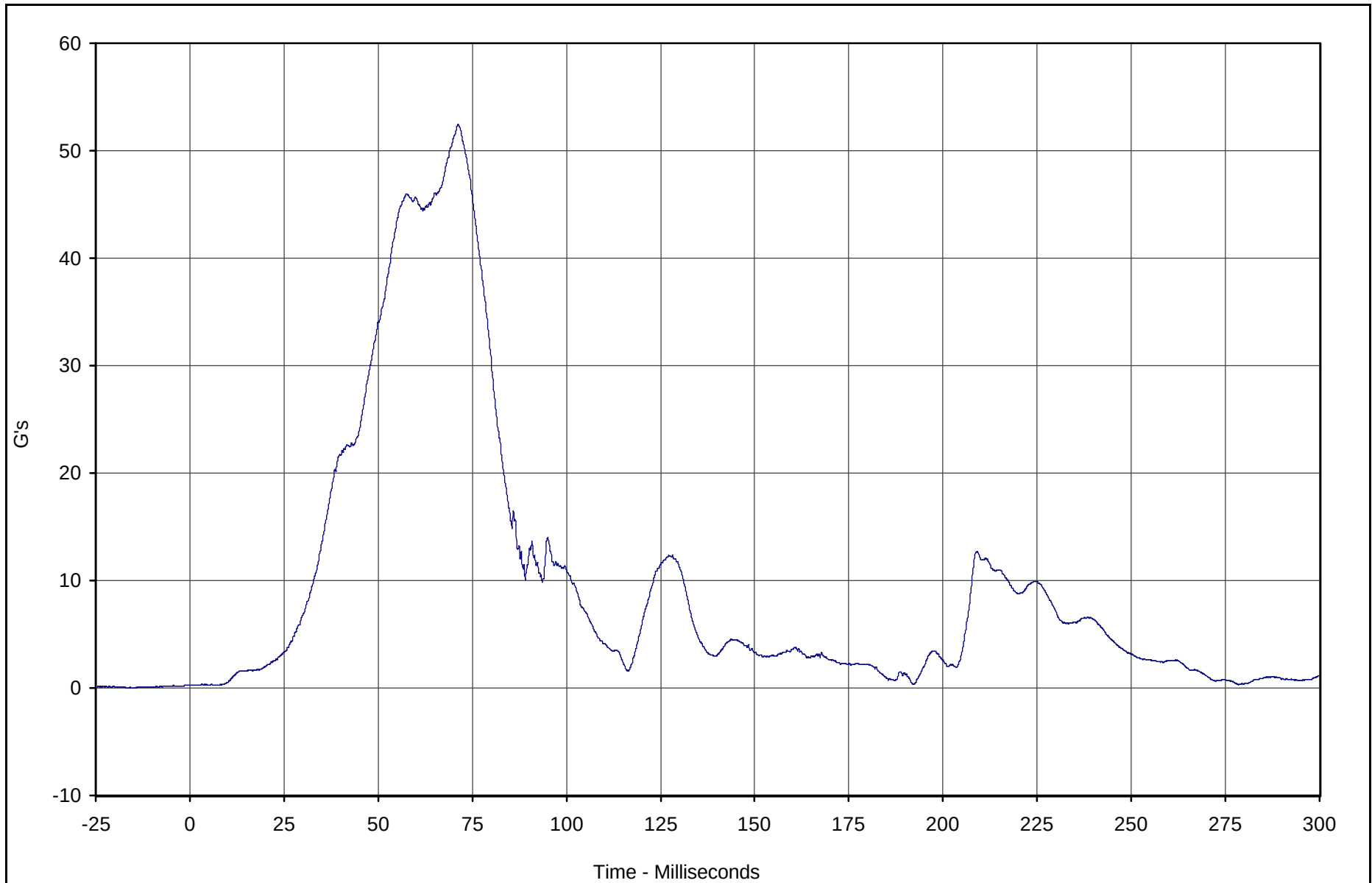


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Pelvis Resultant	179	RES	G's	52.4	71.2	0.2	0.1	1000

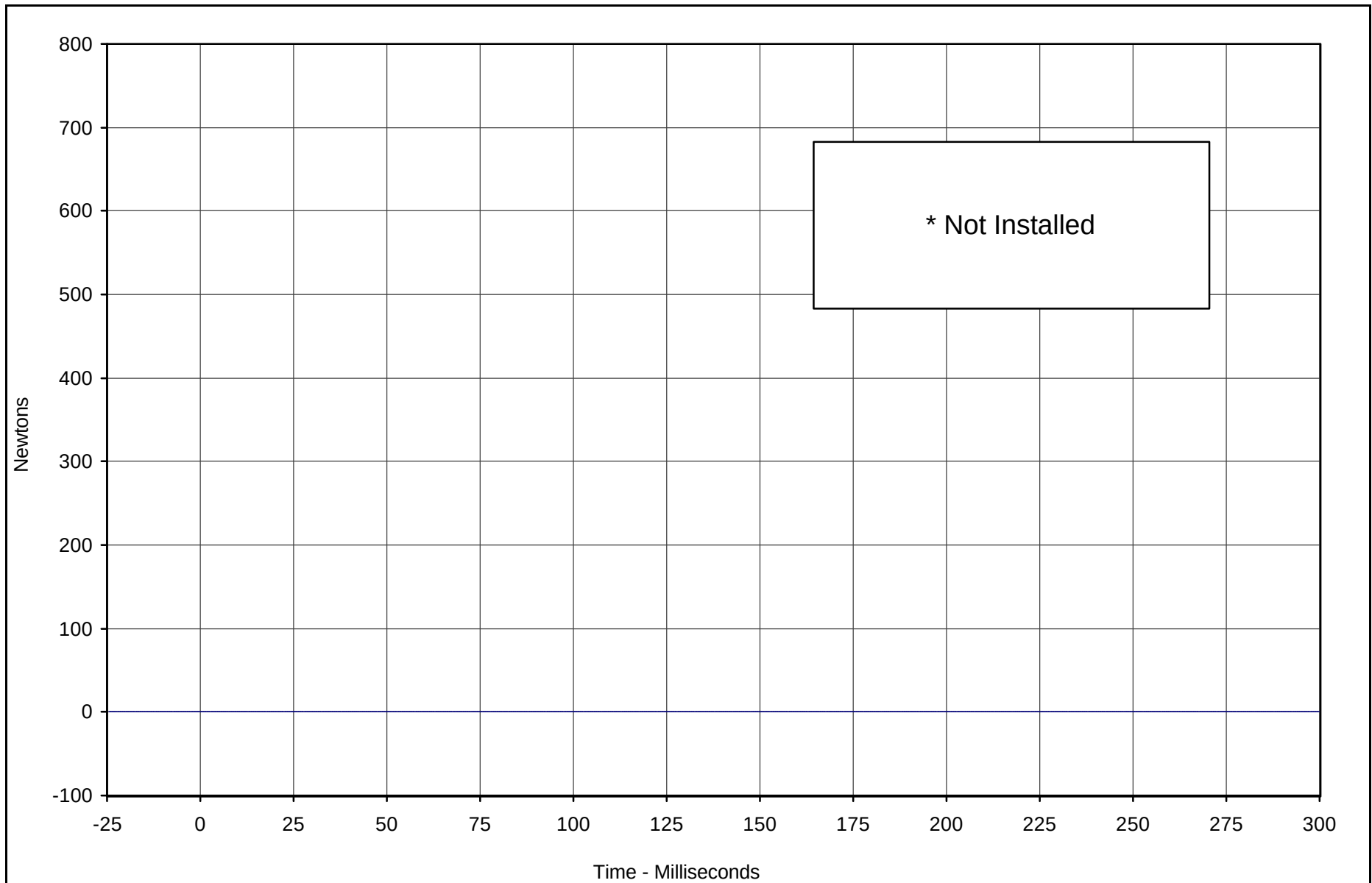


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Car Seat Tether Load	182	FIL	Newtons	0.0	0.0	0.0	0.0	60

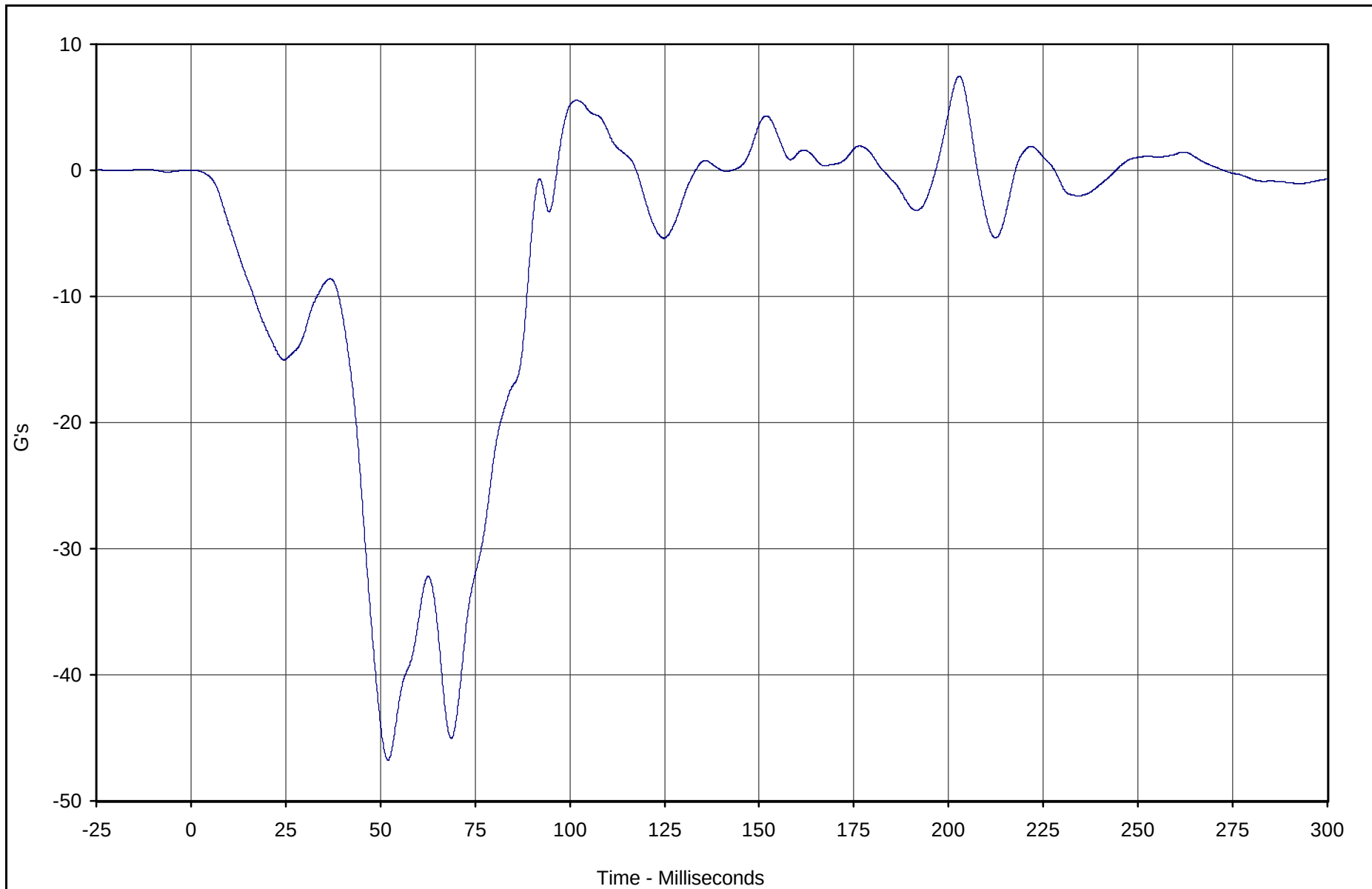


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Car Seat X	183	FIL	G's	7.5	202.8	-46.8	52.0	60

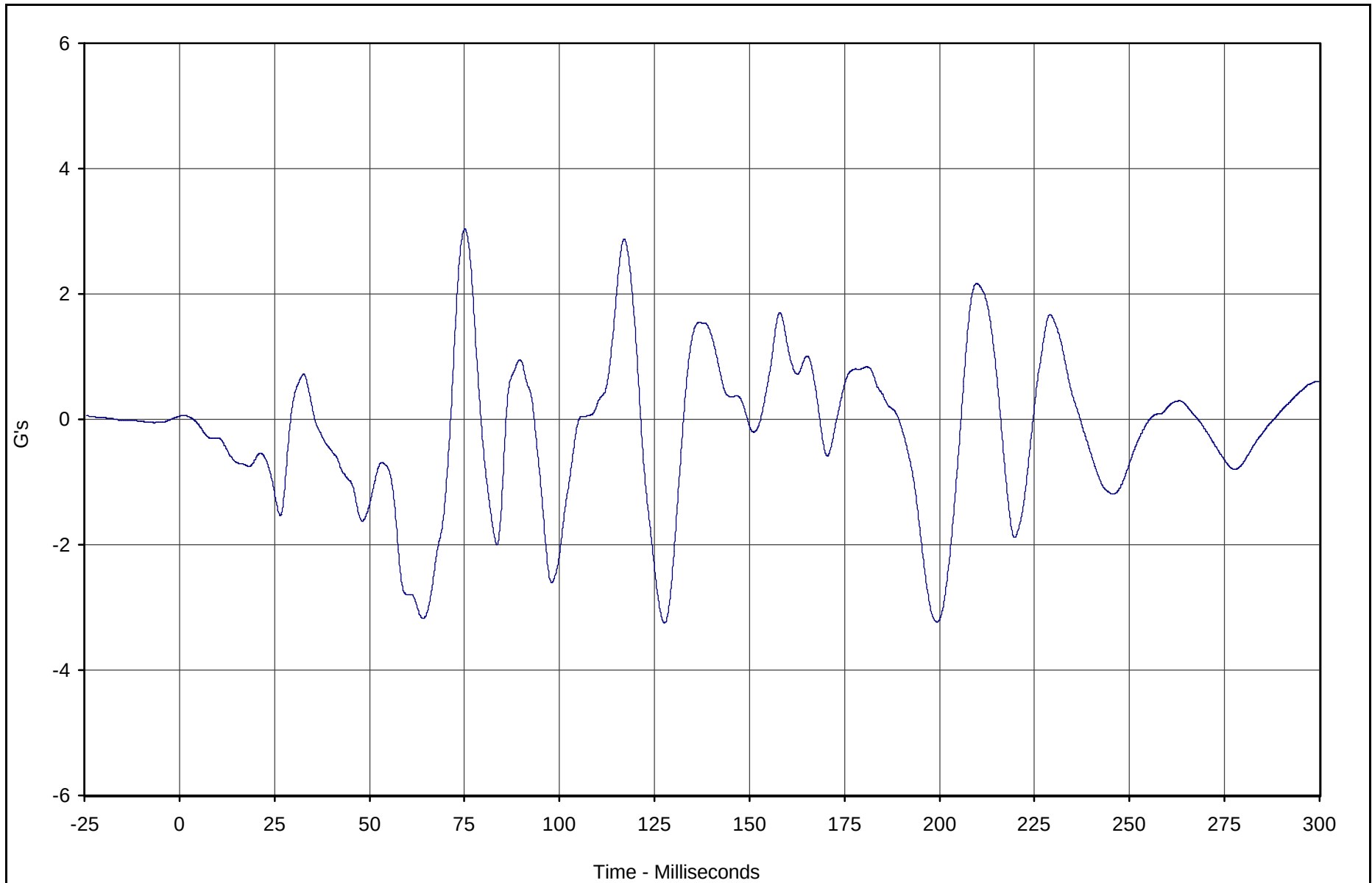


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Car Seat Y	184	FIL	G's	3.0	75.1	-3.2	127.6	60

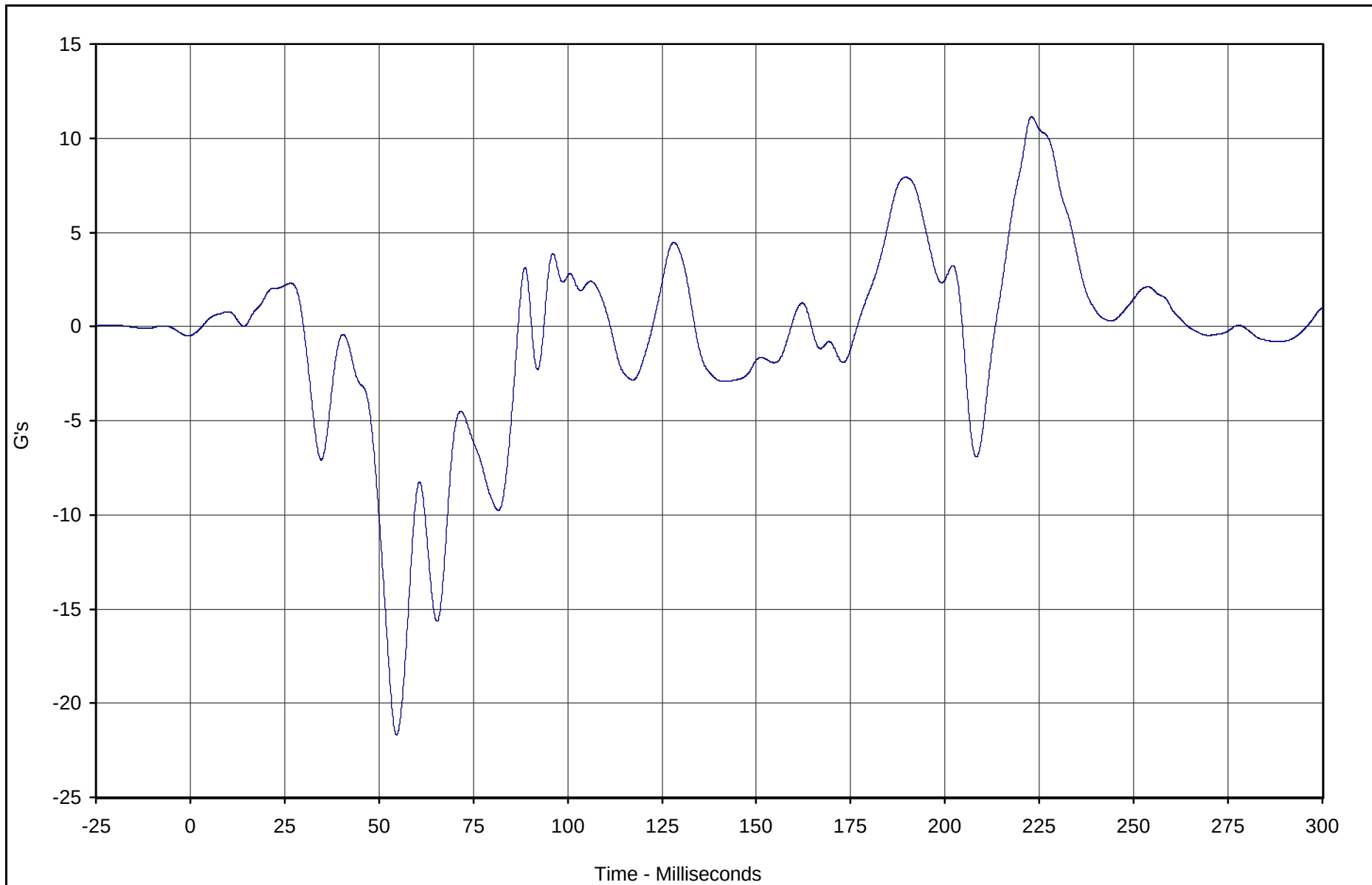


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Car Seat Z	185	FIL	G's	11.1	222.9	-21.7	54.7	60

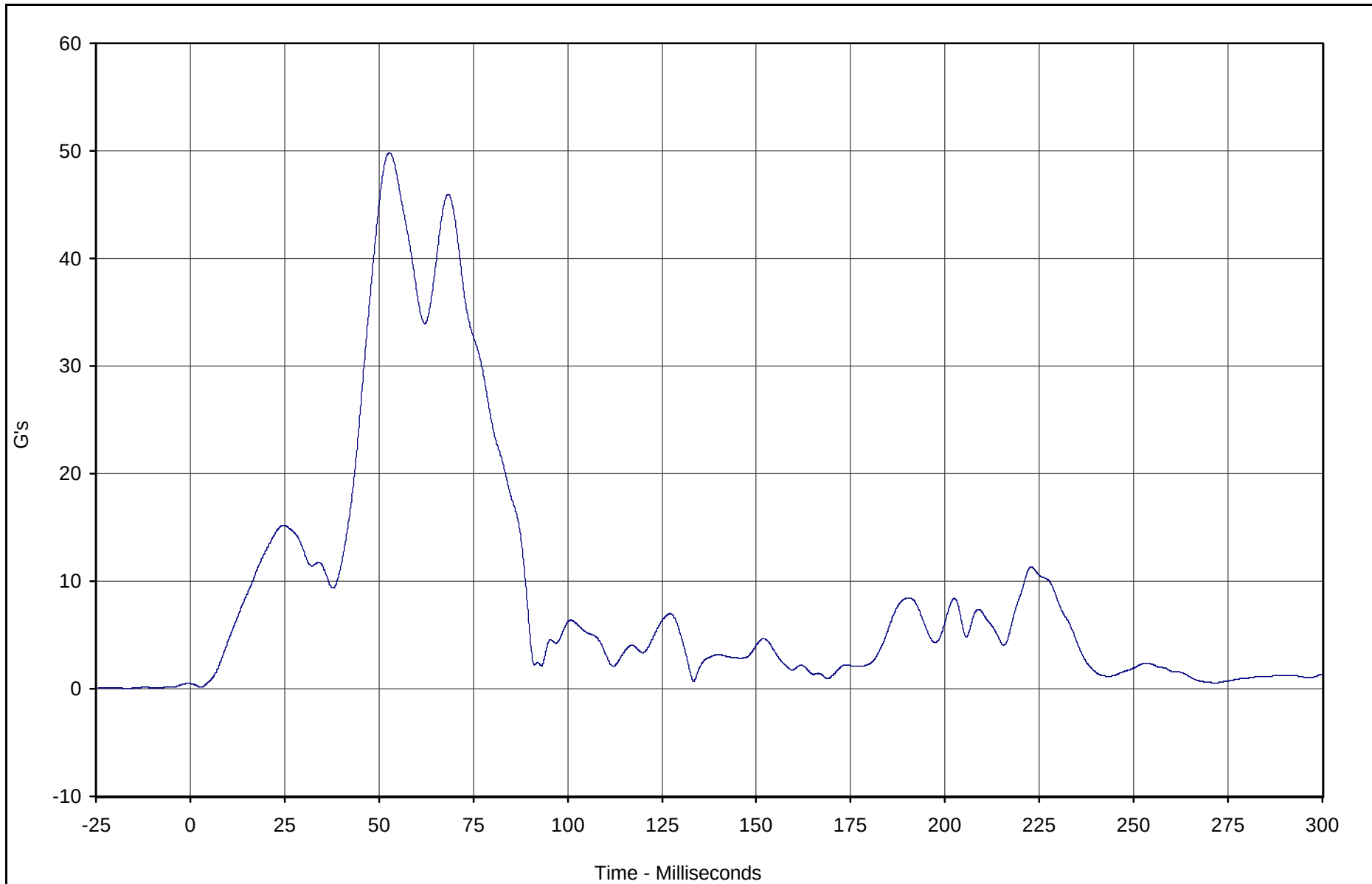


Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200



Curve Description	CURNO	Type	Units	Max	Time	Min	Time	SAE Class
Right Rear (3 Yr.) Car Seat Resultant	183	RES	G's	49.8	52.7	0.1	2.8	60



Test Vehicle: 2004 Nissan Maxima 3.5 SE 4 Door Sedan

Test Date: 9/3/03

Test Program: 2003 NHTSA 35mph NCAP

NHTSA No.: M45200

SECTION F-4
CHILD DUMMY INSTRUMENTATION INFORMATION

2003 NHTSA 35mph NCAP
Instrumentation Data Channel Assignments
Left Rear Child A.T.D. Serial Number 082
9/3/03
2004 Nissan Maxima 3.5 SE 4 Door Sedan

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
134	HEAD, PRIMARY	X	GPAC050	Accel.,1/2 bridge	Endevco	7264-2000	G
135	HEAD, PRIMARY	Y	GPAC051	Accel.,1/2 bridge	Endevco	7264-2000	G
136	HEAD, PRIMARY	Z	GPAC052	Accel.,1/2 bridge	Endevco	7264-2000	G
137	UPPER NECK FORCE	X	082UNFX	Load cell, six axis neck	R. A. Denton	IF-234	N
138	UPPER NECK FORCE	Y	082UNFY	Load cell, six axis neck	R. A. Denton	IF-234	N
139	UPPER NECK FORCE	Z	082UNFZ	Load cell, six axis neck	R. A. Denton	IF-234	N
140	UPPER NECK MOMENT	X	082UNMX	Load cell, six axis neck	R. A. Denton	IF-234	Nm
141	UPPER NECK MOMENT	Y	082UNMY	Load cell, six axis neck	R. A. Denton	IF-234	Nm
142	UPPER NECK MOMENT	Z	082UNMZ	Load cell, six axis neck	R. A. Denton	IF-234	Nm
143	LOWER NECK FORCE	X	082LNFX	Load cell, six axis neck	R. A. Denton	3303	N
144	LOWER NECK FORCE	Y	082LNFY	Load cell, six axis neck	R. A. Denton	3303	N
145	LOWER NECK FORCE	Z	082LNFZ	Load cell, six axis neck	R. A. Denton	3303	N
146	LOWER NECK MOMENT	X	082LNMX	Load cell, six axis neck	R. A. Denton	3303	Nm
147	LOWER NECK MOMENT	Y	082LNMY	Load cell, six axis neck	R. A. Denton	3303	Nm
148	LOWER NECK MOMENT	Z	082LNMZ	Load cell, six axis neck	R. A. Denton	3303	Nm
149	CHEST , PRIMARY	X	2116-A11	Accel., Full Bridge	Entran	2000JF	G
150	CHEST , PRIMARY	Y	2116-A14	Accel., Full Bridge	Entran	2000JF	G
151	CHEST , PRIMARY	Z	2116-A23	Accel., Full Bridge	Entran	2000JF	G
152	CHEST DISPLACEMENT	X	082CP	Rotary Pot Chest	Servo	14CBI	MM
153	PELVIS, PRIMARY	X	2116-A12	Accel., Full Bridge	Entran	2000JF	G
154	PELVIS, PRIMARY	Y	2116-A19	Accel., Full Bridge	Entran	2000JF	G
155	PELVIS, PRIMARY	Z	2116-A17	Accel., Full Bridge	Entran	2000JF	G
156	CAR SEAT TETHER	X	BL112	Load cell, Seat belt	FGP	FN4060	N
157	CAR SEAT	X	KETX1A	Accel.,1/2 bridge	Endevco	7264-200	G
158	CAR SEAT	Y	KETX1B	Accel.,1/2 bridge	Endevco	7264-200	G
159	CAR SEAT	Z	KETX1C	Accel.,1/2 bridge	Endevco	7264-200	G

2003 NHTSA 35mph NCAP
Instrumentation Data Channel Assignments
Right Rear Child A.T.D. Serial Number 139
9/3/03
2004 Nissan Maxima 3.5 SE 4 Door Sedan

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
160	HEAD, PRIMARY	X	GPAC047	Accel.,1/2 bridge	Endevco	7264-2000	G
161	HEAD, PRIMARY	Y	GPAC048	Accel.,1/2 bridge	Endevco	7264-2000	G
162	HEAD, PRIMARY	Z	GPAC049	Accel.,1/2 bridge	Endevco	7264-2000	G
163	UPPER NECK FORCE	X	139UNFX	Load cell, six axis neck	R. A. Denton	IF-234	N
164	UPPER NECK FORCE	Y	139UNFY	Load cell, six axis neck	R. A. Denton	IF-234	N
165	UPPER NECK FORCE	Z	139UNFZ	Load cell, six axis neck	R. A. Denton	IF-234	N
166	UPPER NECK MOMENT	X	139UNMX	Load cell, six axis neck	R. A. Denton	IF-234	Nm
167	UPPER NECK MOMENT	Y	139UNMY	Load cell, six axis neck	R. A. Denton	IF-234	Nm
168	UPPER NECK MOMENT	Z	139UNMZ	Load cell, six axis neck	R. A. Denton	IF-234	Nm
169	LOWER NECK FORCE	X	139LNFX	Load cell, six axis neck	R. A. Denton	3303	N
170	LOWER NECK FORCE	Y	139LNFY	Load cell, six axis neck	R. A. Denton	3303	N
171	LOWER NECK FORCE	Z	139LNFZ	Load cell, six axis neck	R. A. Denton	3303	N
172	LOWER NECK MOMENT	X	139LNMX	Load cell, six axis neck	R. A. Denton	3303	Nm
173	LOWER NECK MOMENT	Y	139LNMY	Load cell, six axis neck	R. A. Denton	3303	Nm
174	LOWER NECK MOMENT	Z	139LNMZ	Load cell, six axis neck	R. A. Denton	3303	Nm
175	CHEST , PRIMARY	X	2116-A01	Accel., Full Bridge	Entran	2000JF	G
176	CHEST , PRIMARY	Y	2116-A06	Accel., Full Bridge	Entran	2000JF	G
177	CHEST , PRIMARY	Z	2116-A07	Accel., Full Bridge	Entran	2000JF	G
178	CHEST DISPLACEMENT	X	139CP	Rotary Pot Chest	Servo	14CBI	MM
179	PELVIS, PRIMARY	X	2116-N07	Accel., Full Bridge	Entran	2000JF	G
180	PELVIS, PRIMARY	Y	2116-A03	Accel., Full Bridge	Entran	2000JF	G
181	PELVIS, PRIMARY	Z	2116-A17	Accel., Full Bridge	Entran	2000JF	G
182	CAR SEAT TETHER	X	BL113	Load cell, Seat belt	FGP	FN4060	N
183	CAR SEAT	X	KETX4A	Accel.,1/2 bridge	Endevco	7264-200	G
184	CAR SEAT	Y	KETX4B	Accel.,1/2 bridge	Endevco	7264-200	G
185	CAR SEAT	Z	KETX4C	Accel.,1/2 bridge	Endevco	7264-200	G

SECTION F-5
CHILD DUMMY CALIBRATION INFORMATION



Calibration Data Sheet

Hybrid III 3 Year Old

Head Drop Test

ATD Serial No.: 082

Test I.D.: HD09A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	250.0 to 280.0	269.3	Pass
Peak Lateral Acceleration	G's	≤15.0	5.6	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<10	4.3	Pass
Overall Test Results				Pass

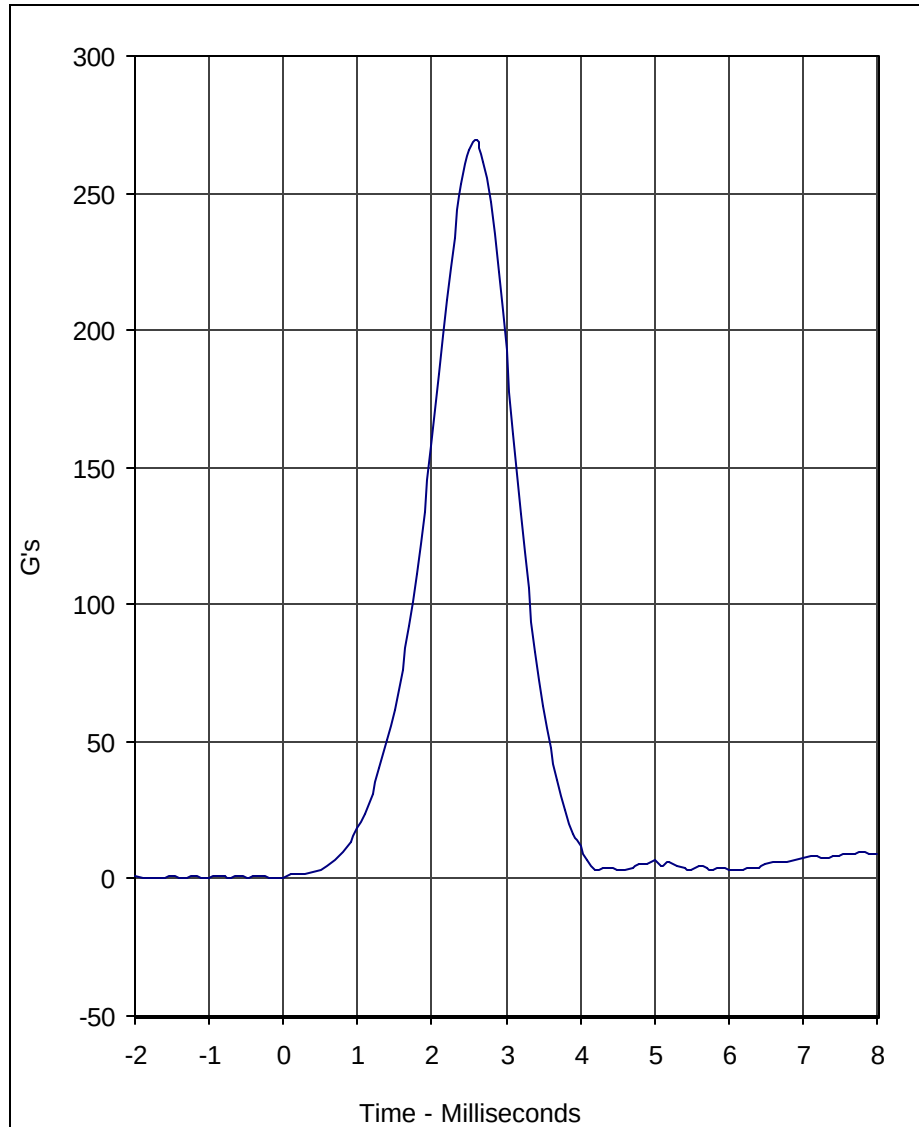
F5-1

TR-P23001-19-NC

Laboratory Technician

August 25, 2003

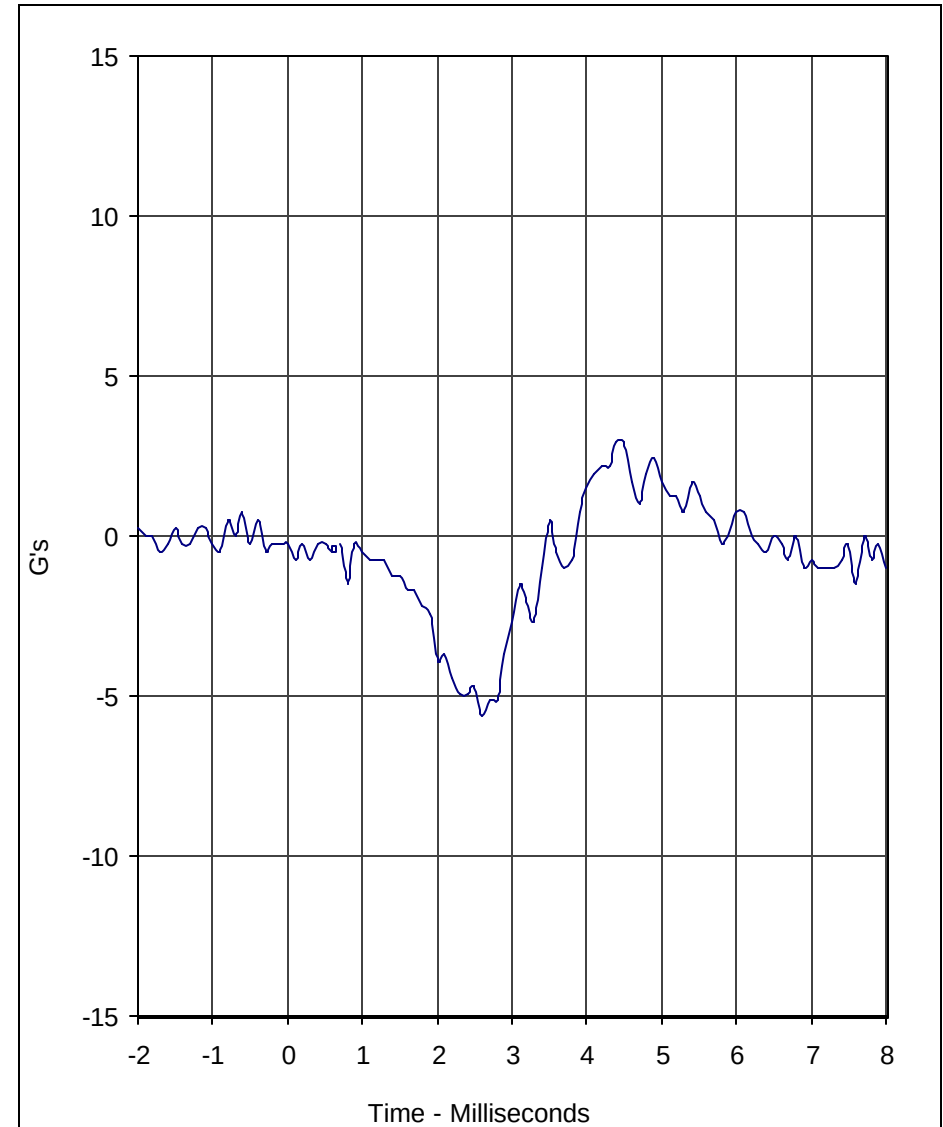
Test Date



Curve Description				CURNO	Type
Head Resultant				001	RES
Units	Max	Time	Min	Time	SAE Class
G's	269.3	2.6	0.1	-0.7	1000

Test Program: Hybrid III 3 Year Old Head Drop Test

Test Date: 8/25/03



Curve Description				CURNO	Type
Head Y				002	FIL
Units	Max	Time	Min	Time	SAE Class
G's	2.9	4.4	-5.6	2.6	1000

A.T.D. Serial No.: 082

Test I.D.: HD09A





Calibration Data Sheet

Hybrid III 3 Year Old

Thorax Impact Test

ATD Serial No.: 082

Test I.D.: CH09A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	5.9 to 6.1	6.02	Pass
Peak Chest Compression	MM	32 to 38	35.5	Pass
Peak Probe Force Between 32 and 38 MM	Newtons	680 to 810	759.0	Pass
Peak Probe Force Between 12.5 and 32 MM	Newtons	≤860	751.1	Pass
Internal Hysteresis	%	65 to 85	71.3	Pass
Overall Test Results				Pass

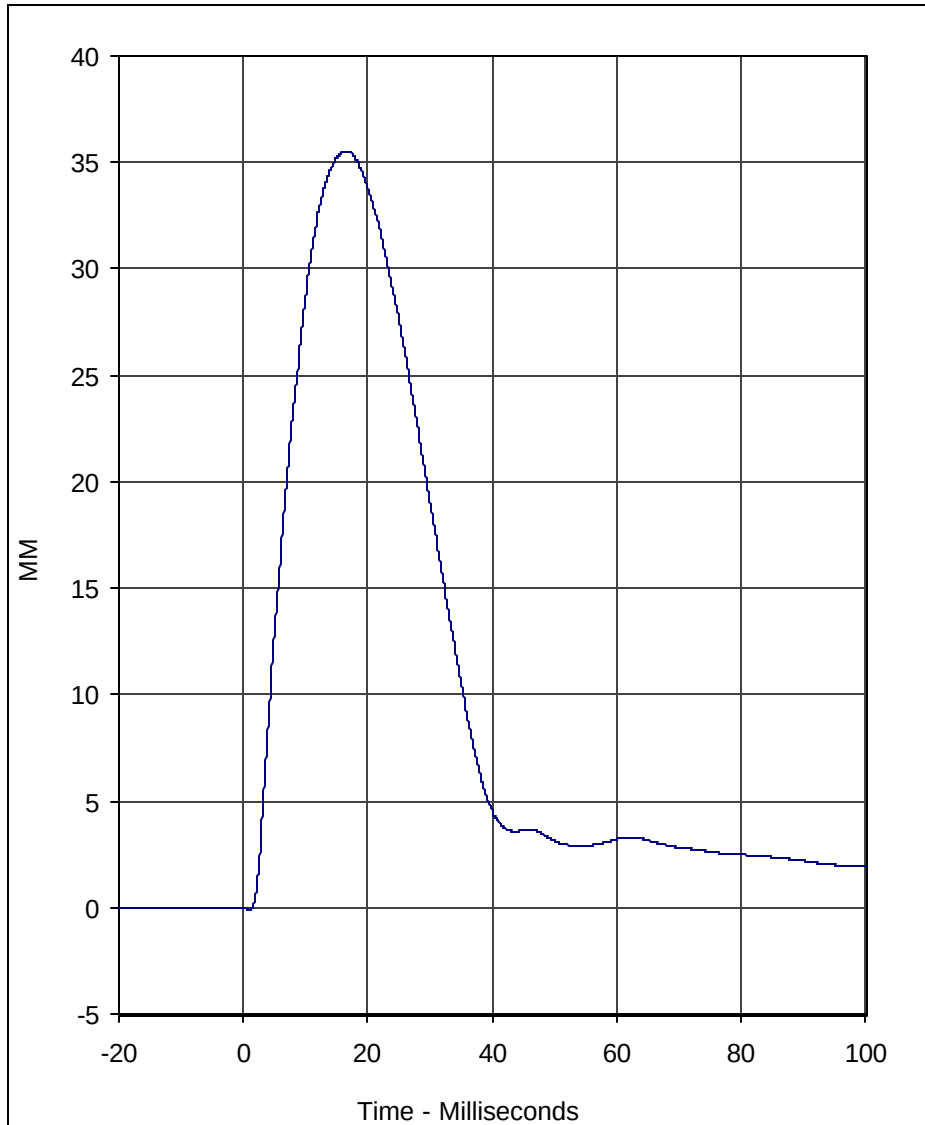
F5-3

TR-P23001-19-NC

Laboratory Technician

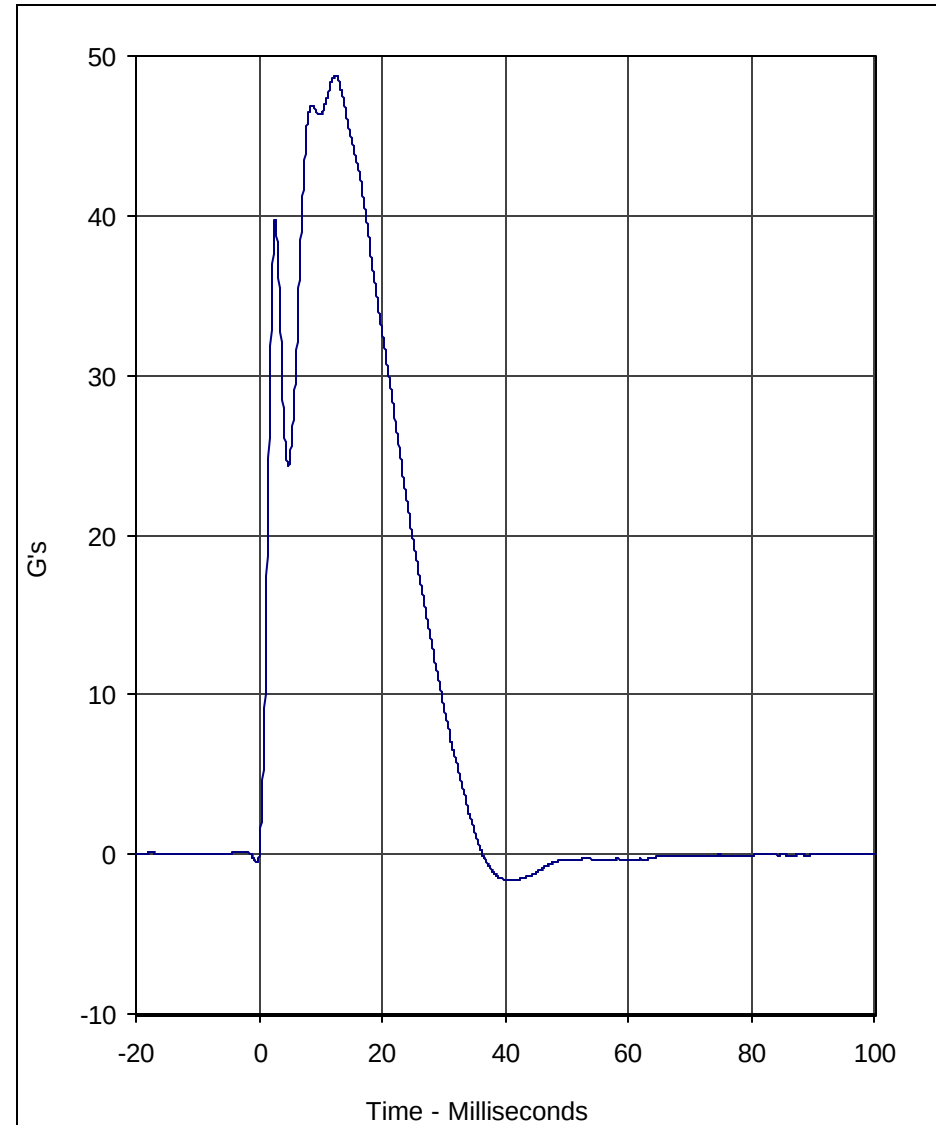
August 26, 2003

Test Date



Curve Description				CURNO	Type
Chest Compression				001	FIL
Units	Max	Time	Min	Time	SAE Class
MM	35.5	16.7	-0.1	1.0	600

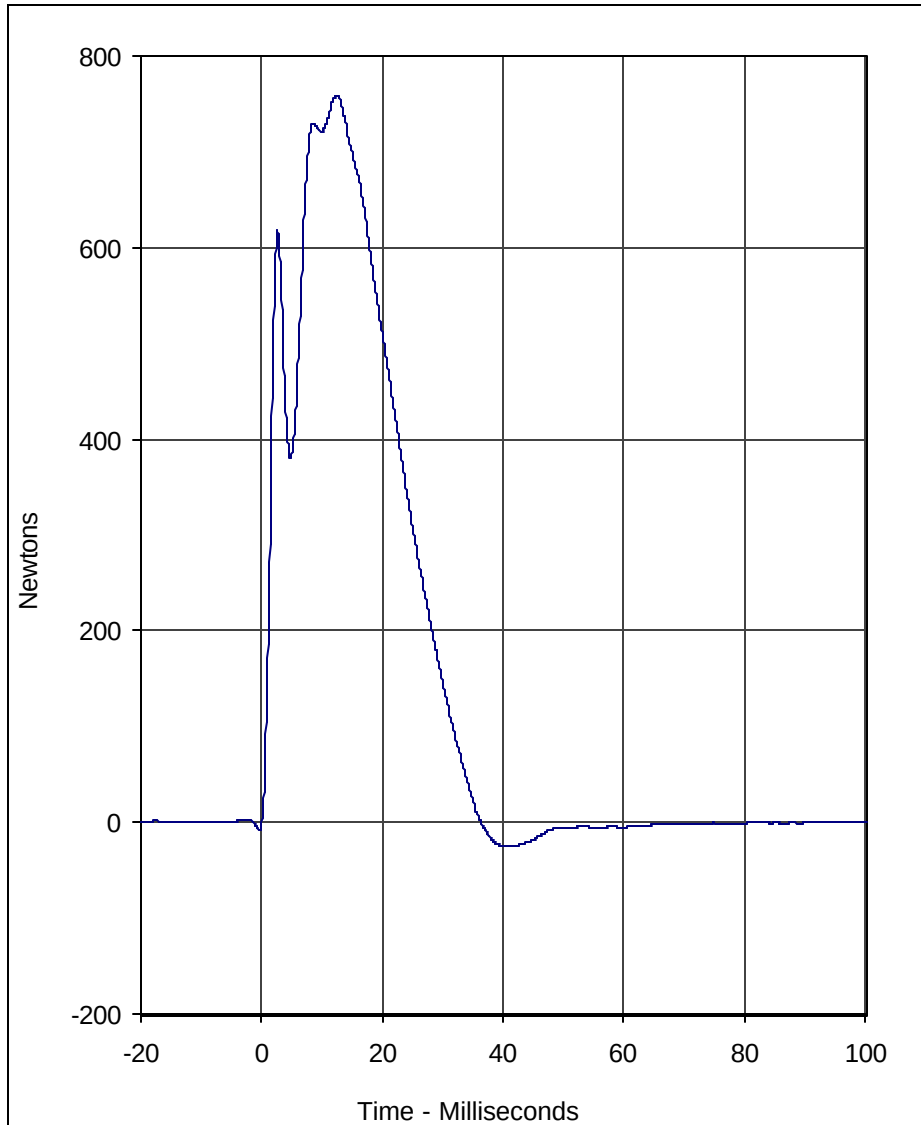
Test Program: Hybrid III 3 Year Old Thorax Impact
 Test Date: 8/26/03



Curve Description				CURNO	Type
Probe Acceleration				002	FIL
Units	Max	Time	Min	Time	SAE Class
G's	48.8	12.5	-1.6	41.8	180

A.T.D. Serial No.: 082
 Test I.D.: CH09A

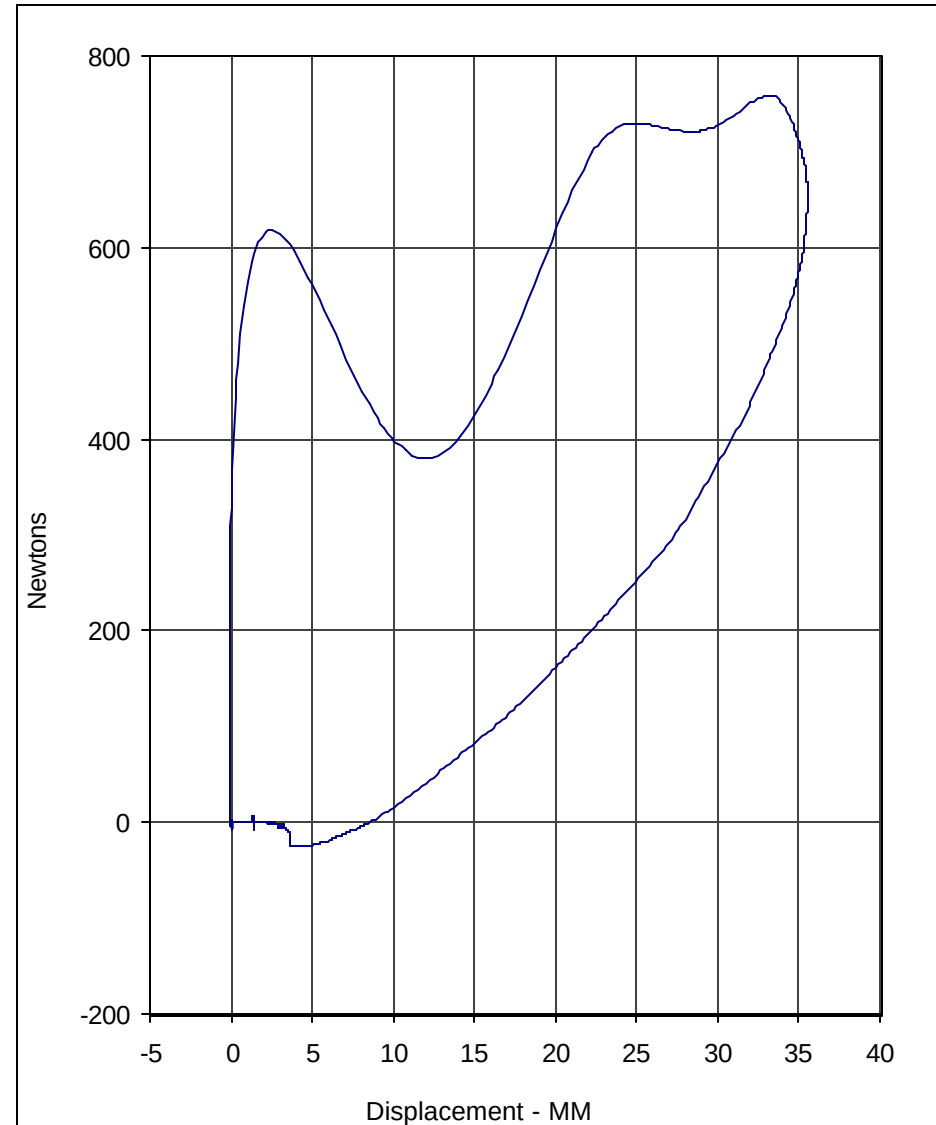




Curve Description				CURNO	Type
Probe Force				003	FIL
Units	Max	Time	Min	Time	SAE Class
Newtons	759.0	12.5	-24.8	41.8	180

Test Program: Hybrid III 3 Year Old Thorax Impact

Test Date: 8/26/03



Curve Description			CURNO	Type
Probe Force vs. Chest Compression			004	FIL
Units	Hysteresis	SAE Class		
%	71.3	180/600		

A.T.D. Serial No.: 082

Test I.D.: CH09A





Calibration Data Sheet

Hybrid III 3 Year Old

Neck Flexion Test

ATD Serial No.: 082

Test I.D.: NF09A

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	5.40 to 5.60	5.43	Pass
Pendulum Deceleration	10 Msec.	m/s	2.0 to 2.7	2.2	Pass
	20 Msec.	m/s	3.0 to 4.0	4.0	Pass
	30 Msec.	m/s	4.0 to 5.1	5.1	Pass
"D" Plane Rotation	Maximum	Degrees	70.0 to 82.0	73.6	Pass
Peak Moment in Rotation	Maximum	Nm	42.0 to 53.0	45.1	Pass
Positive Moment Decay, Time to 10Nm		Msec.	60.0 to 80.0	73.4	Pass
Overall Test Results					Pass

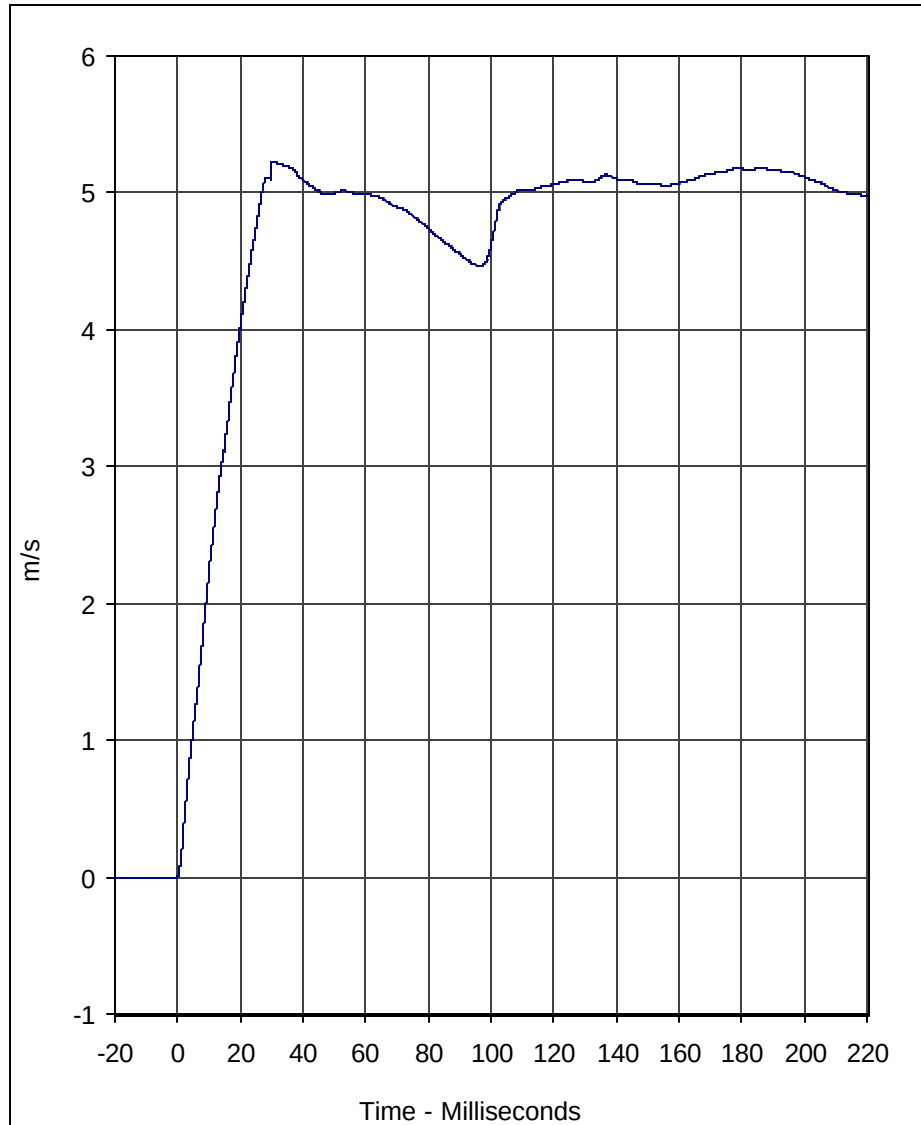
FS-6

TR-P23001-19-NC

Laboratory Technician

August 26, 2003

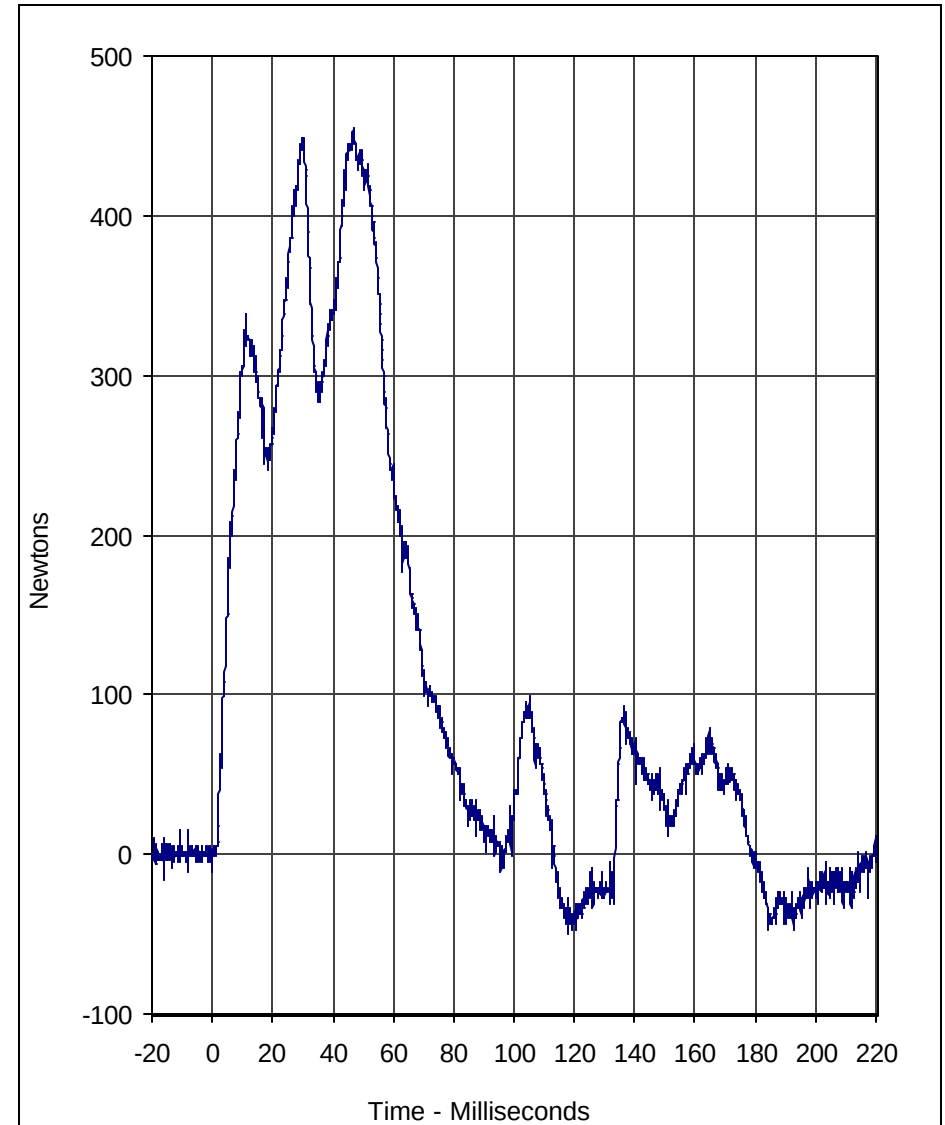
Test Date



Curve Description				CURNO	Type
Pendulum Velocity				001	FIL
Units	Max	Time	Min	Time	SAE Class
m/s	5.2	30.8	0.0	-0.5	180

Test Program: 3 Year Old Hybrid III Neck Flexion Test

Test Date: 8/26/03

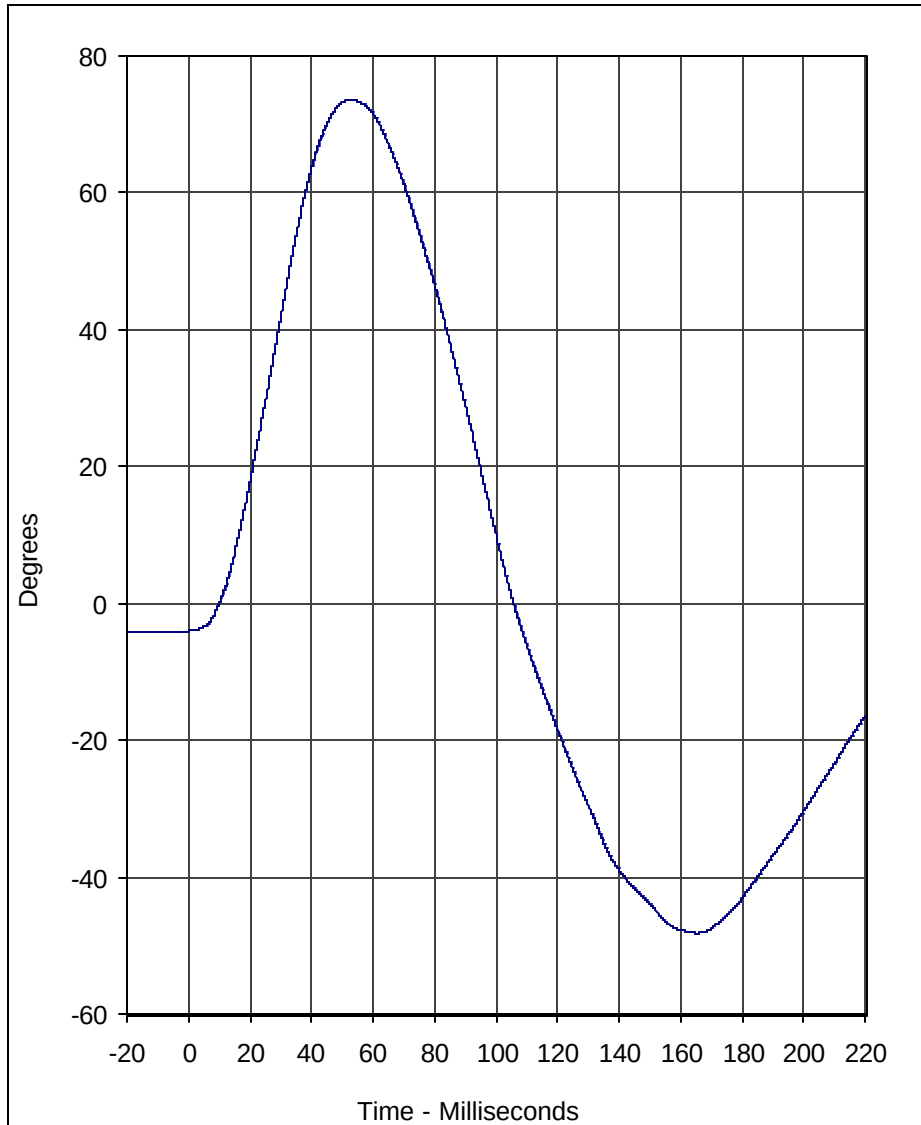


Curve Description				CURNO	Type
Neck Force X				002	FIL
Units	Max	Time	Min	Time	SAE Class
Newtons	454.5	46.7	-50.0	118.0	1000

A.T.D. Serial No.: 082

Test I.D.: NF09A

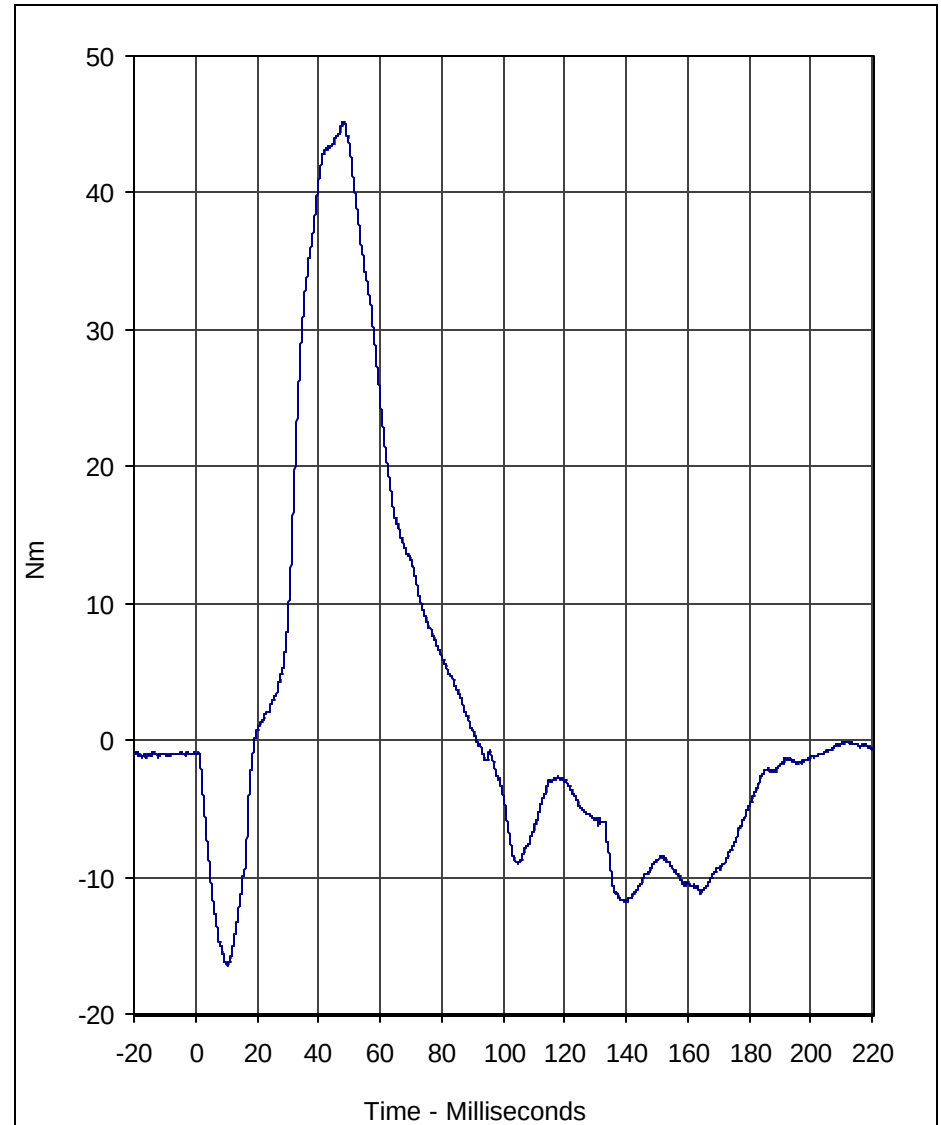




Curve Description				CURNO	Type
"D" Plane Rotation				003	FIL
Units	Max	Time	Min	Time	SAE Class
Degrees	73.6	52.9	-48.2	165.4	60

Test Program: 3 Year Old Hybrid III Neck Flexion Test

Test Date: 8/26/03



Curve Description				CURNO	Type
Neck Moment Y				002	FIL
Units	Max	Time	Min	Time	SAE Class
Nm	45.1	48.5	-16.5	10.4	600

A.T.D. Serial No.: 082

Test I.D.: NF09A





Calibration Data Sheet

Hybrid III 3 Year Old

Neck Extension Test

ATD Serial No.: 082

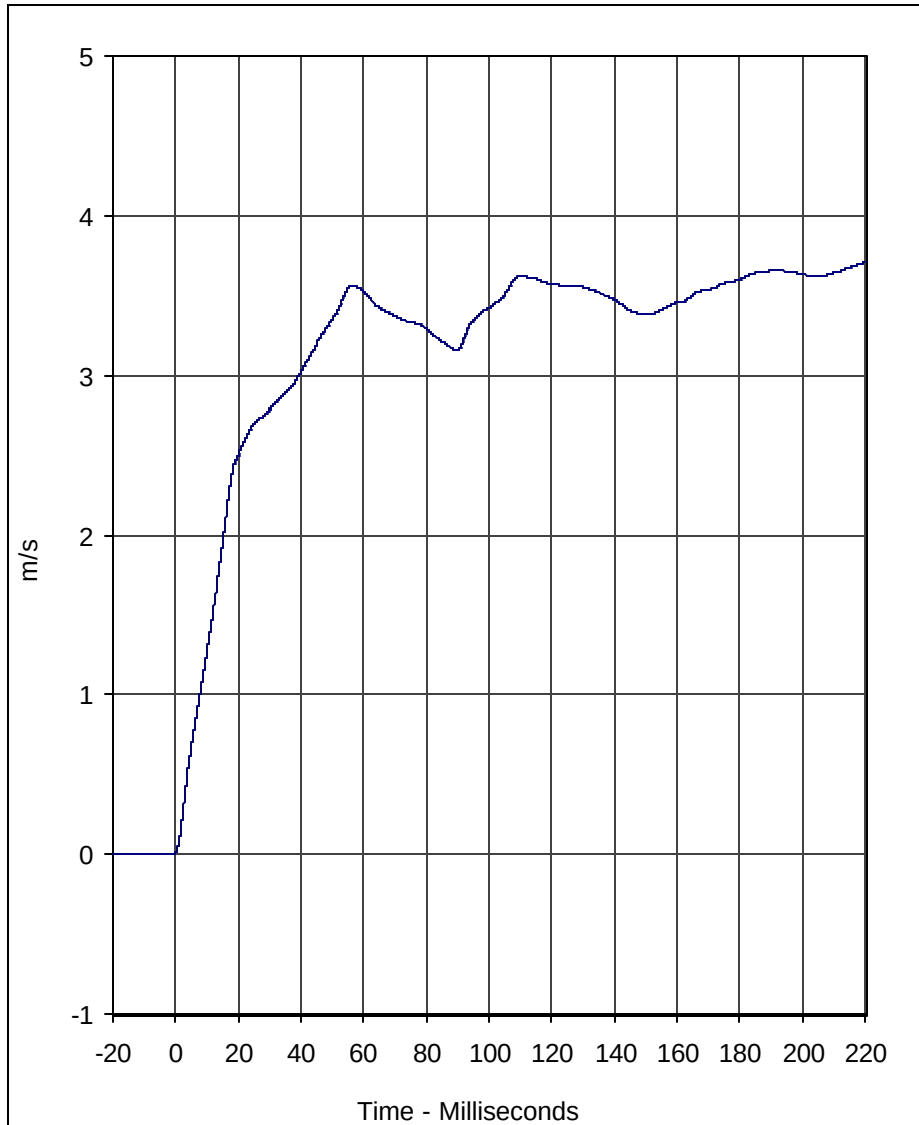
Test I.D.: NE09A

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	3.55 to 3.75	3.60	Pass
Pendulum Deceleration	10 Msec.	m/s	1.0 to 1.4	1.3	Pass
	20 Msec.	m/s	1.9 to 2.5	2.5	Pass
	30 Msec.	m/s	2.8 to 3.5	2.8	Pass
"D" Plane Rotation	Maximum	Degrees	83.0 to 93.0	85.2	Pass
Peak Moment in Rotation	Maximum	Nm	-43.7 to -53.3	-46.9	Pass
Positive Moment Decay, Time to 10Nm		Msec.	60.0 to 80.0	68.2	Pass
Overall Test Results					Pass

Laboratory Technician

August 26, 2003

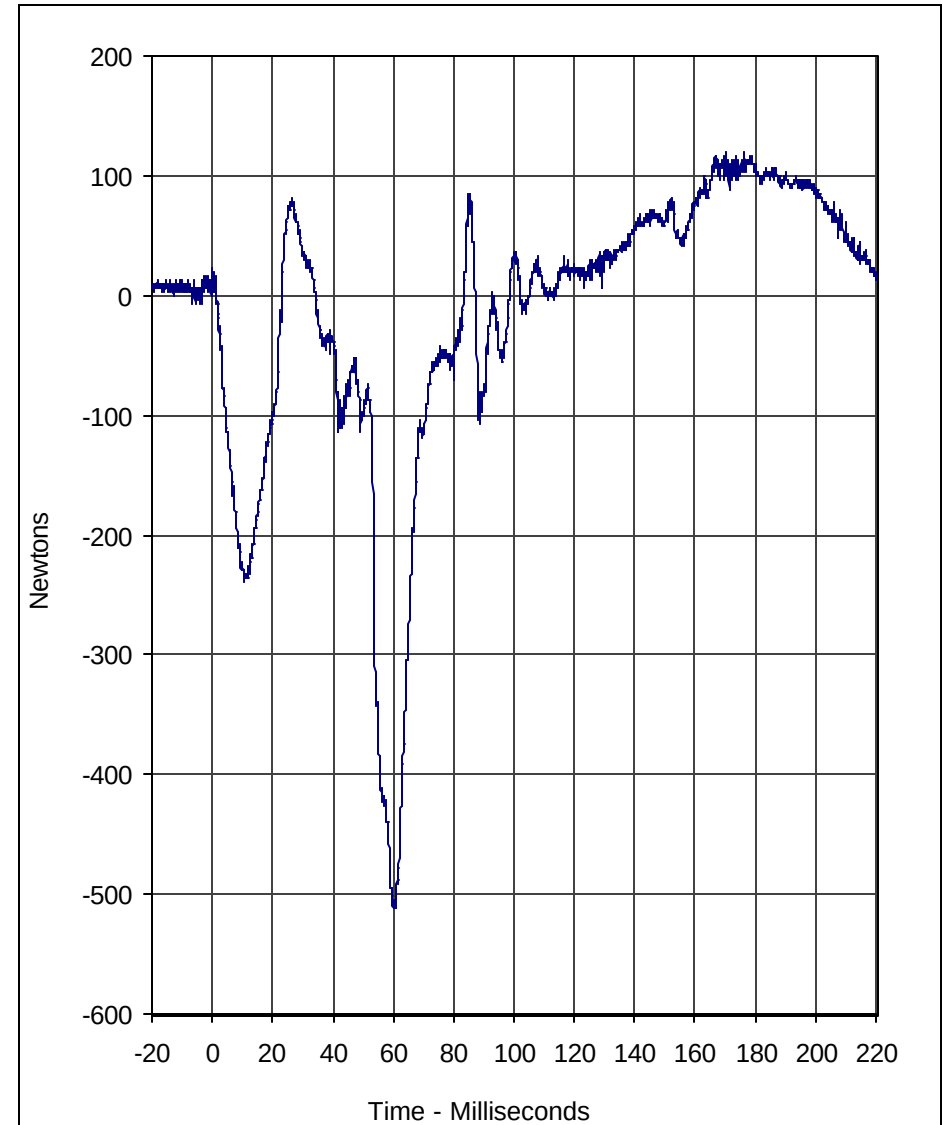
Test Date



Curve Description				CURNO	Type
Pendulum Velocity				001	FIL
Units	Max	Time	Min	Time	SAE Class
m/s	3.7	220.0	0.0	-0.7	180

Test Program: 3 Year Old Hybrid III Neck Extension Test

Test Date: 8/26/03

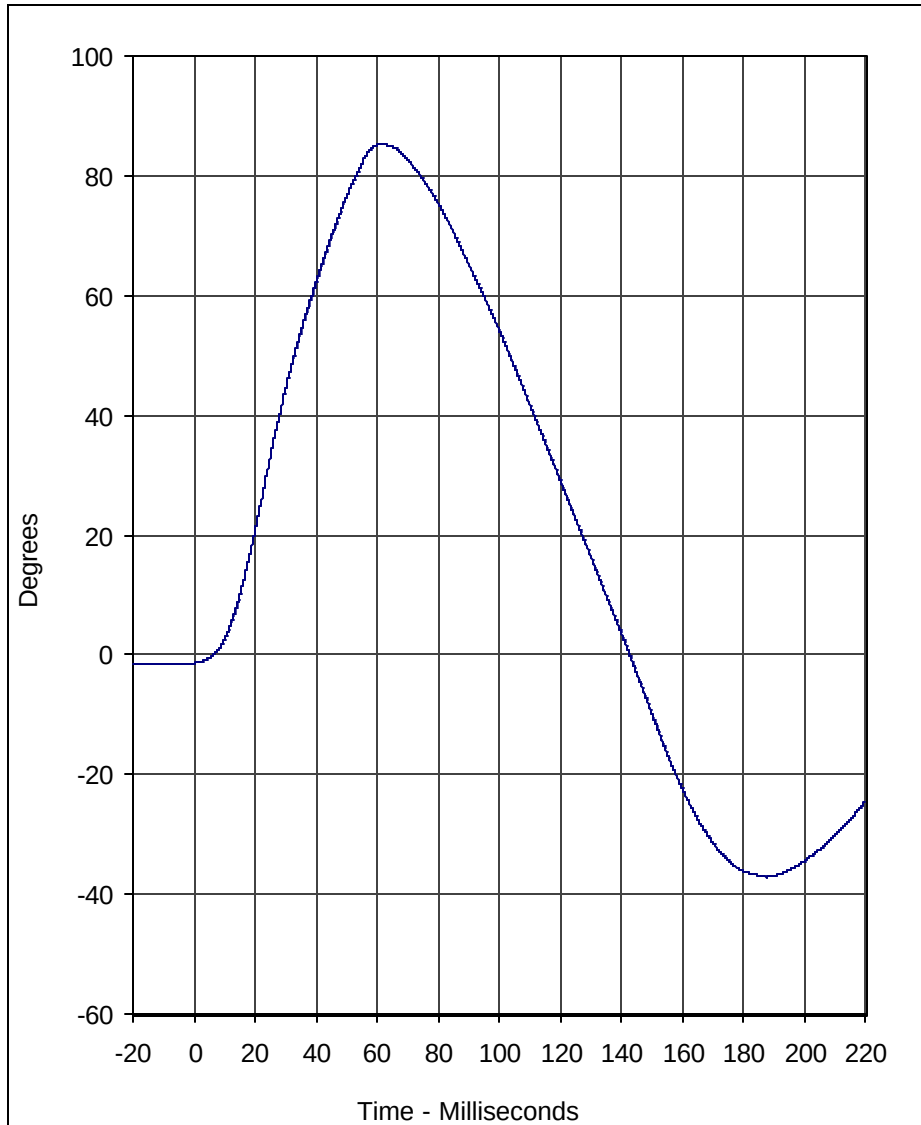


Curve Description				CURNO	Type
Neck Force X				002	FIL
Units	Max	Time	Min	Time	SAE Class
Newtons	119.7	170.5	-511.0	59.9	1000

A.T.D. Serial No.: 082

Test I.D.: NE09A

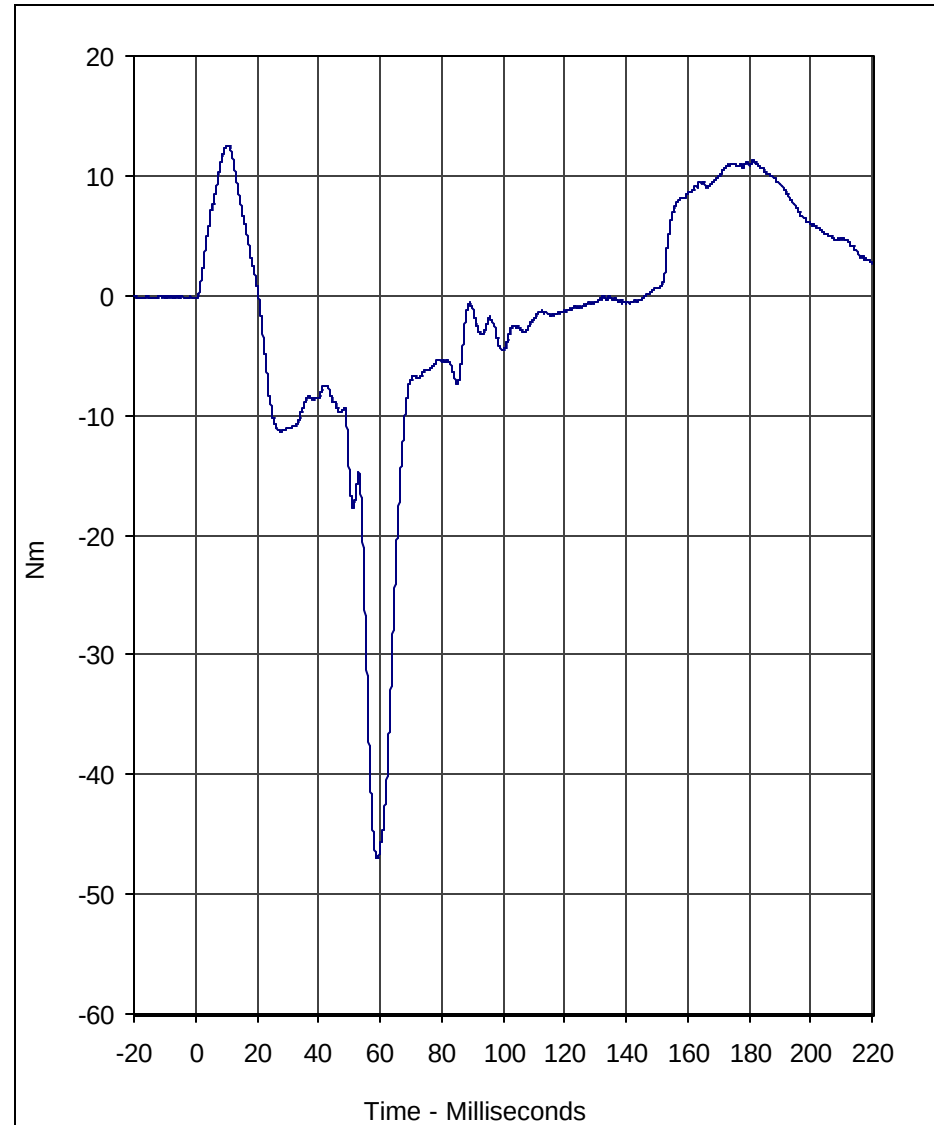




Curve Description				CURNO	Type
"D" Plane Rotation				003	FIL
Units	Max	Time	Min	Time	SAE Class
Degrees	85.2	61.6	-37.1	187.8	60

Test Program: 3 Year Old Hybrid III Neck Extension Test

Test Date: 8/26/03



Curve Description				CURNO	Type
Neck Moment Y				002	FIL
Units	Max	Time	Min	Time	SAE Class
Nm	12.5	10.2	-46.9	59.0	600

A.T.D. Serial No.: 082

Test I.D.: NE09A





Calibration Data Sheet

Hybrid III 3 Year Old

Torso Flexion Test

ATD Serial No.: 082

Test I.D.: TF09A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Initial reference plane angle	Degrees	≤15.0	4.2	Pass
Peak Force at 45 +/-0.5 degrees	Newtons	130.0 to 180.0	160.4	Pass
Torso rotation rate	deg/sec	0.5 to 1.5	1.1	Pass
Final reference plane angle	Degrees	+/-10	4.3	Pass
Overall Test Results			Pass	

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Laboratory Technician

August 26, 2003

Test Date



Calibration Data Sheet Hybrid III 3 Year Old External Measurements

ATD Serial No.: 082

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
A - Total sitting height	mm	539 to 554	545	Pass
B - Shoulder pivot height	mm	307 to 323	320	Pass
C - "H" point height	mm	34 to 45	40	Pass
D - "H" point from backline	mm	57 to 67	60	Pass
E - Shoulder pivot from back	mm	61 to 71	65	Pass
F - Thigh clearance	mm	81 to 91	90	Pass
G - Elbow back to wrist pivot	mm	247 to 263	260	Pass
H - Skull cap to back line	mm	48 to 58	50	Pass
I - Shoulder to elbow length	mm	185 to 201	195	Pass
J - Elbow rest height	mm	134 to 149	145	Pass
K - Buttock to knee length	mm	285 to 300	295	Pass
L - Popliteal length	mm	219 to 234	230	Pass
M - Knee pivot height	mm	242 to 257	255	Pass
N - Buttock popliteal length	mm	218 to 233	230	Pass
O - Chest depth with jacket	mm	139 to 154	145	Pass
P - Foot length	mm	138 to 148	140	Pass
R - Buttock to knee pivot length	mm	251 to 262	260	Pass
S - Head Breadth	mm	128 to 144	135	Pass
T - Head Depth	mm	167 to 183	180	Pass
U - Hip breadth	mm	201 to 216	210	Pass
V - Shoulder breadth	mm	237 to 252	245	Pass
W - Foot breadth	mm	54 to 64	60	Pass
X - Head circumference	mm	500 to 516	510	Pass
Y - Chest circumference with jacket	mm	527 to 553	545	Pass
Z - Waist circumference	mm	527 to 553	550	Pass
AA - Location for chest circumference	mm	249 to 259	255	Pass
BB - Location for waist circumference	mm	160 to 170	165	Pass
Overall Test Results				Pass

Laboratory Technician

August 26, 2003
Test Date



Calibration Data Sheet Hybrid III 3 Year Old Head Drop Test

ATD Serial No.: 139

Test I.D.: HD09B

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Peak Resultant Acceleration	G's	250.0 to 280.0	257.0	Pass
Peak Lateral Acceleration	G's	≤15.0	7.9	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Oscillations After Main Pulse	%	<10	3.2	Pass
Overall Test Results				Pass

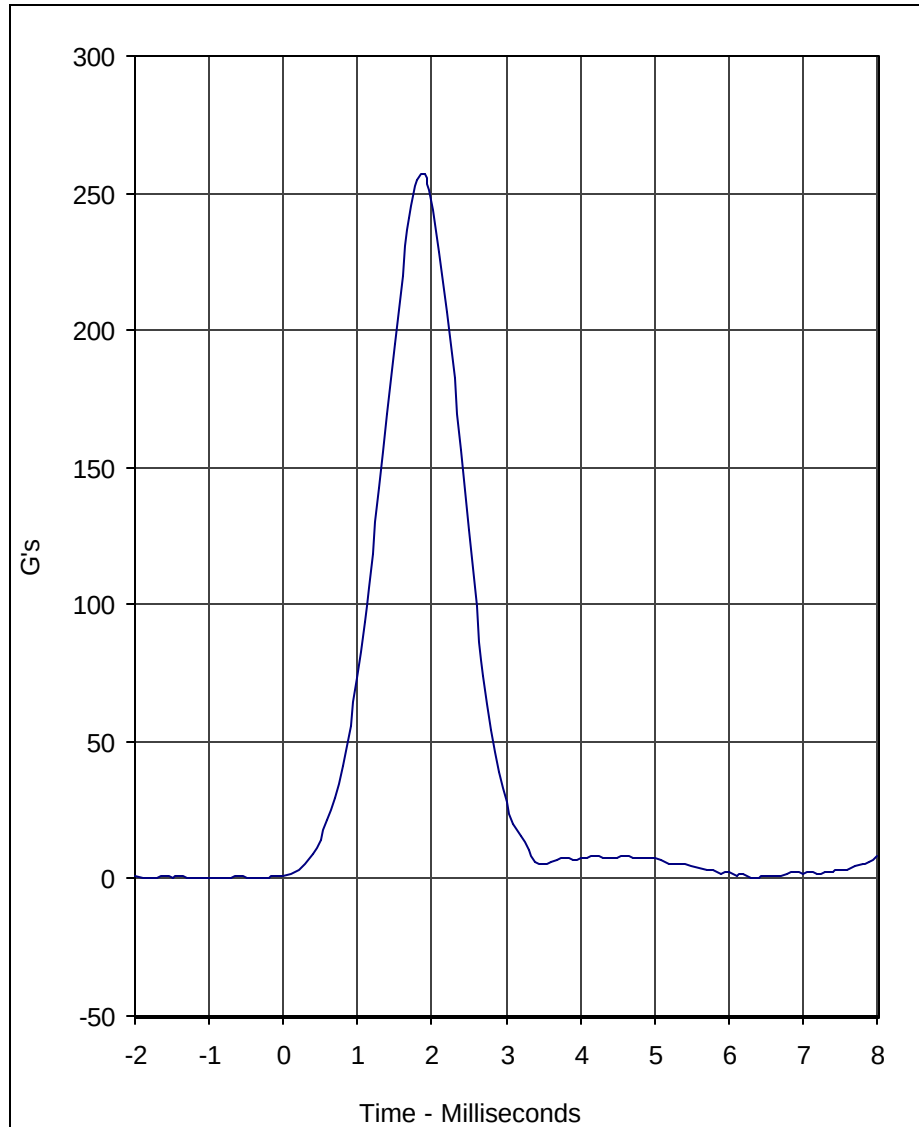
F5-14

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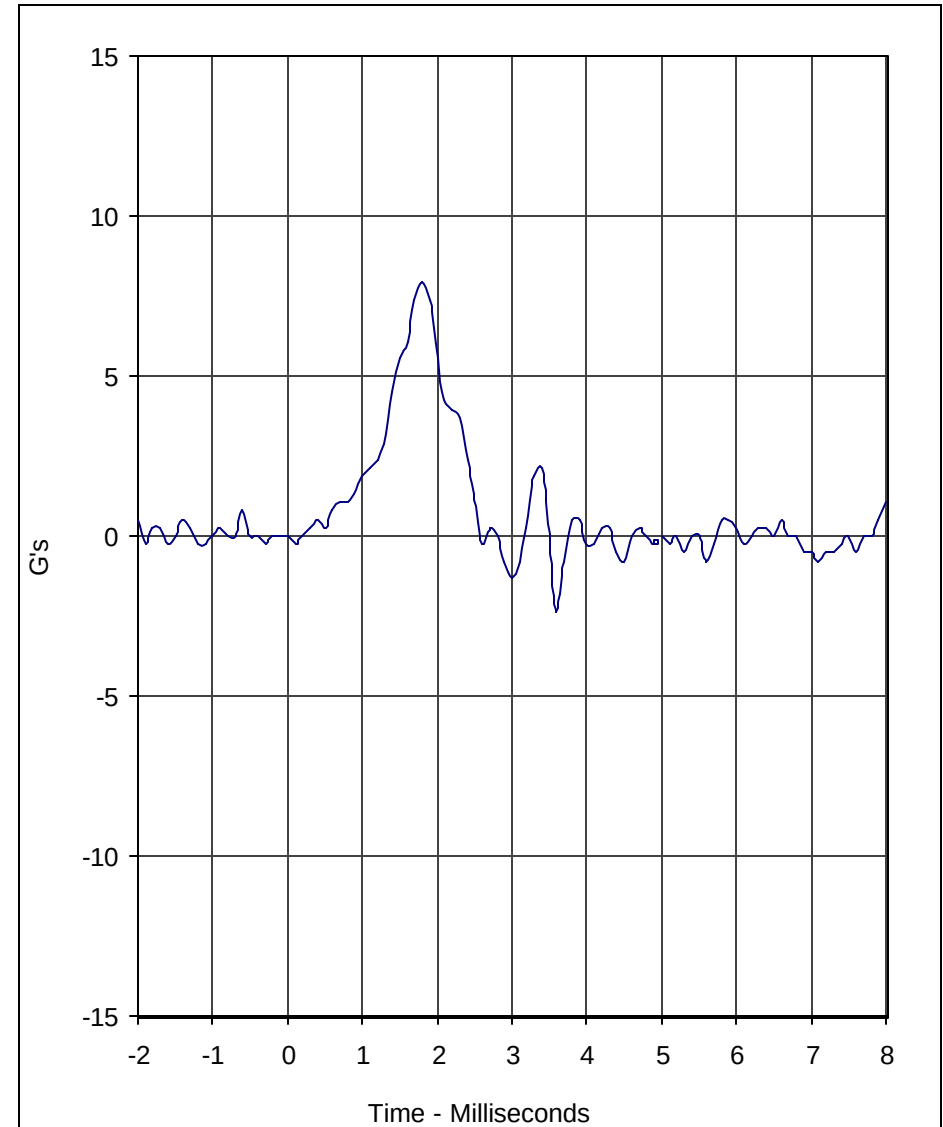
Laboratory Technician

August 25, 2003

Test Date



Curve Description				CURNO	Type
Head Resultant				001	RES
Units	Max	Time	Min	Time	SAE Class
G's	257.0	1.9	0.0	-0.8	1000



Curve Description				CURNO	Type
Head Y				002	FIL
Units	Max	Time	Min	Time	SAE Class
G's	7.9	1.8	-2.4	3.6	1000

Test Program: Hybrid III 3 Year Old Head Drop Test
 Test Date: 8/25/03

A.T.D. Serial No.: 139
 Test I.D.: HD09B





Calibration Data Sheet

Hybrid III 3 Year Old

Thorax Impact Test

ATD Serial No.: 139

Test I.D.: CH09B

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	5.9 to 6.1	6.06	Pass
Peak Chest Compression	MM	32 to 38	35.5	Pass
Peak Probe Force Between 32 and 38 MM	Newtons	680 to 810	759.0	Pass
Peak Probe Force Between 12.5 and 32 MM	Newtons	≤860	749.1	Pass
Internal Hysteresis	%	65 to 85	70.8	Pass
Overall Test Results				Pass

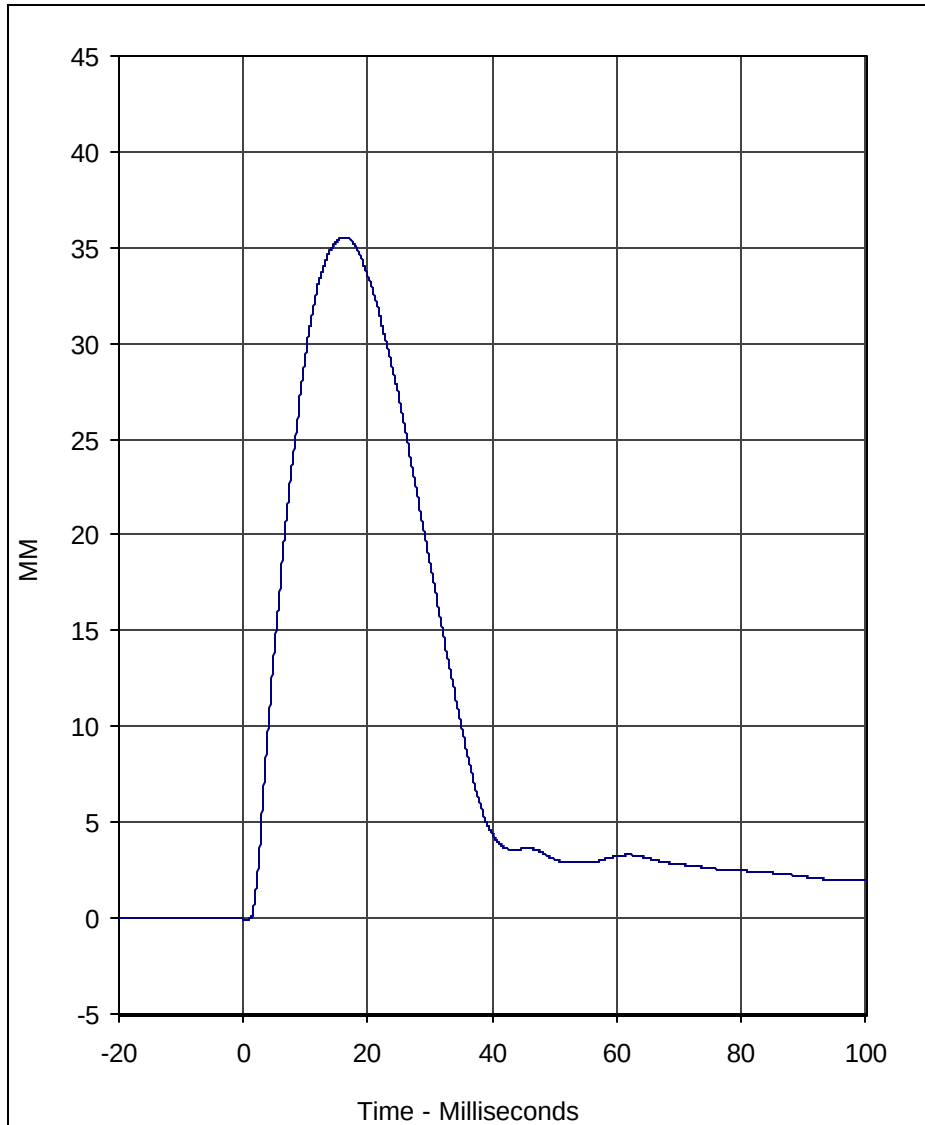
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Laboratory Technician

August 26, 2003

Test Date

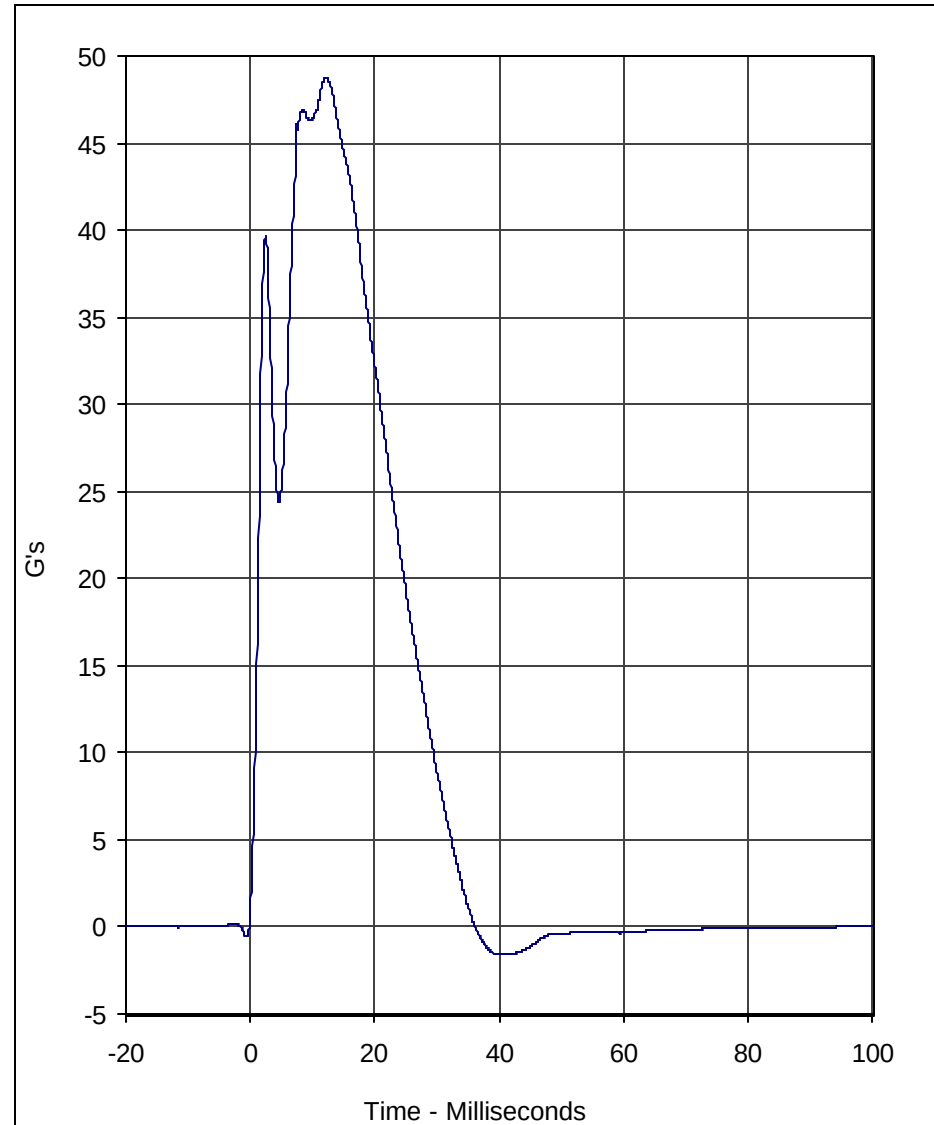


Curve Description				CURNO	Type
Chest Compression				001	FIL

Units	Max	Time	Min	Time	SAE Class
MM	35.5	16.4	-0.1	0.7	600

Test Program: Hybrid III 3 Year Old Thorax Impact

Test Date: 8/26/03



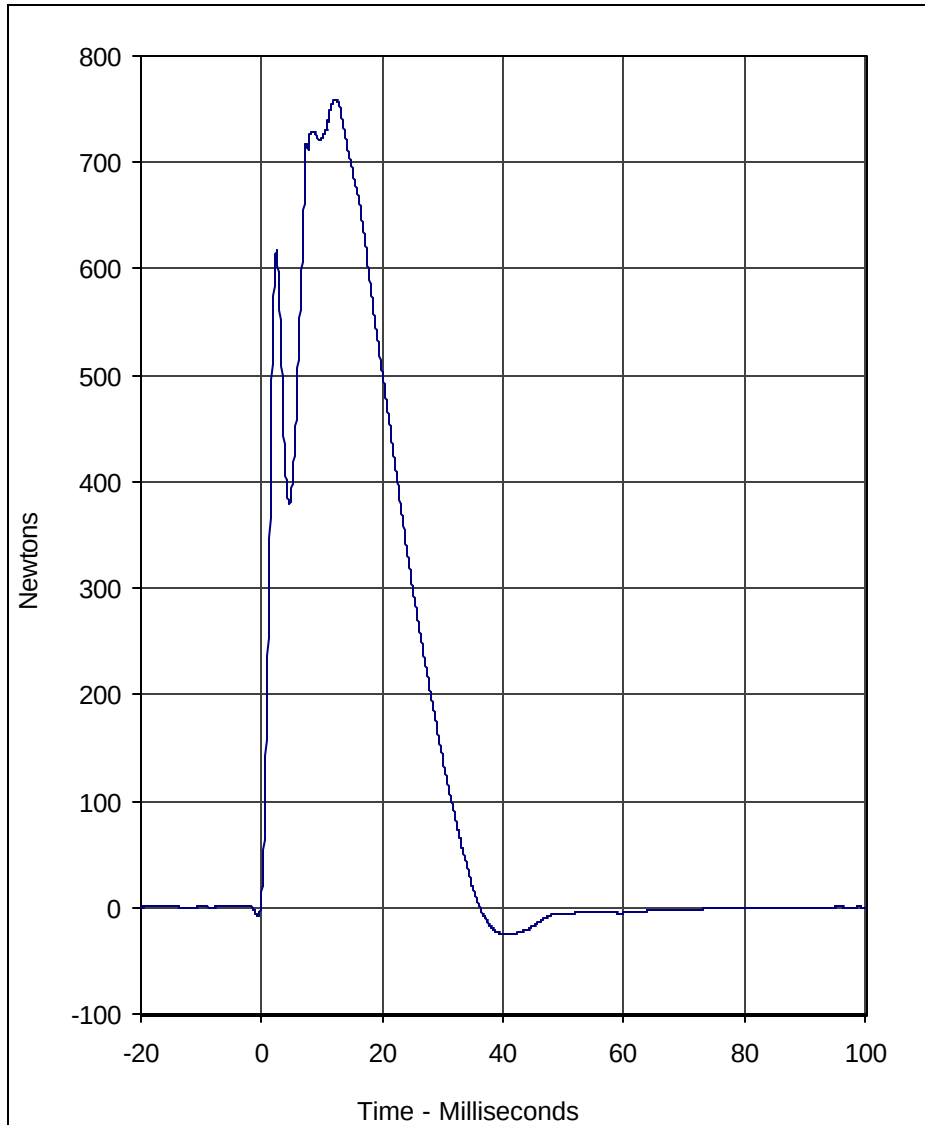
Curve Description				CURNO	Type
Probe Acceleration				002	FIL

Units	Max	Time	Min	Time	SAE Class
G's	48.8	12.3	-1.6	41.6	180

A.T.D. Serial No.: 139

Test I.D.: CH09B

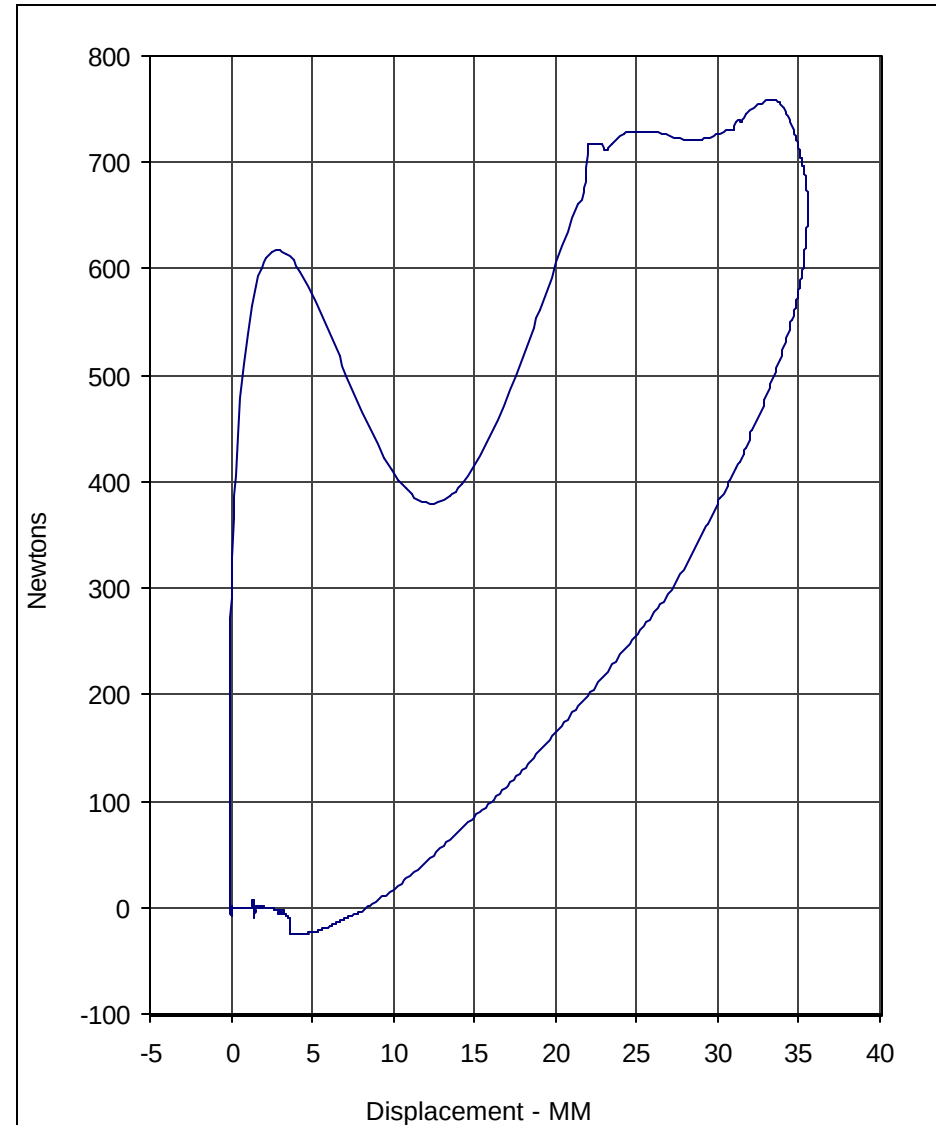




Curve Description				CURNO	Type
Probe Force				003	FIL
Units	Max	Time	Min	Time	SAE Class
Newtons	759.0	12.3	-24.8	41.6	180

Test Program: Hybrid III 3 Year Old Thorax Impact

Test Date: 8/26/03



Curve Description			CURNO	Type
Probe Force vs. Chest Compression			004	FIL
Units	Hysteresis	SAE Class		
%	70.8	180/600		

A.T.D. Serial No.: 139

Test I.D.: CH09B





Calibration Data Sheet

Hybrid III 3 Year Old

Neck Flexion Test

ATD Serial No.: 139

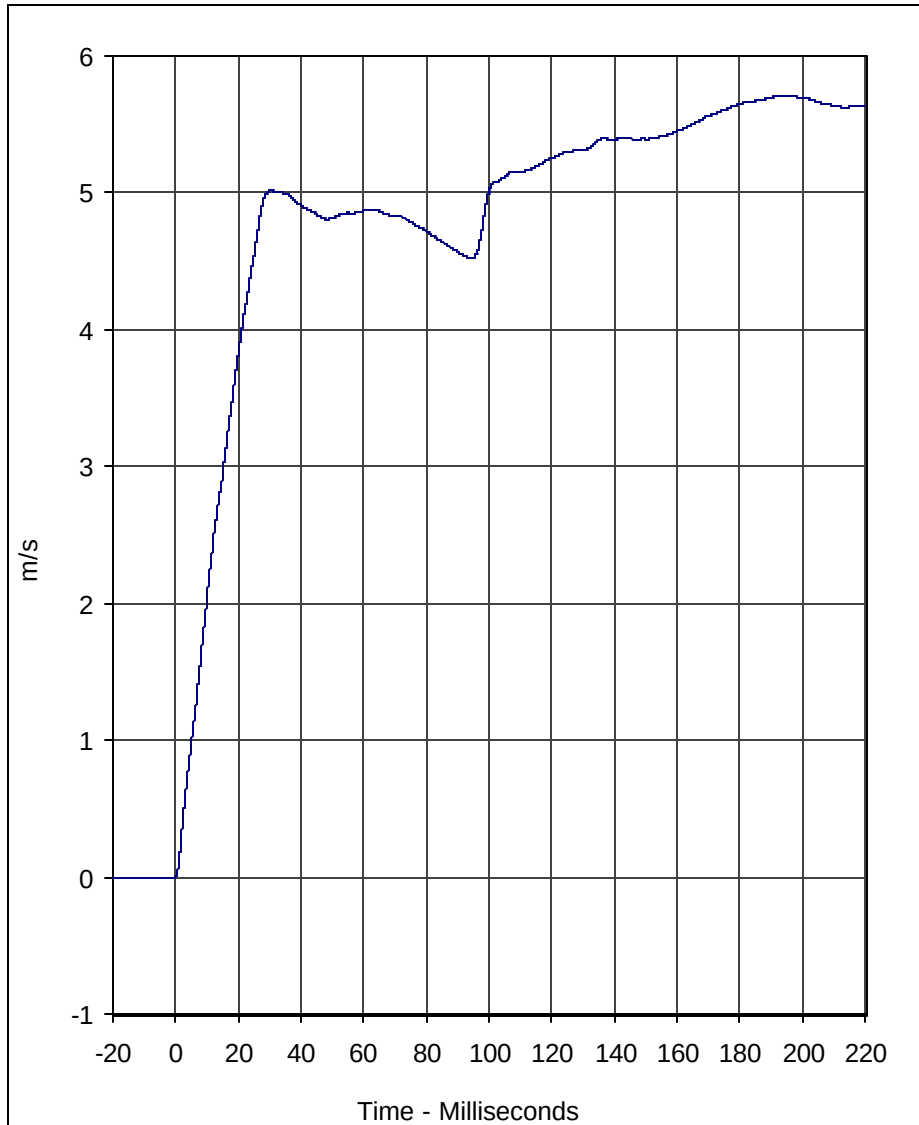
Test I.D.: NF09B

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	5.40 to 5.60	10.89	Fail
Pendulum Deceleration	10 Msec.	m/s	2.0 to 2.7	2.0	Pass
	20 Msec.	m/s	3.0 to 4.0	3.8	Pass
	30 Msec.	m/s	4.0 to 5.1	5.0	Pass
"D" Plane Rotation	Maximum	Degrees	70.0 to 82.0	74.0	Pass
Peak Moment in Rotation	Maximum	Nm	42.0 to 53.0	46.5	Pass
Positive Moment Decay, Time to 10Nm		Msec.	60.0 to 80.0	73.0	Pass
Overall Test Results					Fail

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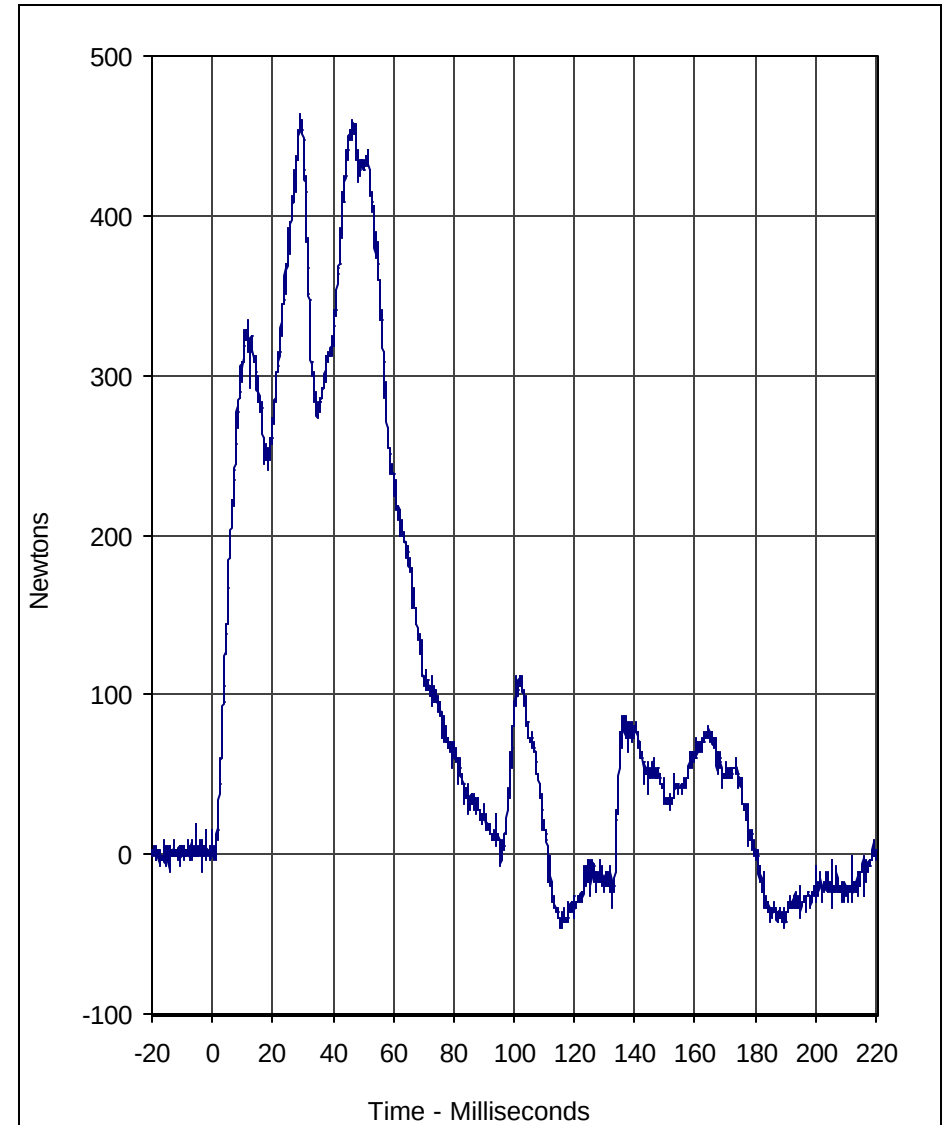
Test Date



Curve Description				CURNO	Type
Pendulum Velocity				001	FIL
Units	Max	Time	Min	Time	SAE Class
m/s	5.7	193.6	0.0	-0.5	180

Test Program: 3 Year Old Hybrid III Neck Flexion Test

Test Date: 8/26/03

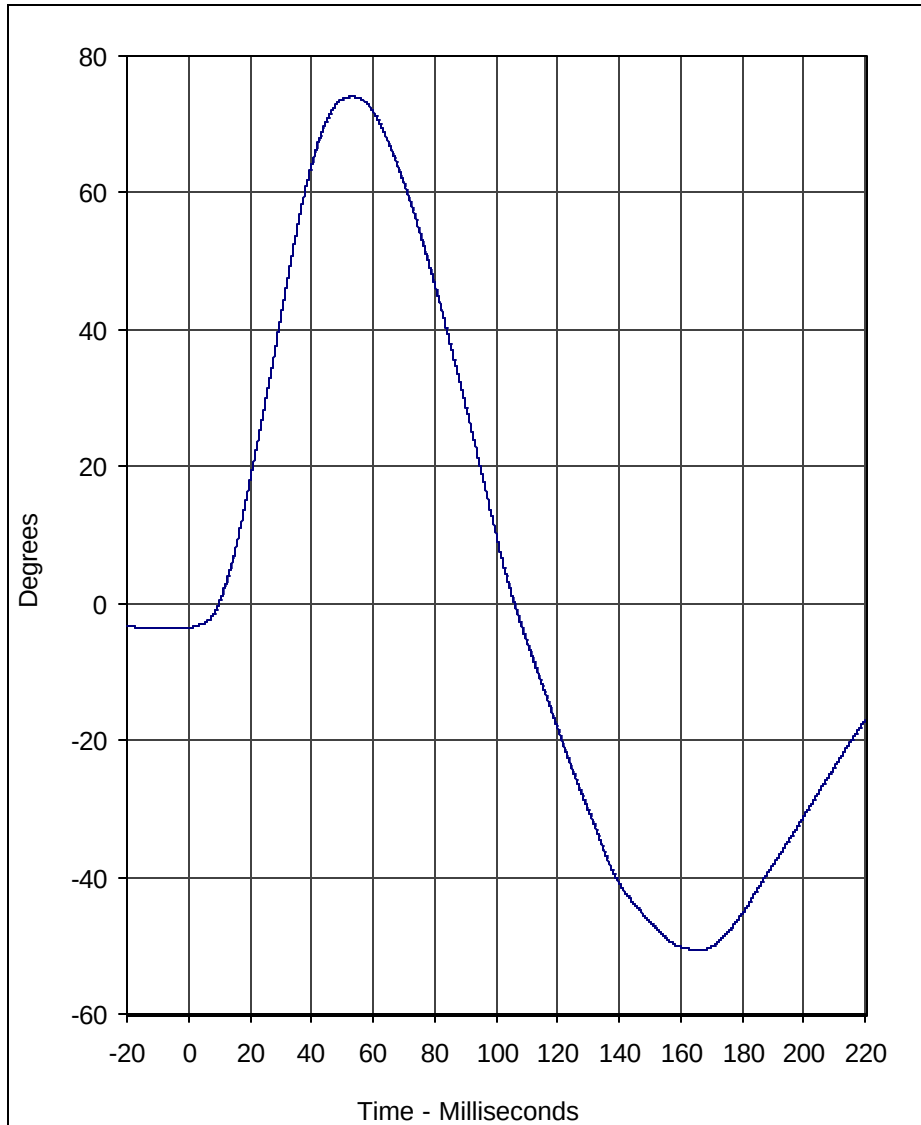


Curve Description				CURNO	Type
Neck Force X				002	FIL
Units	Max	Time	Min	Time	SAE Class
Newtons	463.5	29.0	-45.9	115.5	1000

A.T.D. Serial No.: 139

Test I.D.: NF09B

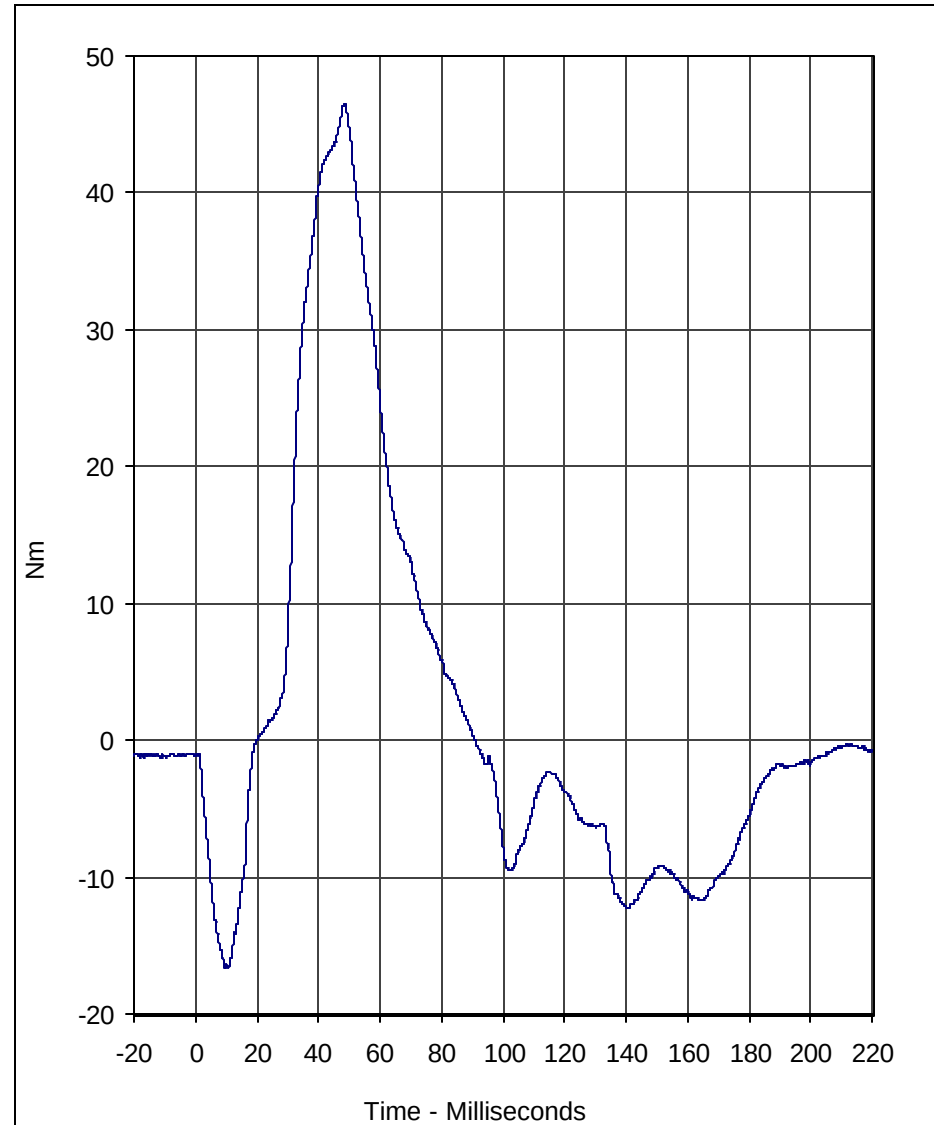




Curve Description				CURNO	Type
"D" Plane Rotation				003	FIL
Units	Max	Time	Min	Time	SAE Class
Degrees	74.0	53.2	-50.7	166.6	60

Test Program: 3 Year Old Hybrid III Neck Flexion Test

Test Date: 8/26/03



Curve Description				CURNO	Type
Neck Moment Y				002	FIL
Units	Max	Time	Min	Time	SAE Class
Nm	46.5	48.4	-16.6	10.7	600

A.T.D. Serial No.: 139

Test I.D.: NF09B





Calibration Data Sheet

Hybrid III 3 Year Old

Neck Extension Test

ATD Serial No.: 139

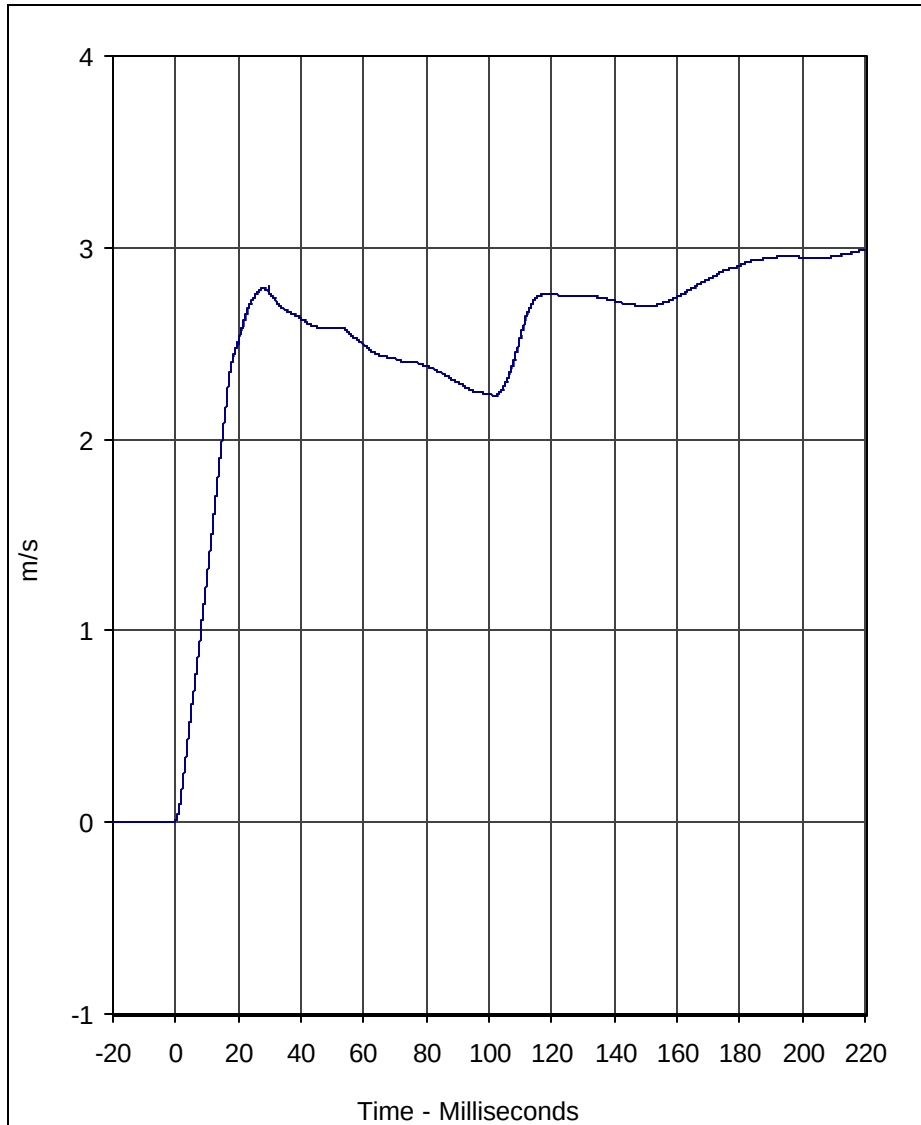
Test I.D.: NE09B

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	3.55 to 3.75	3.60	Pass
Pendulum Deceleration	10 Msec.	m/s	1.0 to 1.4	1.3	Pass
	20 Msec.	m/s	1.9 to 2.5	2.5	Pass
	30 Msec.	m/s	2.8 to 3.5	2.8	Pass
"D" Plane Rotation	Maximum	Degrees	83.0 to 93.0	85.9	Pass
Peak Moment in Rotation	Maximum	Nm	-43.7 to -53.3	-47.0	Pass
Positive Moment Decay, Time to 10Nm		Msec.	60.0 to 80.0	67.0	Pass
Overall Test Results					Pass

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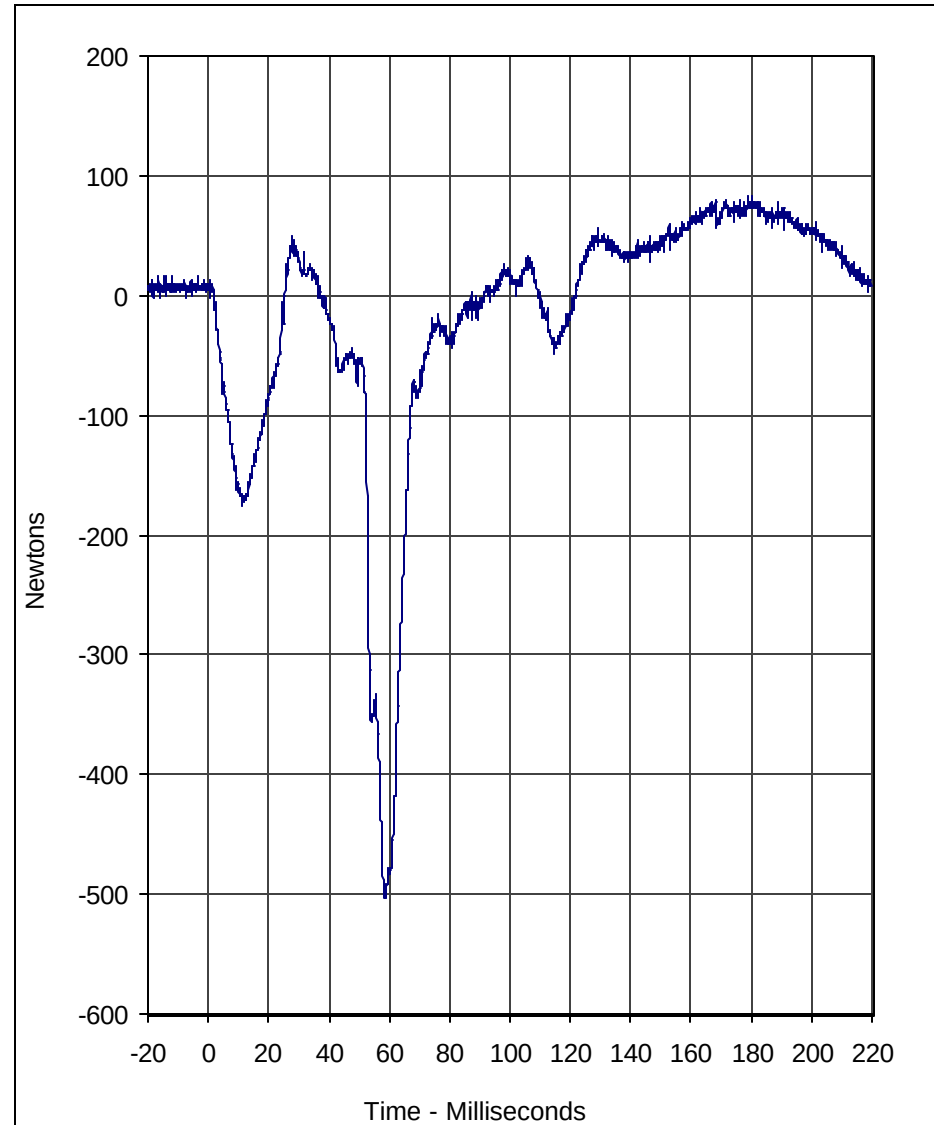
Test Date



Curve Description				CURNO	Type
Pendulum Velocity				001	FIL
Units	Max	Time	Min	Time	SAE Class
m/s	3.0	220.0	0.0	-0.6	180

Test Program: 3 Year Old Hybrid III Neck Extension Test

Test Date: 8/26/03

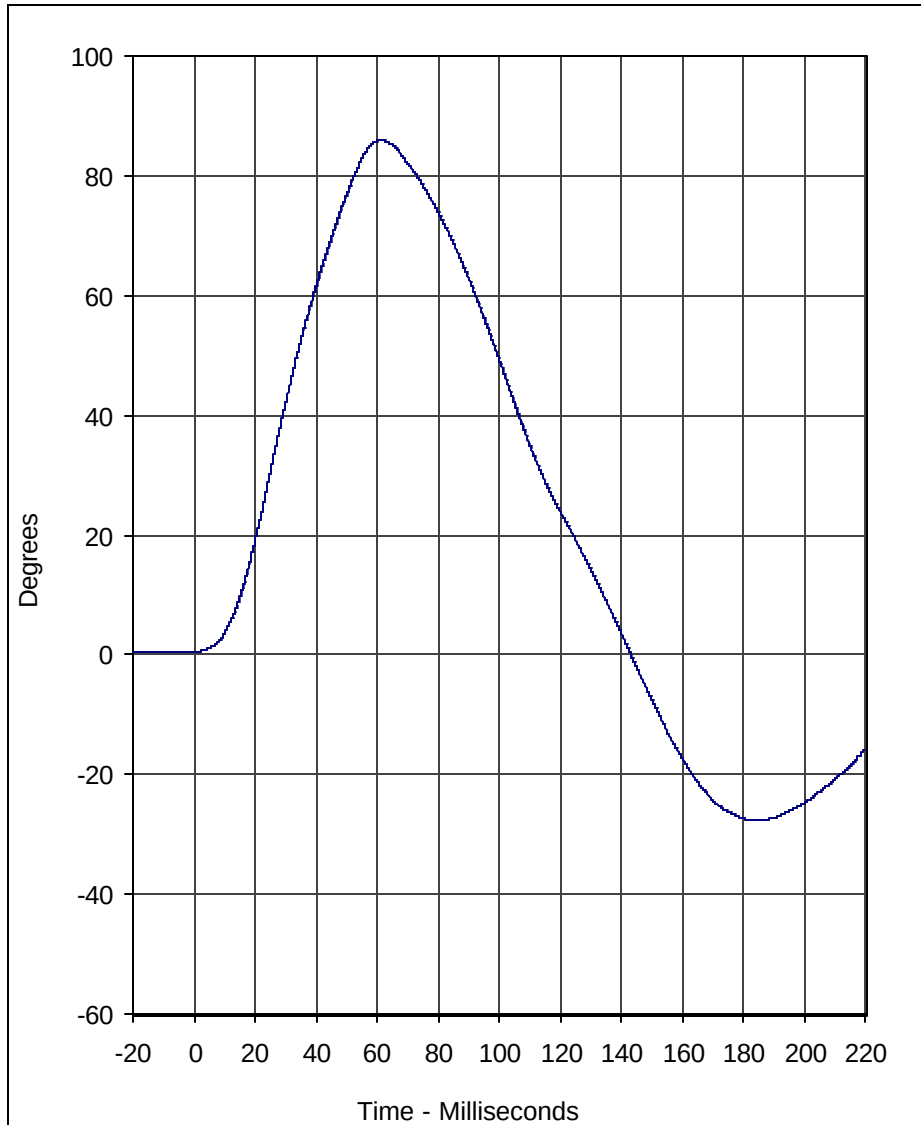


Curve Description				CURNO	Type
Neck Force X				002	FIL
Units	Max	Time	Min	Time	SAE Class
Newtons	82.7	179.1	-503.7	58.6	1000

A.T.D. Serial No.: 139

Test I.D.: NE09B



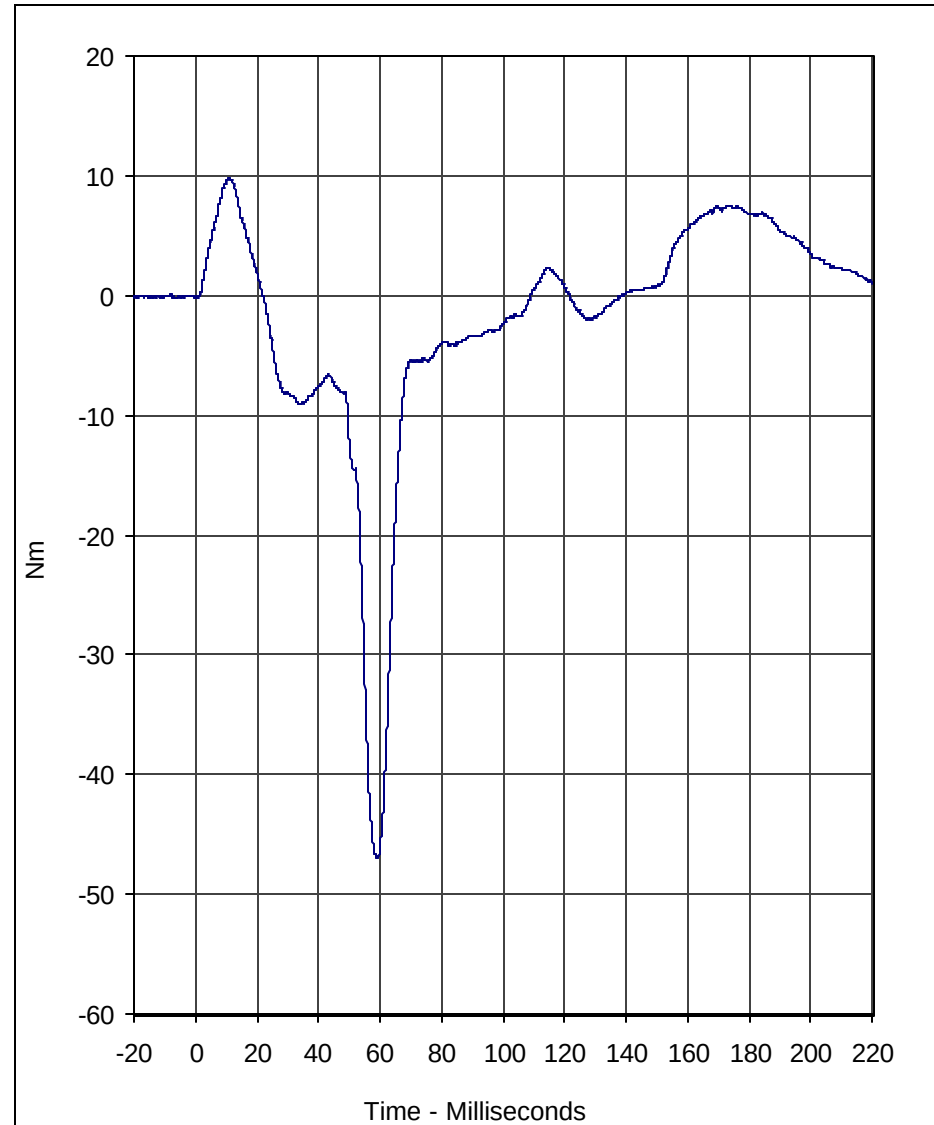


Curve Description				CURNO	Type
"D" Plane Rotation				003	FIL

Units	Max	Time	Min	Time	SAE Class
Degrees	85.9	61.1	-27.6	184.7	60

Test Program: 3 Year Old Hybrid III Neck Extension Test

Test Date: 8/26/03



Curve Description				CURNO	Type
Neck Moment Y				002	FIL

Units	Max	Time	Min	Time	SAE Class
Nm	9.8	10.9	-47.0	59.0	600

A.T.D. Serial No.: 139

Test I.D.: NE09B





Calibration Data Sheet

Hybrid III 3 Year Old

Torso Flexion Test

ATD Serial No.: 139

Test I.D.: TF09A

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.6	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Initial reference plane angle	Degrees	≤15.0	2.7	Pass
Peak Force at 45 +/-0.5 degrees	Newtons	130.0 to 180.0	137.5	Pass
Torso rotation rate	deg/sec	0.5 to 1.5	0.8	Pass
Final reference plane angle	Degrees	+/-10	5.2	Pass
Overall Test Results				Pass

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Test Date



Calibration Data Sheet Hybrid III 3 Year Old External Measurements

ATD Serial No.: 139

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
A - Total sitting height	mm	539 to 554	545	Pass
B - Shoulder pivot height	mm	307 to 323	320	Pass
C - "H" point height	mm	34 to 45	40	Pass
D - "H" point from backline	mm	57 to 67	60	Pass
E - Shoulder pivot from back	mm	61 to 71	65	Pass
F - Thigh clearance	mm	81 to 91	90	Pass
G - Elbow back to wrist pivot	mm	247 to 263	260	Pass
H - Skull cap to back line	mm	48 to 58	50	Pass
I - Shoulder to elbow length	mm	185 to 201	190	Pass
J - Elbow rest height	mm	134 to 149	140	Pass
K - Buttock to knee length	mm	285 to 300	290	Pass
L - Popliteal length	mm	219 to 234	225	Pass
M - Knee pivot height	mm	242 to 257	250	Pass
N - Buttock popliteal length	mm	218 to 233	225	Pass
O - Chest depth with jacket	mm	139 to 154	150	Pass
P - Foot length	mm	138 to 148	140	Pass
R - Buttock to knee pivot length	mm	251 to 262	255	Pass
S - Head Breadth	mm	128 to 144	135	Pass
T - Head Depth	mm	167 to 183	175	Pass
U - Hip breadth	mm	201 to 216	205	Pass
V - Shoulder breadth	mm	237 to 252	245	Pass
W - Foot breadth	mm	54 to 64	60	Pass
X - Head circumference	mm	500 to 516	515	Pass
Y - Chest circumference with jacket	mm	527 to 553	545	Pass
Z - Waist circumference	mm	527 to 553	550	Pass
AA - Location for chest circumference	mm	249 to 259	255	Pass
BB - Location for waist circumference	mm	160 to 170	165	Pass
Overall Test Results				Pass

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Test Date

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