

REPORT NUMBER KAR21001-06

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

**MITSUBUSHI MOTORS CORPORATION
2001 MITSUBISHI MONTERO SPORT
4WD SUV
NHTSA NUMBER: M15602**

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



FEBRUARY 9, 2001

FINAL REPORT

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Date of Acceptance

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16. Abstract A 35 mph (56.3 km/h) frontal barrier impact was conducted on a 2001 Mitsubishi Montero Sport 4WD SUV at KARCO Engineering on 1/18/01. This test was conducted to obtain data indicant of FMVSS 208, 212, 219 (partial), 301, and footwell intrusion performance. The impact velocity is 55.83 km/h. The ambient temperature at the barrier face at the time of impact is 10.5 degrees Celcius. The vehicle's maximum post test static crush is 457 mm to the right of 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: <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th style="width: 35%;">Measurement Description</th> <th style="width: 15%;">Units</th> <th style="width: 15%;">Threshold</th> <th style="width: 15%;">Driver ATD</th> <th style="width: 20%;">Passenger ATD</th> </tr> </thead> <tbody> <tr> <td>Head Injury Criteria (HIC)</td> <td>N/A</td> <td>1000</td> <td>516.2</td> <td>603.3</td> </tr> <tr> <td>Max. Thorax Accel. (3 msec Clip)</td> <td>G's</td> <td>60</td> <td>56.8</td> <td>59.0</td> </tr> <tr> <td>Left Femur force</td> <td>Newtons</td> <td>10009</td> <td>-1212.6</td> <td>-5967.7</td> </tr> <tr> <td>Right Femur Force</td> <td>Newtons</td> <td>10009</td> <td>-3503.2</td> <td>-5661.7</td> </tr> </tbody> </table>				Measurement Description	Units	Threshold	Driver ATD	Passenger ATD	Head Injury Criteria (HIC)	N/A	1000	516.2	603.3	Max. Thorax Accel. (3 msec Clip)	G's	60	56.8	59.0	Left Femur force	Newtons	10009	-1212.6	-5967.7	Right Femur Force	Newtons	10009	-3503.2	-5661.7
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SECTION 1

PURPOSE, TEST PROCEDURE AND SUMMARY OF TEST M15602

1.1 PURPOSE

The purpose of this 35 mph (56.3 km/h) frontal barrier impact test is to obtain vehicle crashworthiness, occupant restraint system performance, and lower leg data for frontal barrier impacts. The impact velocity used in this test is in excess of the current 30 mph (48.3 km/h) FMVSS 208/212/219/301 requirements.

1.2 TEST PROCEDURE

This 56.3-km/h frontal barrier impact test was conducted in accordance with the Office of Crashworthiness Standards (OCS) New Car Assessment Program (NCAP) Laboratory Indicant Test Procedure, dated 01 October 1996 and the corresponding KARCO Engineering Test Procedure KTP-001, dated October 18, 1996. Data was obtained indicant of FMVSS 208, "Occupant Crash Protection"; FMVSS 212, "Windshield Retention"; FMVSS 219, "Windshield Zone Intrusion (Partial)"; and FMVSS 301 "Fuel System Integrity" performance. Procedures for receiving, inspection testing and reporting of test results are described in the test procedures and are not repeated in this report.

The test was conducted at KARCO Engineering on January 18, 2001 at a speed of 55.83 km/h. The test vehicle was instrumented with eight (8) accelerometers to measure longitudinal axis accelerations. The driver and passenger's restraint systems were instrumented with four (4) seat belt load cells to measure lap and shoulder belt tension. The specified impact velocity range was 55.5 to 57.1 km/h. The frontal barrier impact event was documented by one (1) real-time panning motion picture camera and seventeen (17) high-speed motion picture cameras. The pre- and post-test conditions were recorded by one (1) real-time motion picture camera. Camera locations and pertinent camera information is documented in the data sheets. Pre- and post-test photographs of the vehicle and dummies can be found in Appendix A.

The test vehicle contained two (2) part 572E 50th percentile adult male anthropomorphic test devices (ATDs). Both ATDs were instrumented with head, chest, and pelvic tri-axial accelerometers, left and right femur load cells, upper and lower tibia sensors, and foot accelerometers. In addition, chest displacement and upper neck six-axis force and moment sensors were utilized. The ATDs were positioned in the front outboard seating positions according to the dummy placement procedures specified in the Laboratory Indicant Test Procedure. Ninety-six (96) channels of data were recorded with a PC based (TDAS) on-board data acquisition system. The data was digitally sampled at 10,000 samples per second and processed per section IP11 of the Laboratory Indicant Test Procedure.

The Driver ATD (Serial No. 35) and the right-front passenger ATD (Serial No. 34) were calibrated two tests prior to this test. FMVSS 208 "Occupant Crash Protection" injury criteria were not exceeded by either ATD during this frontal barrier impact test.

1.3 SUMMARY OF FRONTAL BARRIER IMPACT TEST

A rigid load cell barrier was impacted by a 2001 Mitsubishi Montero Sport 4WD SUV at a velocity of 55.83 km/h. The test vehicle weight is 2176 kilograms with two (2) part 572E 50th percentile adult male ATDs. Twenty-four (24) load cell barrier data channels were obtained in conducting the January 18, 2001 NCAP test. The test vehicle is a gasoline vehicle, equipped with a transverse mounted, 6-cylinder engine and a 4-speed automatic transmission.

The driver Head Injury Criteria (HIC) is 516.2. The maximum resultant chest deceleration over three (3) milliseconds is 56.8 g's. The left and right femur loads are -1212.6 and -3503.2 Newton's, respectively. Chest deflection for the driver ATD peaked at -48.3 mm. The driver ATD head contacted the airbag/headrest and B-Pillar, its chest and abdomen contacted the seat belt, and both knees contacted the knee bolster and the steering column.

The right front passenger's HIC is 603.3. The maximum resultant chest deceleration over three (3) milliseconds is 59.0 g's. The left and right femur loads are -5967.7 and -5661.7 Newton's respectively. Chest deflection for the passenger ATD peaked at -43.6 mm. The passenger ATD head contacted the airbag and headrest, the chest and abdomen contacted the airbag and both knees contacted the glove box.

Maximum shoulder belt spool out as measured by on-board potentiometers is 113.0 mm for the driver ATD and 171.9 mm for the passenger ATD. Shoulder belt stretch is not measured with pretensioners.

There was 100 percent windshield retention (minimum 50 percent required for passive restraint systems). No intrusion occurred into the protected or unprotected zone of the windshield. No Stoddard solvent leakage occurred after impact or during any phase of the rollover.

The test vehicle sustained a maximum static crush of 457 mm located to the right of the vehicle centerline. Both the driver and passenger side doors opened without the aid of tools.

1.4 GENERAL COMMENTS

The 2001 Mitsubishi Montero Sport 4WD SUV passed the requirements of FMVSS 208, FMVSS 212, FMVSS 219 and FMVSS 301-75. Data pertaining to these standards are presented in the data sheets.

The vehicle, occupant, camera and measurement data are presented in Section 2. Appendix A contains the still photograph prints. Appendix B contains the dummy and vehicle 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 owner's manual instructions for the occupant seating and restraint systems.

SECTION 2
OCCUPANT AND VEHICLE INFORMATION/DATA SHEETS

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

Test Date: 01/18/01

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: 2001 Mitsubishi Montero Sport 4WD SUV
Test Program: 2001 NHTSA 35 mph NCAP

NHTSA No.: M15602
Test Date: 01/18/01

PRIMARY IMPACT DATA

Measured Parameter	Units	Value
Velocity at Impact	km/h	55.83
Test Weight	kg	2176
Impact Angle	degrees	0
Average Rebound	mm	291
Maximum Static Crush	mm	457

DOOR OPENING AND SEAT TRACK INFORMATION

Description	Driver	Passenger
Front Door Opening	Opened	Opened
Rear Door Opening	Opened	Opened
Seat Track Shift (mm)	None	None
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/B-Pillar/Headrest	Airbag/Headrest
Chest Contact	Airbag/Belt	Airbag/Belt
Abdomen Contact	Belt	Airbag/Belt
Left Knee Contact	Steering Column/Dash	Glove Box
Right Knee Contact	Steering Column/Dash	Glove Box

16mm MOVIE COVERAGE

High Speed	17
Real Time	1
Total	18

DATA CHANNELS

Driver ATD Sensors	40
Passenger ATD Sensors	40
Belt Assessment Sensors	8
Vehicle Structure Accelerometers	8
Rigid Barrier Load Cells	24
Total	120

DATA SHEET NO. 2
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

Test Date: 01/18/01

TEST VEHICLE INFORMATION

Make	Mitsubishi
Model	Montero Sport 4WD
Body Style	SUV
NHTSA No.	M15602
VIN	JA4MT21H61P003562
Color	White
Delivery Date	1/8/01
Odometer Reading (mile)	79
Dealer	Lancaster Mitsubishi
Transmission	4-Speed Automatic
Final Drive	4WD
Number of Cylinders	6
Engine Displacement (L)	3.0
Engine Placement	Longitudinal

TEST VEHICLE OPTIONS

Driver Airbag	Yes
Passenger Airbag	Yes
Power Windows	Yes
Power Steering	Yes
Power Door Locks	Yes
Tilt Wheel	Yes
Air Conditioning	Yes
Power Brakes	Yes
Disc Brakes, Front	Yes
Disc Brakes, Rear	Yes
Anti-lock Brakes	Yes
AM/FM/Cassette	Yes
Anti-Theft System	No
Cruise Control	Yes

DATA FROM CERTIFICATION LABEL

Manufactured By	Mitsubishi Motors Corporation	GVWR (kg)	2427
Date of Manufacture	June-00	GAWR Front (kg)	1200
		GAWR Rear (kg)	1599

DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	180	180
Cold Pressure (kPa)	180	180
Recommend Tire Size	P255/70/R16 109S	P255/70/R16 109S
Tire Size on Vehicle	P255/70/R16 109S	P255/70/R16 109S
Tire Manufacturer	Yokohama	Yokohama

VEHICLE SEATING AND CAPACITY WEIGHT INFORMATION

Measured Parameter	Front	Rear	Third	Total
Type of Seats	Bucket	Bench	None	
Number of Occupants	2	3	0	5
Capacity Wt. (VCW) (kg)				531
Cargo Weight (RCLW) (kg)				136

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

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV
 Test Program: 2001 NHTSA 35 mph NCAP

NHTSA No.: M15602
 Test Date: 01/18/01

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	527	444		545	559	
Right	kg	510	415		539	533	
Ratio	%	54.7	45.3		49.8	50.2	
Totals	kg	1037	859	1896	1084	1092	2176

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1896
Weight of 2 P572 ATD's	kg	152
Rated Cargo/Luggage Weight (RCLW)	kg	136
Calculated Vehicle Target Weight (TVTW)	kg	2184

TEST VEHICLE ATTITUDE AND CG

	Units	LF	RF	LR	RR	CG (aft of front axle)
As Delivered	mm	874	880	904	915	1235
As Tested	mm	843	855	837	850	1369

Vehicle Wheel base (mm): 2727

Weight of Ballast secured in cargo area (kg): 69

Vehicle Components Removed: Side mirrors, jack, tools, spare tire and paneling.

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

FUEL SYSTEM DATA

Fuel System Capacity From Owner's Manual (L): 73.8

Usable Capacity Figure Furnished by COTR (L): N/A

Actual Test Volume with entire fuel System Filled (L): 69.3

Test Fluid Type: Stoddard Solvent ; Specific Gravity: 0.764

Kinematic Viscosity: as per ASTM Standard D484-71 ; Color: Red

Is Vehicle Fuel Pump Electric or Mechanical?: Electric

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

Fuel System Particulars: Driver side filler door, tank mounted at rear.

DATA SHEET NO. 3
POST IMPACT DATA

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

Test Date: 01/18/01

SPEED TRAP DATA

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	55.51 to 57.12	55.83
Trap No. 1 Entry Distance	mm	< 1524	1524
Trap No. 1 Exit Distance	mm	< 1524	55.91
Trap No. 2 Velocity (Redundant)	km/h	55.51 to 57.12	56.4
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	4365	4202	-163
Center	mm	4604	4181	-423
Right Side	mm	4365	4084	-281

VEHICLE REBOUND FROM BARRIER

Measured Parameter	Units	Value
Left Side	mm	272
Center	mm	270
Right Side	mm	330
Average	mm	291

DATA SHEET NO. 4
TEST VEHICLE INFORMATION

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

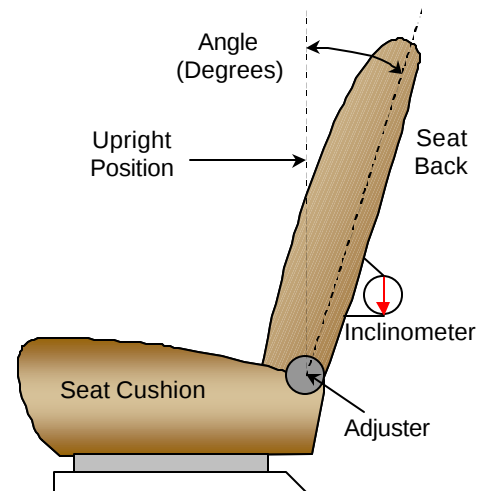
Test Date: 01/18/01

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.

Driver seat back angle: 23° with a seated dummy

Passenger seat back angle: 23° with a seated dummy



FRONT SEAT ASSEMBLY

SEAT FORE/AFT POSITIONS

Driver seat has 20 seat detents and the passenger seat has 25 detents. 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 driver and passenger.

Driver seat fore/aft total travel: 20 seating positions or detents

Passenger seat fore/aft total travel: 25 seating positions or detents

Driver seat fore/aft position: 11th detent from forward most

Passenger seat fore/aft position: 13th detent from forward most

SEAT BELT UPPER ANCHORAGE

The test vehicle is equipped with adjustable anchorages for both driver and passenger seat positions. Both driver and passenger anchorages have 5 positions; they are set in the 3^d position from the top.

DATA SHEET NO. 4...(continued)

TEST VEHICLE INFORMATION

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

Test Date: 01/18/01

FUEL TANK CAPACITY DATA

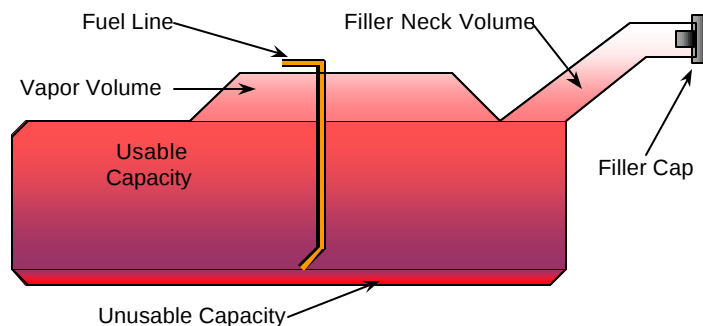
The "Usable Capacity" of the standard equipment fuel tank is: 73.8 liters

The "Usable Capacity" of any optional equipment fuel tank is: N/A liters

"Usable Capacity" used for certification tests FMVSS 301 requirements: 67.9 to 69.3 liters

Actual amount of Stoddard solvent added to vehicle for certification test: 68.6 liters

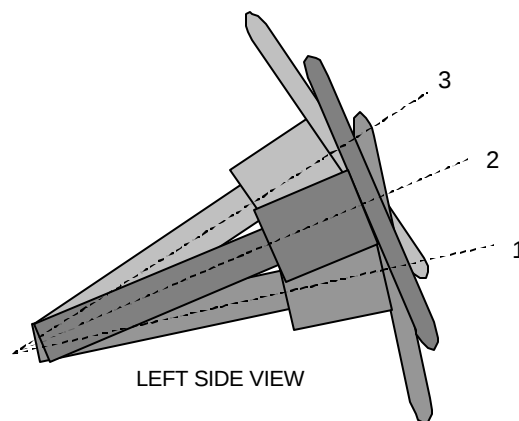
The test vehicle is equipped with an electric fuel pump. The fuel pump operates for approximately two seconds after the ignition is placed in the "ON" position, after which it automatically shuts off. The fuel filler door is located on the left rear fender. The standard fuel tank occupies the area under the rear seat. Fuel lines run along the left side of the body to the engine compartment.



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 it is moved through its full range of motion. An aluminum plate is placed across the rim of the steering wheel, an inclinometer is placed onto the plate, and the angle is measured. The tested vehicle has its steering column set to the geometric center, or position 3.



STEERING COLUMN ASSEMBLY

Lowermost, position 1: 30.0°

Geometric center, position 2: 30.8°

Uppermost, position 3: 33.0°

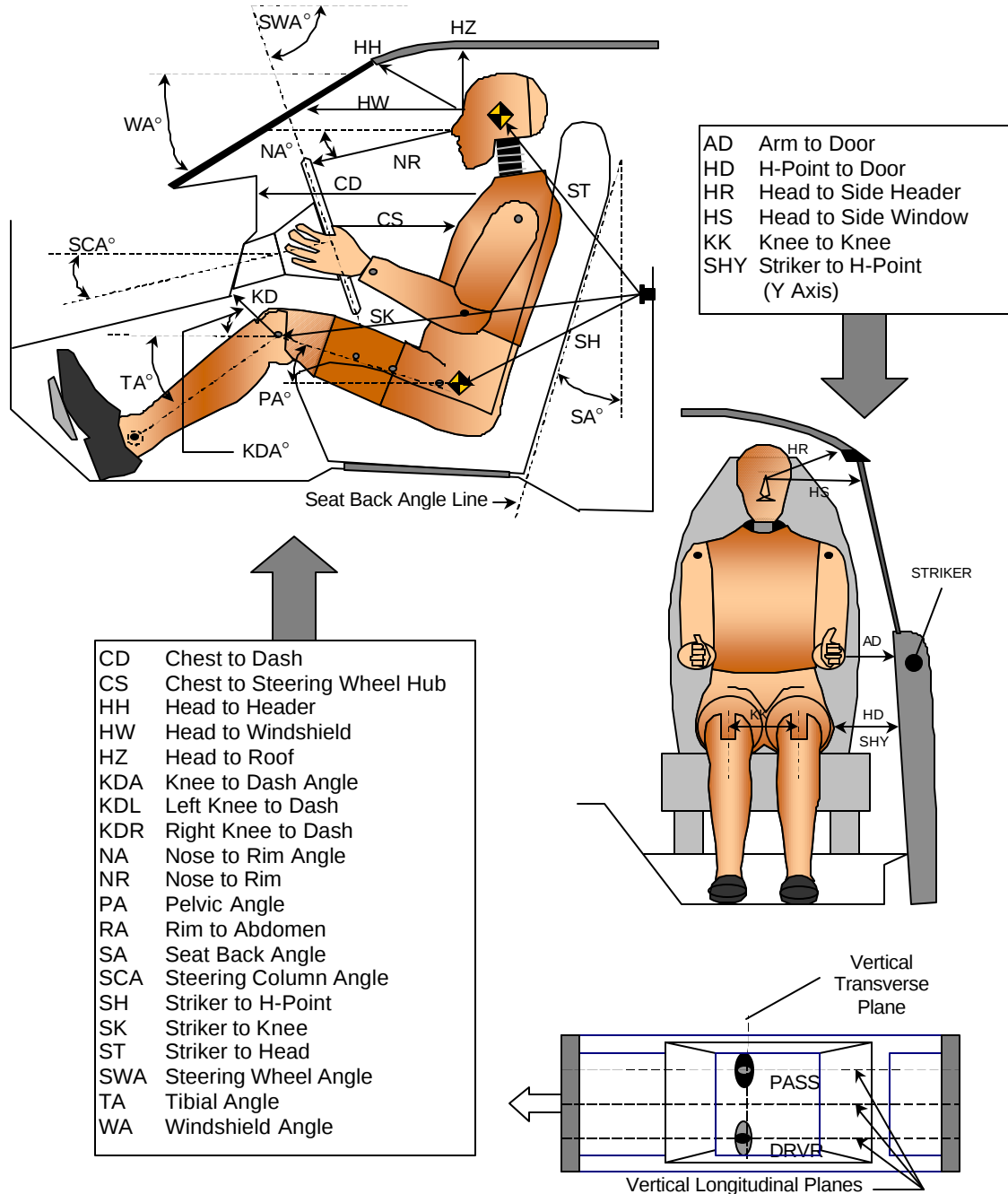
DATA SHEET NO. 5 **DUMMY POSITIONING IN VEHICLE**

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

Test Date: 01/18/01



DUMMY MEASUREMENTS FOR FRONT SEAT OCCUPANTS

DATA SHEET NO. 5...(continued)
DUMMY POSITIONING IN VEHICLE

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

Test Date: 01/18/01

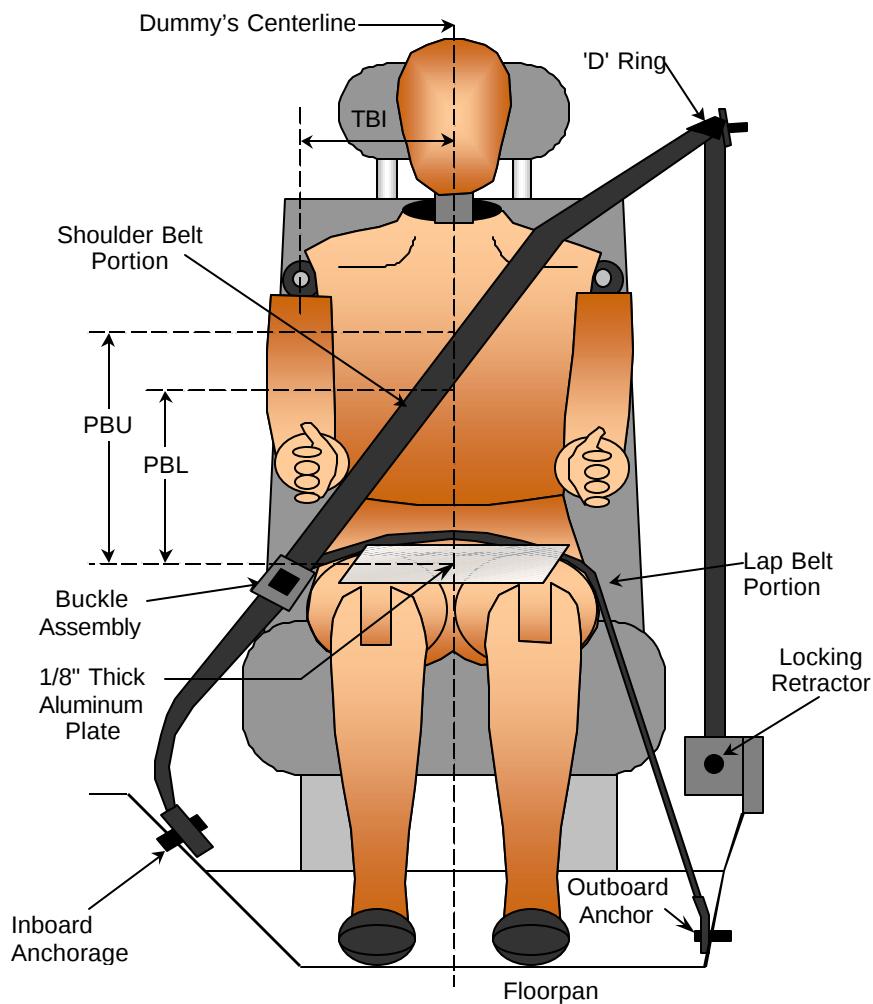
TEST DUMMY POSITION MEASUREMENTS

Code	Measurement Description	Driver		Passenger	
		Length (mm)	Angle (°)	Length (mm)	Angle (°)
WA	Windshield Angle		35		
SWA	Steering Wheel Angle		59		
SCA	Steering Column Angle		31		
SA	Seat Back Angle		23		23
HZ	Head to Roof (Z)	200	90	190	90
HH	Head to Header	452	0	427	0
HW	Head to Windshield	625	0	629	0
HR	Head to Side Header (Y)	235		245	
NR	Nose to Rim	460	14		
CD	Chest to Dash	612		570	
CS	Chest to Steering Hub	340	0		
RA	Rim to Abdomen	204	0		
KDL	Left Knee to Dash	175	17	146	
KDR	Right Knee to Dash	180		153	19
PA	Pelvic Angle		23		24
TA	Tibia Angle		33		37
KK	Knee to Knee (Y)	263		200	
SK	Striker to Head	560	2	599	2
ST	Striker to Knee	578	2	572	8
SH	Striker to H-Point	175	29	207	23
SHY	Striker to H-Point (Y)	210		216	
HS	Head to Side Window	290		292	
HD	H-Point to Door (Y)	173		168	
AD	Arm to Door (Y)	107		40	

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

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV
 Test Program: 2001 NHTSA 35 mph NCAP

NHTSA No.: M15602
 Test Date: 01/18/01



SEAT BELT POSITIONING MEASUREMENTS

Measurement Description	Units	Driver	Passenger
TBI - Dummy CL to Lap/Shoulder Belt Intersect	mm	200	200
PBU - Top surface of reference to belt upper edge	mm	300	300
PBL - Top surface of reference to belt lower edge	mm	220	220
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: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35mph NCAP

Test Date: 01/18/01

VEHICLE X-AXIS ACCELEROMETER PEAK DATA AND PRE-TEST LOCATIONS

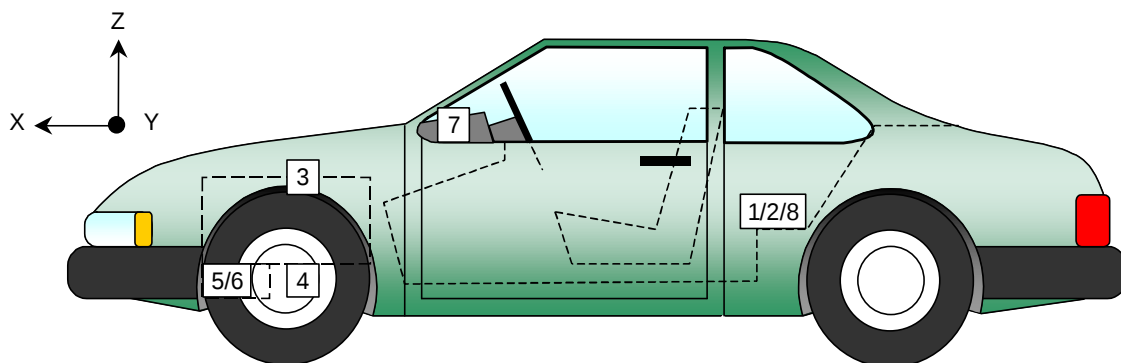
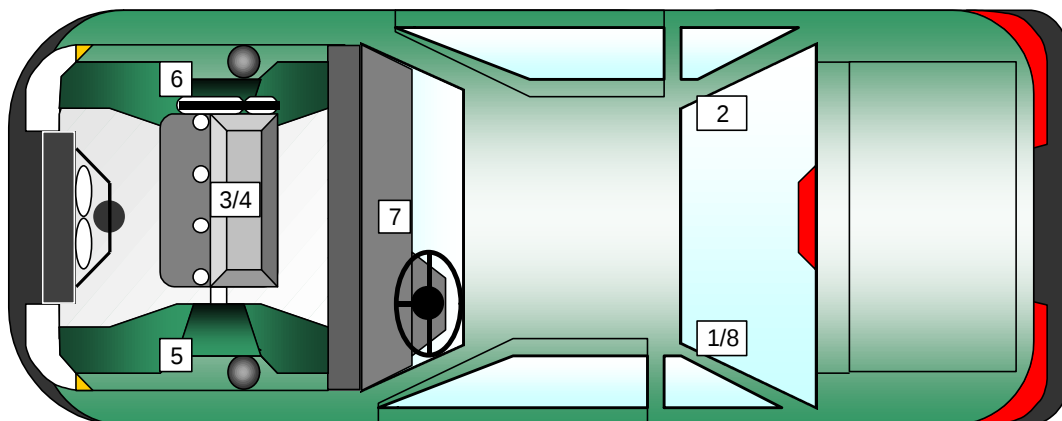
No.	Accelerometer Location	Measurements (mm)			Peak Values				
		X	Y	Z	Units	Max	Time	Min	Time
1	Left Rear X-Member (Pri.)	1840	-620	520	G's	2.5	147.6	-40.2	20.7
2	Right Rear X-Member (Pri.)	1790	650	520	G's	2.8	146.1	-38.6	46.7
3	Engine Top	3750	220	1090	G's	26.8	51.2	-121.6	33.3
4	Engine Bottom	3850	0	370	G's	44.2	42.2	-113.7	34.4
5	Left Brake Caliper	3605	-640	360	G's	42.8	24.8	-105.3	19.8
6	Right Brake Caliper	3605	640	360	G's	57.9	24.3	-92.5	19.4
7	Instrument Panel	3080	0	1080	G's	42.4	82.9	-83.5	70.3
8	Left Rear X-Member (Rednt.)	1840	-650	520	G's	2.5	147.6	-37.0	20.9

Reference Points

X - From Rear Surface of Vehicle

Y - Vehicle Centerline

Z - Ground Plane



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

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35mph NCAP

Test Date: 01/18/01

HEAD PRIMARY PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	23.8	207.8	-53.0	78.7	2.8	285.8	-39.4	77.4
Head CG	Y	G's	3.8	156.8	-8.7	30.1	3.6	63.0	-11.0	91.0
Head CG	Z	G's	24.3	57.9	-10.0	106.3	54.0	67.4	-2.4	116.3
Head CG Resultant	N/A	G's	54.7	74.1			63.8	67.4		

CHEST PRIMARY PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Chest CG	X	G's	3.3	155.6	-58.4	70.0	1.0	171.0	-55.3	59.5
Chest CG	Y	G's	5.4	14.1	-7.0	54.7	5.7	54.6	-1.5	43.4
Chest CG	Z	G's	12.9	46.3	-12.9	113.1	23.7	66.5	-14.0	119.7
Chest CG Resultant	N/A	G's	59.6	69.9			59.8	66.7		

FEMUR PEAK FORCES

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Left Femur	Z	Newtons	367.1	51.4	-1212.6	61.8	182.6	34.1	-5967.7	46.4
Right Femur	Z	Newtons	864.4	38.0	-3503.2	55.4	251.9	29.4	-5661.7	46.2

SEAT BELT SENSOR PEAK VALUES

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Lap Belt Force	N/A	Newtons	9974.3	58.6	-11.4	105.5	7491.5	55.6	2.2	97.5
Shoulder Belt Force	N/A	Newtons	7490.0	73.6	-10.0	252.5	11438.6	67.7	4.9	0.0
Shoulder Belt Pullout	N/A	MM	113.0	77.0	-4.3	33.3	171.9	78.3	0.3	0.0
Shoulder Belt Stretch	N/A	MM/CM	0.000	0.0	0.000	0.0	0.000	0.0	0.000	0.0

* Not used with pre-tensioners.

HEAD INJURY CRITERIA (HIC)

Location	Driver				Passenger			
	HIC	Avg G	T ¹	T ²	HIC	Avg G	T ¹	T ²
Head CG Primary	516.2	46.0	53.7	89.6	603.3	49.2	54.8	90.3

CHEST CLIP (3MSEC)

Location	Driver			Passenger		
	CLIP	T ¹	T ²	CLIP	T ¹	T ²
Chest CG Primary	56.8	69.1	72.1	59.0	65.4	68.4

DATA SHEET NO. 8...(continued)Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUVNHTSA No.: M15602Test Program: 2001 NHTSA 35mph NCAPTest Date: 01/18/01**PELVIC PEAK ACCELERATIONS**

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Pelvis	X	G's	14.1	102.8	-68.4	55.5	5.9	125.4	-81.5	47.2
Pelvis	Y	G's	6.2	94.5	-11.5	44.9	9.4	40.6	-13.8	46.8
Pelvis	Z	G's	4.4	45.5	-19.4	77.0	4.7	55.4	-16.4	61.8

UPPER NECK PEAK FORCES AND MOMENTS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Neck Force	X	Newtons	300.2	215.7	-890.1	79.4	154.5	258.3	-659.3	147.7
Neck Force	Y	Newtons	106.3	156.0	-159.5	62.8	524.1	63.7	-157.2	98.2
Neck Force	Z	Newtons	2857.6	69.8	-703.4	271.2	2372.3	73.3	-250.7	118.0
Neck Moment	X	N•m	12.7	63.0	-9.3	116.5	4.9	136.4	-33.5	61.5
Neck Moment	Y	N•m	46.0	140.1	-75.8	79.3	39.1	157.4	-27.7	57.1
Neck Moment	Z	N•m	8.0	113.0	-5.2	83.7	19.6	85.7	-8.0	137.2

FOOT PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Left Foot Aft	X	G's	15.9	95.3	-32.7	42.6	52.2	70.4	-314.6	41.8
Left Foot Aft	Z	G's	8.8	58.4	-46.6	42.2	26.8	39.6	-68.8	45.9
Left Foot Fore	Z	G's	23.9	28.8	-53.7	34.9	95.3	73.3	-101.6	46.7
Right Foot Aft	X	G's	65.1	76.4	-311.4	44.3	33.1	72.7	-138.1	46.5
Right Foot Aft	Z	G's	4.4	79.2	-207.7	43.0	11.1	57.1	-102.0	46.6
Right Foot Fore	Z	G's	108.0	79.8	-529.1	42.5	36.3	53.6	-139.1	36.6

UPPER AND LOWER TIBIA PEAK FORCES AND MOMENTS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Left Lower Moment	X	N•m	3.5	25.8	-19.4	102.6	32.8	43.1	-6.6	55.0
Left Lower Moment	Y	N•m	72.2	100.8	-17.9	35.3	80.3	75.3	-76.0	41.5
Left Lower Force	Z	Newtons	318.2	73.1	-2378.1	96.1	106.5	25.7	-5342.5	41.9
Left Upper Moment	X	N•m	17.5	49.2	-27.4	81.0	60.2	45.0	-30.3	96.1
Left Upper Moment	Y	N•m	141.5	49.0	-60.6	36.1	173.1	60.4	-46.5	41.3
Right Lower Moment	X	N•m	66.2	46.2	-44.6	53.7	16.4	46.0	-25.3	71.6
Right Lower Moment	Y	N•m	58.3	54.5	-116.9	45.3	120.5	71.1	-42.4	35.9
Right Lower Force	Z	Newtons	326.4	57.3	-3855.9	44.5	103.9	280.0	-4624.9	46.6
Right Upper Moment	X	N•m	98.7	48.7	-6.4	255.9	29.3	85.1	-35.9	53.6
Right Upper Moment	Y	N•m	87.3	56.9	-130.7	44.8	91.5	42.7	-58.8	47.2

DATA SHEET NO. 8...(continued)Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUVNHTSA No.: M15602Test Program: 2001 NHTSA 35mph NCAPTest Date: 01/18/01**CHEST PEAK DISPLACEMENTS**

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Chest CG	X	MM	0.1	15.2	-48.3	79.5	0.3	11.3	-43.6	71.2

HEAD REDUNDANT PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	24.0	207.3	-53.6	78.1	2.9	262.3	-39.4	77.8
Head CG	Y	G's	2.8	156.0	-7.4	30.2	4.6	61.3	-11.2	94.1
Head CG	Z	G's	24.1	58.6	-9.6	109.6	53.7	73.2	-3.2	120.3
Head CG Resultant	N/A	G's	53.8	78.1			63.2	76.0		

CHEST REDUNDANT PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Chest CG	X	G's	3.5	164.3	-57.9	70.1	0.4	169.6	-54.4	66.9
Chest CG	Y	G's	2.5	86.3	-7.2	51.0	6.0	54.7	-2.0	40.6
Chest CG	Z	G's	12.3	69.5	-12.4	113.5	23.8	66.7	-13.5	119.2
Chest CG Resultant	N/A	G's	59.3	70.1			59.4	66.8		

REDUNDANT HEAD INJURY CRITERA (HIC)

Location	Driver				Passenger			
	HIC	Avg G	T ¹	T ²	HIC	Avg G	T ¹	T ²
Head CG Redundant	514.9	46.0	53.1	89.0	579.1	48.2	55.3	91.2

REDUNDANT CHEST CLIP (3MSEC)

Location	Driver			Passenger		
	CLIP	T ¹	T ²	CLIP	T ¹	T ²
Chest CG Redundant	56.3	69.3	72.3	58.5	65.3	68.3

DATA SHEET NO. 9
SEAT BELT PERFORMANCE ASSESSMENT TEST DATA

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV
 Test Program: 2001 NHTSA 35 mph NCAP

NHTSA No.: M15602
 Test Date: 01/18/01

SEAT BELT PLACEMENT MEASUREMENTS

Measurement Description	Units	Driver	Passenger
TCI - Dummy CL to Lap/Shoulder Belt Intersect	mm	200	200
PBU -Top surface of reference to belt upper edge	mm	300	300
PBL - Top surface of reference to belt lower edge	mm	220	220
Lap Belt tension	Newton's	10	10
Shoulder Belt tension	N/A	Retractor	Retractor

BELT LENGTH DATA

Measurement Description	Units	Driver	Passenger
Retractor reel to 'D' ring	mm	620	620
Shoulder belt length as measured on ATD	mm	800	800
Lap belt length as measured on ATD	mm	870	870
Remainder of belt on reel	mm	900	900
Total belt length for continuous webbing systems	mm	3190	3190

SHOULDER BELT SPOOL-OFF DATA

Measurement Description	Units	Driver	Passenger
As determined mechanically	mm	30.0	125.0
As determined electronically	mm	113.0	171.9

BELT STRETCH DATA

Measurement Description	Units	Driver	Passenger
Electronically from shoulder belt load cell and "D" ring	mm/cm	N/A	N/A
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: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

Test Date: 01/18/01

Windshield Mounting Details:

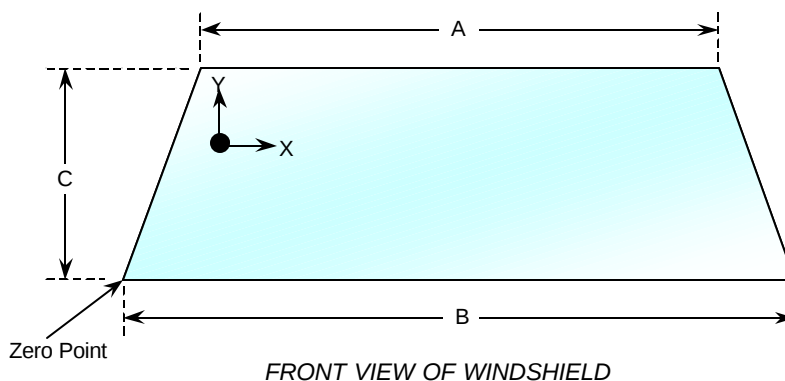
Windshield glass is secured to the vehicle frame with a rubber type adhesive. There is no molding that covers the windshield periphery at any point.

The standard requires that the post test 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 which 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	1954.0	1954.0	100
Right Side	1954.0	1954.0	100
Total	3908.0	3908.0	100



WINDSHIELD DIMENSIONS

Item	Units	Segment Length	Molding Width
A	mm	1215	18
B	mm	1473	18
C	mm	610	5

DATA SHEET NO. 11

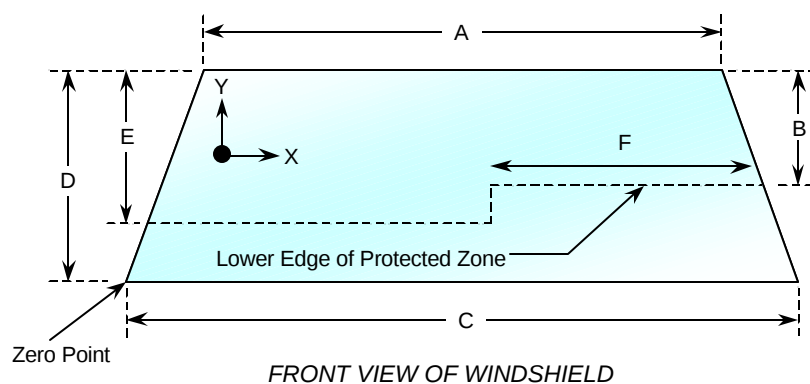
WINDSHIELD ZONE INTRUSION FMVSS 219 (PARTIAL) DATA

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

Test Date: 01/18/01



WINDSHIELD AND PROTECTED ZONE

Item	Units	Value
A	mm	1215
B	mm	340
C	mm	1473
D	mm	610
E	mm	391
F	mm	573

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: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

Test Date: 01/18/01

Test Time: 12:40 PM

Temperature at Time of Impact: 10.5 °C

STODDARD SOLVENT SPILLAGE MEASUREMENT

- 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 Details: No leakage occurred

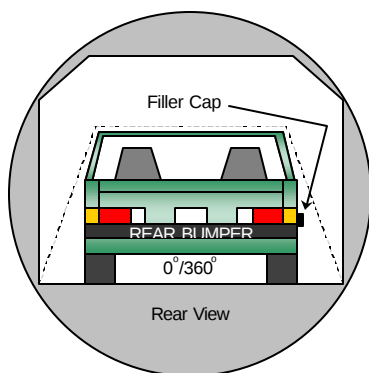
DATA SHEET NO. 13
FMVSS 301 STATIC ROLLOVER DATA SHEET

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

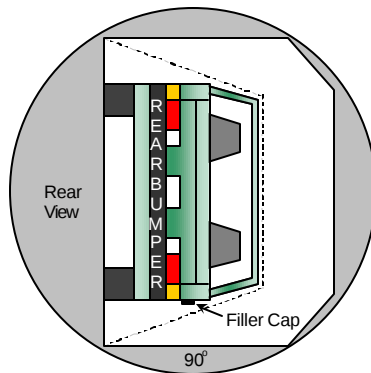
NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

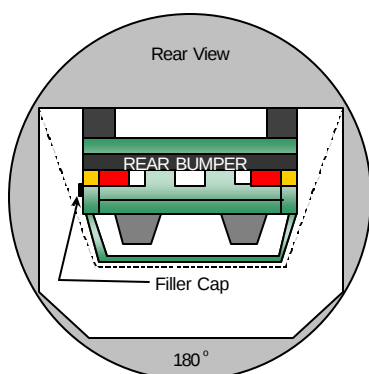
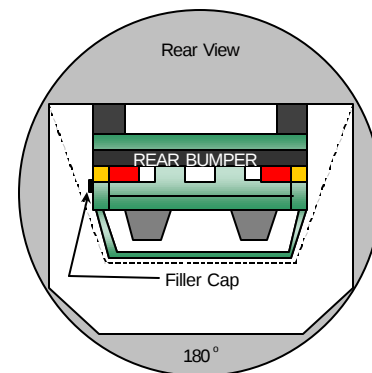
Test Date: 01/18/01



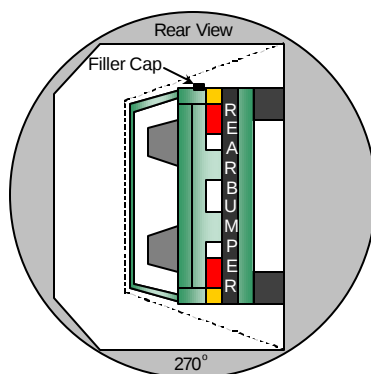
0° TO 90°



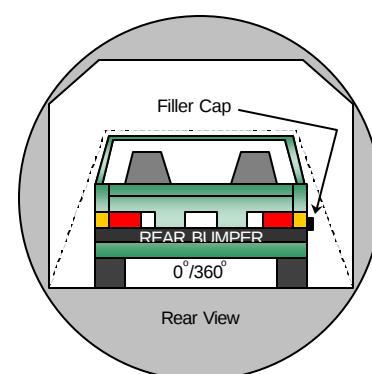
90° TO 180°



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.

TEST PHASE FUEL	Rotation Time (sec.)	Hold Time (sec.)	Spillage (oz.)
0° TO 90°	79	300	0.0
90° TO 180°	78	300	0.0
180° TO 270°	80	300	0.0
270° TO 360°	82	300	0.0

DATA SHEET NO. 14
VEHICLE MEASUREMENTS

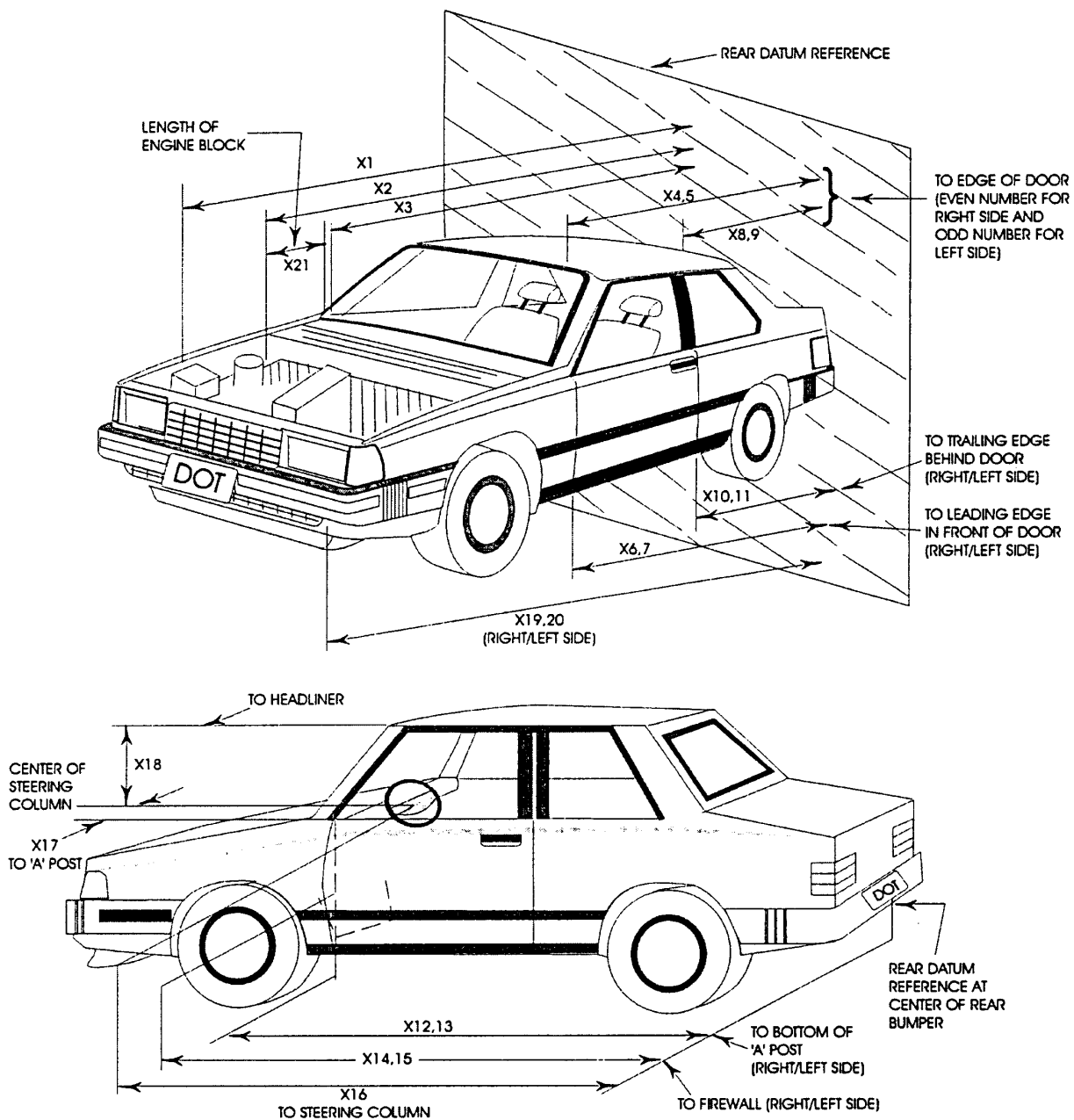
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

Test Date: 01/18/01

No.	Measurement Description	Units	Pre-Test	Post-Test	Difference
1	Total length of vehicle at centerline	mm	4604	4181	-423
2	RSOV to front of engine	mm	4038	3918	-120
3	RSOV to firewall centerline	mm	3545	3443	-102
4	RSOV to leading edge of right door	mm	3228	3235	7
5	RSOV to leading edge of left door	mm	3228	3240	12
6	RSOV to lower leading edge of right door	mm	3226	3226	0
7	RSOV to lower leading edge of left door	mm	3221	3222	1
8	RSOV to upper trailing edge of right door	mm	2243	2257	14
9	RSOV to upper trailing edge of left door	mm	2244	2262	18
10	RSOV to lower trailing edge of right door	mm	2232	2223	-9
11	RSOV to lower trailing edge of left door	mm	2226	2222	-4
12	RSOV to bottom of right 'A' pillar	mm	3223	3239	16
13	RSOV to bottom of left 'A' pillar	mm	3217	3256	39
14	RSOV to firewall on right side	mm	3513	3409	-104
15	RSOV to firewall of left side	mm	3513	3482	-31
16	RSOV to steering column	mm	2796	2790	-6
17	Center of steering column to left 'A' pillar	mm	451	360	-91
18	Center of steering column to headlining	mm	455	410	-45
19	RSOV to right side of front bumper	mm	4365	4084	-281
20	RSOV to left side of front bumper	mm	4365	4202	-163
21	Length of engine block	mm	447	447	0
RD	RSOV to right side of dash panel	mm	3043	3030	-13
CD	RSOV to center of dash panel	mm	2973	2980	7
LD	RSOV to left side of dash panel	mm	3024	3014	-10



DATA SHEET NO. 15
CAMERA LOCATIONS

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

Test Date: 01/18/01

No.	Camera View	Location (mm)			Angle (Deg.)	Film Plane to Head	Lens (mm)	Speed (fps)
		X	Y	Z				
1	Right Side, Real Time	3454	10973	1245	0	1651	Zoom	24
2	Left Side, No. 1	1955	-8250	880	-1	7925	13	1030
3	Left Side, No. 2	1455	-8250	1460	-4	7940	35	1020
4	Left Side, No. 3	6495	-10580	4640	-16	11461	70	1000
5	Left Side, No. 4	Did Not Run						
6	Left Side, No. 5	1455	-8250	2700	-13	8026	19	930
7	Right Side, No. 1	1955	8150	730	-1	8557	19	1020
8	Right Side, No. 2	1655	8150	1450	-4	8539	35	1000
9	Right Side, No. 3	Did Not Run						
10	Right Side, No. 4	970	12358	1150	-2	12799	50	960
11	Overhead Overall	251	0	4460	-86	N/A	13	1060
12	Front View, Driver	-525	-380	2590	-43	N/A	12	950
13	Front View, Passenger	-525	380	2590	-44	N/A	13	830
14	Pit Camera, Engine	638	0	1640	86	N/A	13	610
15	Pit Camera, Fuel Tank	4700	0	1770	48	N/A	19	610
16	Driver Belt	2836	-374	1360	-4	979	13	970
17	Passenger Belt	2924	388	1380	-4	1156	13	1090
18	Left Side Extra	800	-6681	1450	-2	6507	24	1090

X - Barrier Face Y - Monorail Centerline Z - Ground

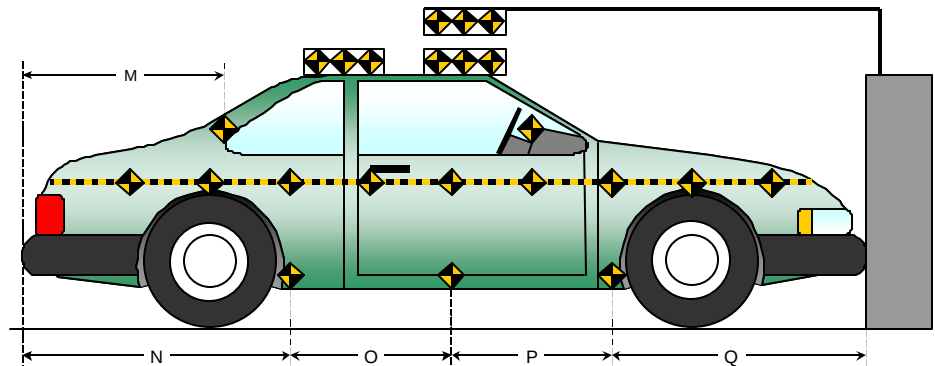
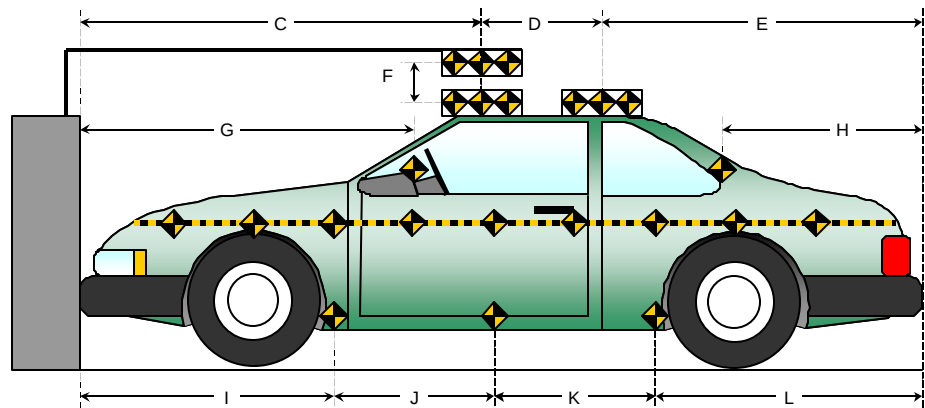
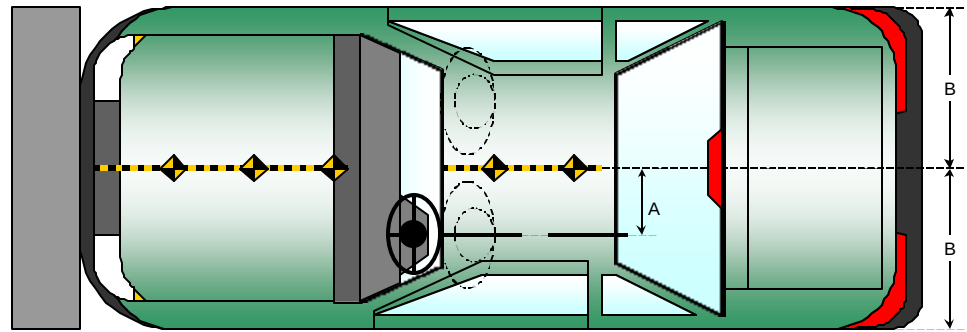
DATA SHEET NO. 16
PHOTOGRAPHIC REFERENCE TARGET LOCATIONS

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV
 Test Program: 2001 NHTSA 35 mph NCAP

NHTSA No.: M15602
 Test Date: 01/18/01

All Dimensions
in mm

Item	Value
A	538
B	979
C	1602
D	609
E	263
F	155
G	1329
H	1526
I	1481
J	912
K	915
L	1587
M	1555
N	1598
O	910
P	910
Q	1469



DATA SHEET NO. 17
VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

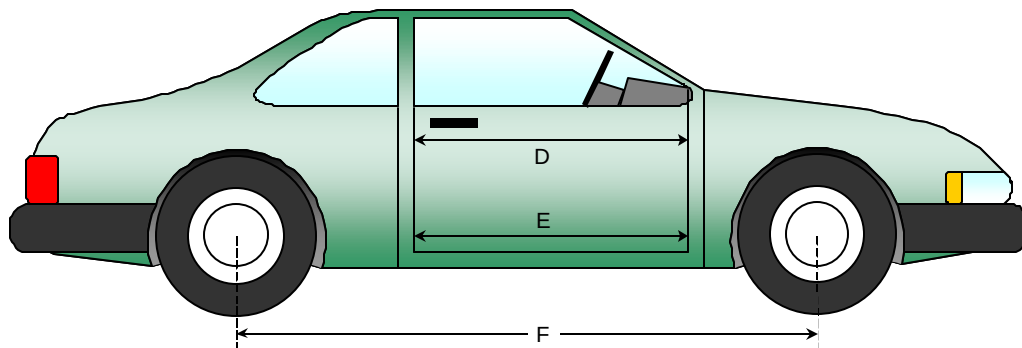
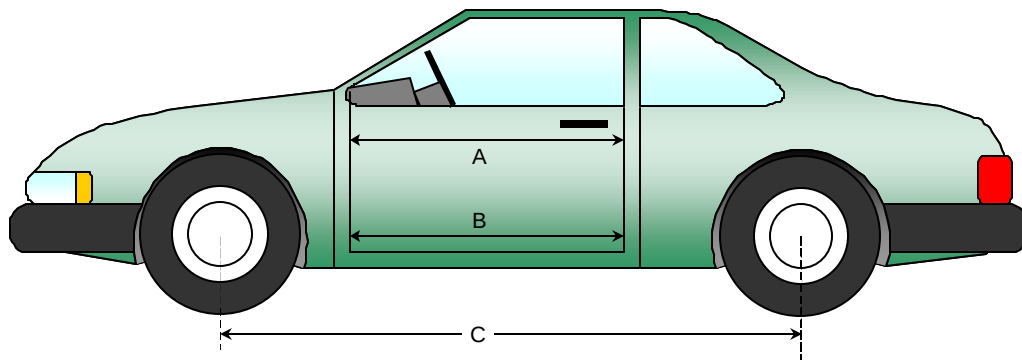
Test Date: 01/18/01

DOOR OPENING WIDTH

Item	Description	Units	Pre-Test	Post-Test	Difference
A	Left Side Upper	mm	918	909	-9
B	Left Side Lower	mm	916	914	-2
D	Right Side Upper	mm	917	904	-13
E	Right Side Lower	mm	918	911	-7

WHEELBASE MEASUREMENTS

Item	Description	Units	Pre-Test	Post-Test	Difference
C	Left Side Wheel base	mm	2727	2695	-32
F	Right Side Wheel base	mm	2727	2670	-57



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

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

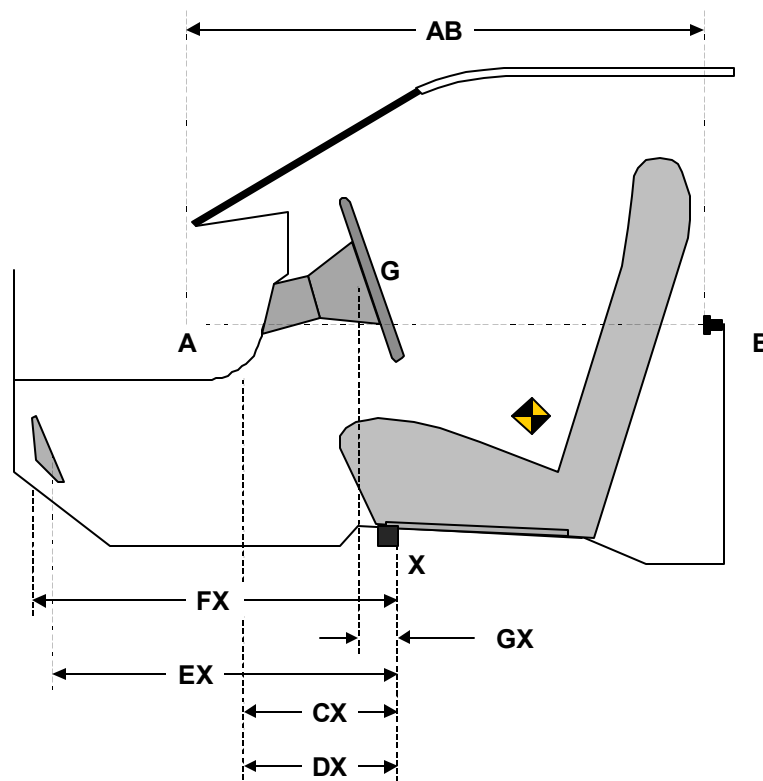
Test Program: 2001 NHTSA 35 mph NCAP

Test Date: 01/18/01

DRIVER COMPARTMENT INTRUSION

Item	Description	Units	Pre-Test	Post-Test	Difference
AB	Door Opening (Inside window jam)	mm	918	909	-9
CX	Left Knee Bolster to X	mm	308	330	22
DX	Right Knee Bolster to X	mm	332	328	-4
EX	Brake Pedal to X	mm	633	541	-92
FX	Foot Rest to X	mm	623	600	-23
GX	Center of Steering Wheel Hub to X	mm	81	135	54

X = Left Front Seat Outboard Anchor Bolt Head



DRIVER COMPARTMENT

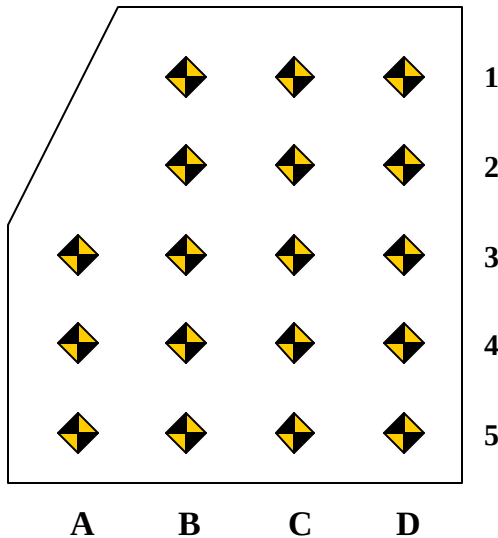
DATA SHEET NO. 17...(CONTINUED)
VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

Test Date: 01/18/01



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.

DRIVER FLOOR PAN X-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1		706	701	701		711	704	702		5	3	1
2		633	627	629		645	638	636		12	11	7
3	534	528	525	525	555	548	541	538	21	20	16	13
4	437	431	426	421	460	451	441	435	23	20	15	14
5	335	334	326	324	355	350	340	335	20	16	14	11

DRIVER FLOOR PAN Z-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1		-44	-48	-50		-39	-34	-29		5	14	21
2		-104	-109	-117		-112	-109	-105		-8	0	12
3	-122	-122	-122	-132	-145	-140	-130	-125	-23	-18	-8	7
4	-122	-132	-122	-132	-145	-145	-130	-130	-23	-13	-8	2
5	-117	-122	-132	-142	-145	-135	-135	-145	-28	-13	-3	-3

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

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

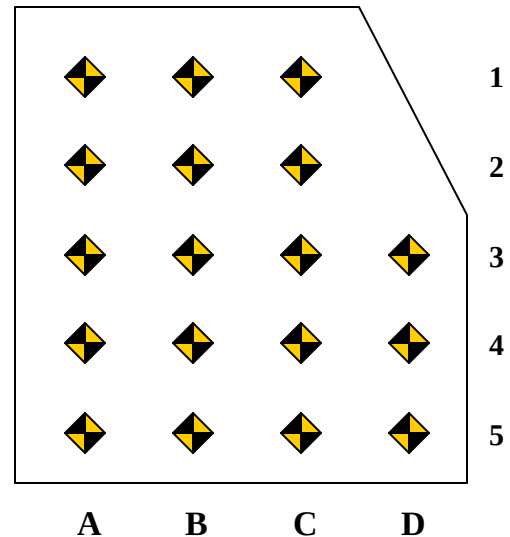
Test Date: 01/18/01

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 X-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	666	671	676		632	623	621		-34	-48	-55	
2	588	577	585		554	560	567		-34	-17	-18	
3	474	479	484	491	455	464	472	483	-19	-15	-12	-8
4	381	386	386	394	360	361	372	386	-21	-25	-14	-8
5	283	283	288	294	262	263	272	284	-21	-20	-16	-10

PASSENGER FLOOR PAN Z-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	-116	-105	-121		-104	95	94		12	200	215	
2	-156	-143	-156		-170	-177	-175		-14	-34	-19	
3	-164	-150	-165	-150	-189	-187	-189	-183	-25	-37	-24	-33
4	-162	-165	-145	-145	-188	-179	-191	-177	-26	-14	-46	-32
5	-162	-152	-145	-141	-190	-191	-180	-190	-28	-39	-35	-49

DATA SHEET NO. 18
FIXED BARRIER TYPE

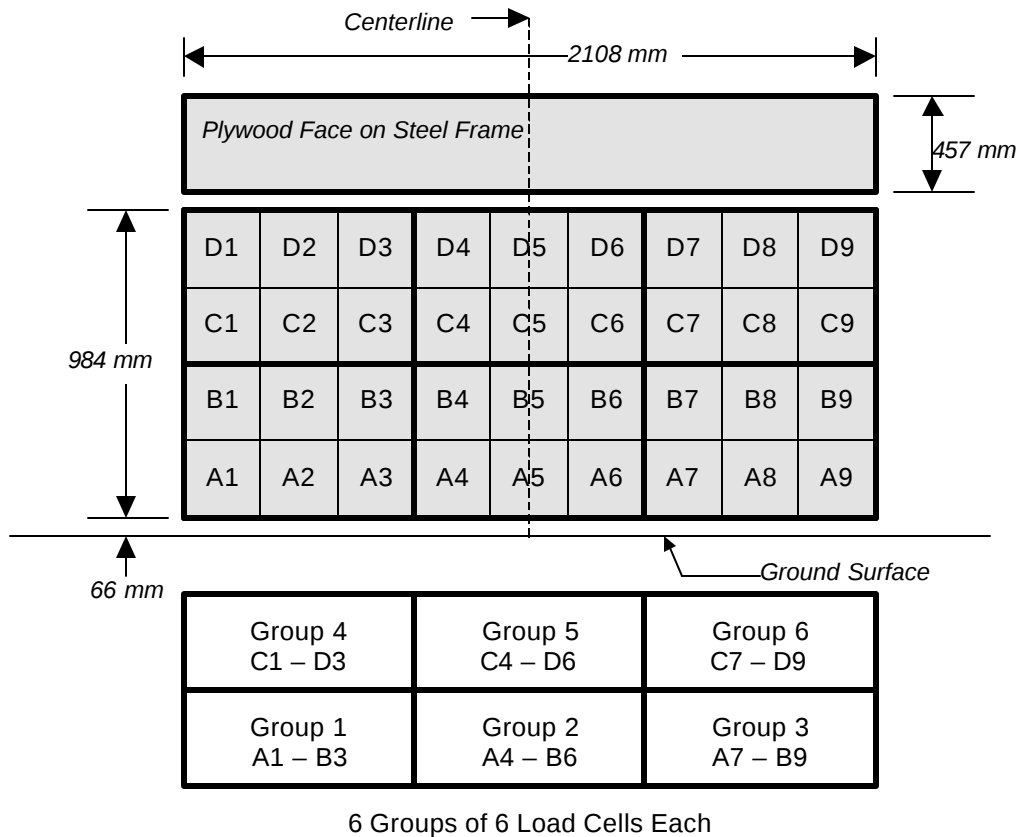
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

Test Date: 01/18/01

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 DATA

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV
Test Program: 2001 NHTSA 35 mph NCAP

NHTSA No.: M15602
Test Date: 01/18/01

VEHICLE INFORMATION

VIN: JA4MT21H61P003562
Vehicle Size Category: SUV

Wheel base (mm): 2727
Test Weight (kg): 2176

ACCELEROMETER DATA

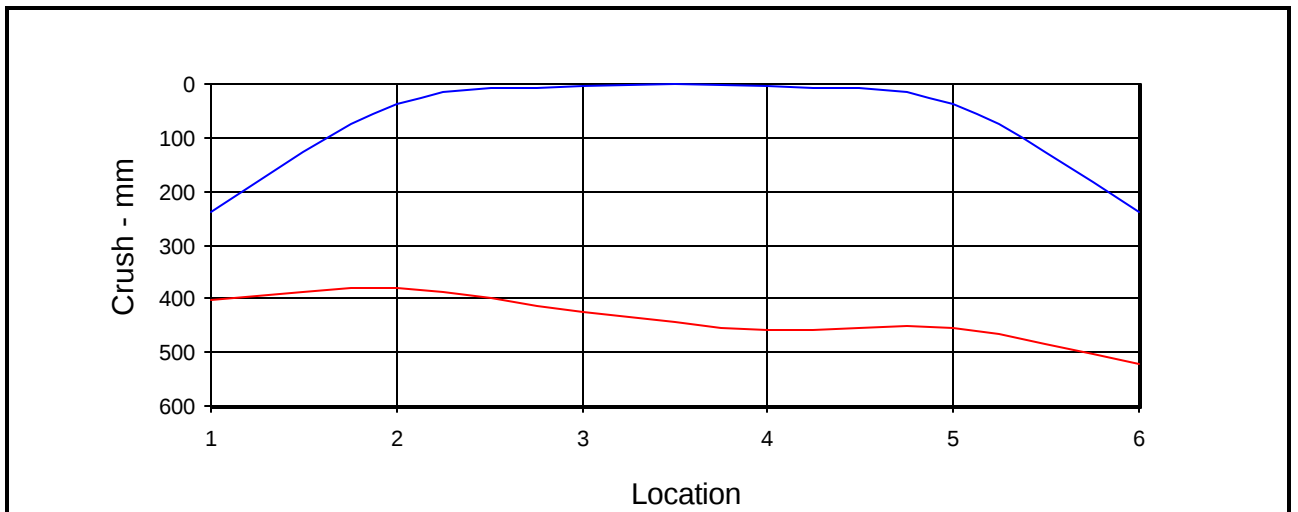
Accelerometer Location: Left rear floor pan
Cal. Procedure/Interval: 6 months / drop test
Integration Algorithm: NHTSA Standard
Impact Velocity (km/h): 55.83
Velocity Change (km/h): 61.74

Linearity: Good
Time of Separation (msec): 67.5

CRUSH PROFILE

Collision Deformation Classification: 12FDEW6 ; Midpoint of Damage: Vehicle Centerline
Damage Region Length (mm): 1621 ; Impact Mode: Full Frontal

No.	Measurement Description	Units	Pre-Test	Post-Test	Difference
C1	Crush zone 1 at left side	mm	239	402	-163
C2	Crush zone 2 on left side	mm	36	380	-344
C3	Crush zone 3 on left side	mm	3	423	-420
C4	Crush zone 4 on right side	mm	3	460	-457
C5	Crush zone 5 on right side	mm	36	455	-419
C6	Crush zone 6 at right side	mm	239	520	-281



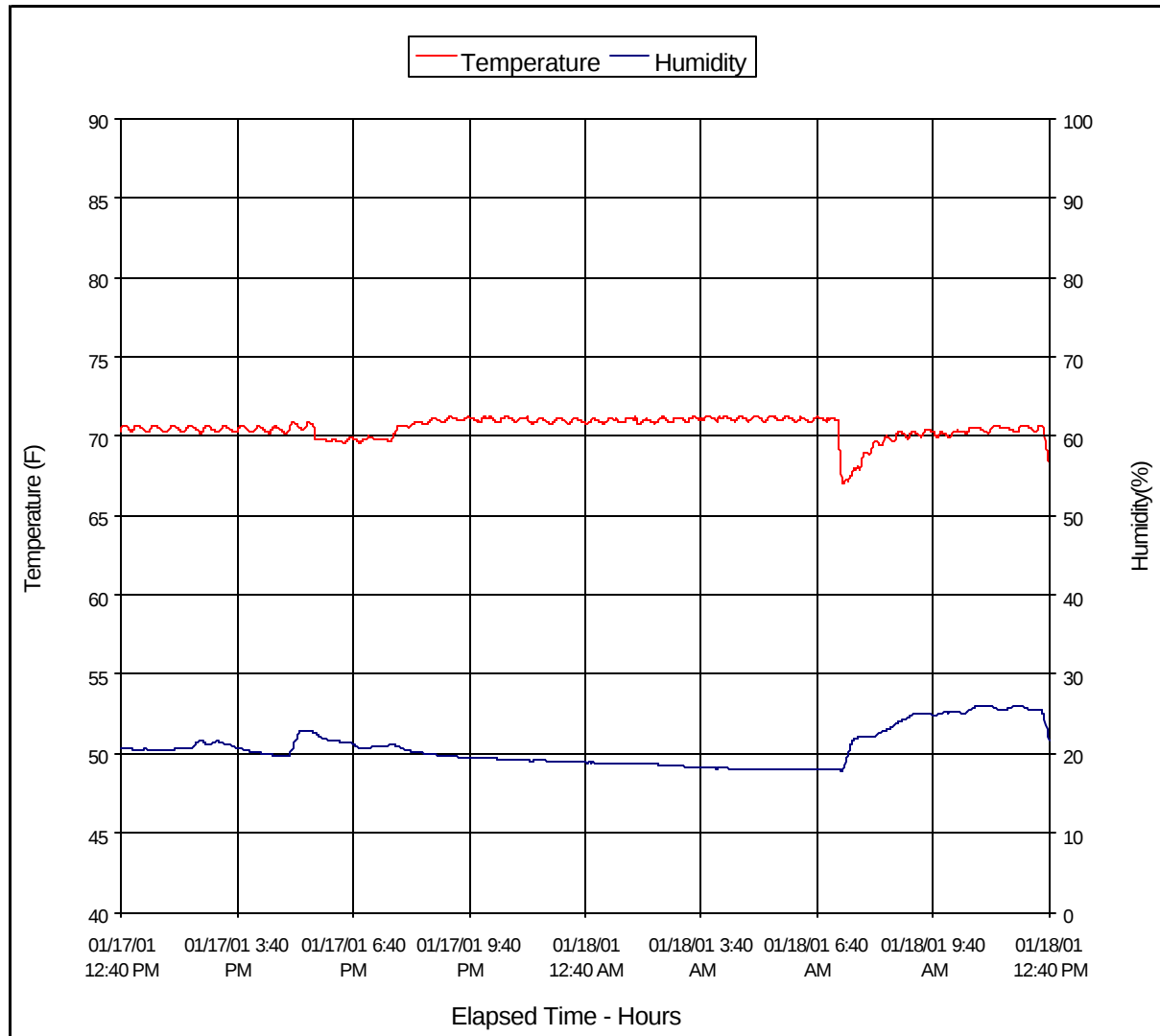
DATA SHEET NO. 20
DUMMY/VEHICLE TEMPERATURE STABILIZATION

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

NHTSA No.: M15602

Test Program: 2001 NHTSA 35 mph NCAP

Test Date: 01/18/01



APPENDIX A
PHOTOGRAPHS

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Figure A-1: Right Front, as Received



Figure A-2: Left Rear, as Received

MFD. BY MITSUBISHI MOTORS CORPORATION

JAPAN

GVWR 5350LBS/2427KG

JUN 2000

GAWR 2645LBS/1200KG WITH P255/70R16 109S TIRES

FR 16X7JJ RIMS AT 180KPa//26PSI COLD.

GAWR 3525LBS/1600KG WITH P255/70R16 109S TIRES

RR 16X7JJ RIMS AT 180KPa//26PSI COLD.

**THIS VEHICLE CONFORMS TO ALL APPLICABLE FEDERAL MOTOR VEHICLE SAFETY AND THEFT
PREVENTION STANDARDS IN EFFECT ON THE DATE OF MANUFACTURE SHOWN ABOVE.**



JA4MT21H61P003562

VEHICLE TYPE: MPV

MU900370

Figure A-3: Vehicle Certification Label

TIRE SIZE		TIRE INFLATION PRESSURE ^{kPa} (psi)	
		FRONT	REAR
P255/70R16 109S	Ⓐ	180 (26)	180 (26)
	Ⓑ	180 (26)	180 (26)
Ⓐ : TO 5 PASSENGERS			
Ⓑ : Ⓐ TO MAX. LOAD OR TRAILER TOWING			
PART NO. : MR491176 E			

Figure A-4: Vehicle Tire Label



Figure A-5: Front View, Pre-Test



Figure A-6: Front View, Post-Test



Figure A-7: Left Side View, Pre-Test



Figure A-8: Left Side View, Post-Test



Figure A-9: Right Side View, Pre-Test



Figure A-10: Right Side View, Post-Test



Figure A-11: Right Front View, Pre-Test



Figure A-12: Right Front View, Post-Test



Figure A-13: Left Rear View, Pre-Test



Figure A-14: Left Rear View, Post-Test

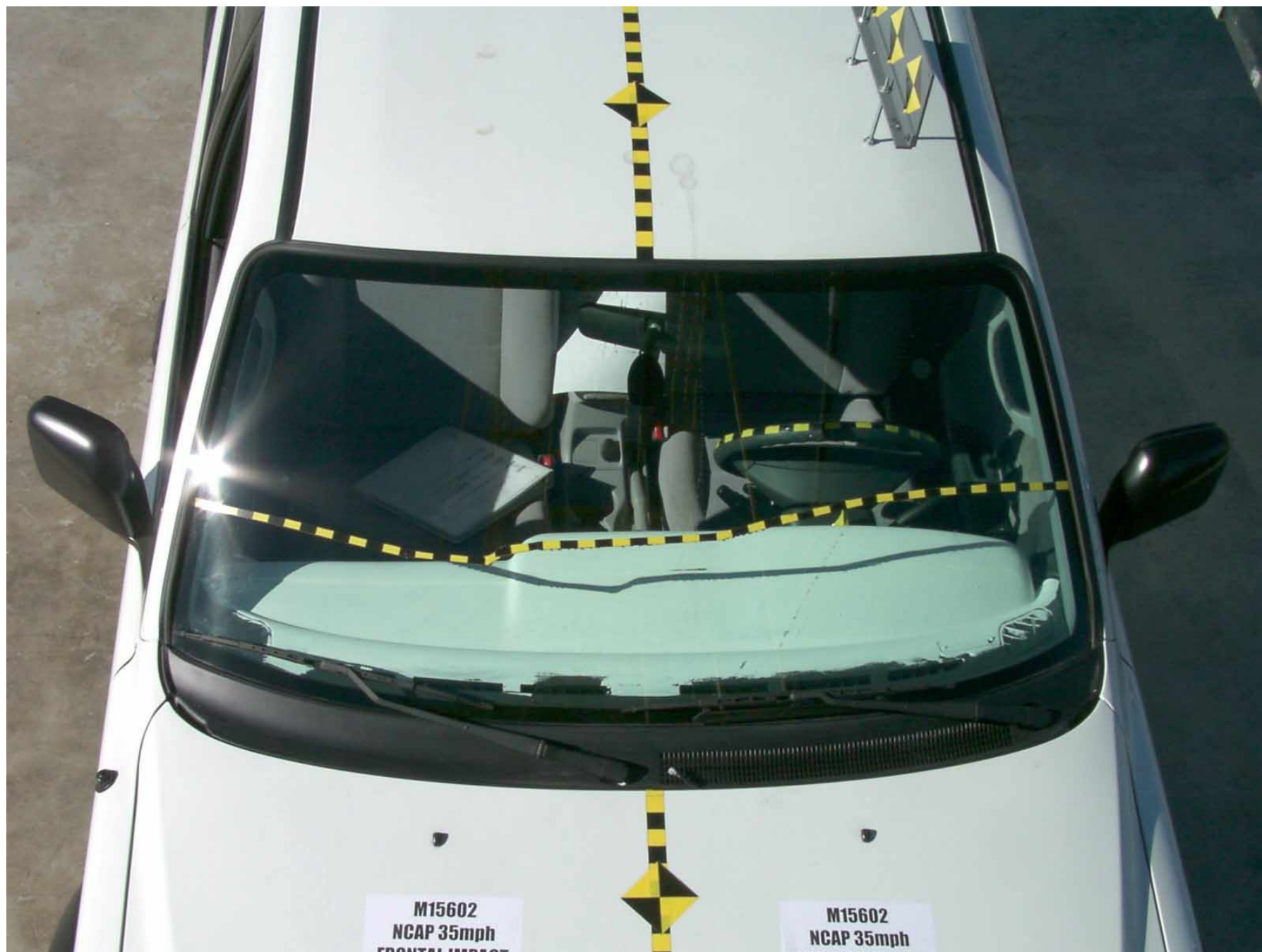


Figure A-15: Windshield, Pre-Test



Figure A-16: Windshield, Post-Test



Figure A-17: Engine Compartment, Pre-Test

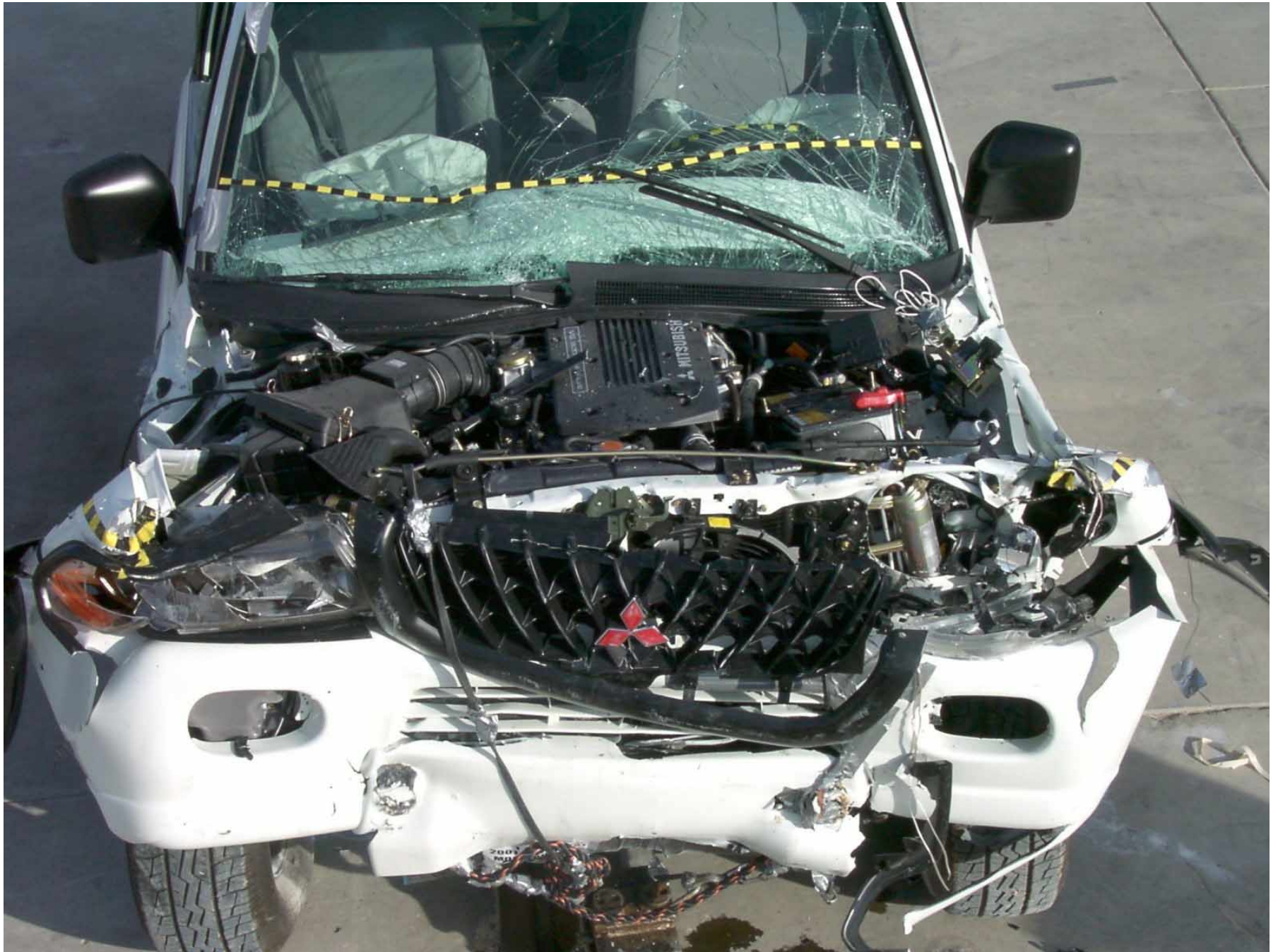


Figure A-18: Engine Compartment, Post-Test



Figure A-19: Fuel Cap, Pre-test



Figure A-20: Fuel Cap, Post-Test



Figure A-21: Front Underside, Pre-Test

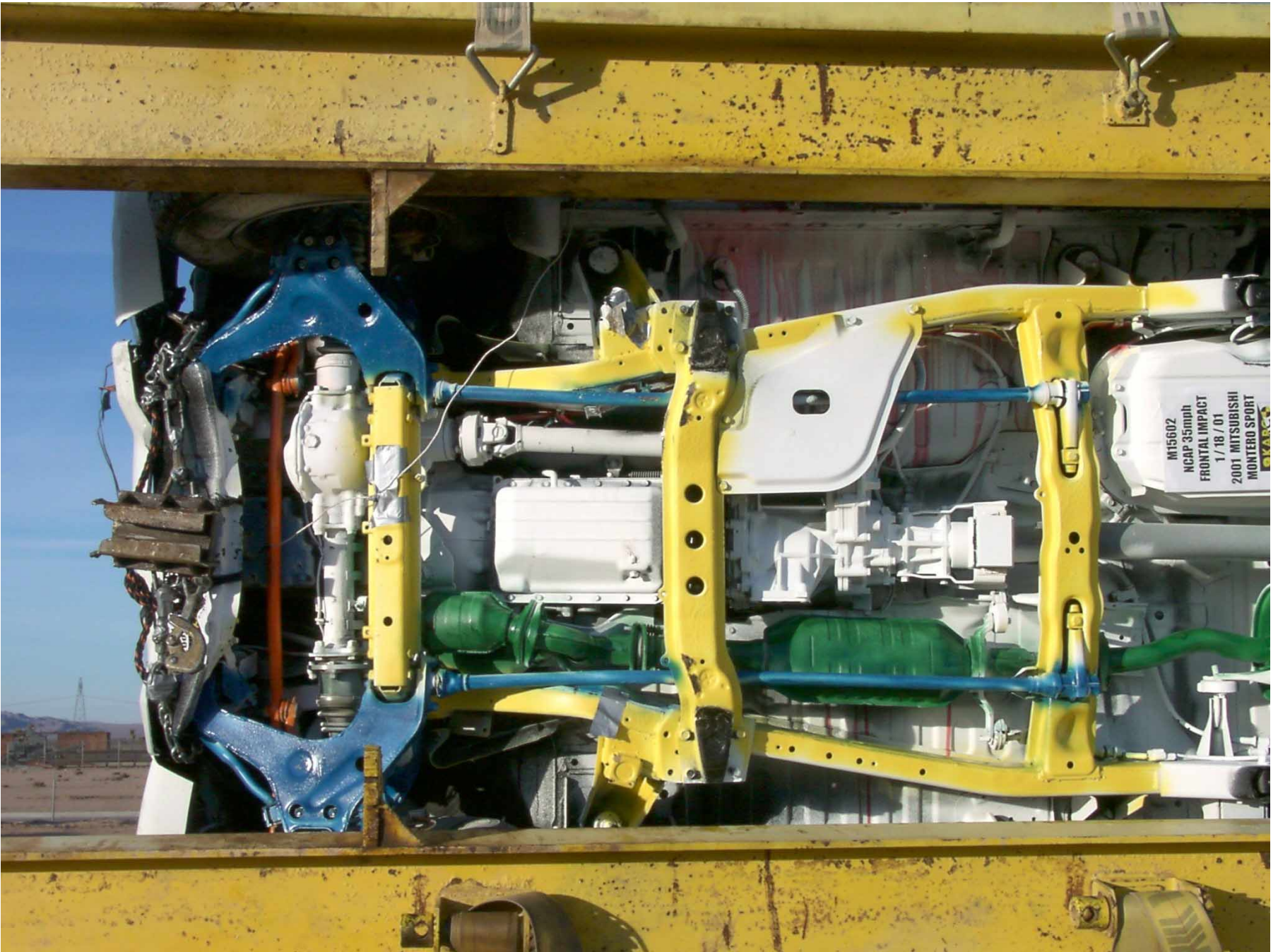


Figure A-22: Front Underside, Post-Test

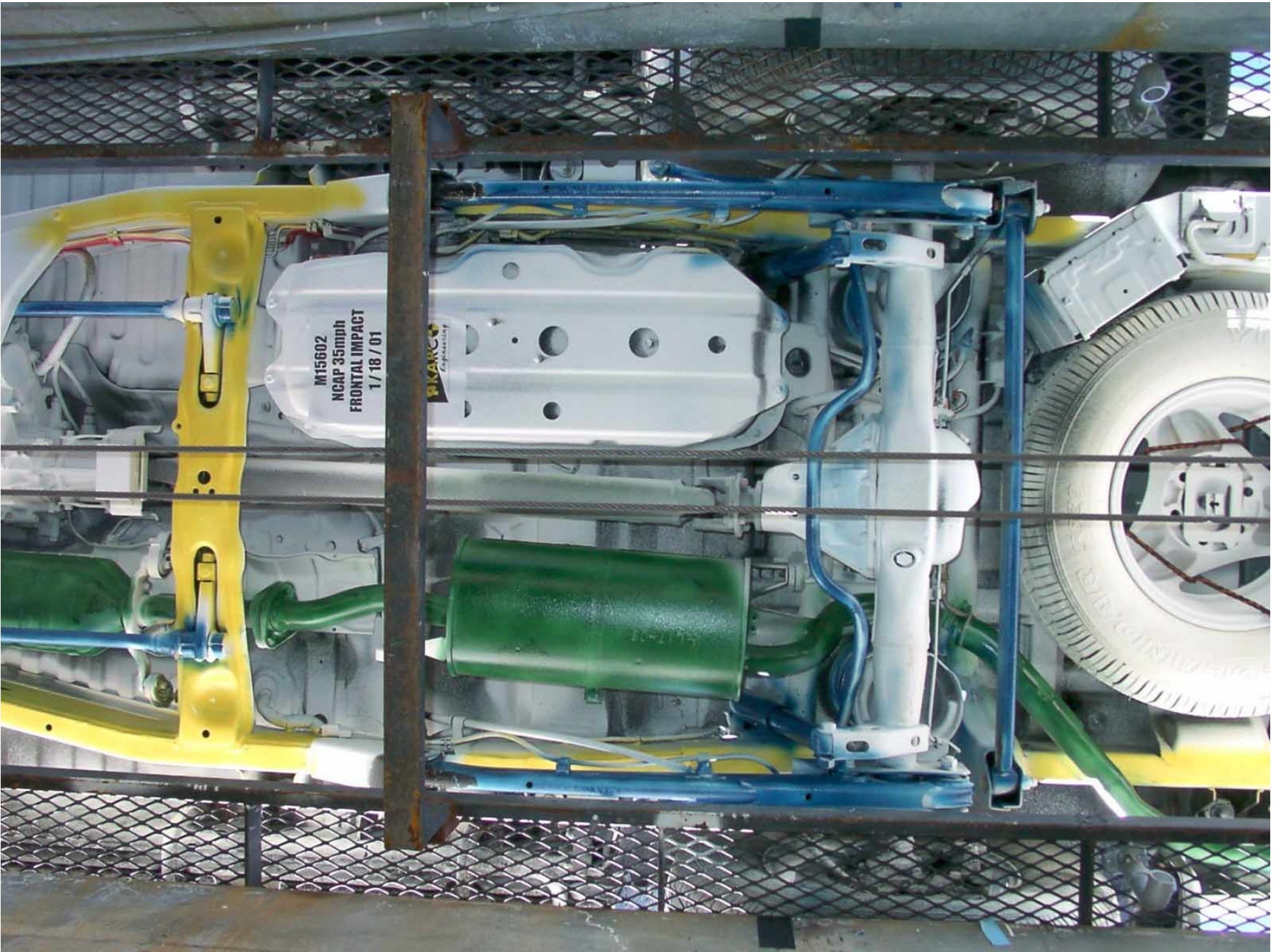


Figure A-23: Rear Underside, Pre-Test

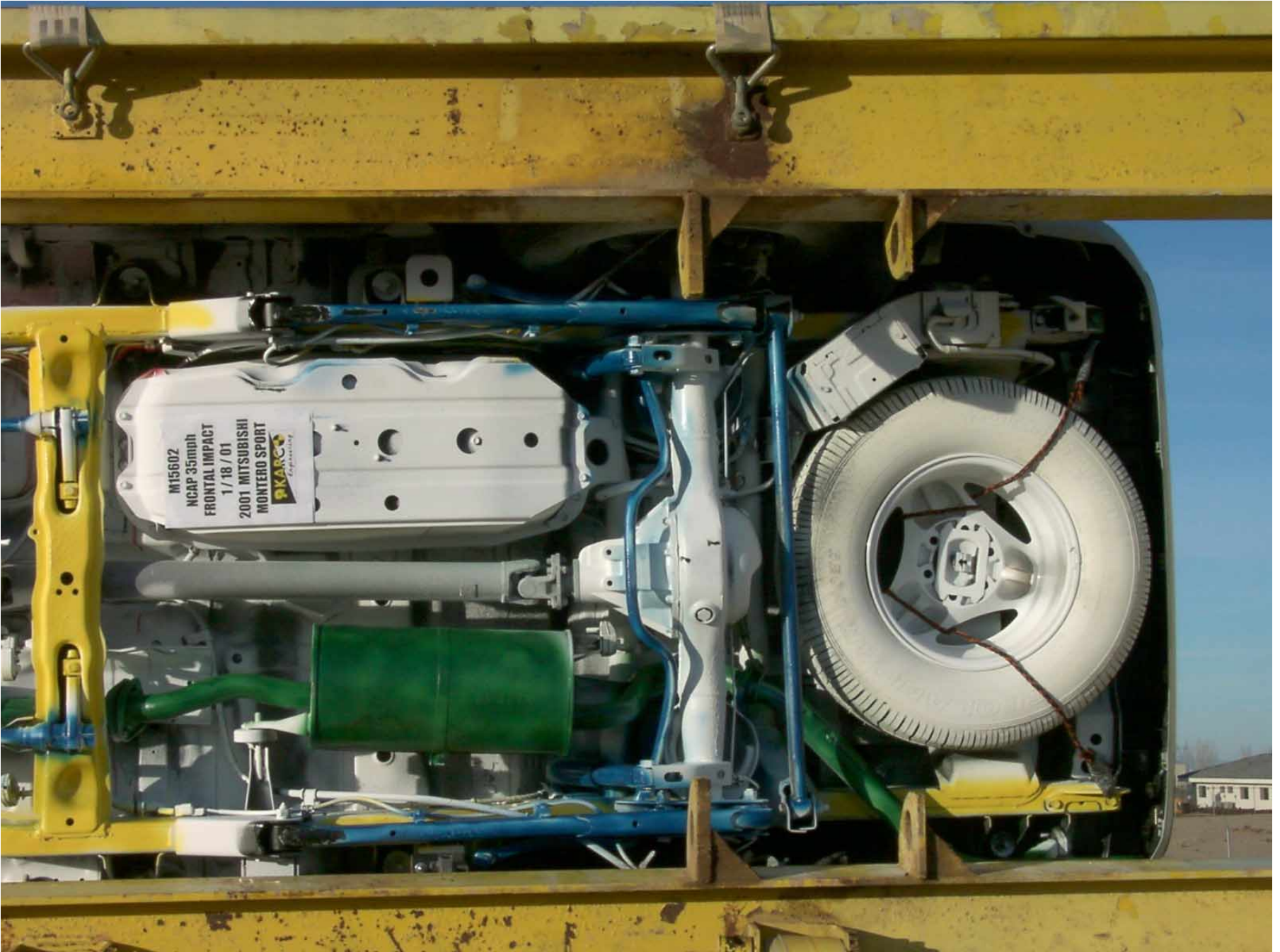


Figure A-24: Rear Underside, Post-Test

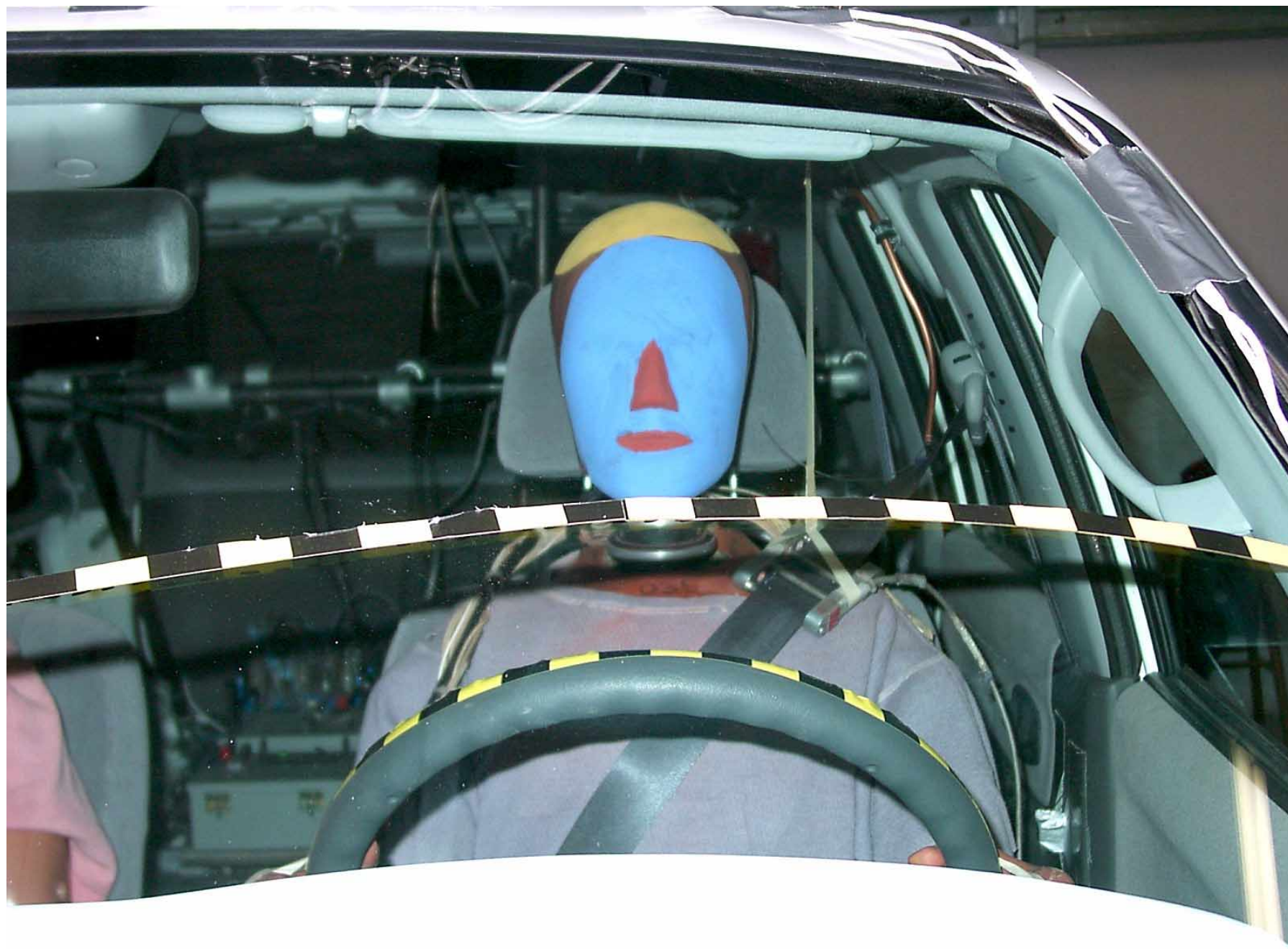


Figure A-25: Driver Dummy Front View, Pre-Test



Figure A-26: Driver Dummy Front View, Post-Test



Figure A-27: Driver Dummy Through Window, Pre-Test



Figure A-28: Driver Dummy Through Window, Post-Test



Figure A-29: Driver Dummy Door Open, Pre-Test



Figure A-30: Driver Dummy Door Open, Post-Test



Figure A-31: Driver Dummy 90° To Vehicle, Pre-Test



Figure A-32: Driver Dummy 90° To Vehicle, Post-Test



Figure A-33: Driver Dummy Feet, Pre-Test



Figure A-34: Driver Dummy Feet and Knee Contact, Post-Test



Figure A-35: Driver Side Knee Bolster, Pre-Test



Figure A-36: Driver Side Knee Bolster, Post-Test

**Photograph Not
Available**

Figure A-37: Driver Side Floor Pan, Pre-Test



Figure A-38: Driver Side Floor Pan, Post-Test



Figure A-39: Driver Dummy Head, Post-Test



Figure A-40: Driver Dummy Contact, Post-Test

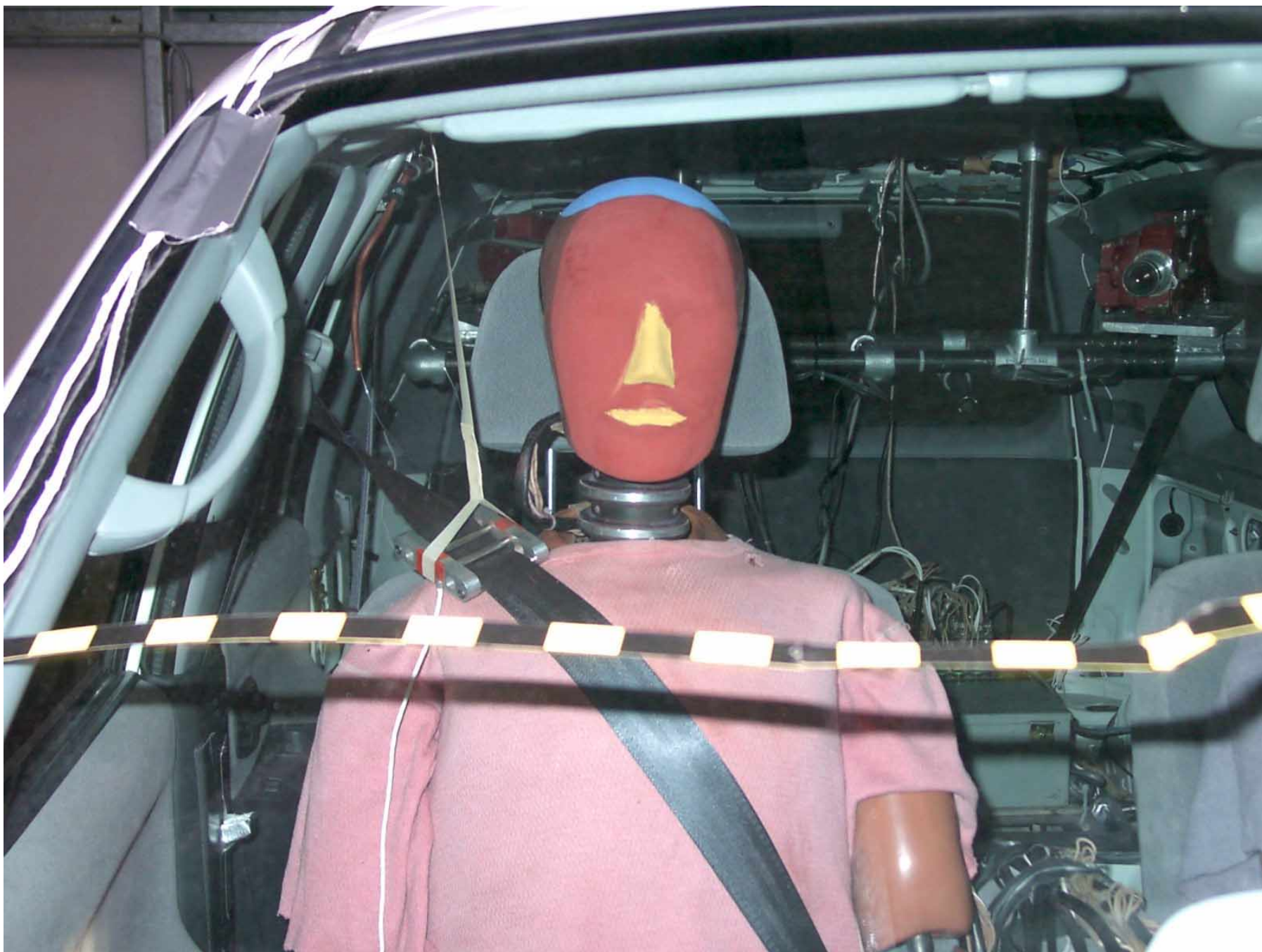


Figure A-41: Passenger Dummy Front View, Pre-Test



Figure A-42: Passenger Dummy Front View, Post-Test



Figure A-43: Passenger Dummy Through Window, Pre-Test



Figure A-44: Passenger Dummy Through Window, Post-Test



Figure A-45: Passenger Dummy Door Open, Pre-Test



Figure A-46: Passenger Dummy Door Open, Post-Test



Figure A-47: Passenger Dummy 90° To Vehicle, Pre-Test

**Photograph Not
Available**

Figure A-48: Passenger Dummy 90° To Vehicle, Post-Test



Figure A-49: Passenger Dummy Feet, Pre-Test



Figure A-50: Passenger Dummy Feet and Knee Contact, Post-Test

**Photograph Not
Available**

**Photograph Not
Available**

Figure A-52: Passenger Side Floor Pan, Post-Test



Figure A-53: Passenger Side Knee Bolster, Pre-Test



Figure A-54: Passenger Side Knee Bolster, Post-Test



Figure A-55: Passenger Head, Post-Test



Figure A-56: Passenger Dummy Contact, Post-Test



Figure A-57: Vehicle on Rollover Device



Figure A-58: Vehicle During Impact

APPENDIX B

DUMMY AND VEHICLE RESPONSE DATA TRACES

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B-46 Driver Left Lower Tibia Moment X	B-46
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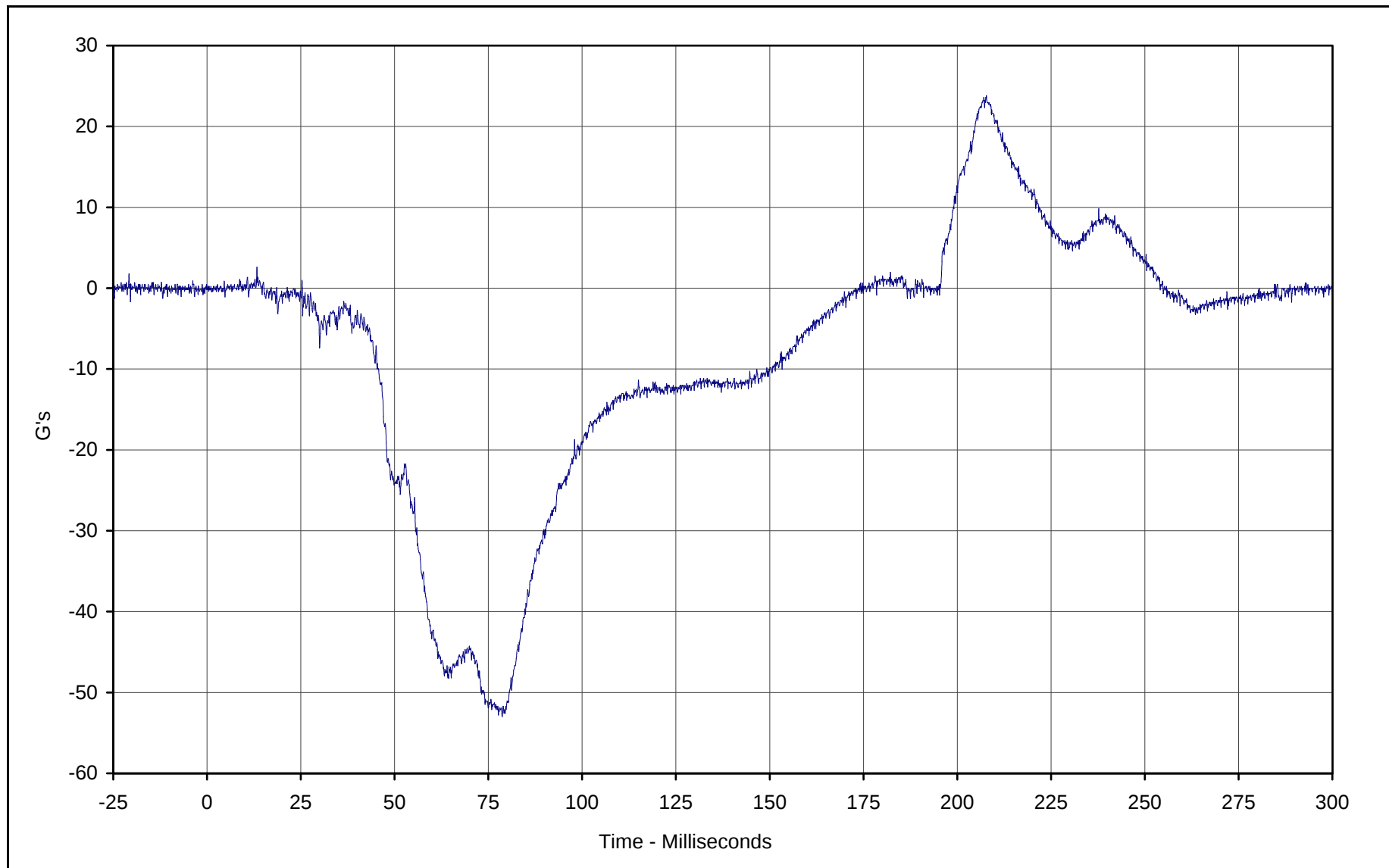
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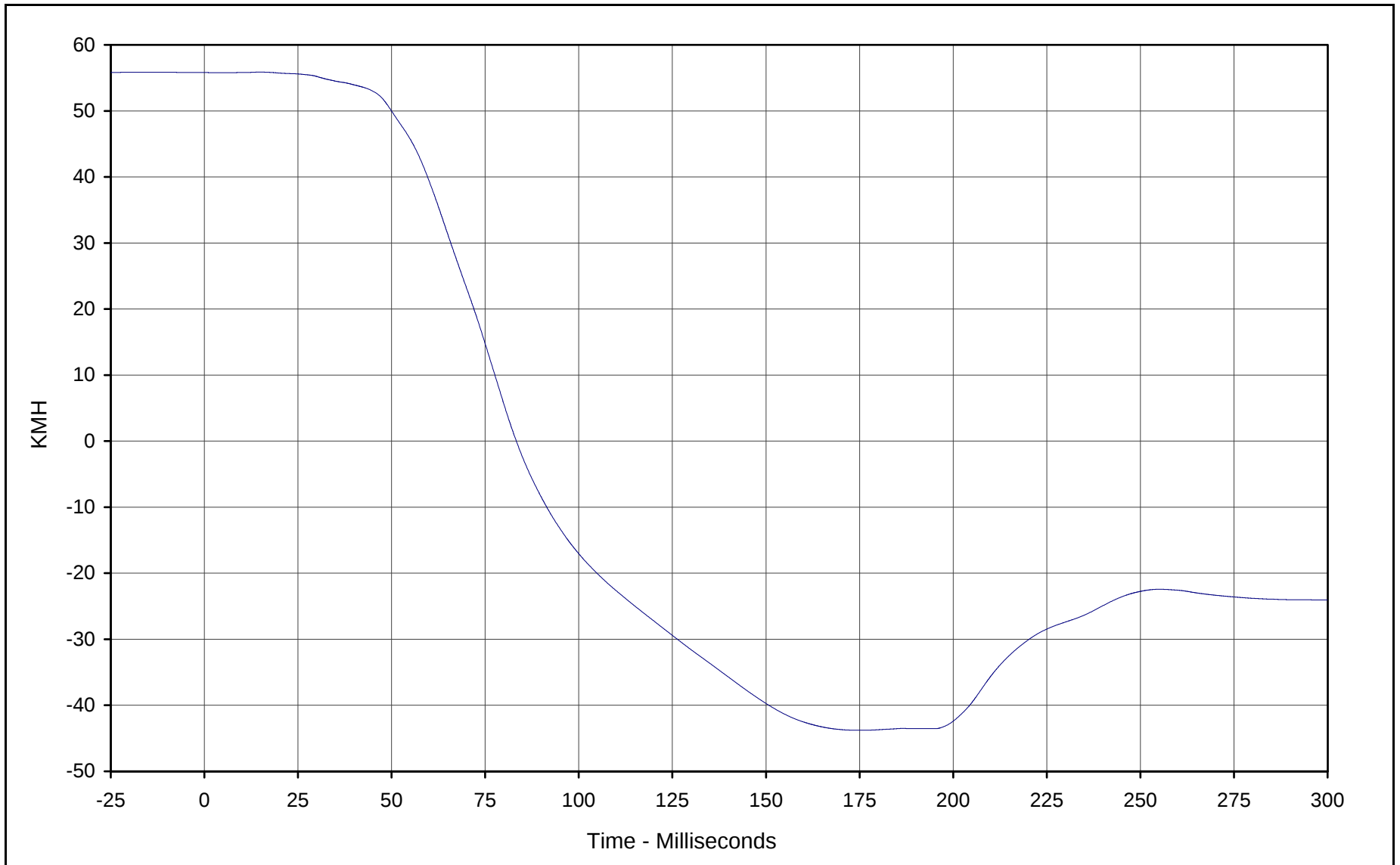
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Curve Description: Driver Head Primary X
Maximum Value: 23.8 at 207.8 Milliseconds
Minimum Value: -53.0 at 78.7 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-001

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

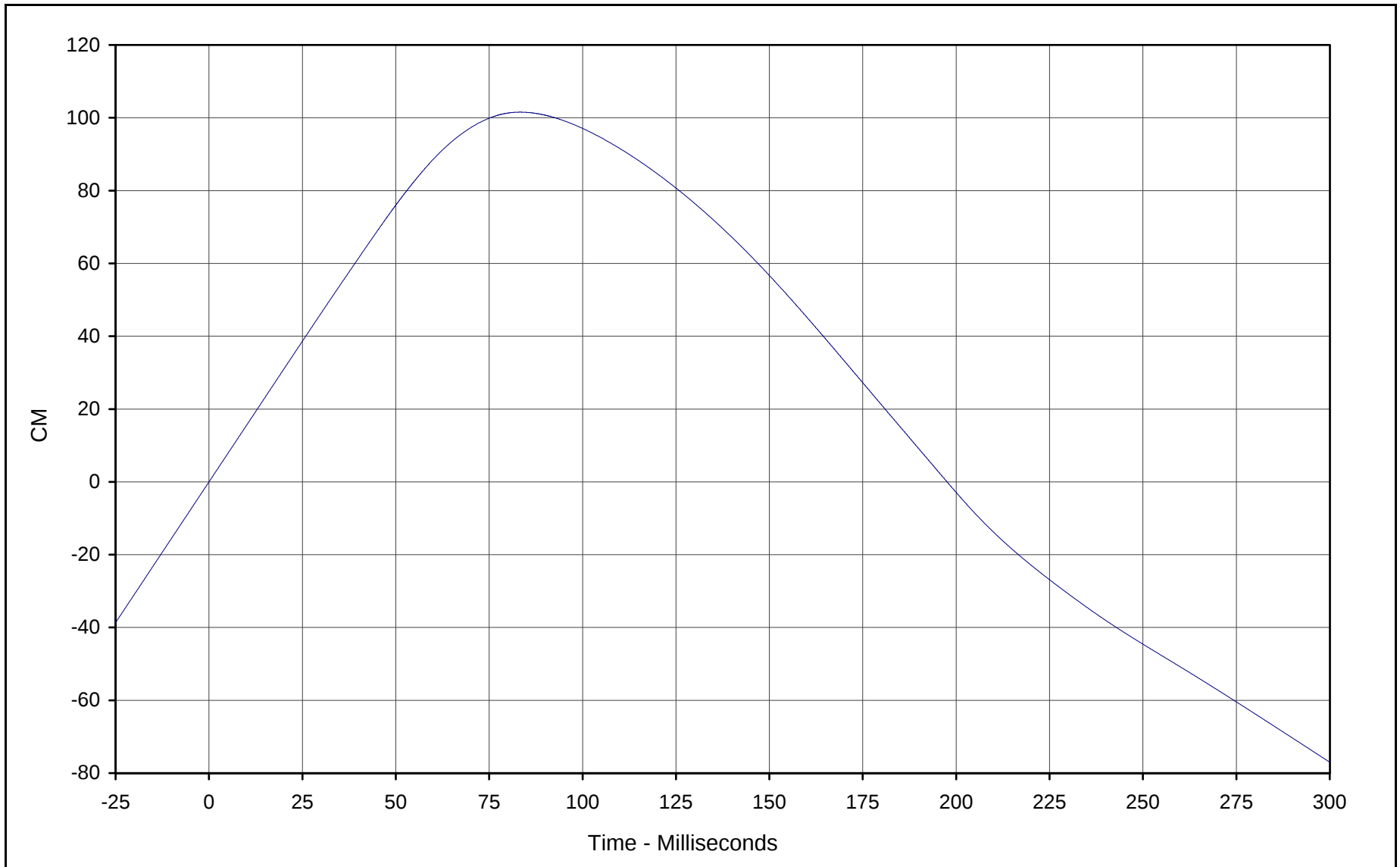




Curve Description: Driver Head Primary X Velocity
Maximum Value: 55.9 at 14.9 Milliseconds
Minimum Value: -43.8 at 175.8 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN1-001

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

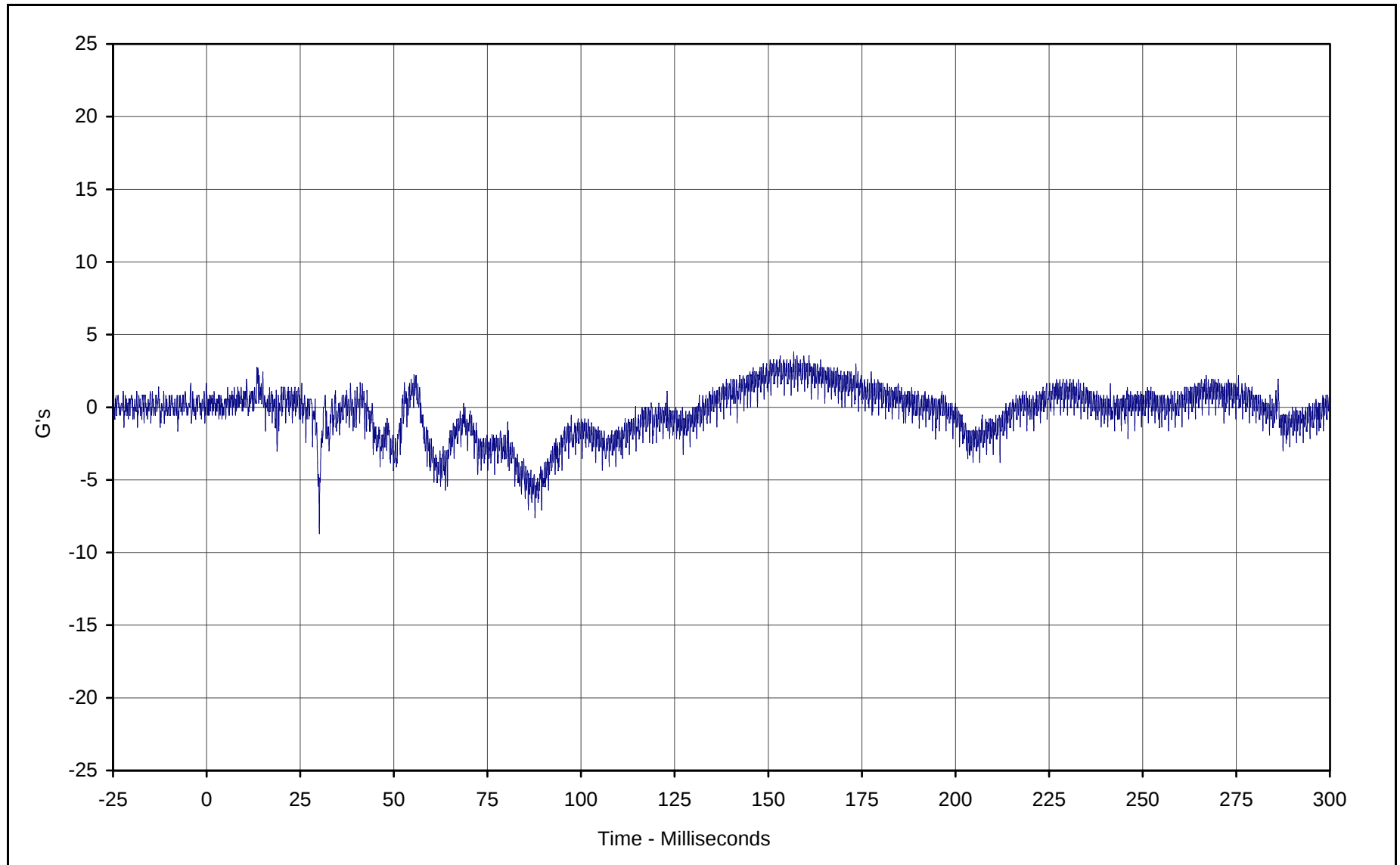




Curve Description: Driver Head Primary X Displ.
Maximum Value: 101.5 at 83.3 Milliseconds
Minimum Value: -76.9 at 299.9 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN2-001

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

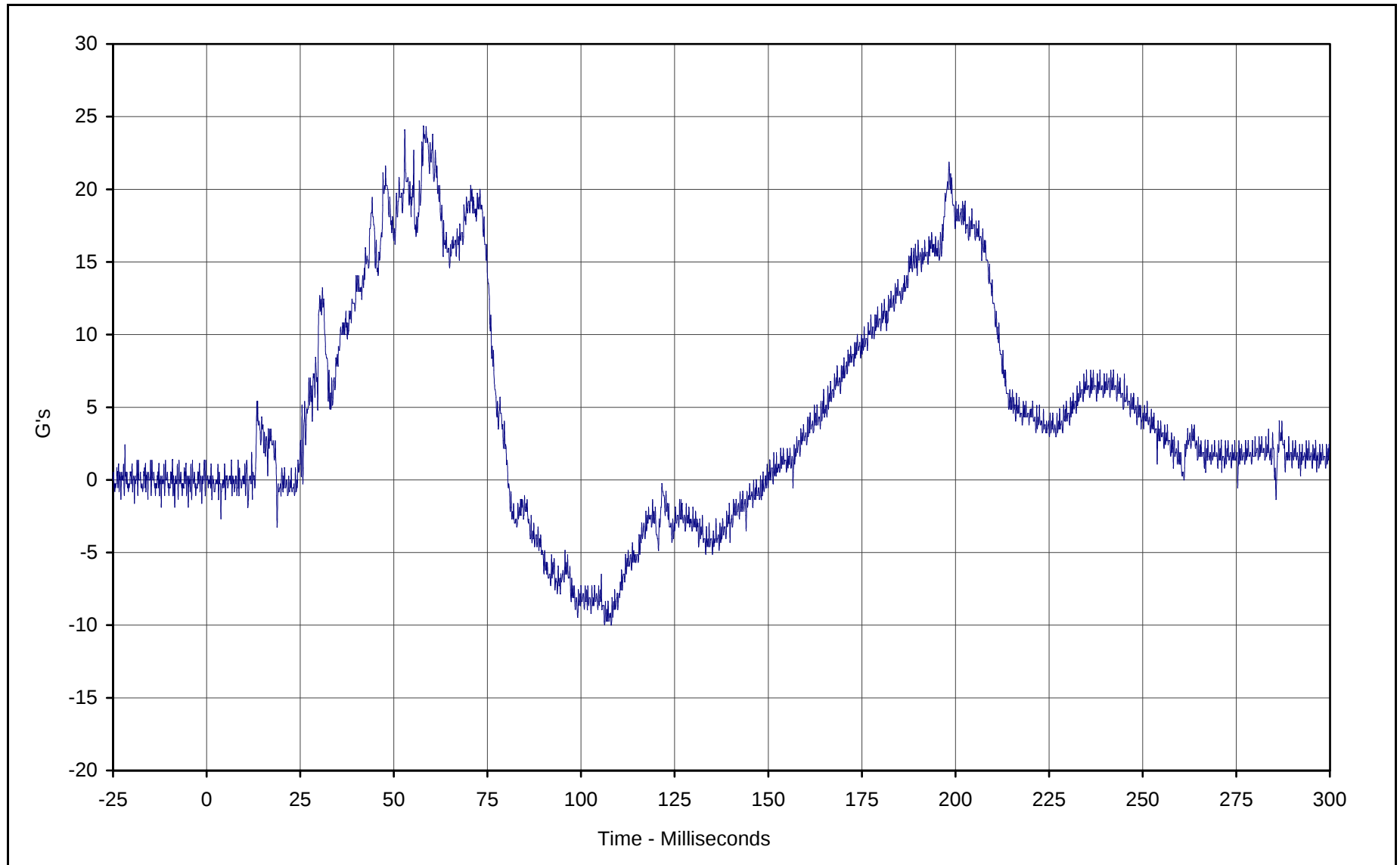




Curve Description: Driver Head Primary Y
Maximum Value: 3.8 at 156.8 Milliseconds
Minimum Value: -8.7 at 30.1 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-002

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

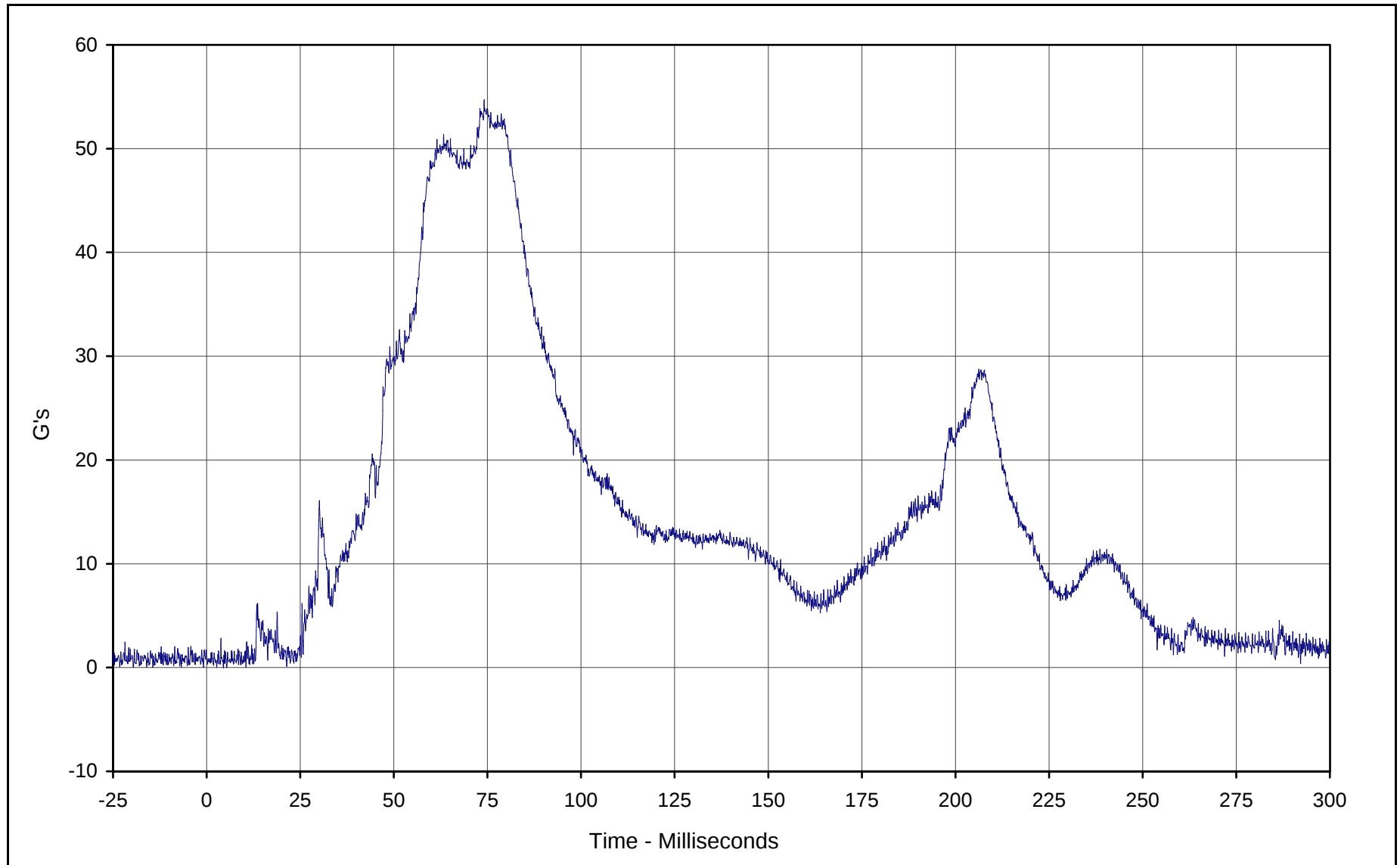




Curve Description: Driver Head Primary Z
Maximum Value: 24.3 at 57.9 Milliseconds
Minimum Value: -10.0 at 106.3 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-003

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

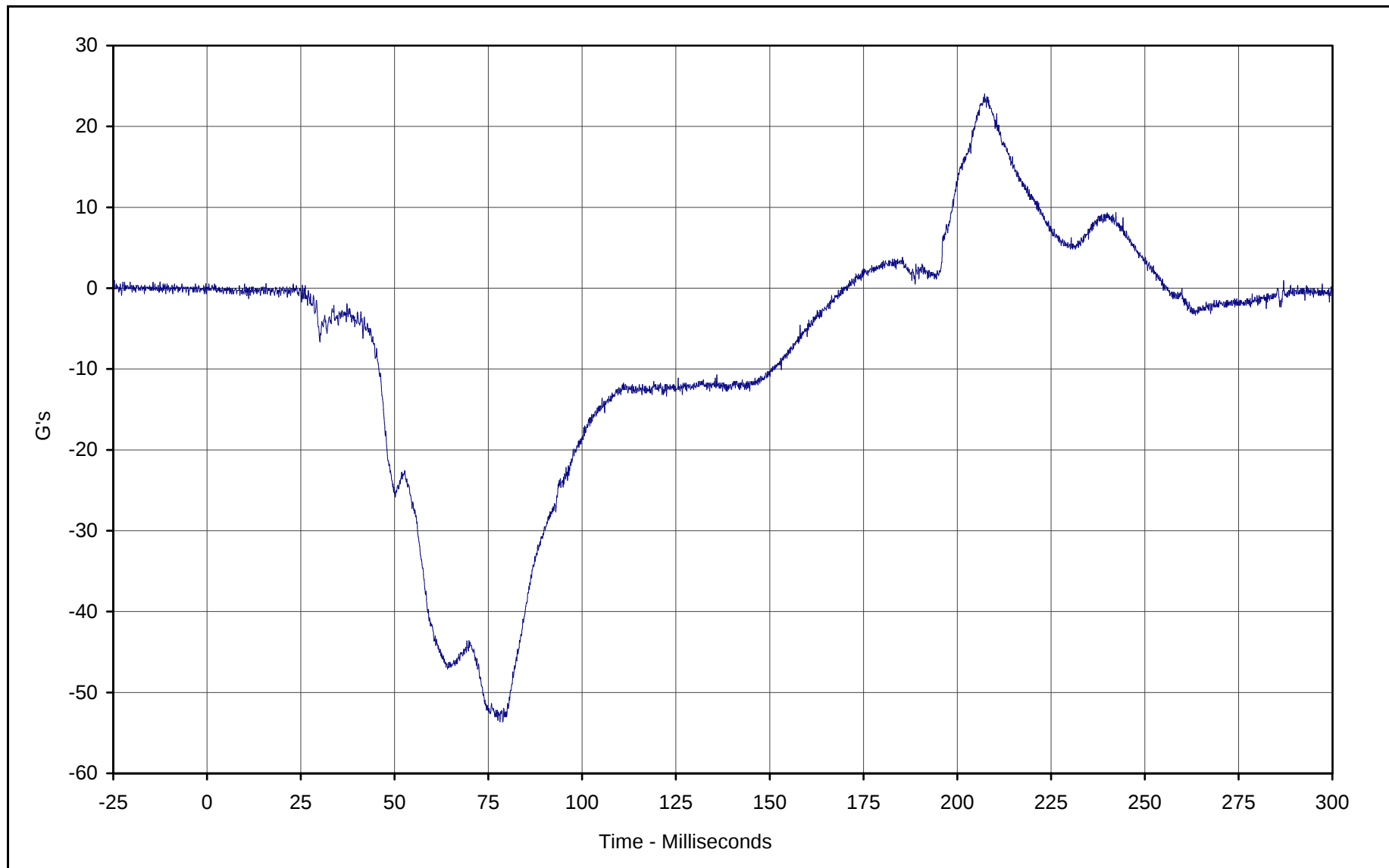




Curve Description: Driver Head Resultant Primary
Maximum Value: 54.7 at 74.1 Milliseconds
Minimum Value: 0.0 at 2.7 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: RES-001

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

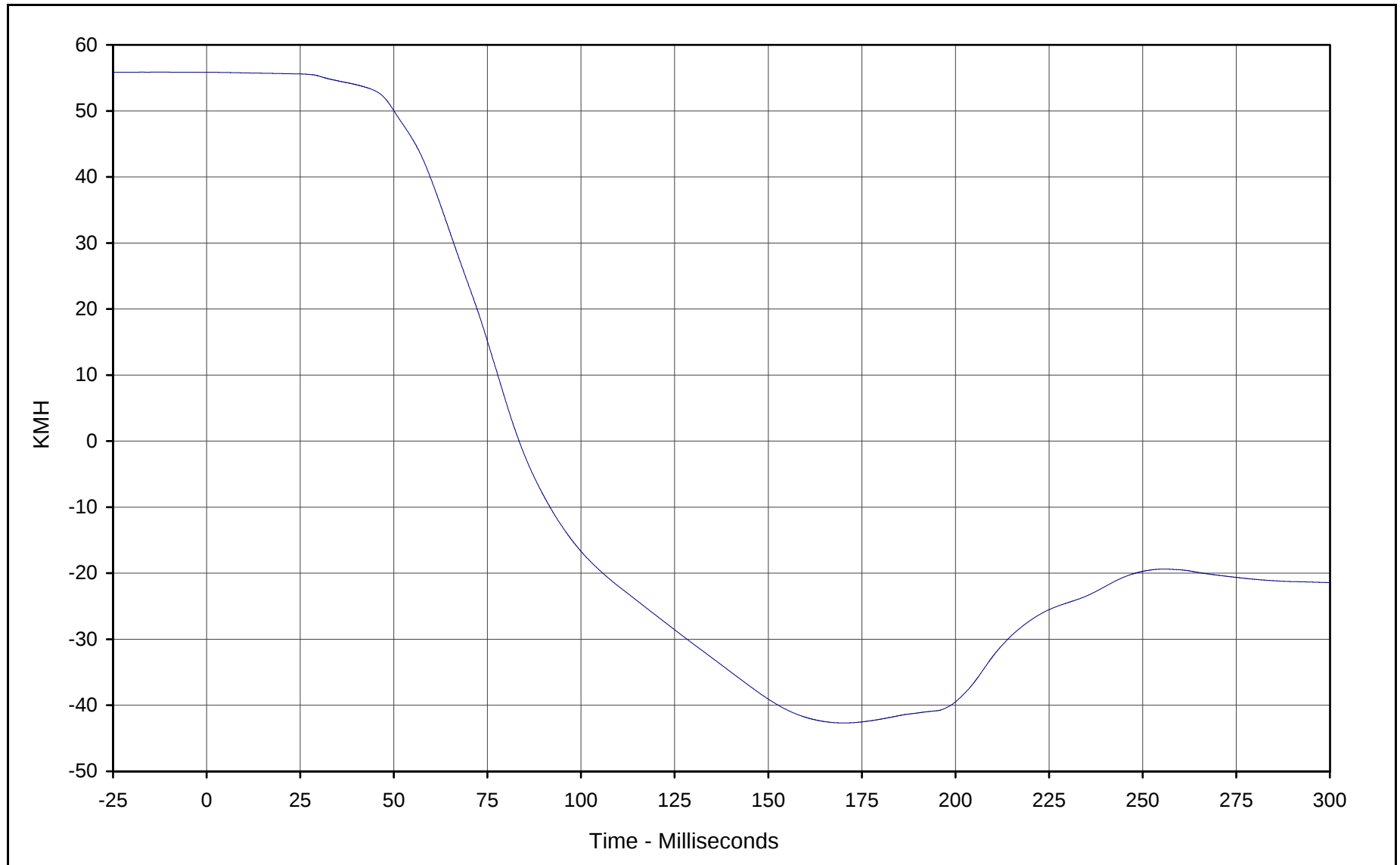




Curve Description: Driver Head Redundant X
Maximum Value: 24.0 at 207.3 Milliseconds
Minimum Value: -53.6 at 78.1 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-004

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

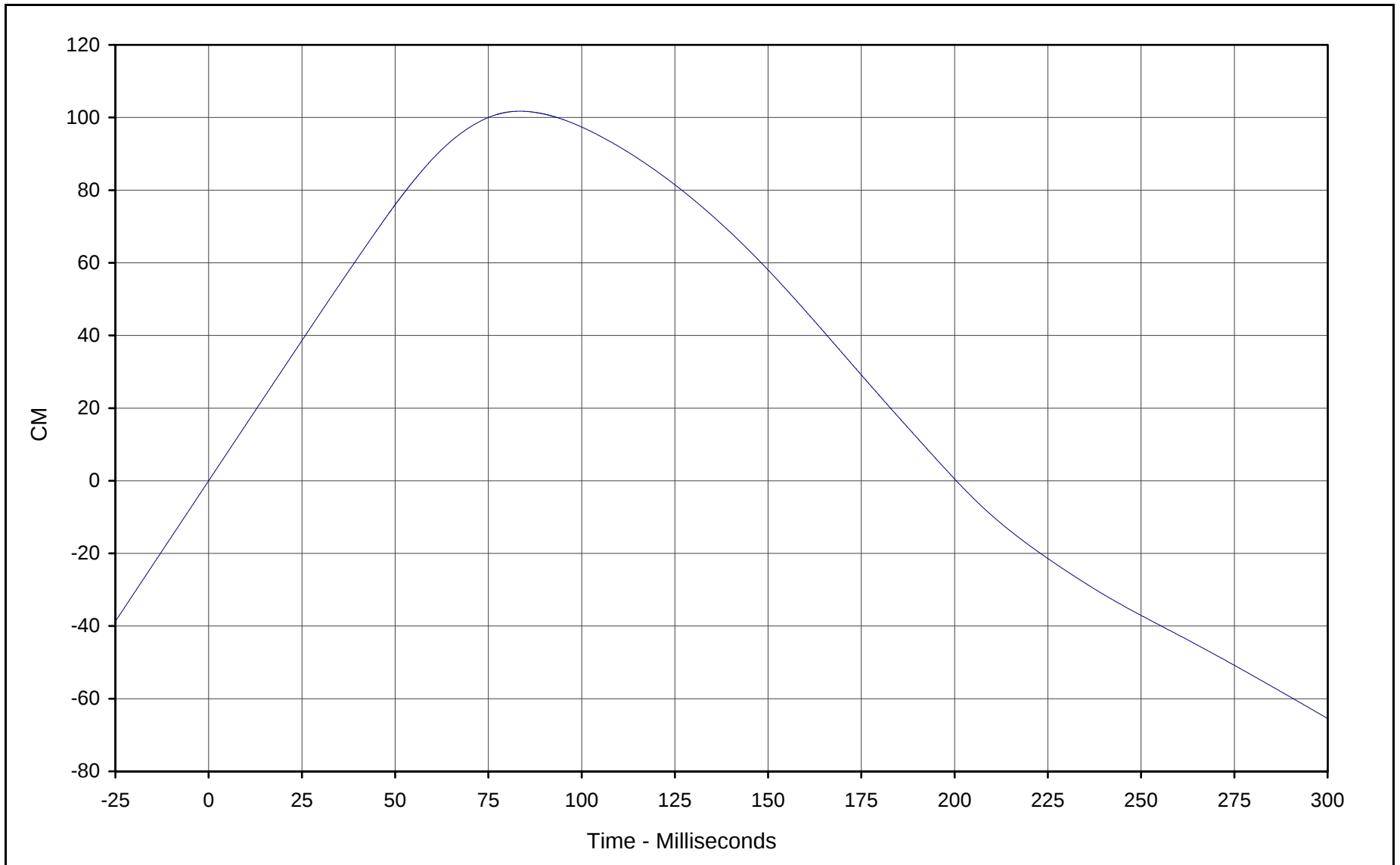




Curve Description: Driver Head Redundant X Velocity
Maximum Value: 55.8 at 0.0 Milliseconds
Minimum Value: -42.7 at 170.2 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN1-004

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

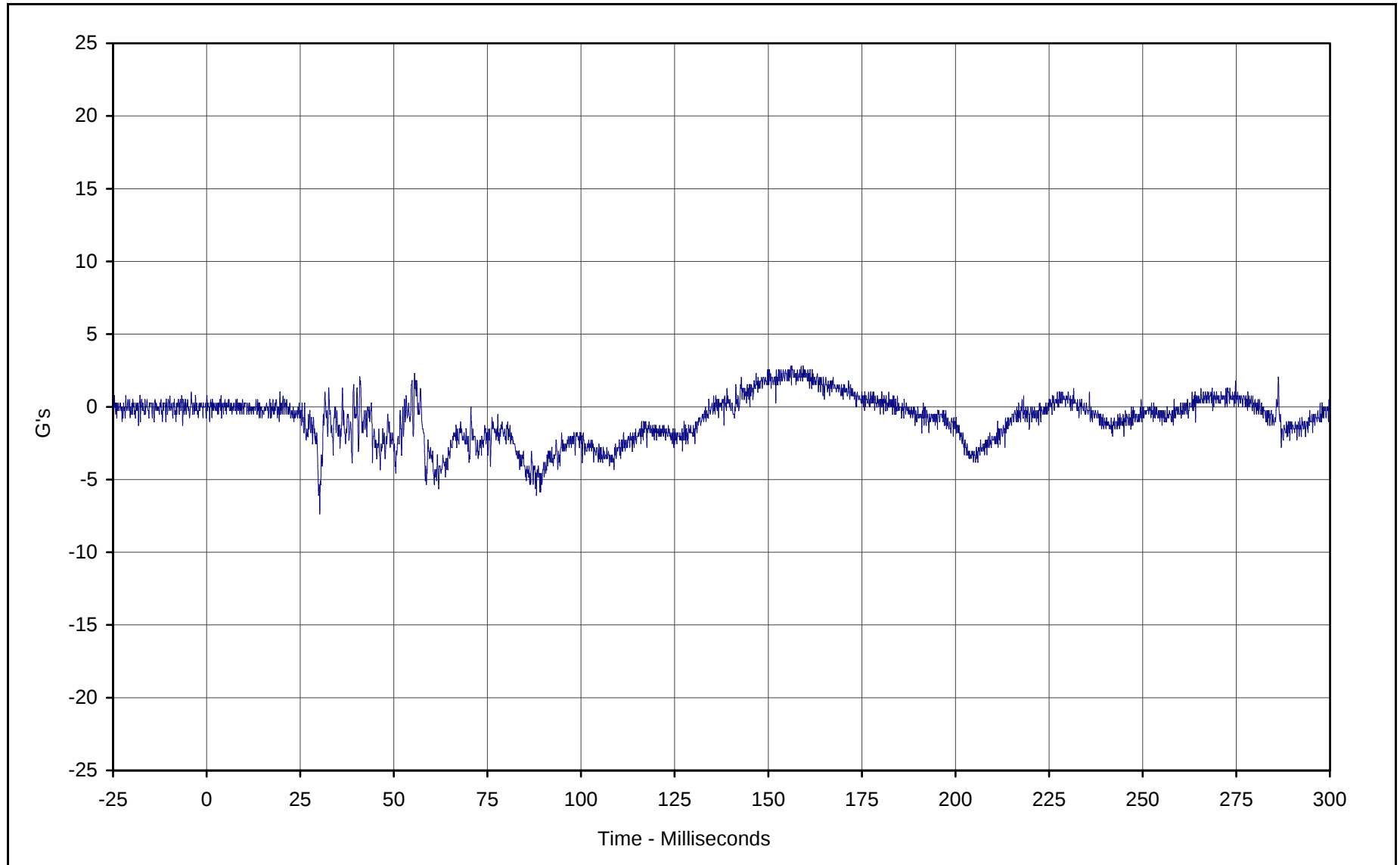




Curve Description: Driver Head Redundant X Displ.
Maximum Value: 101.7 at 83.5 Milliseconds
Minimum Value: -65.4 at 299.9 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN2-004

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

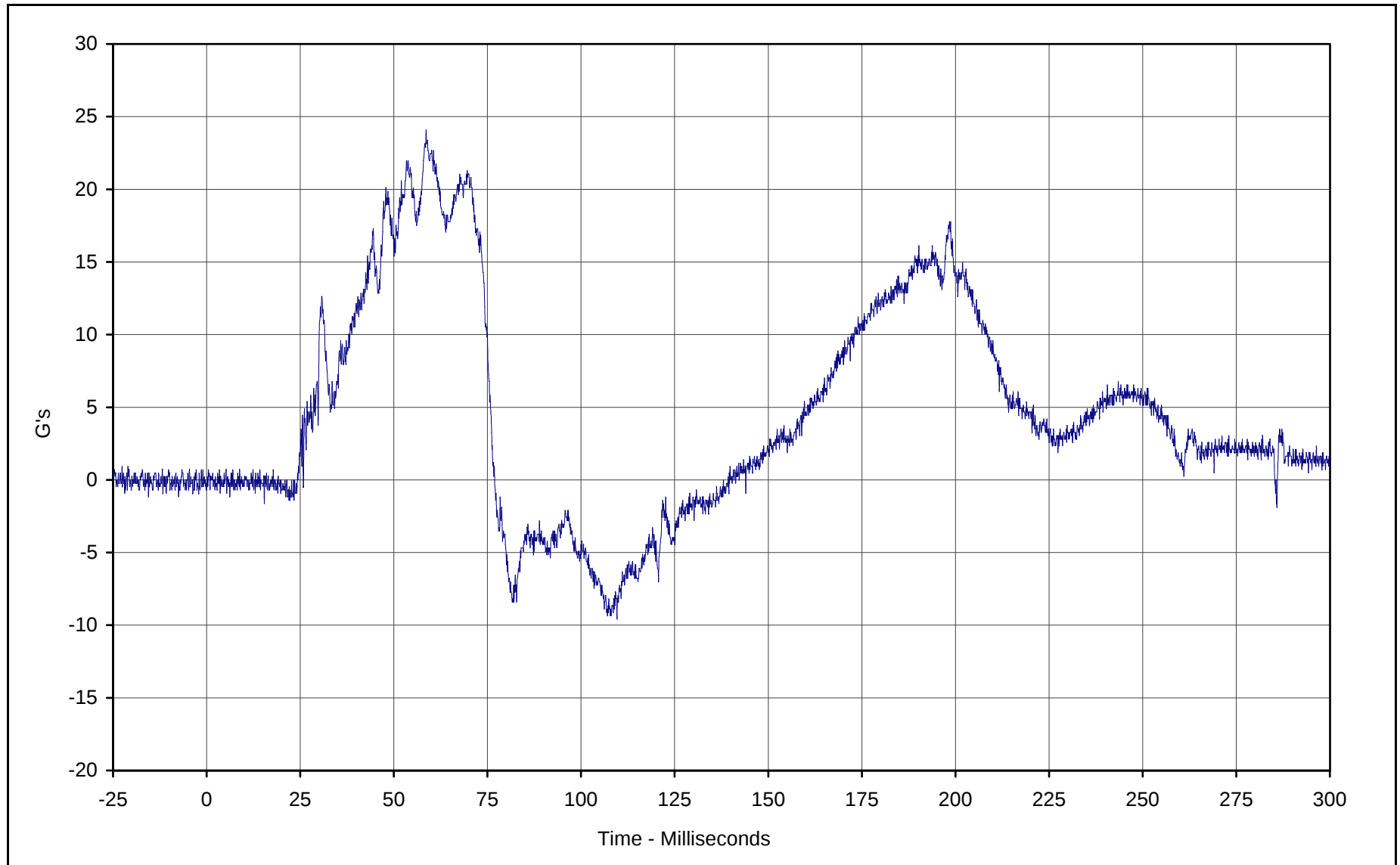




Curve Description: Driver Head Redundant Y
Maximum Value: 2.8 at 156.0 Milliseconds
Minimum Value: -7.4 at 30.2 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-005

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



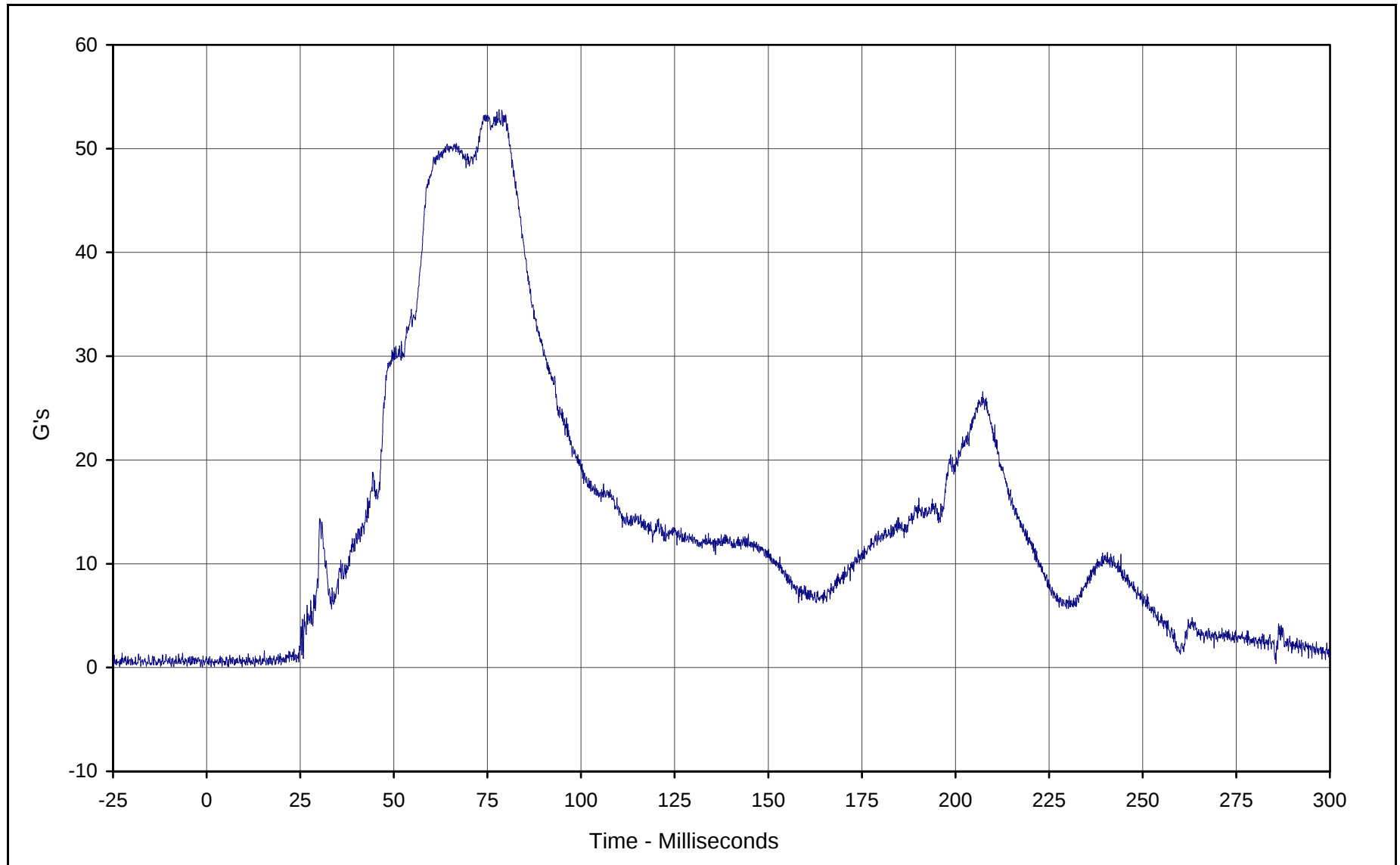


Curve Description: Driver Head Redundant Z
Maximum Value: 24.1 at 58.6 Milliseconds
Minimum Value: -9.6 at 109.6 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-006

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

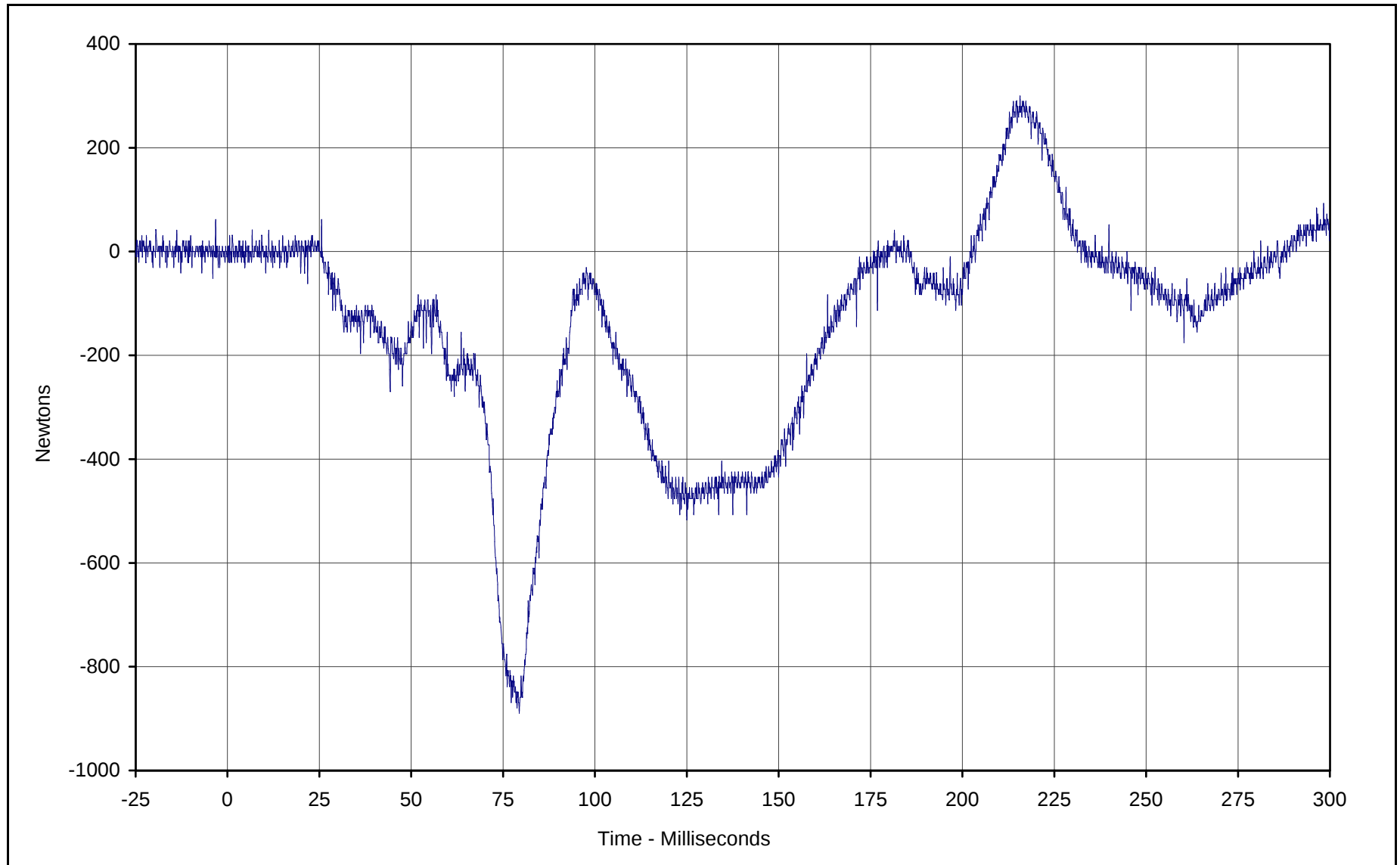




Curve Description: Driver Head Resultant Redundant
Maximum Value: 53.8 at 78.1 Milliseconds
Minimum Value: 0.1 at 1.2 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: RES-004

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

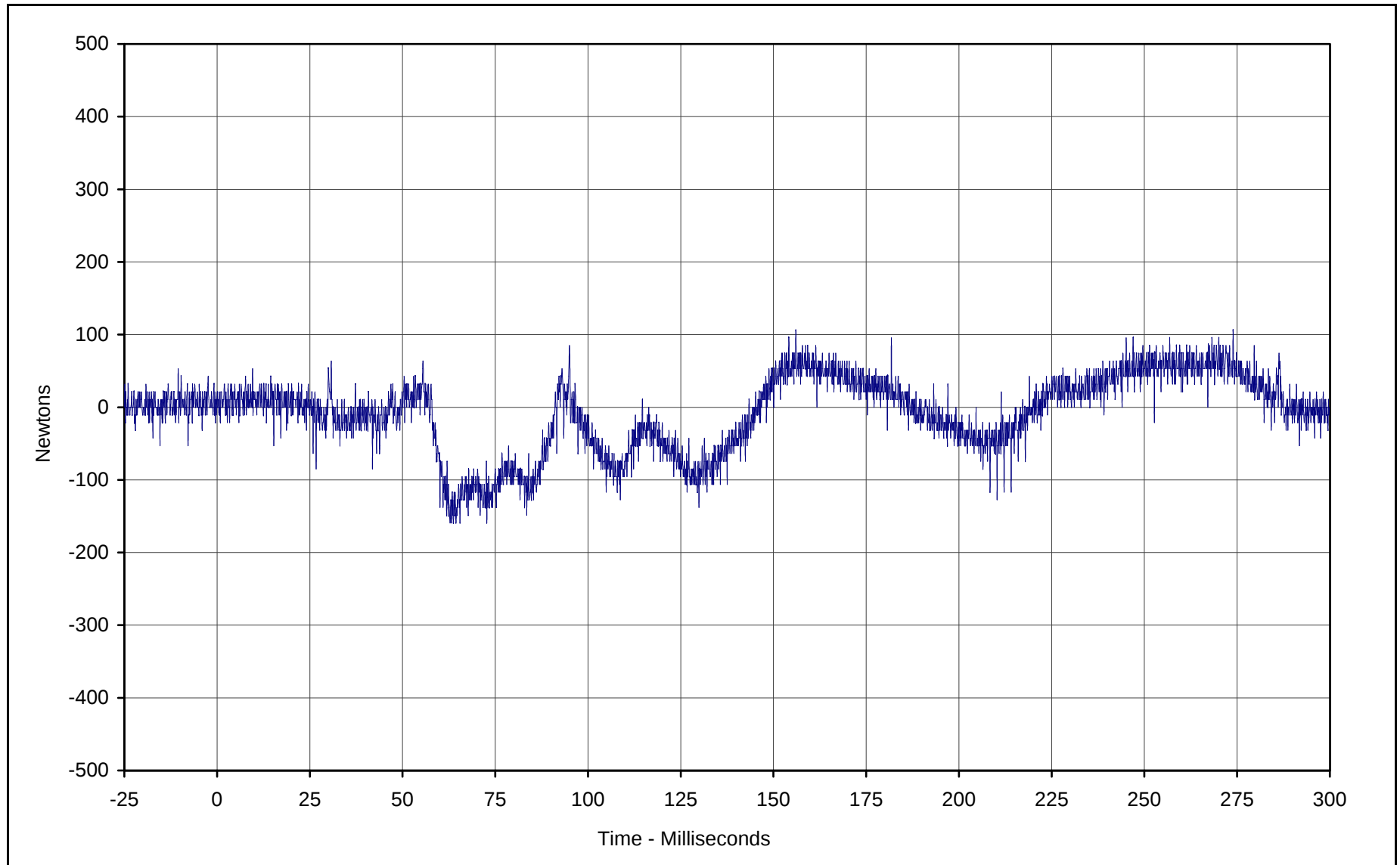




Curve Description: Driver Neck Force X
Maximum Value: 300.2 at 215.7 Milliseconds
Minimum Value: -890.1 at 79.4 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-007

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

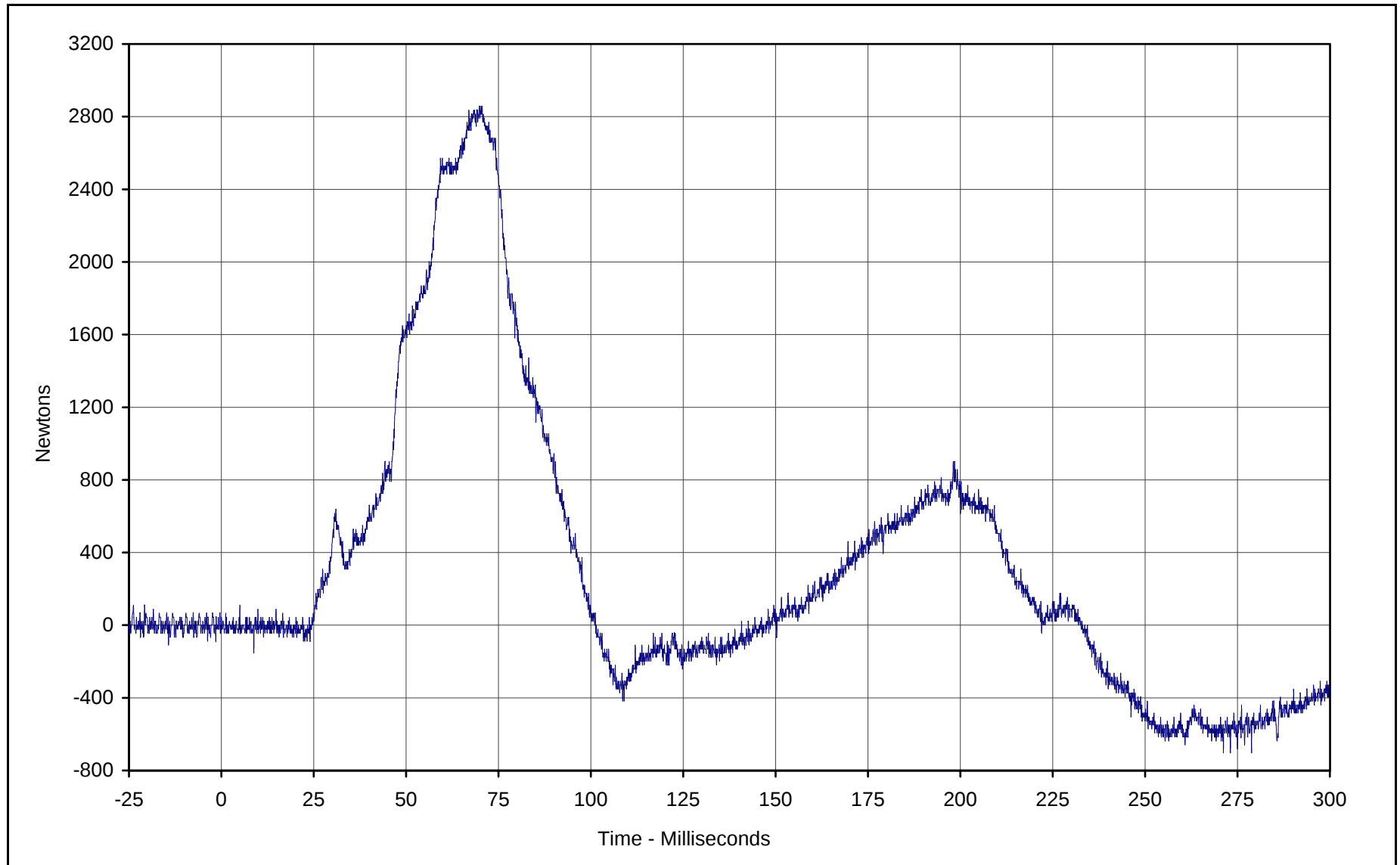




Curve Description: Driver Neck Force Y
Maximum Value: 106.3 at 156.0 Milliseconds
Minimum Value: -159.5 at 62.8 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-008

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

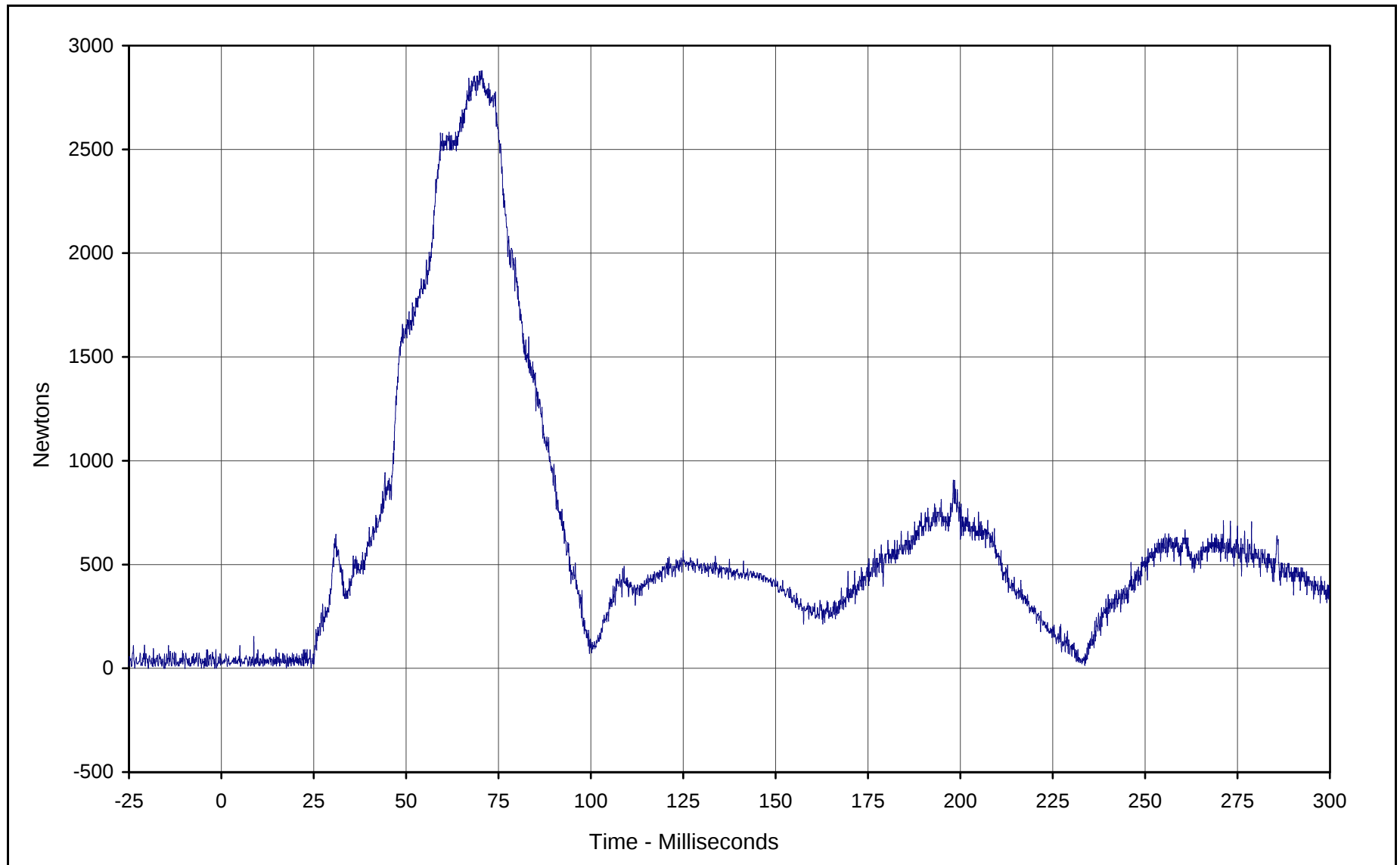




Curve Description: Driver Neck Force Z
Maximum Value: 2857.6 at 69.8 Milliseconds
Minimum Value: -703.4 at 271.2 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-009

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

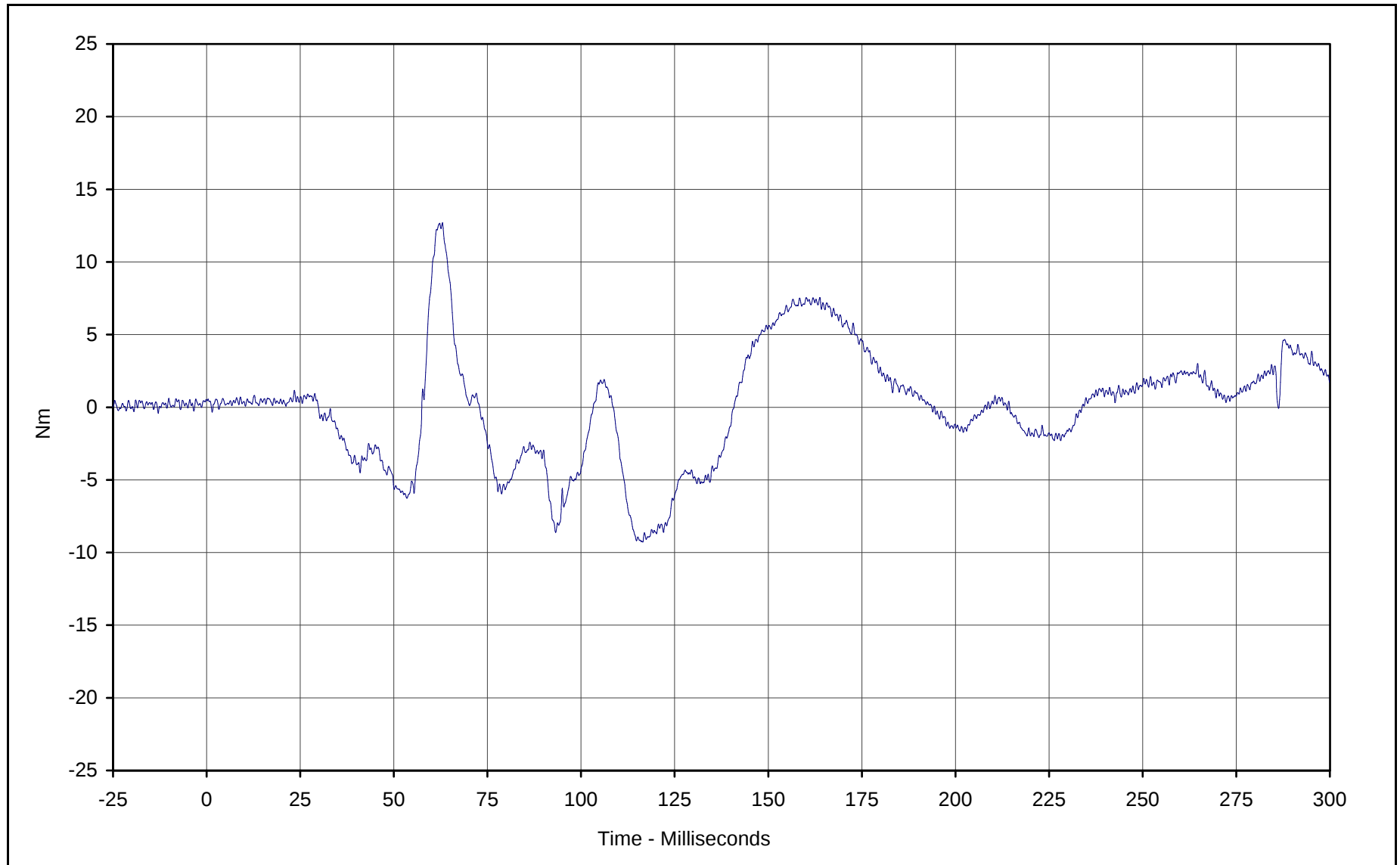




Curve Description: Driver Neck Force Resultant
Maximum Value: 2878.3 at 70.3 Milliseconds
Minimum Value: 0.0 at 17.6 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: RES-007

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



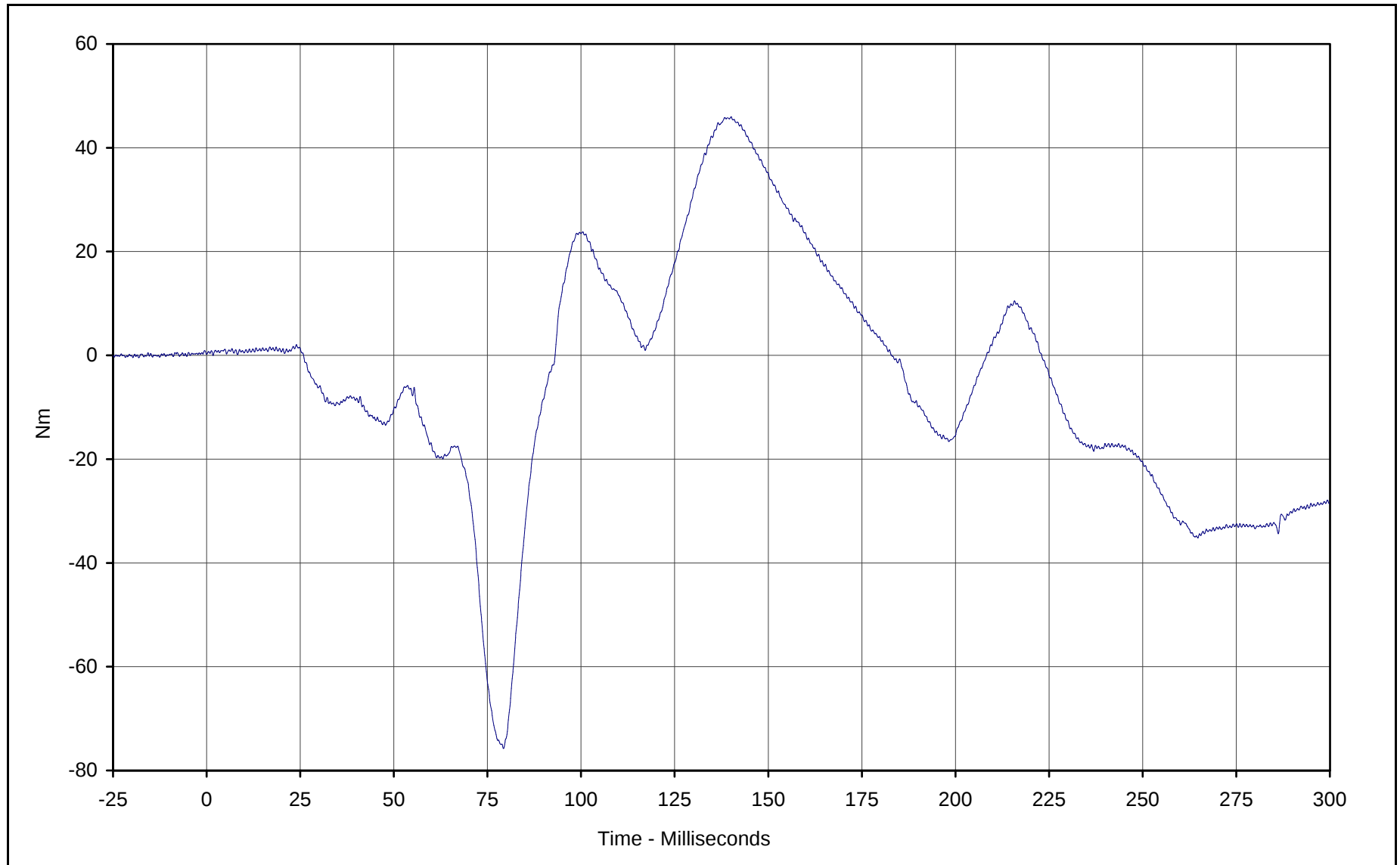


Curve Description: Driver Neck Moment X
Maximum Value: 12.7 at 63.0 Milliseconds
Minimum Value: -9.3 at 116.5 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-010

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Driver Neck Moment Y

Maximum Value: 46.0 at 140.1 Milliseconds

Minimum Value: -75.8 at 79.3 Milliseconds

SAE Filter Class: 600

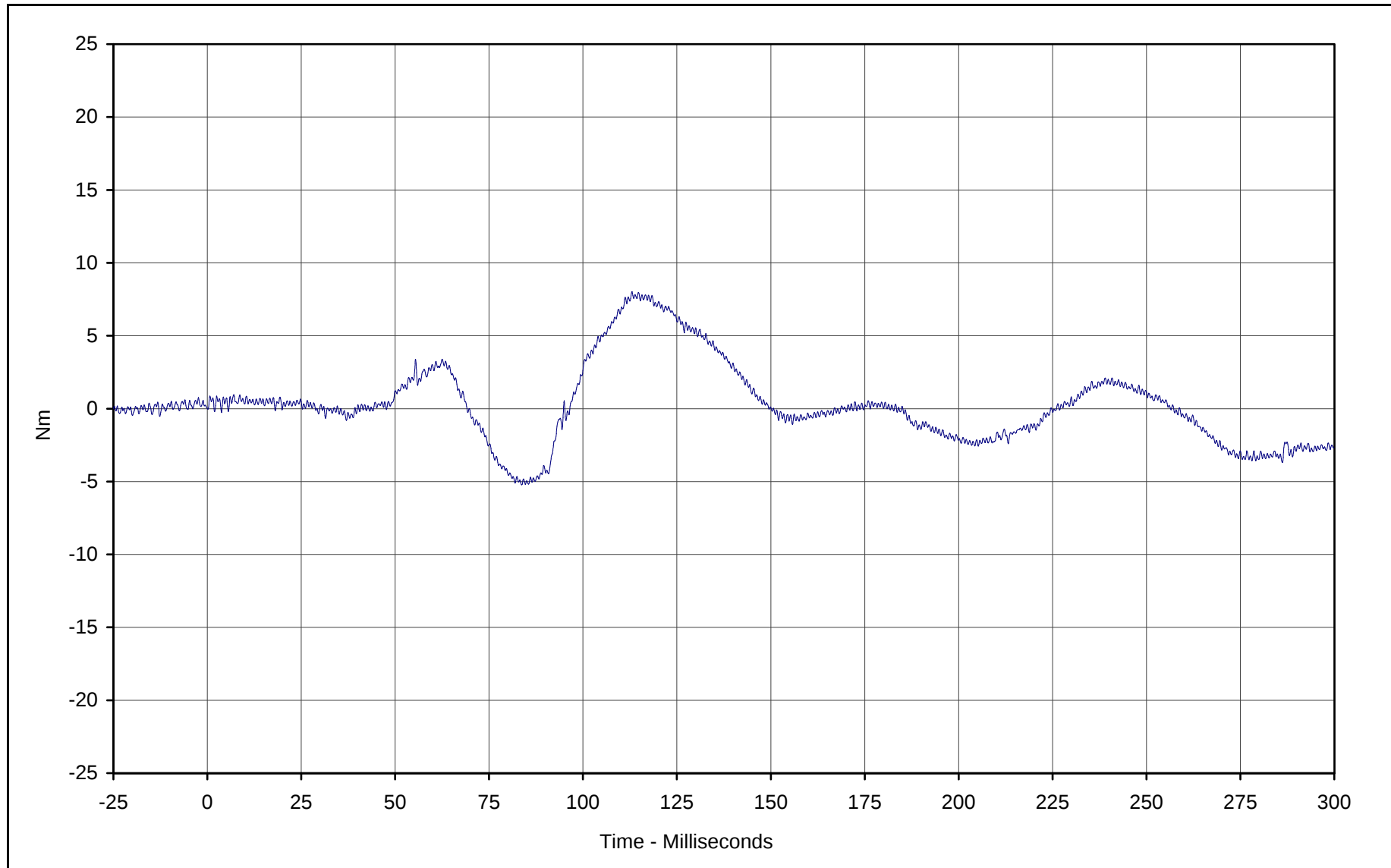
Date of Test: 01/18/01

Curve Number: FIL-011

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

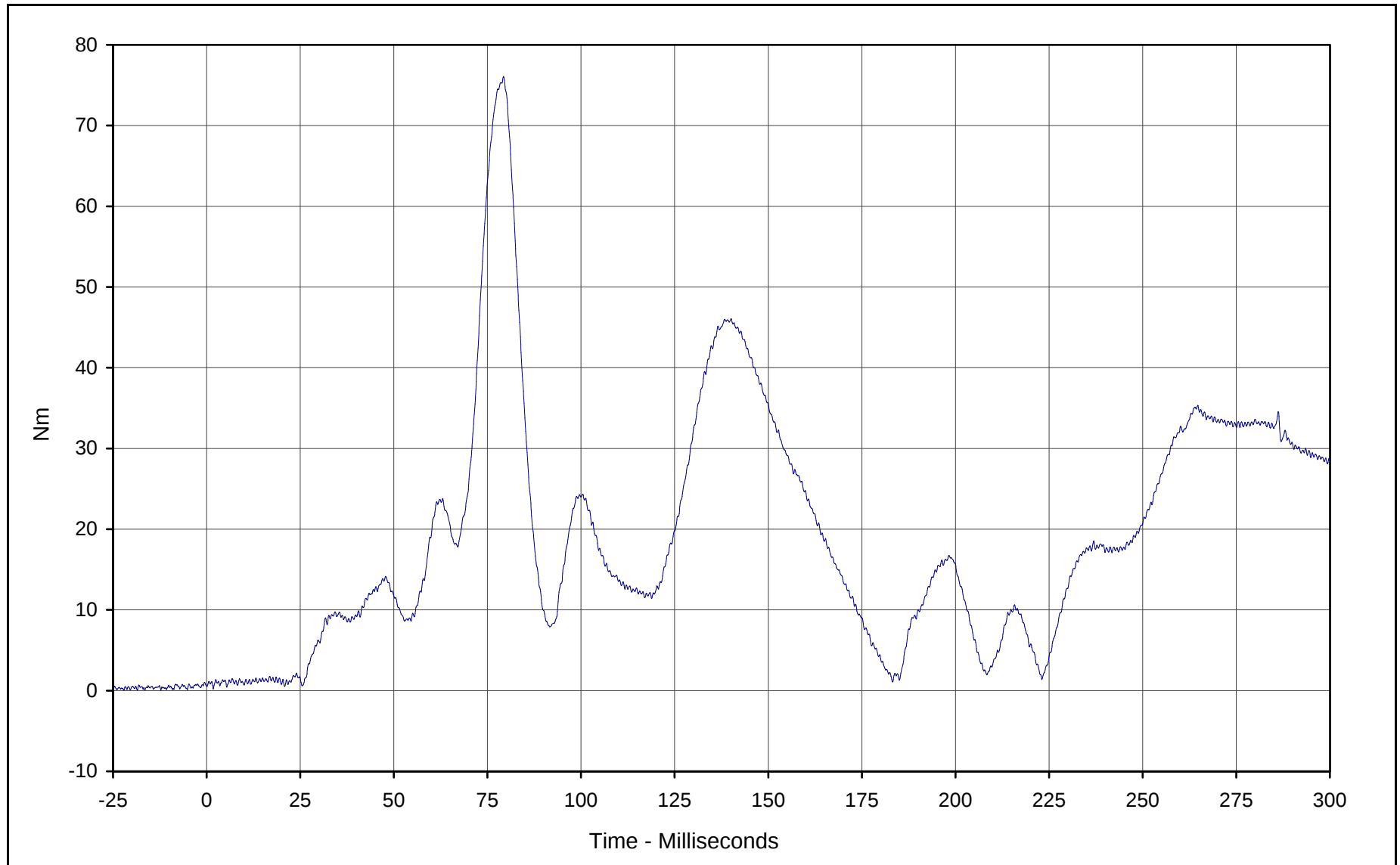




Curve Description: Driver Neck Moment Z
Maximum Value: 8.0 at 113.0 Milliseconds
Minimum Value: -5.2 at 83.7 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-012

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

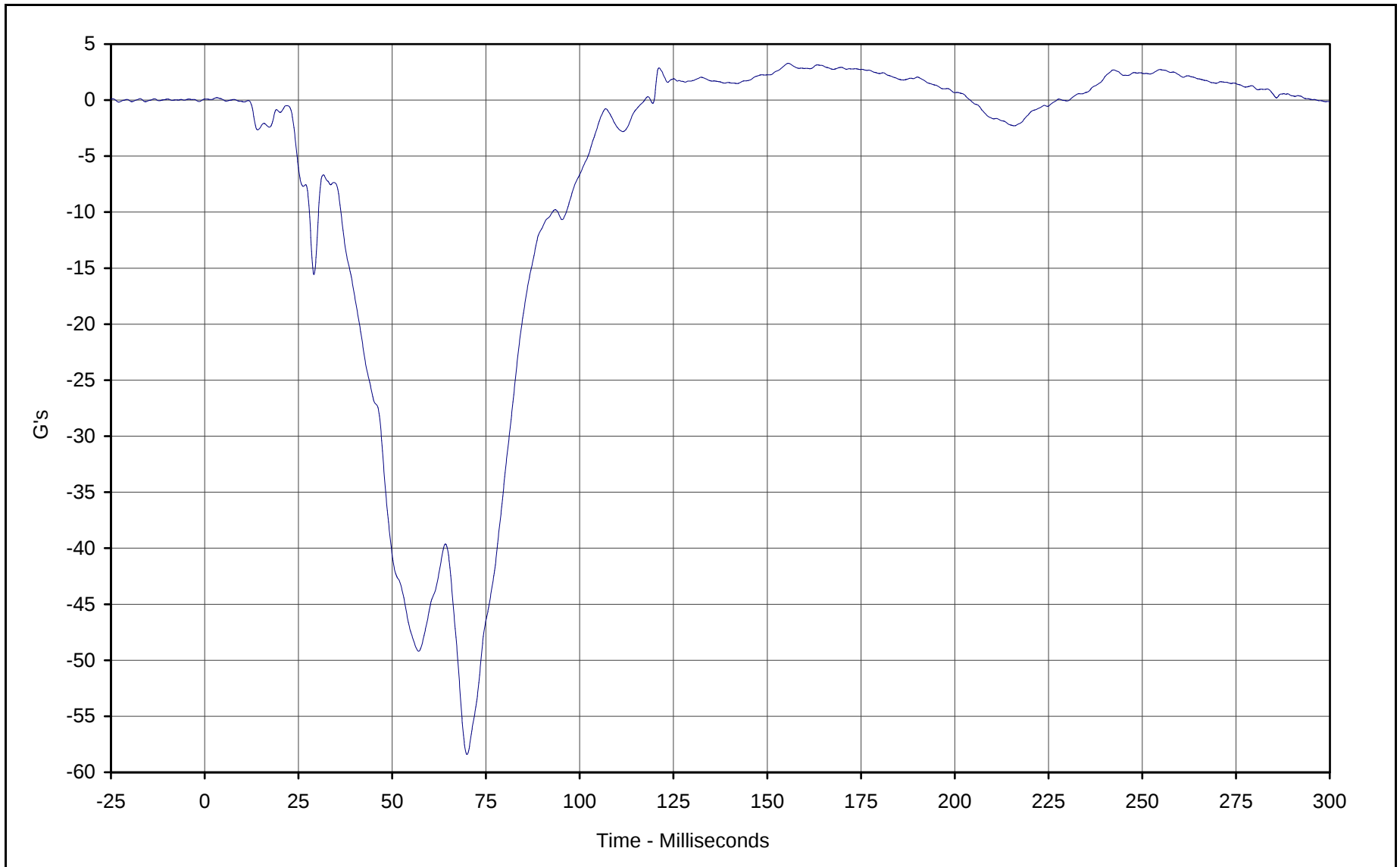




Curve Description: Driver Neck Moment Resultant
Maximum Value: 76.1 at 79.3 Milliseconds
Minimum Value: 0.2 at 1.8 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: RES-010

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

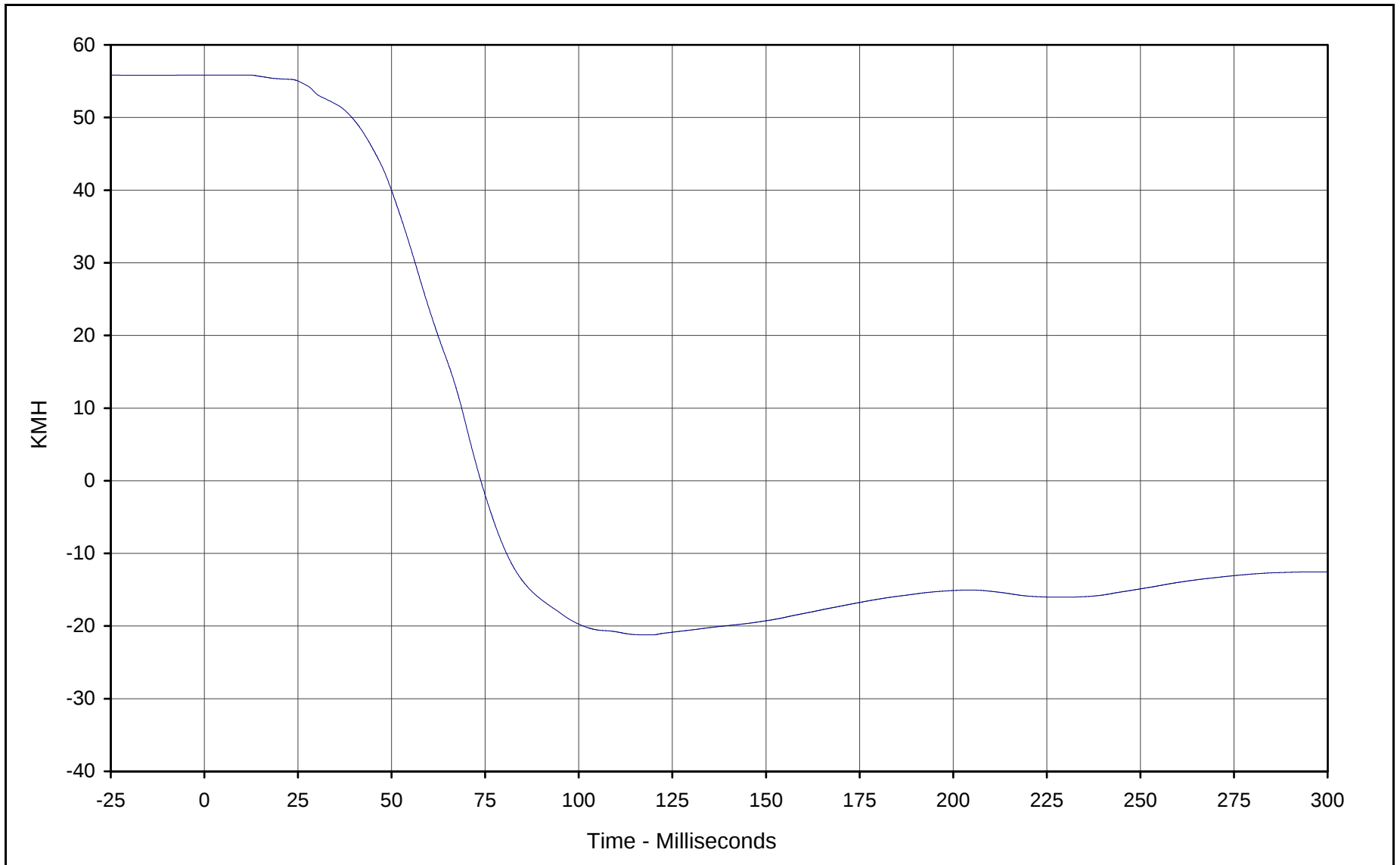




Curve Description: Driver Chest Primary X
Maximum Value: 3.3 at 155.6 Milliseconds
Minimum Value: -58.4 at 70.0 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-013

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

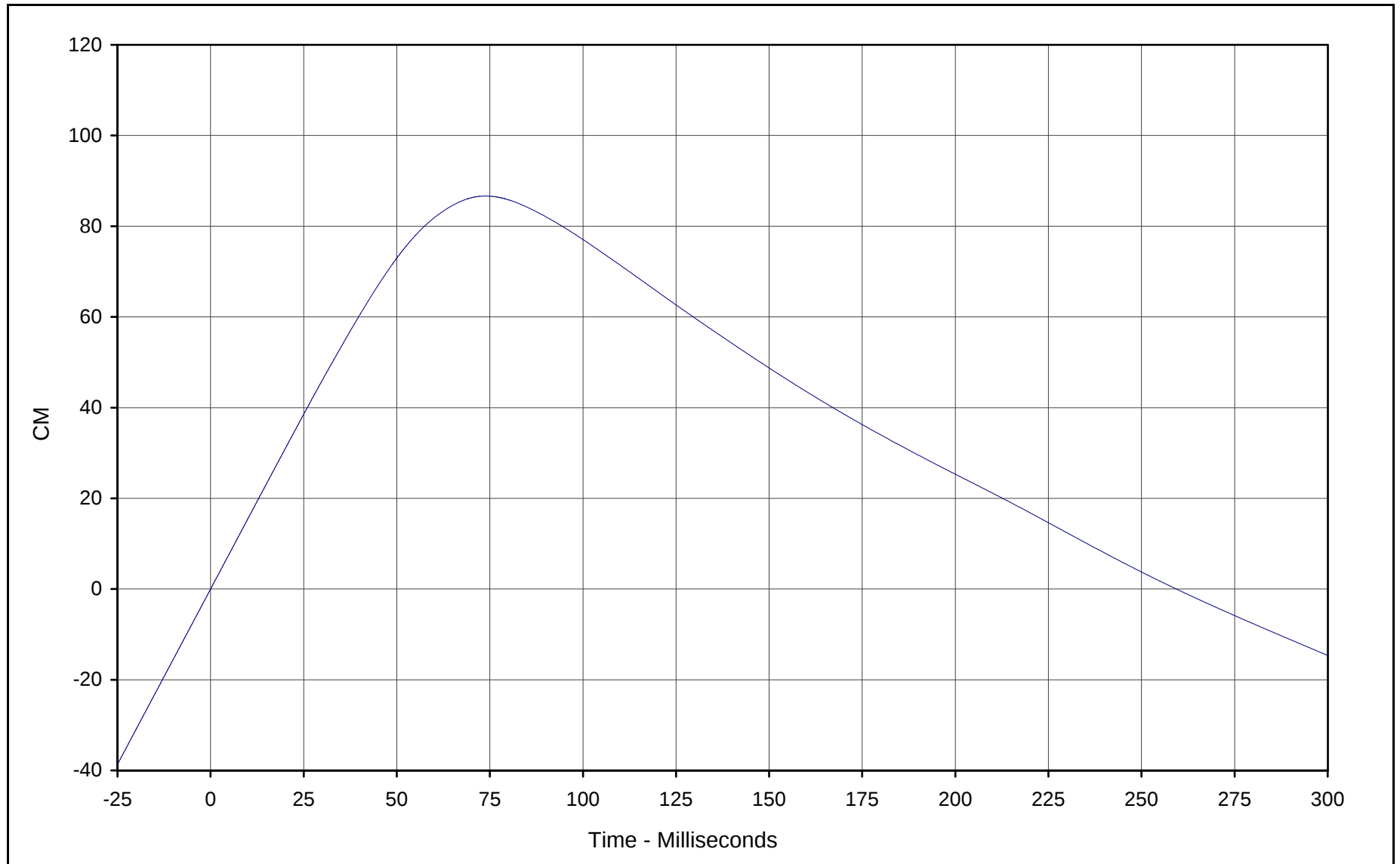




Curve Description: Driver Chest Primary X Velocity
Maximum Value: 55.8 at 5.1 Milliseconds
Minimum Value: -21.2 at 117.3 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN1-013

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

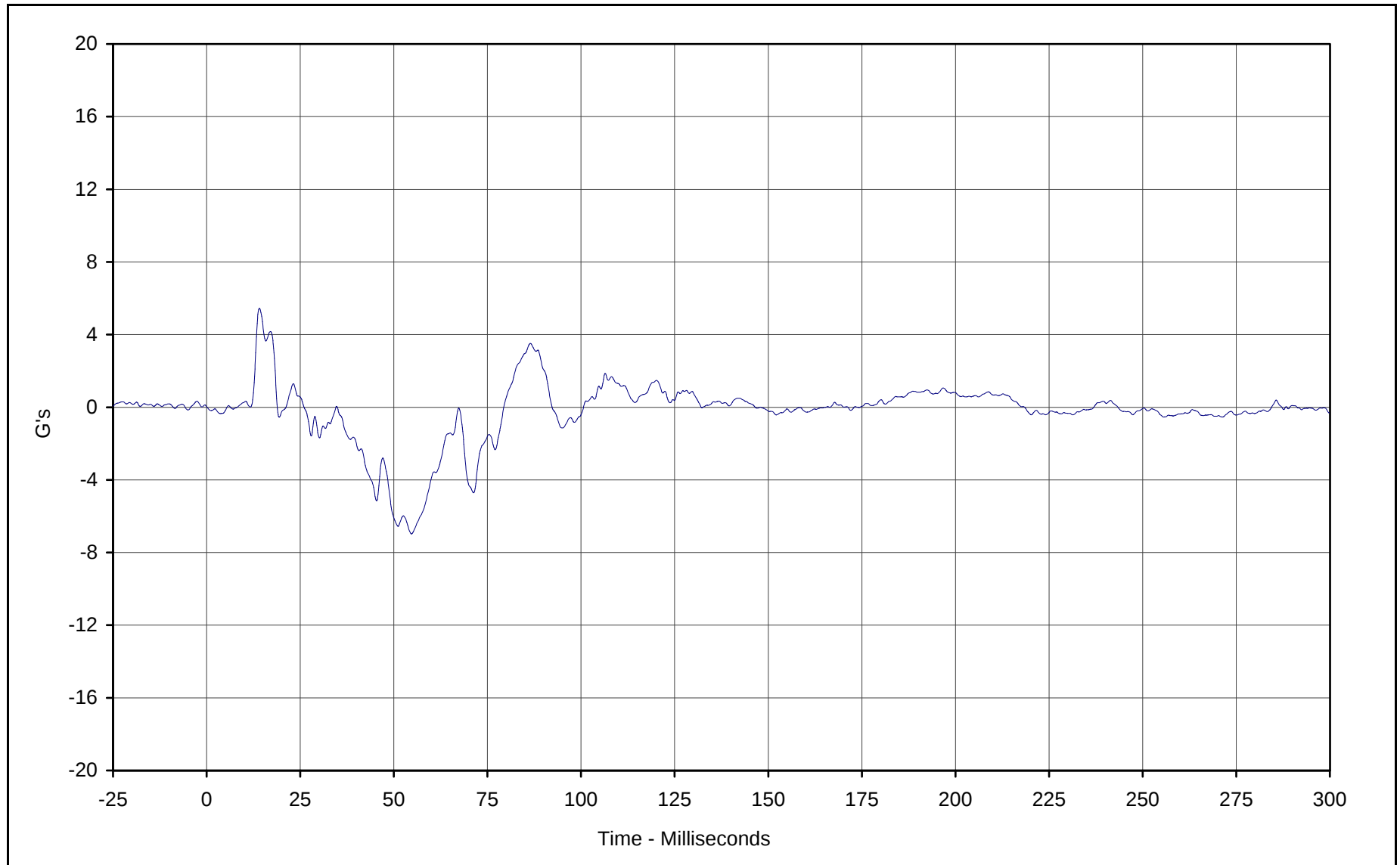




Curve Description: Driver Chest Primary X Displ.
Maximum Value: 86.7 at 73.8 Milliseconds
Minimum Value: -14.6 at 299.9 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN2-013

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



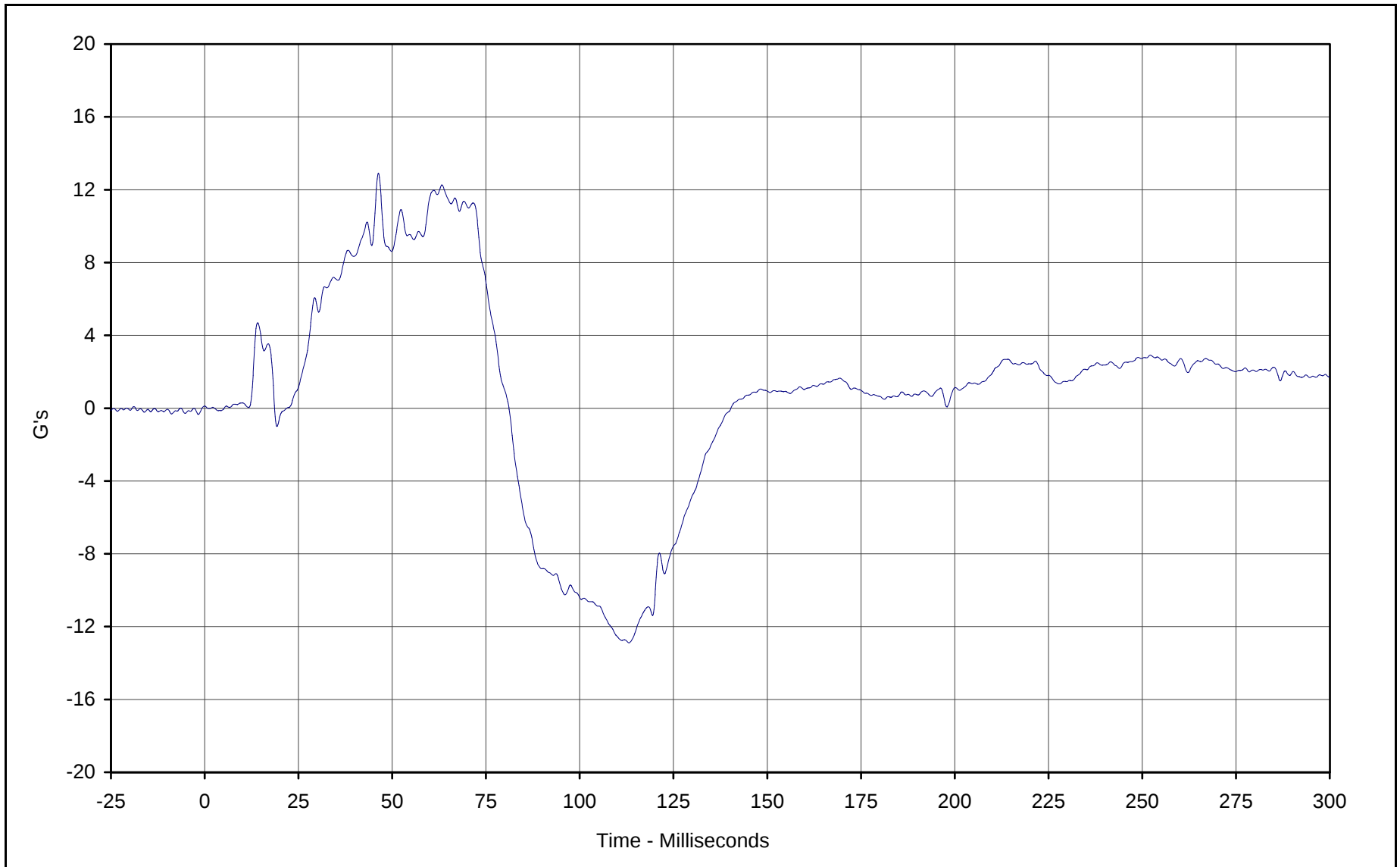


Curve Description: Driver Chest Primary Y
Maximum Value: 5.4 at 14.1 Milliseconds
Minimum Value: -7.0 at 54.7 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-014

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



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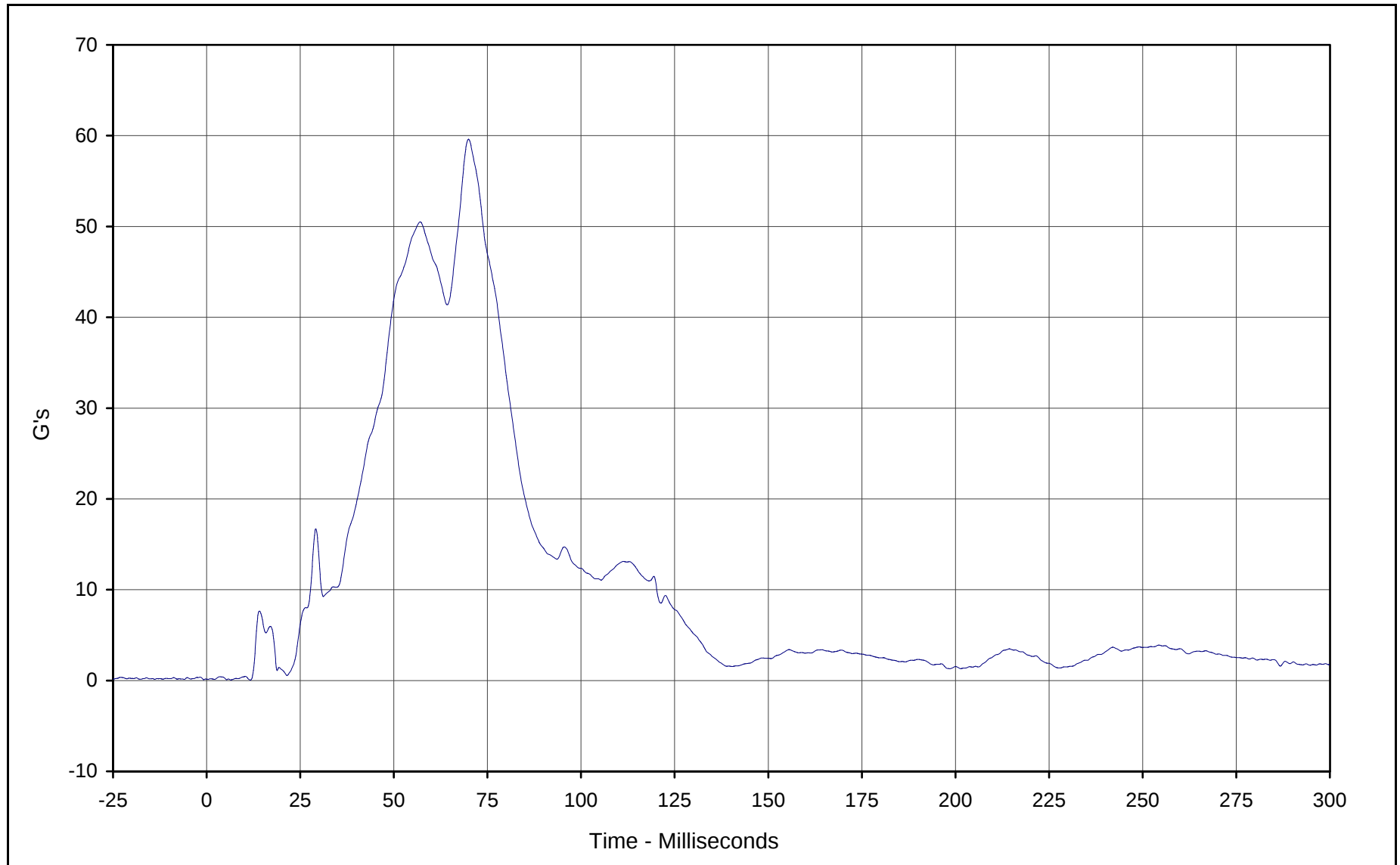


Curve Description: Driver Chest Primary Z
Maximum Value: 12.9 at 46.3 Milliseconds
Minimum Value: -12.9 at 113.1 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-015

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



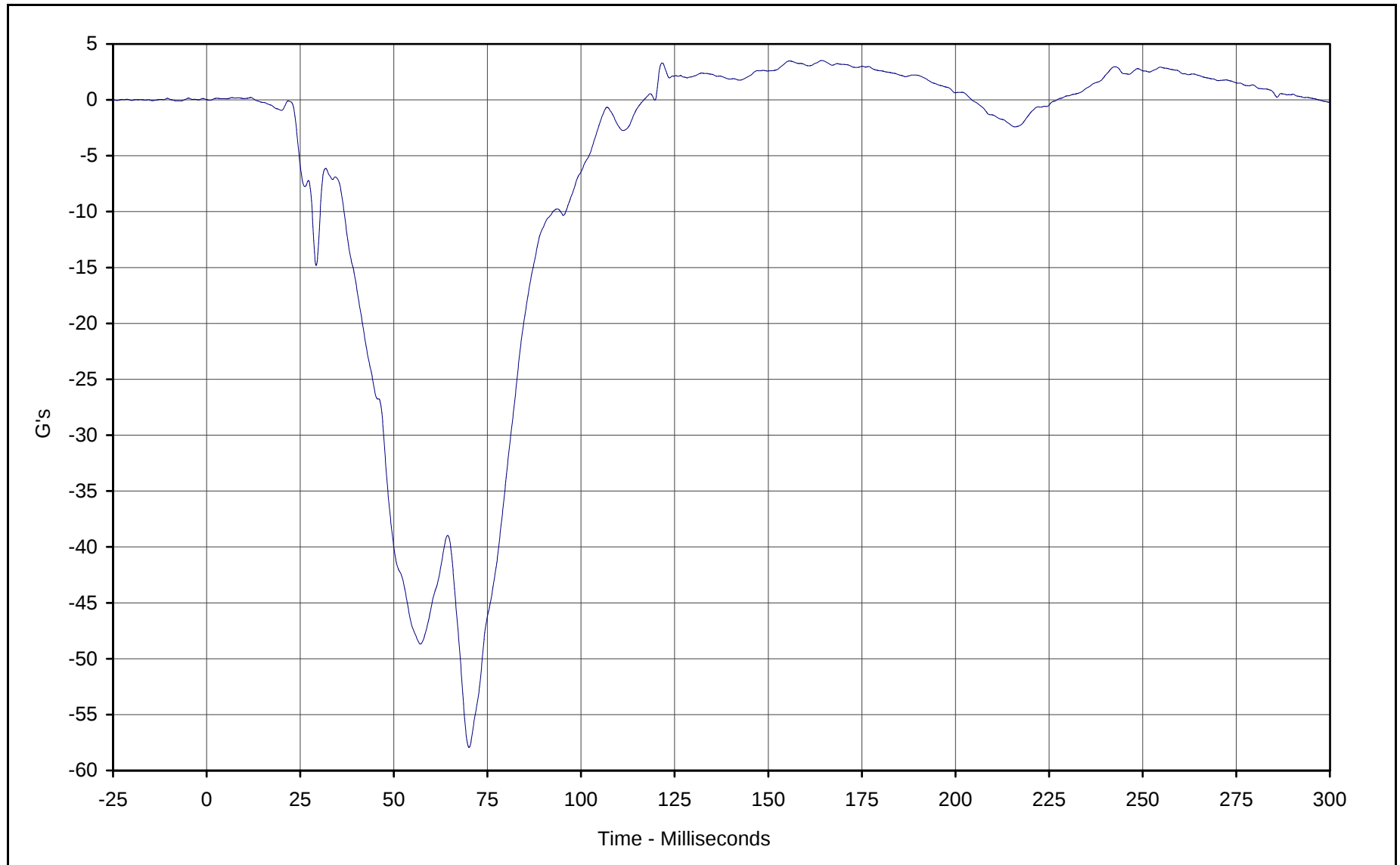
KAR21001-06



Curve Description: Driver Chest Resultant Primary
Maximum Value: 59.6 at 69.9 Milliseconds
Minimum Value: 0.1 at 11.7 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: RES-013

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

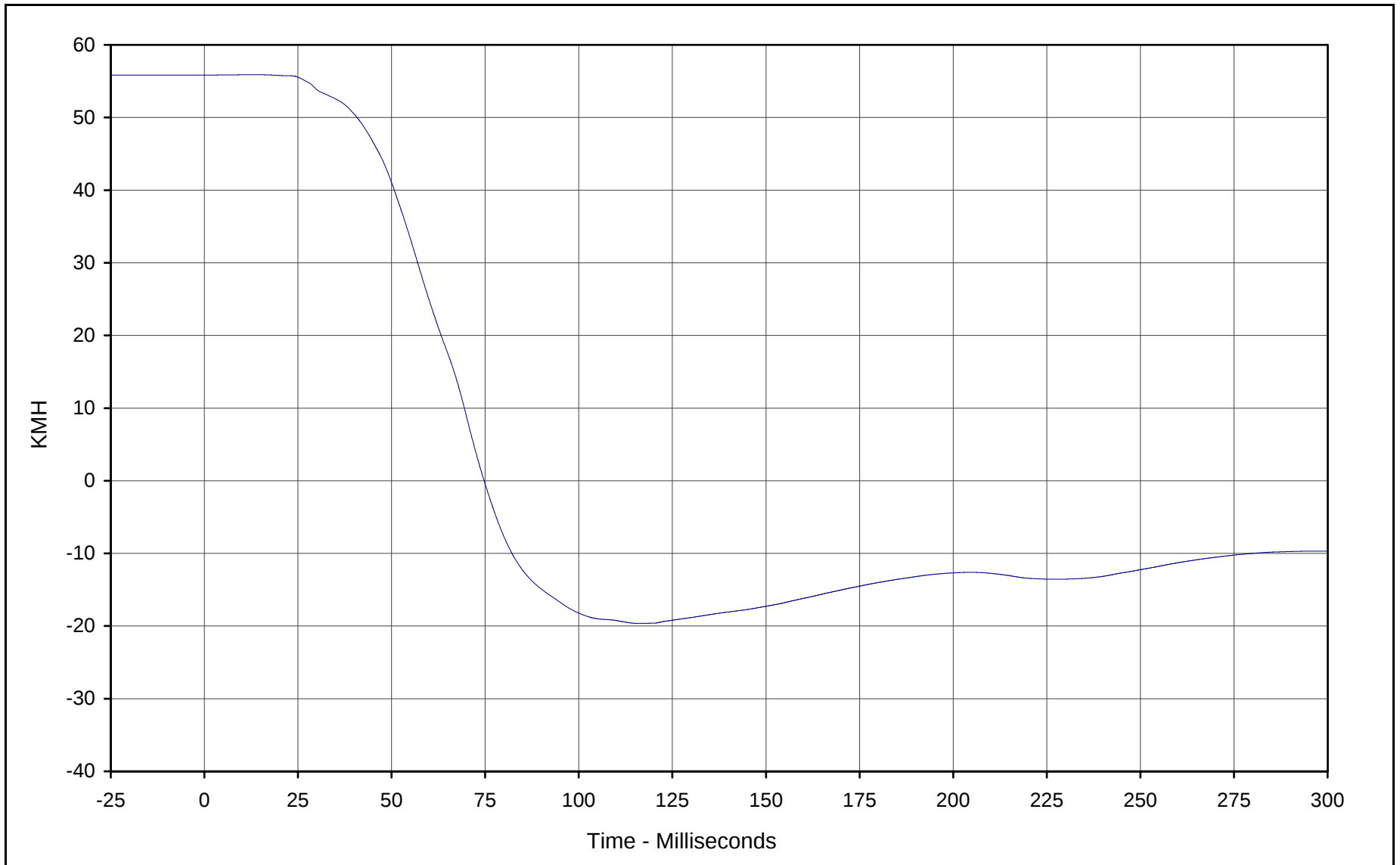




Curve Description: Driver Chest Redundant X
Maximum Value: 3.5 at 164.3 Milliseconds
Minimum Value: -57.9 at 70.1 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-016

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

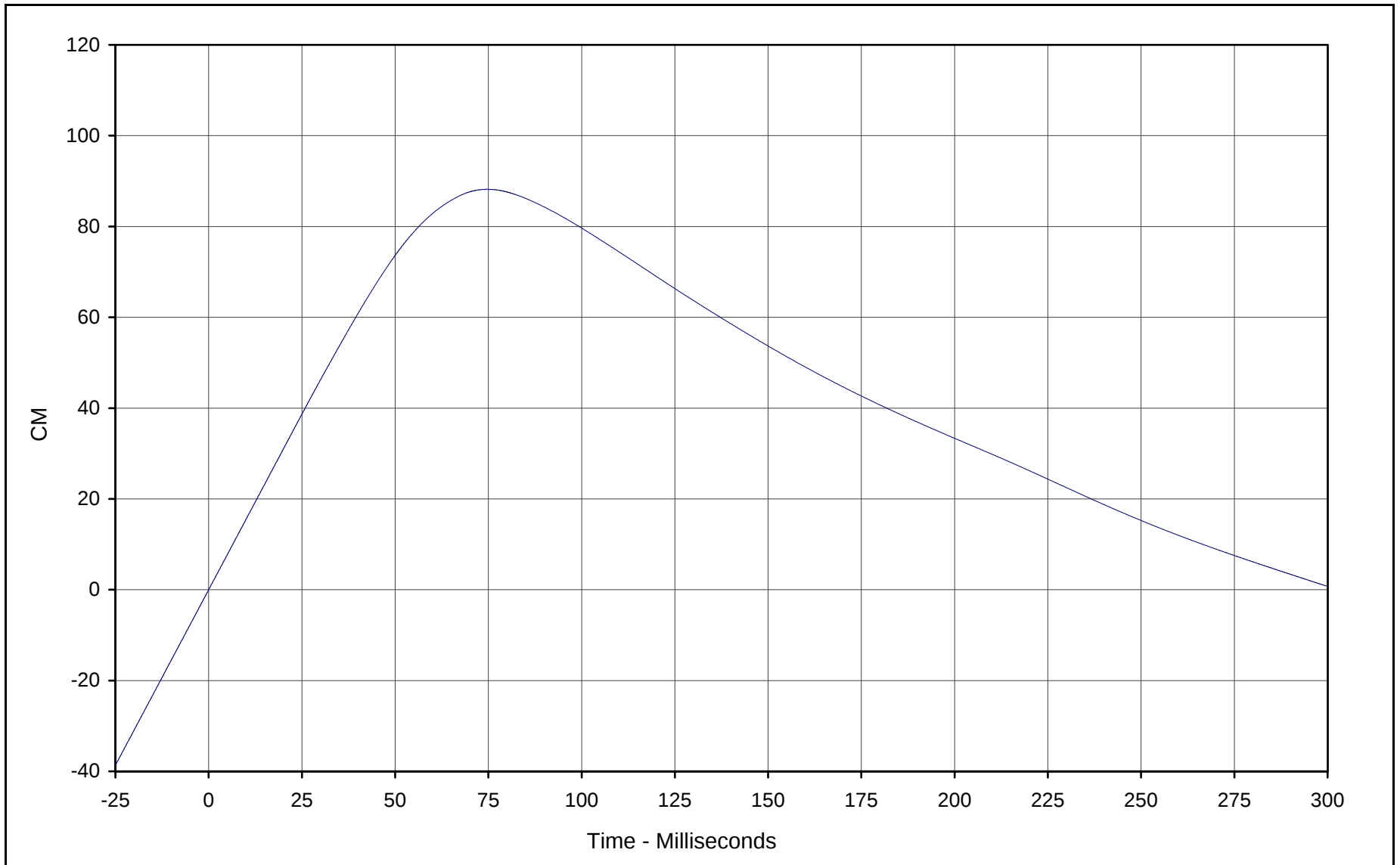




Curve Description: Driver Chest Redundant X Velocity
Maximum Value: 55.9 at 12.9 Milliseconds
Minimum Value: -19.6 at 116.8 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN1-016

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



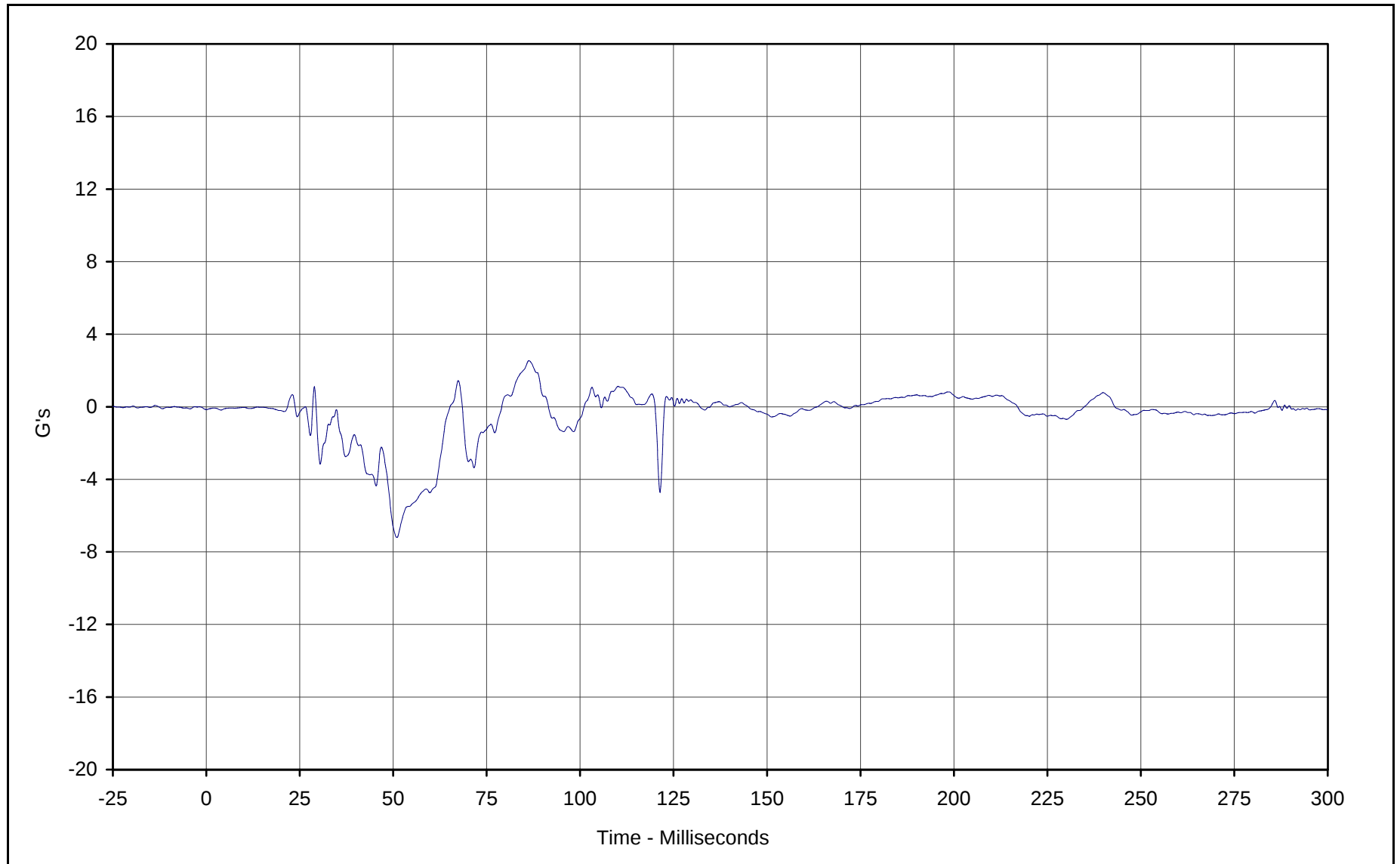


Curve Description: Driver Chest Redundant X Displ.
Maximum Value: 88.2 at 74.7 Milliseconds
Minimum Value: 0.0 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN2-016

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



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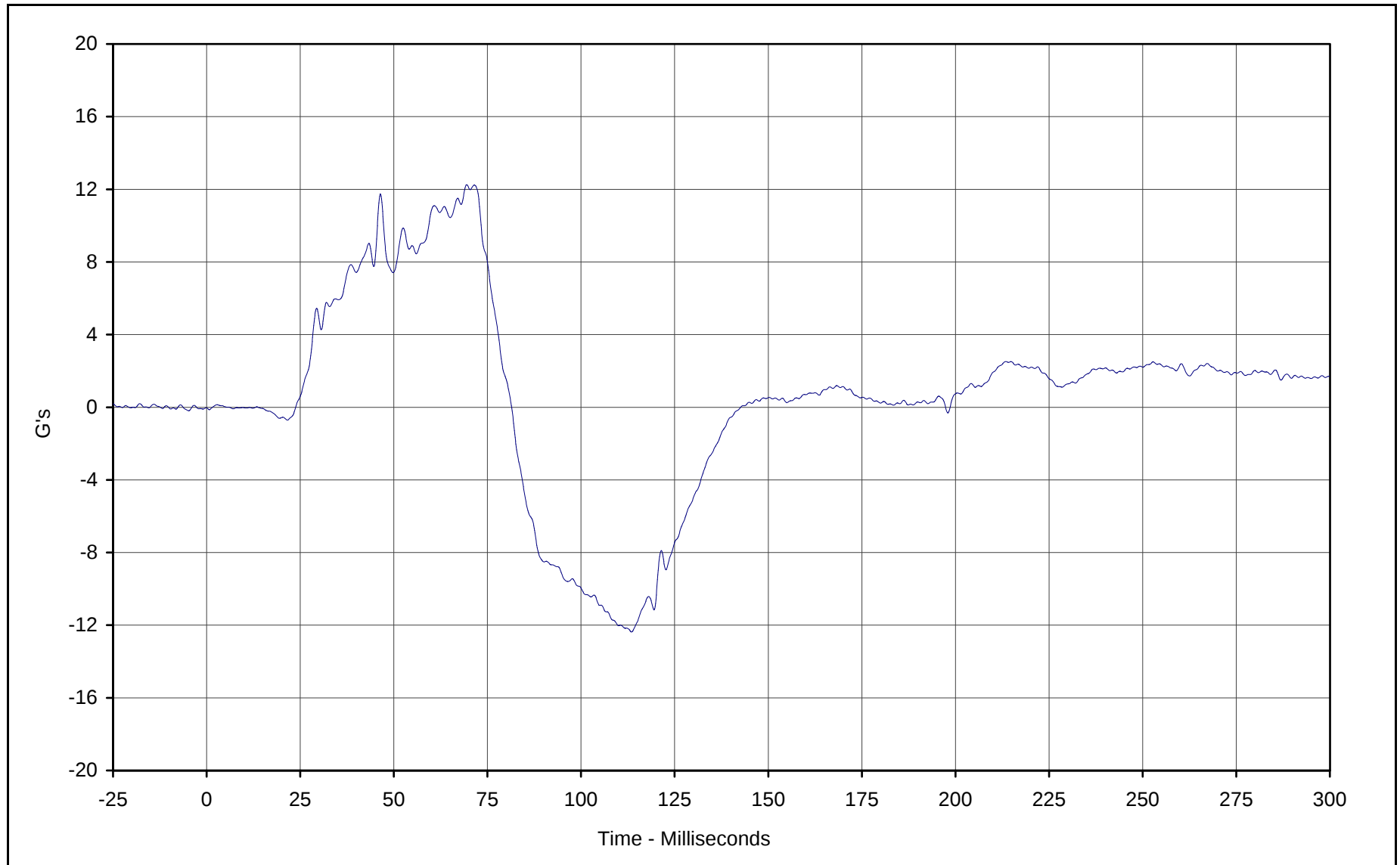


Curve Description: Driver Chest Redundant Y
Maximum Value: 2.5 at 86.3 Milliseconds
Minimum Value: -7.2 at 51.0 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-017

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



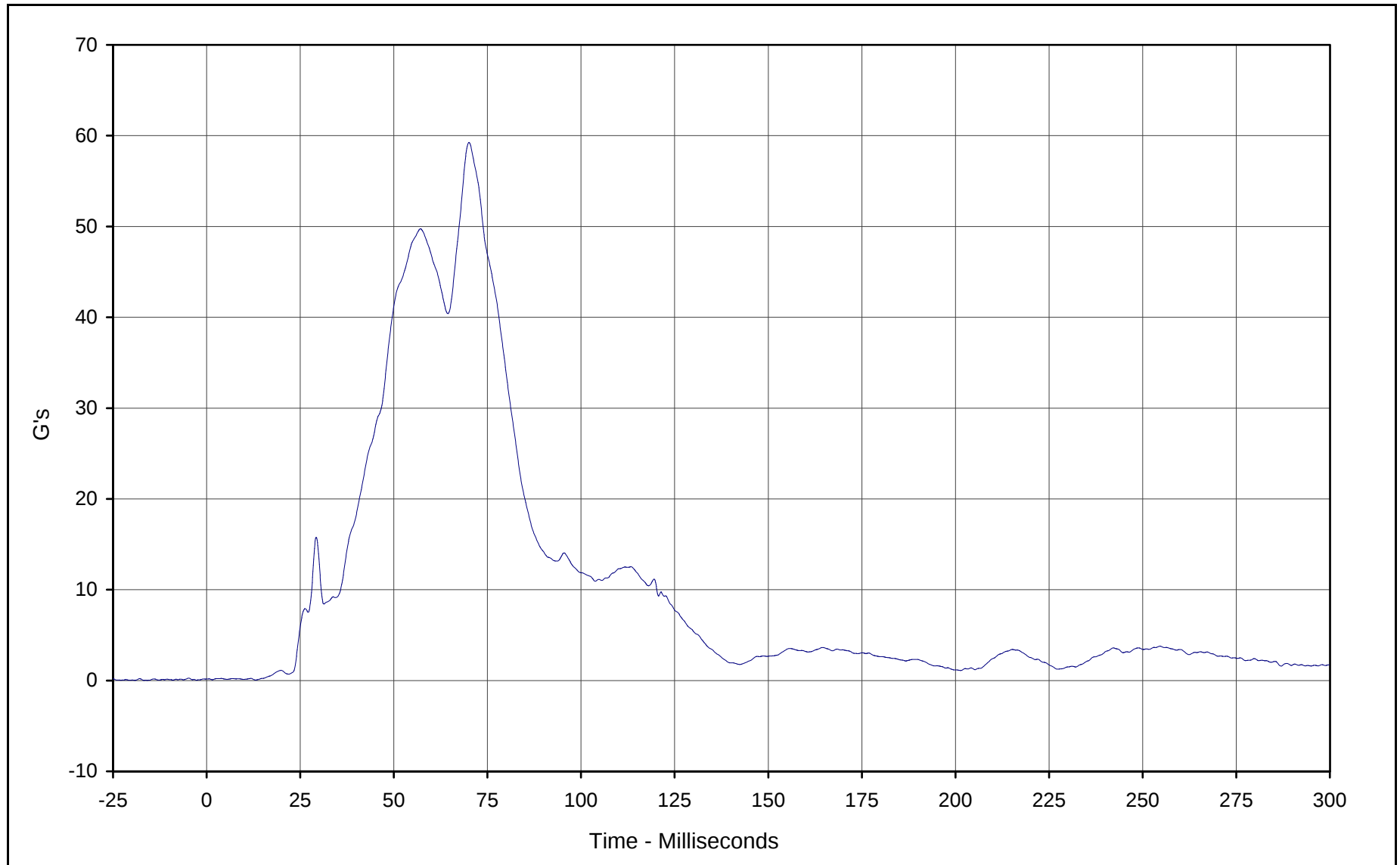
KAR21001-06



Curve Description: Driver Chest Redundant Z
Maximum Value: 12.3 at 69.5 Milliseconds
Minimum Value: -12.4 at 113.5 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-018

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

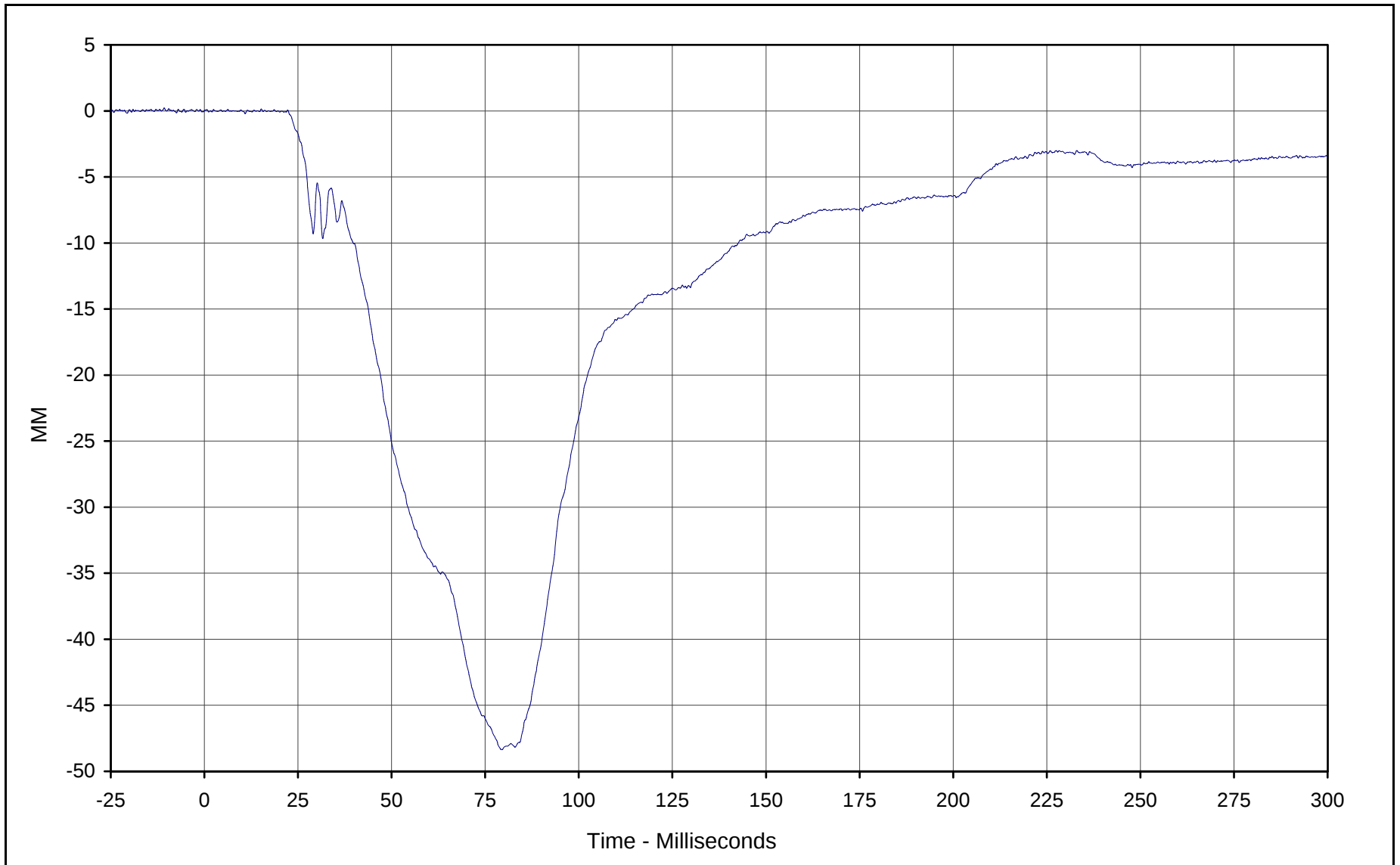




Curve Description: Driver Chest Resultant Redundant
Maximum Value: 59.3 at 70.1 Milliseconds
Minimum Value: 0.0 at 13.0 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: RES-016

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

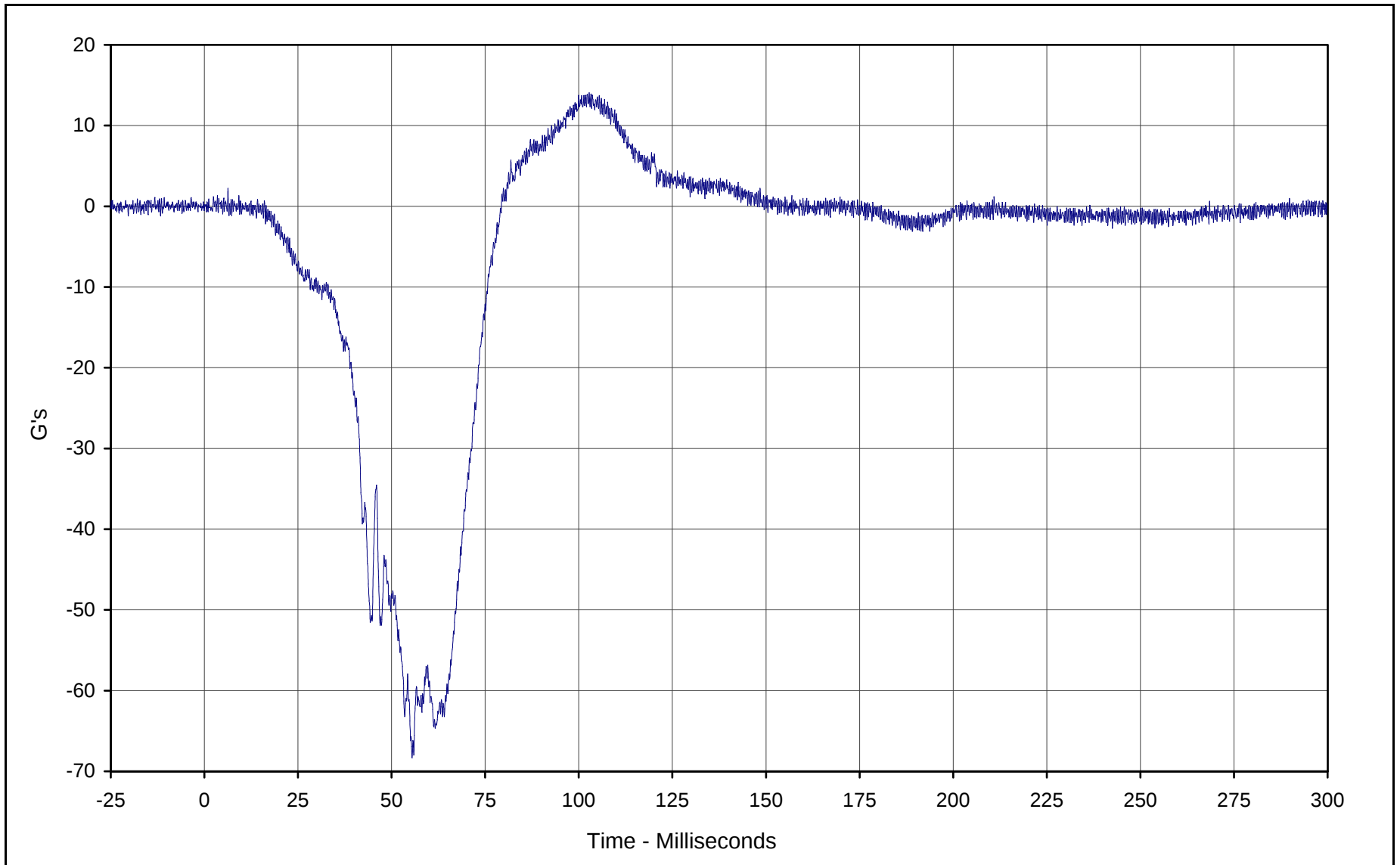




Curve Description: Driver Chest Displacement X
Maximum Value: 0.1 at 15.2 Milliseconds
Minimum Value: -48.3 at 79.5 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-019

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Driver Pelvis X

Maximum Value: 14.1 at 102.8 Milliseconds

Minimum Value: -68.4 at 55.5 Milliseconds

SAE Filter Class: 1000

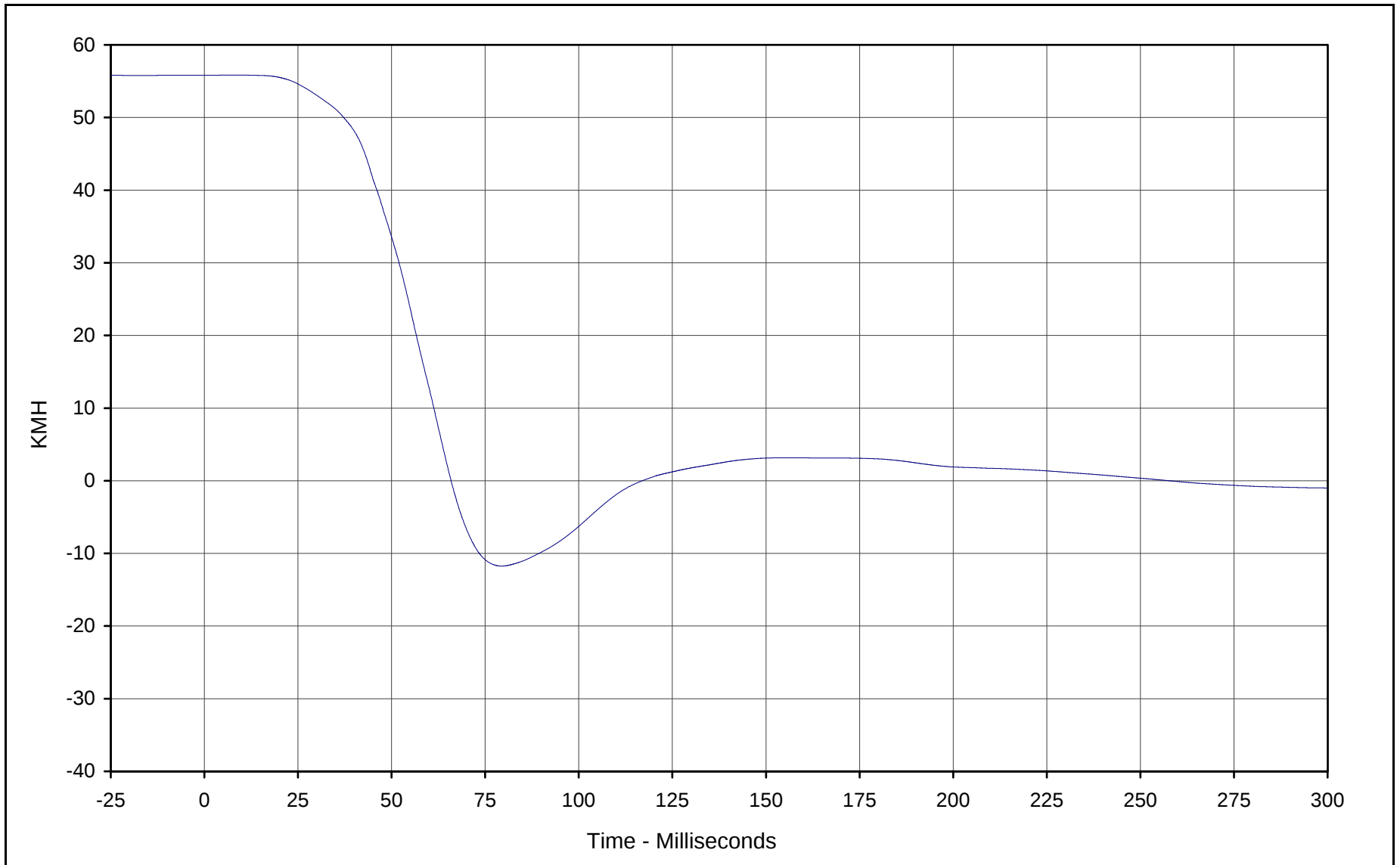
Date of Test: 01/18/01

Curve Number: FIL-020

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

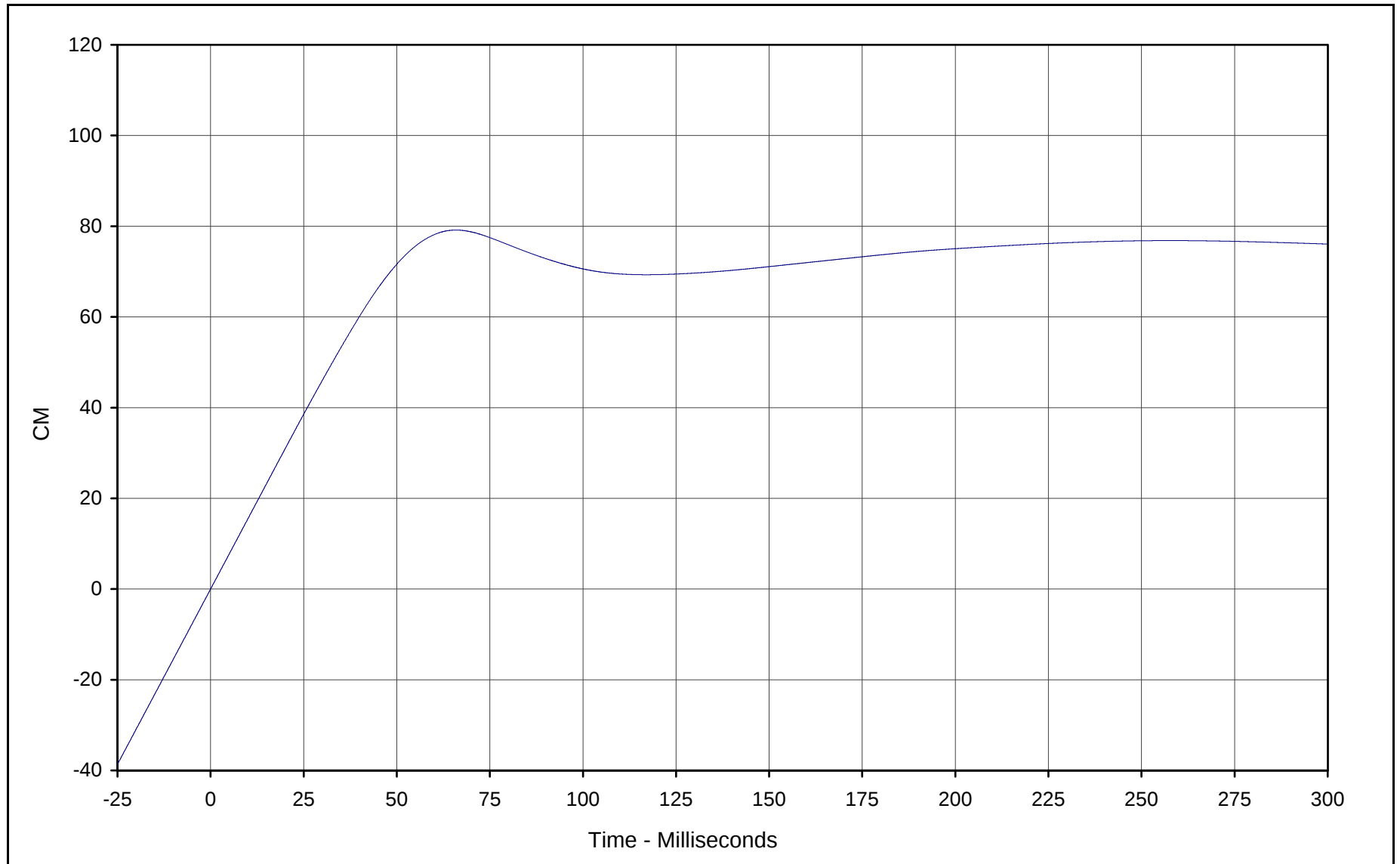




Curve Description: Driver Pelvis X Velocity
Maximum Value: 55.8 at 6.4 Milliseconds
Minimum Value: -11.7 at 79.3 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN1-020

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Driver Pelvis X Displ.

Maximum Value: 79.2 at 65.9 Milliseconds

Minimum Value: 0.0 at 0.0 Milliseconds

SAE Filter Class: 180

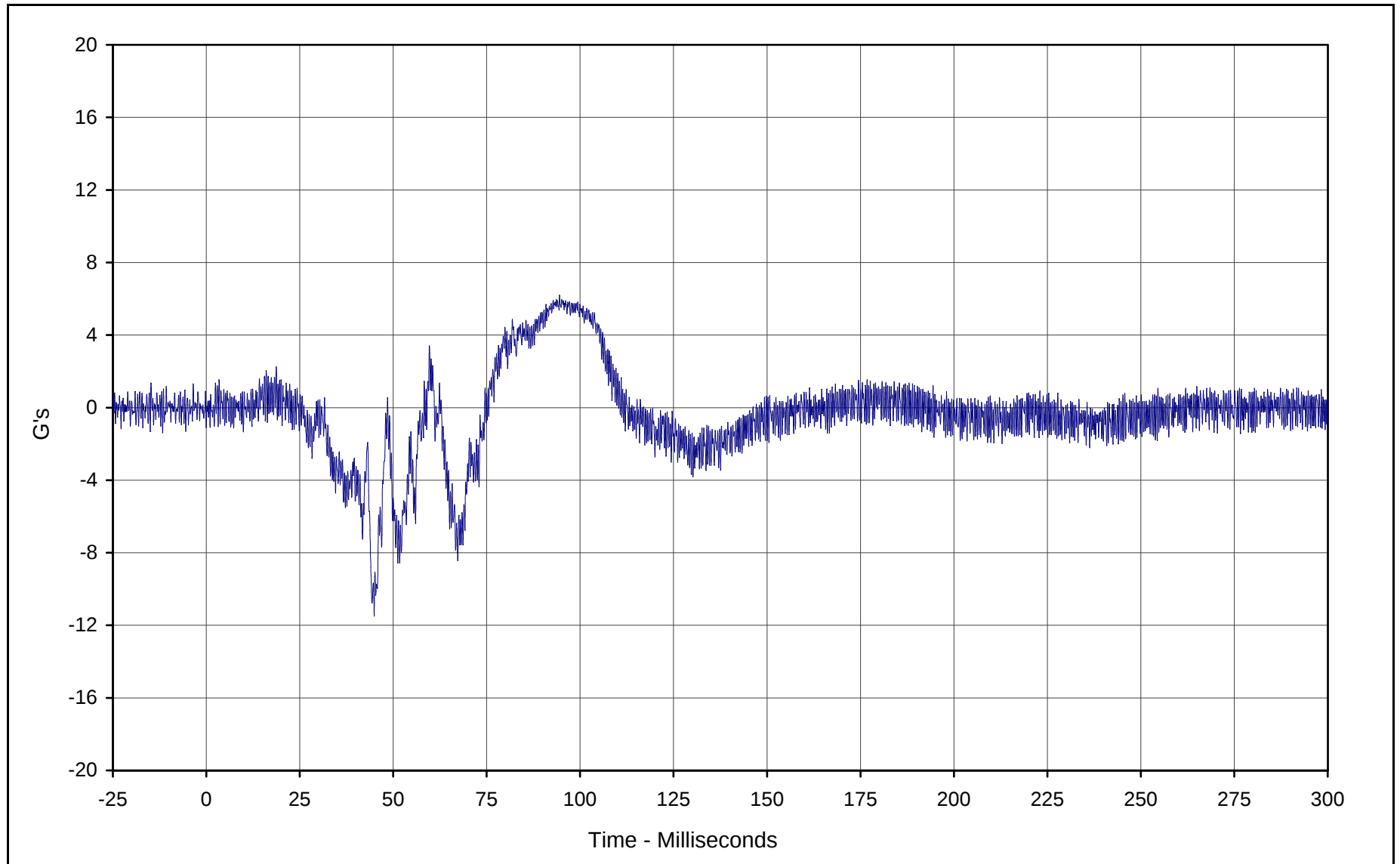
Date of Test: 01/18/01

Curve Number: IN2-020

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Driver Pelvis Y

Maximum Value: 6.2 at 94.5 Milliseconds

Minimum Value: -11.5 at 44.9 Milliseconds

SAE Filter Class: 1000

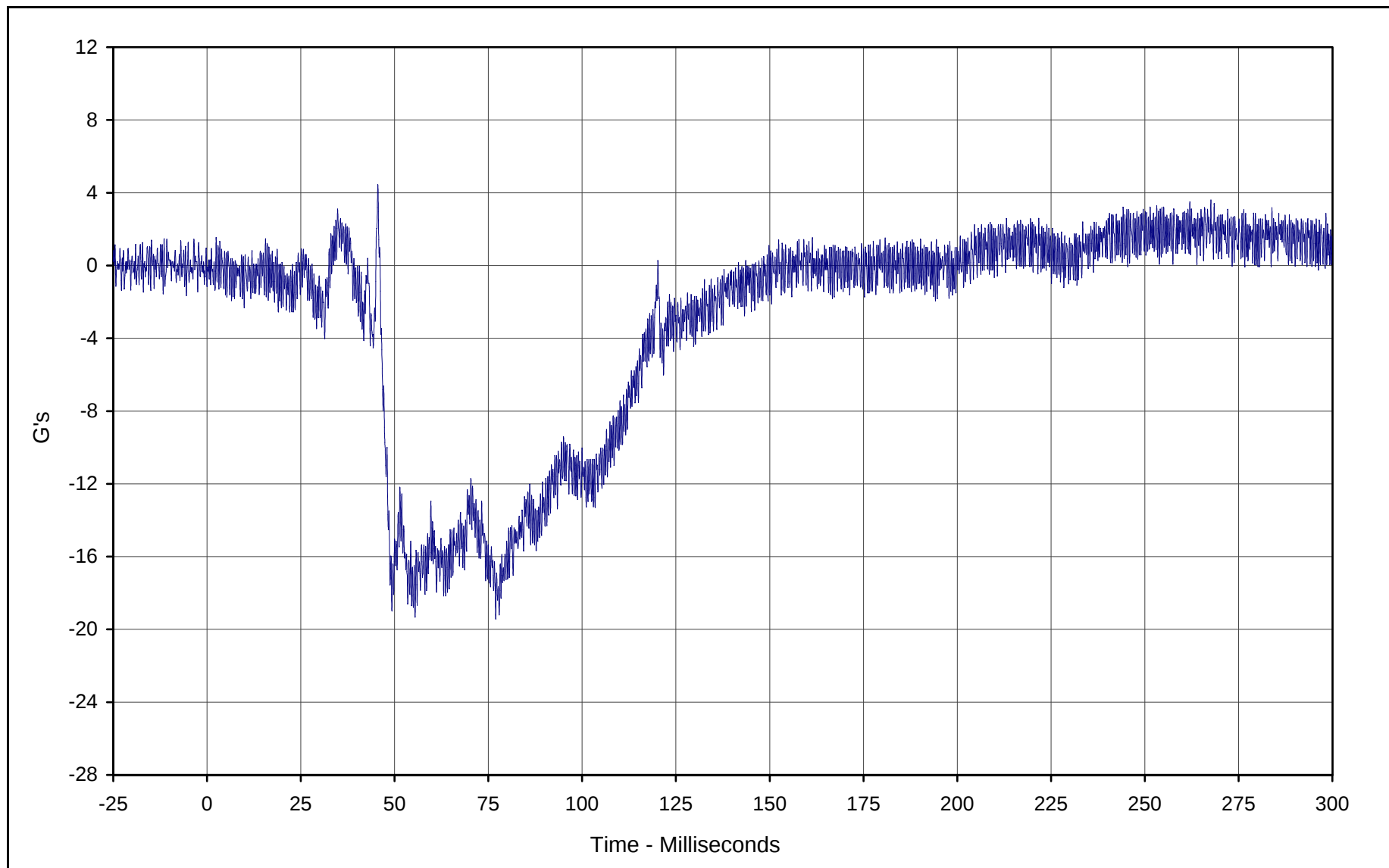
Date of Test: 01/18/01

Curve Number: FIL-021

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

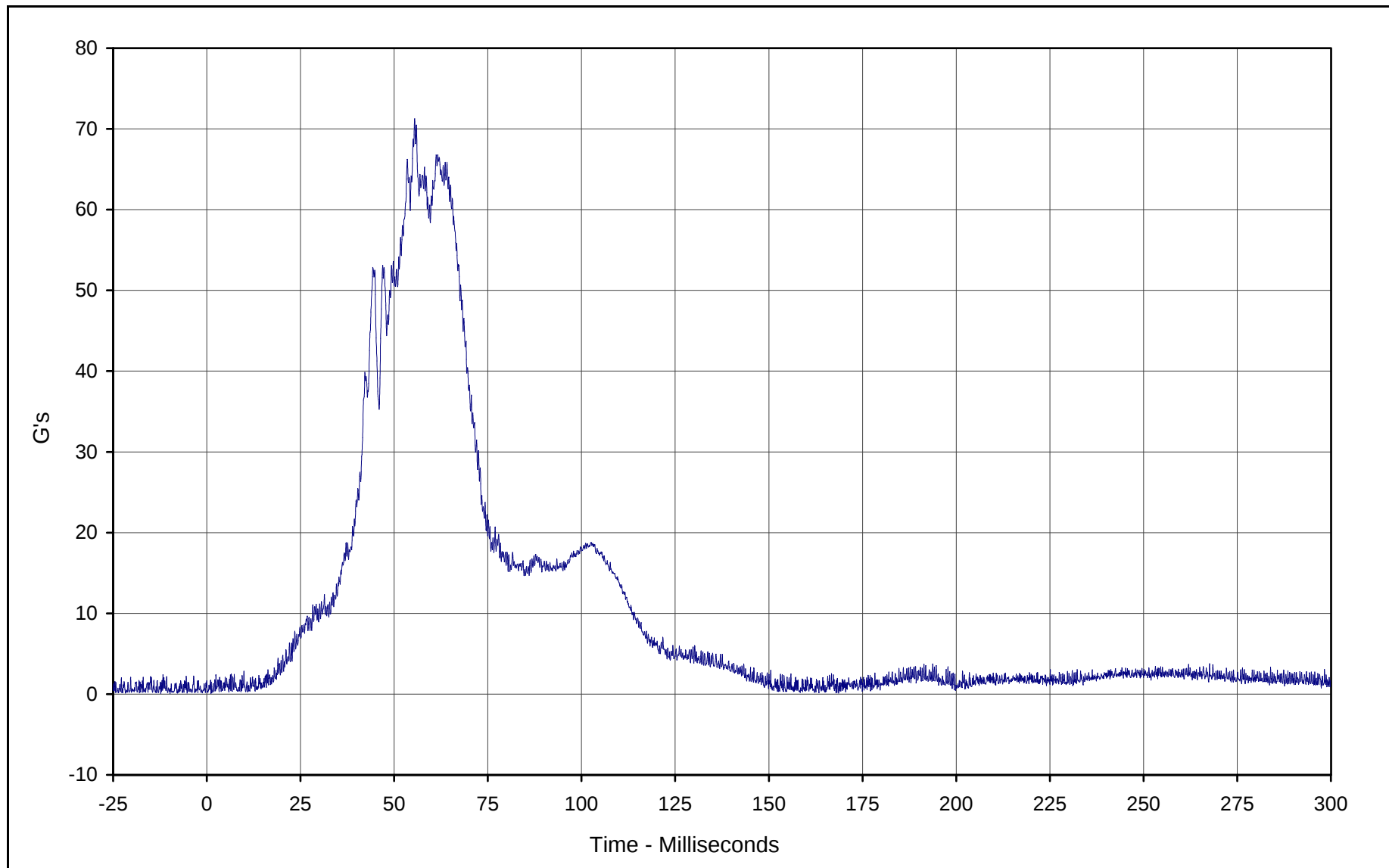




Curve Description:	Driver Pelvis Z		
Maximum Value:	4.4	at	45.5 Milliseconds
Minimum Value:	-19.4	at	77.0 Milliseconds
SAE Filter Class:	1000		
Date of Test:	01/18/01		
Curve Number:	FIL-022		

Test Program:	2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle:	2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Driver Pelvis Resultant

Maximum Value: 71.3 at 55.5 Milliseconds

Minimum Value: 0.1 at 1.1 Milliseconds

SAE Filter Class: 1000

Date of Test: 01/18/01

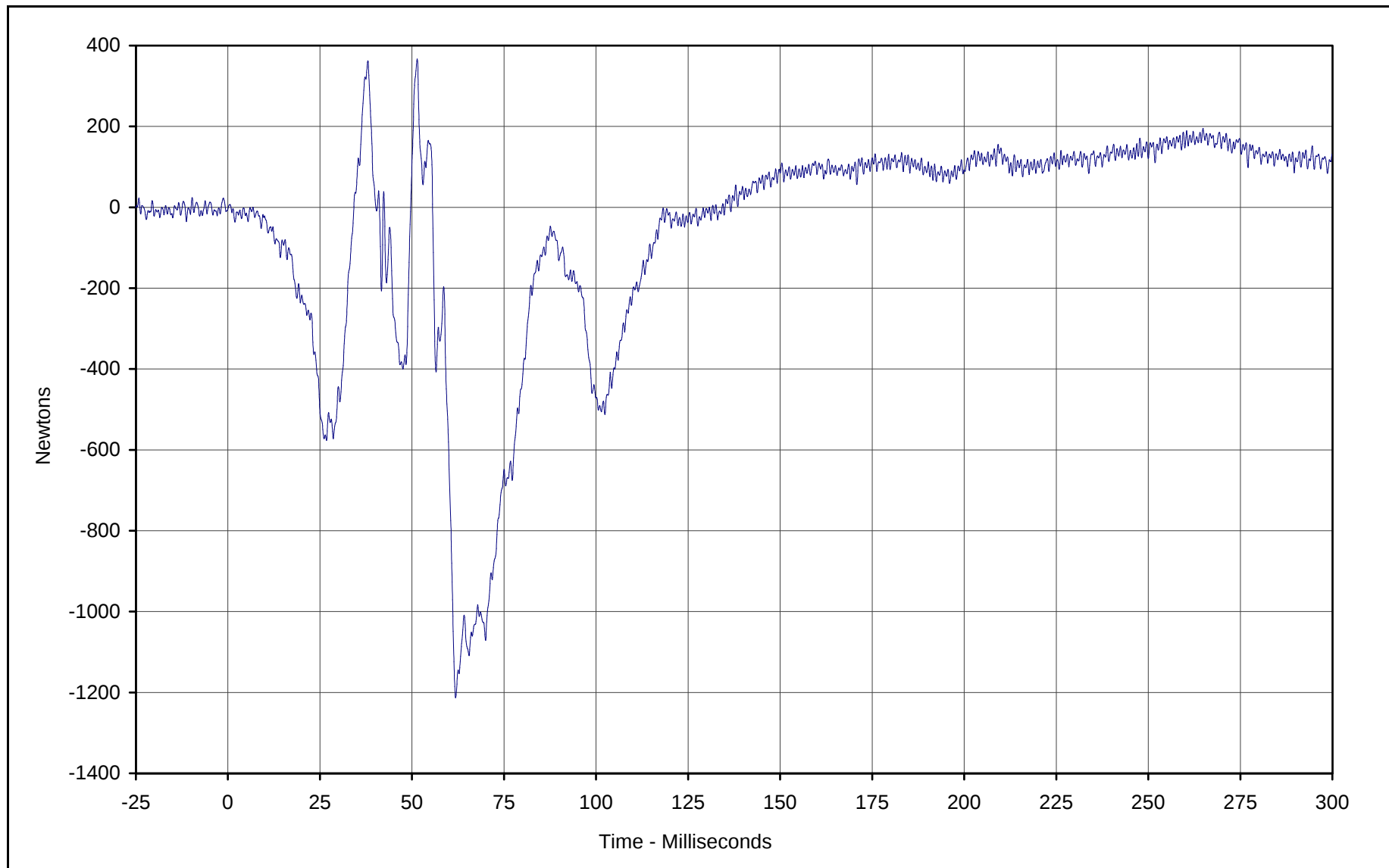
Curve Number: RES-020

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



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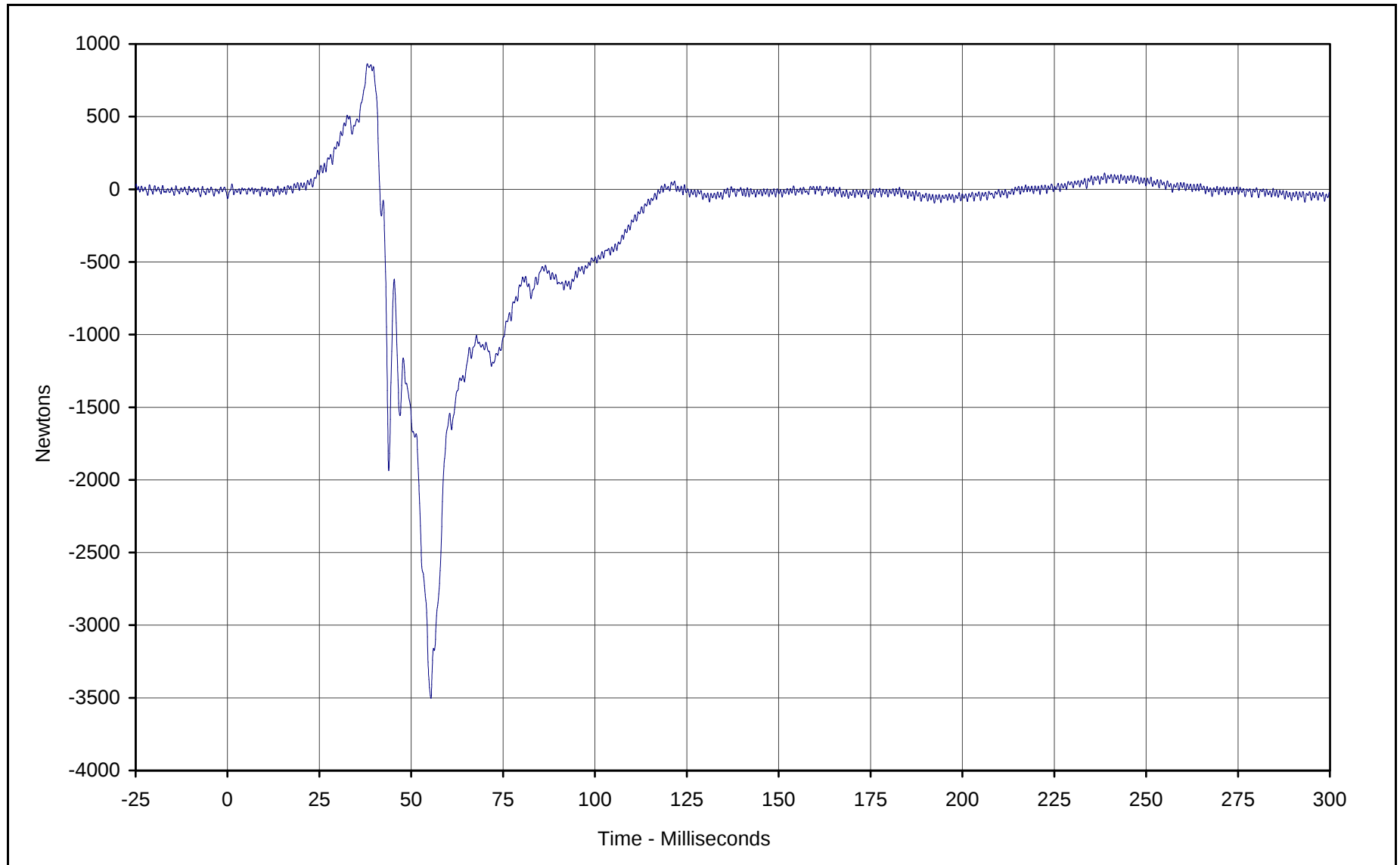


Curve Description: Driver Left Femur Force
Maximum Value: 367.1 at 51.4 Milliseconds
Minimum Value: -1212.6 at 61.8 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-023

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



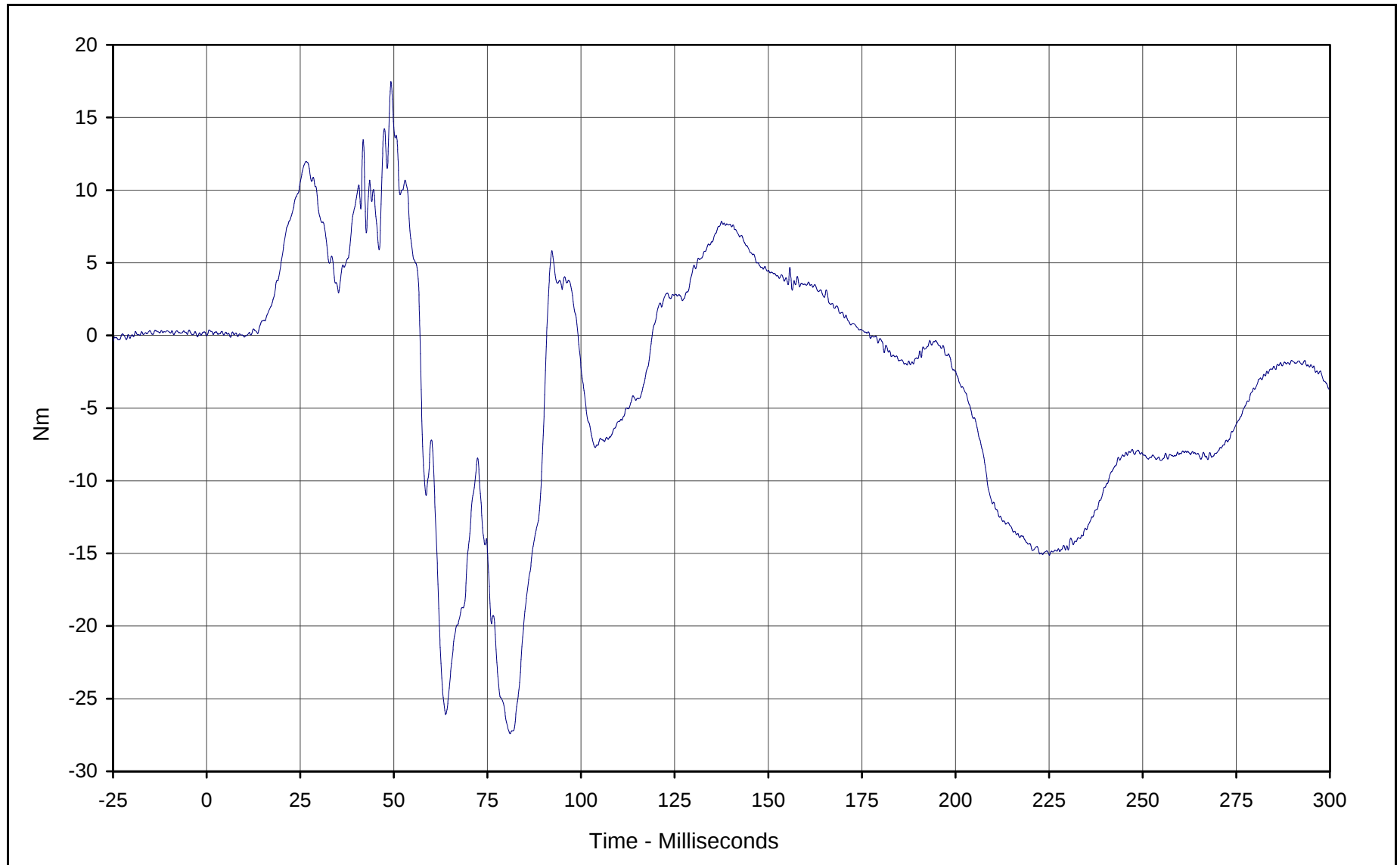
KAR21001-06



Curve Description: Driver Right Femur Force
Maximum Value: 864.4 at 38.0 Milliseconds
Minimum Value: -3503.2 at 55.4 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-024

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

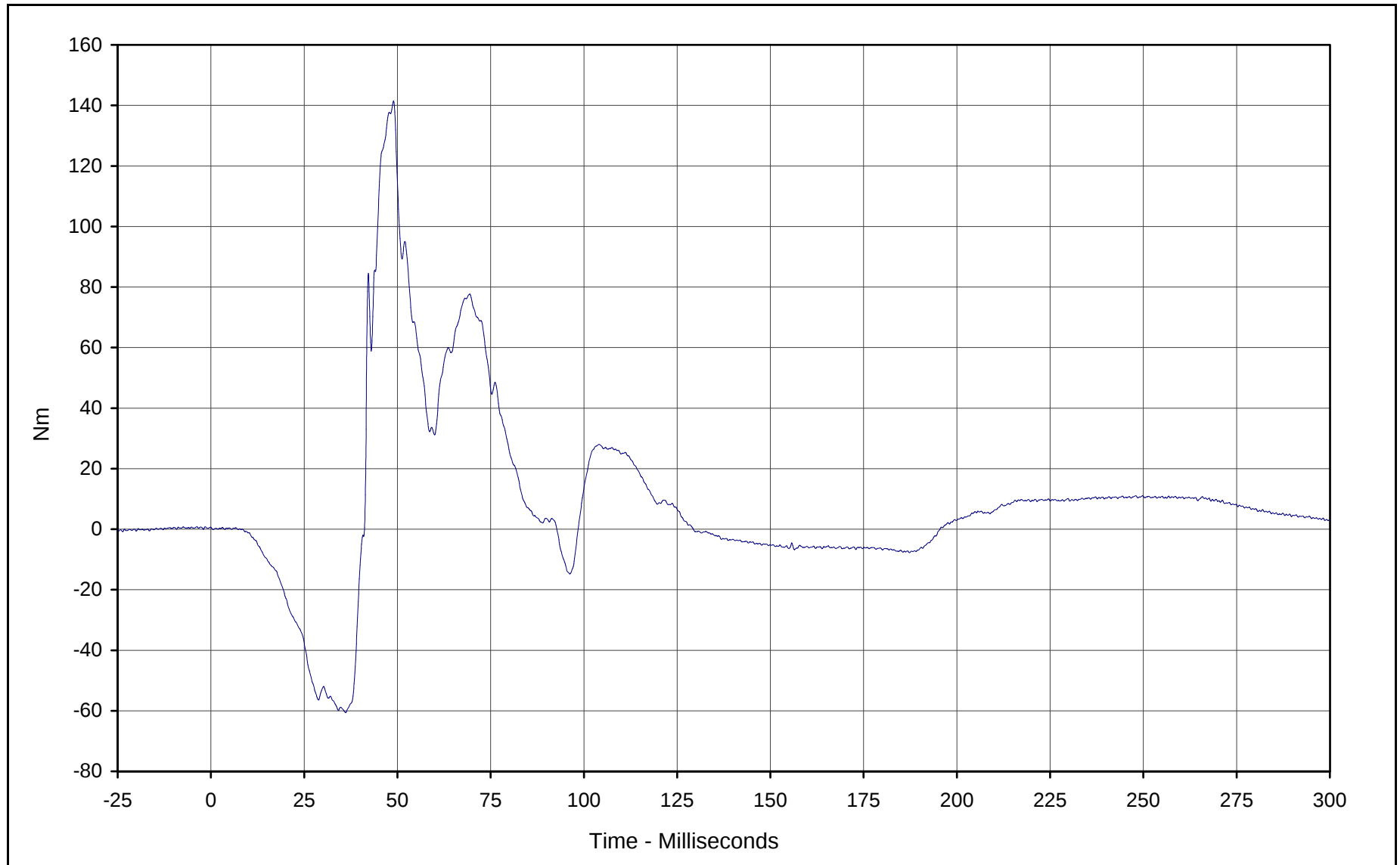




Curve Description: Driver Left Upper Tibia Moment X
Maximum Value: 17.5 at 49.2 Milliseconds
Minimum Value: -27.4 at 81.0 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-025

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

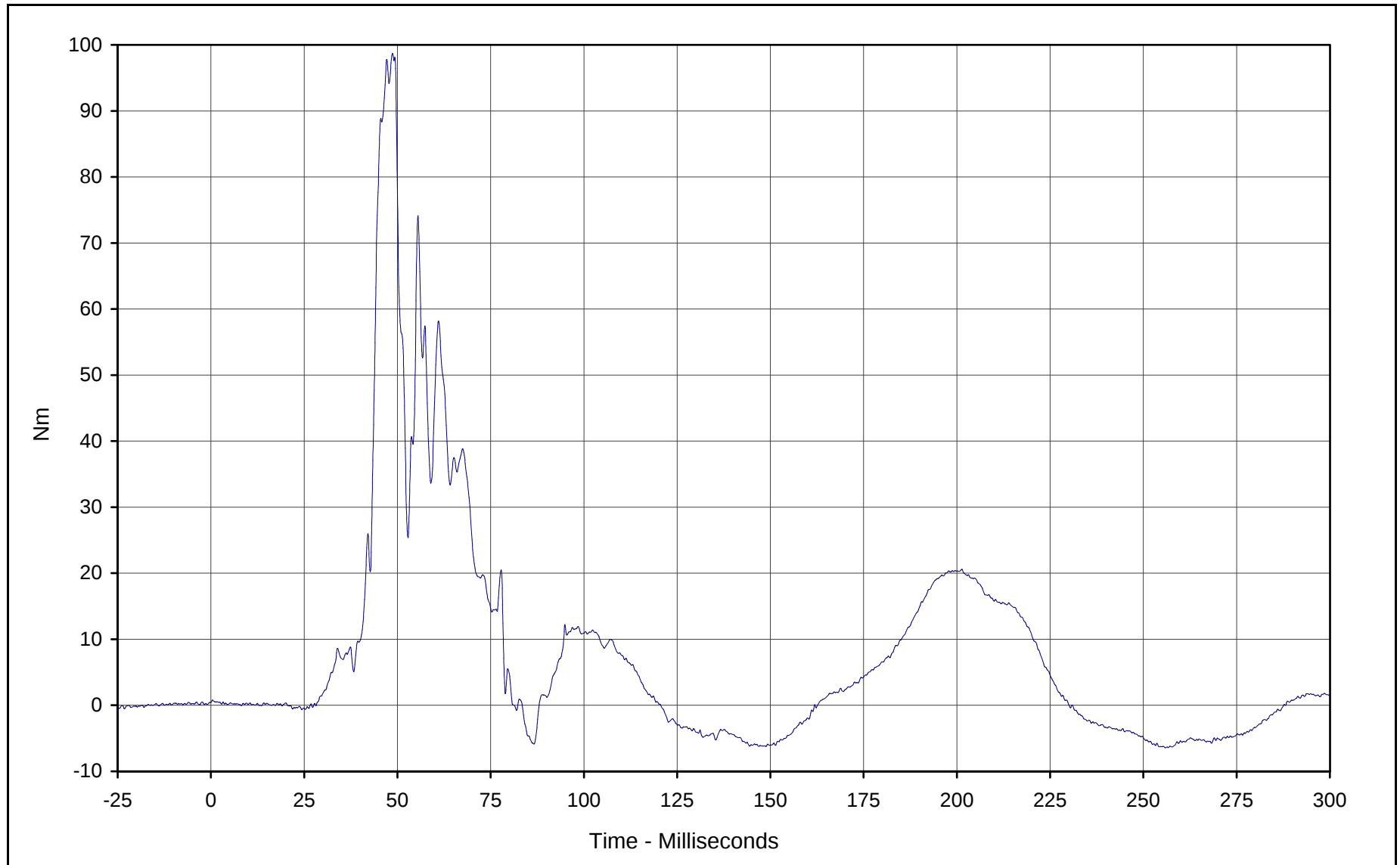




Curve Description: Driver Left Upper Tibia Moment Y
Maximum Value: 141.5 at 49.0 Milliseconds
Minimum Value: -60.6 at 36.1 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-026

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

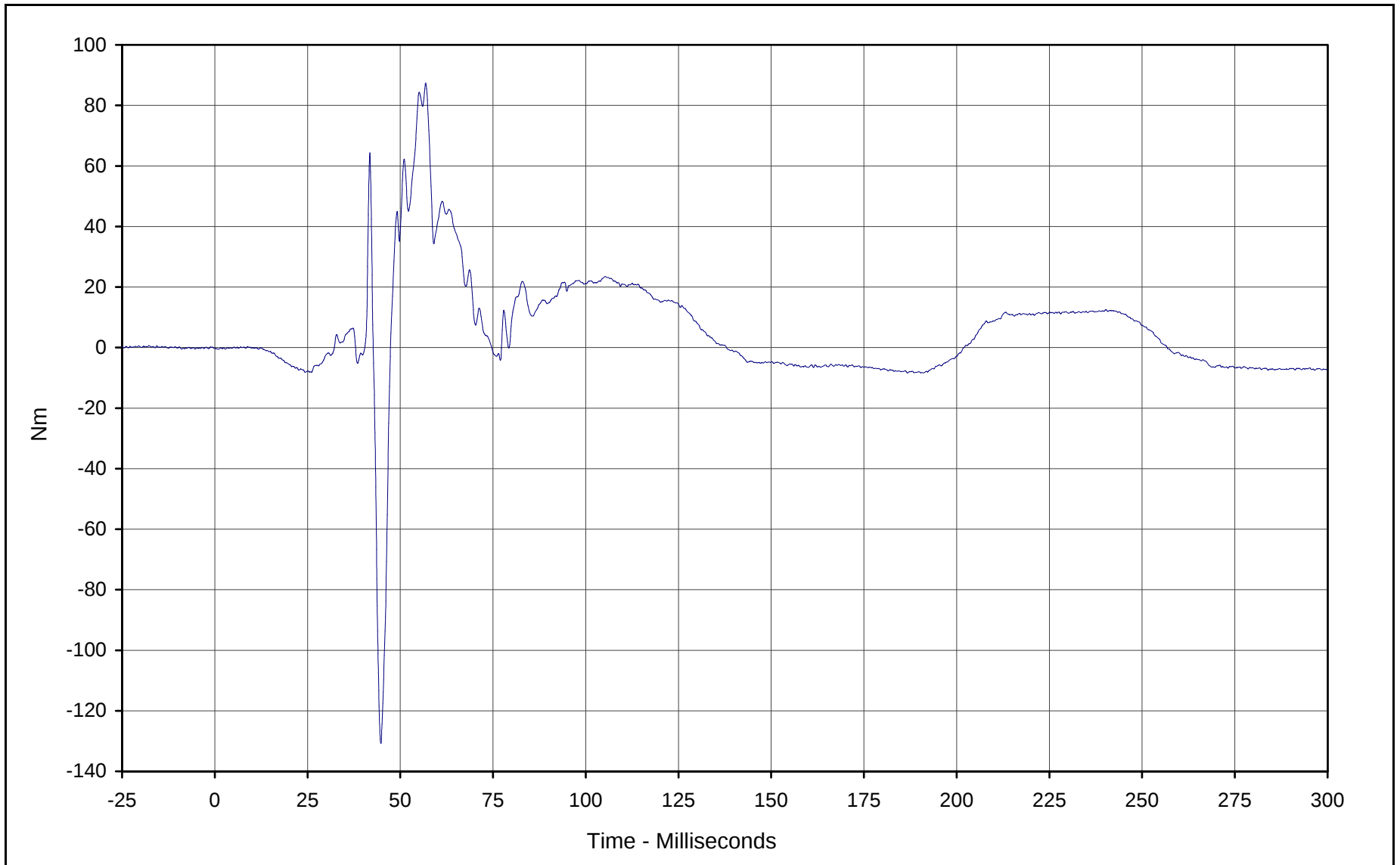




Curve Description: Driver Right Upper Tibia Moment X
Maximum Value: 98.7 at 48.7 Milliseconds
Minimum Value: -6.4 at 255.9 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-027

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

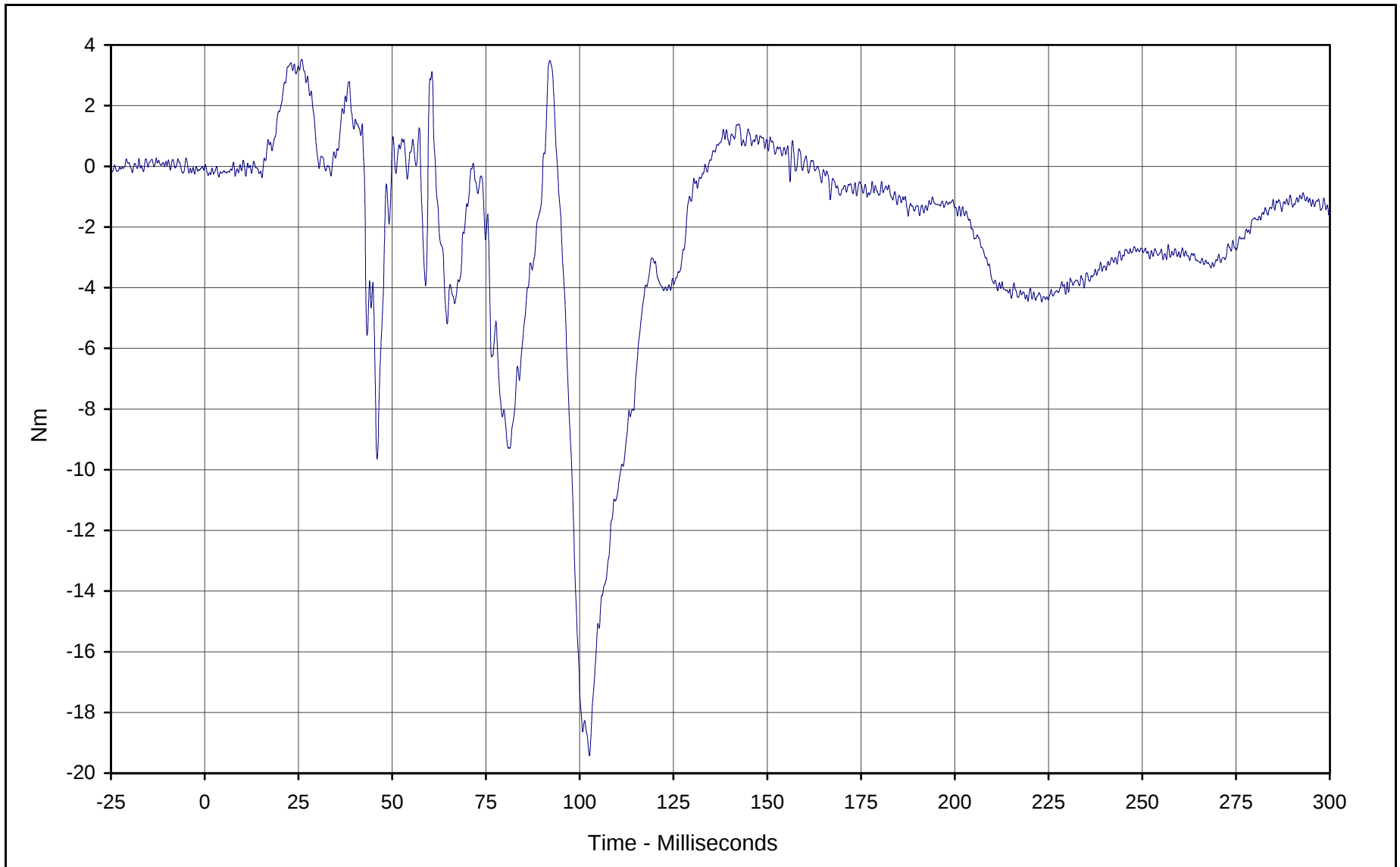




Curve Description: Driver Right Upper Tibia Moment Y
Maximum Value: 87.3 at 56.9 Milliseconds
Minimum Value: -130.7 at 44.8 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-028

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

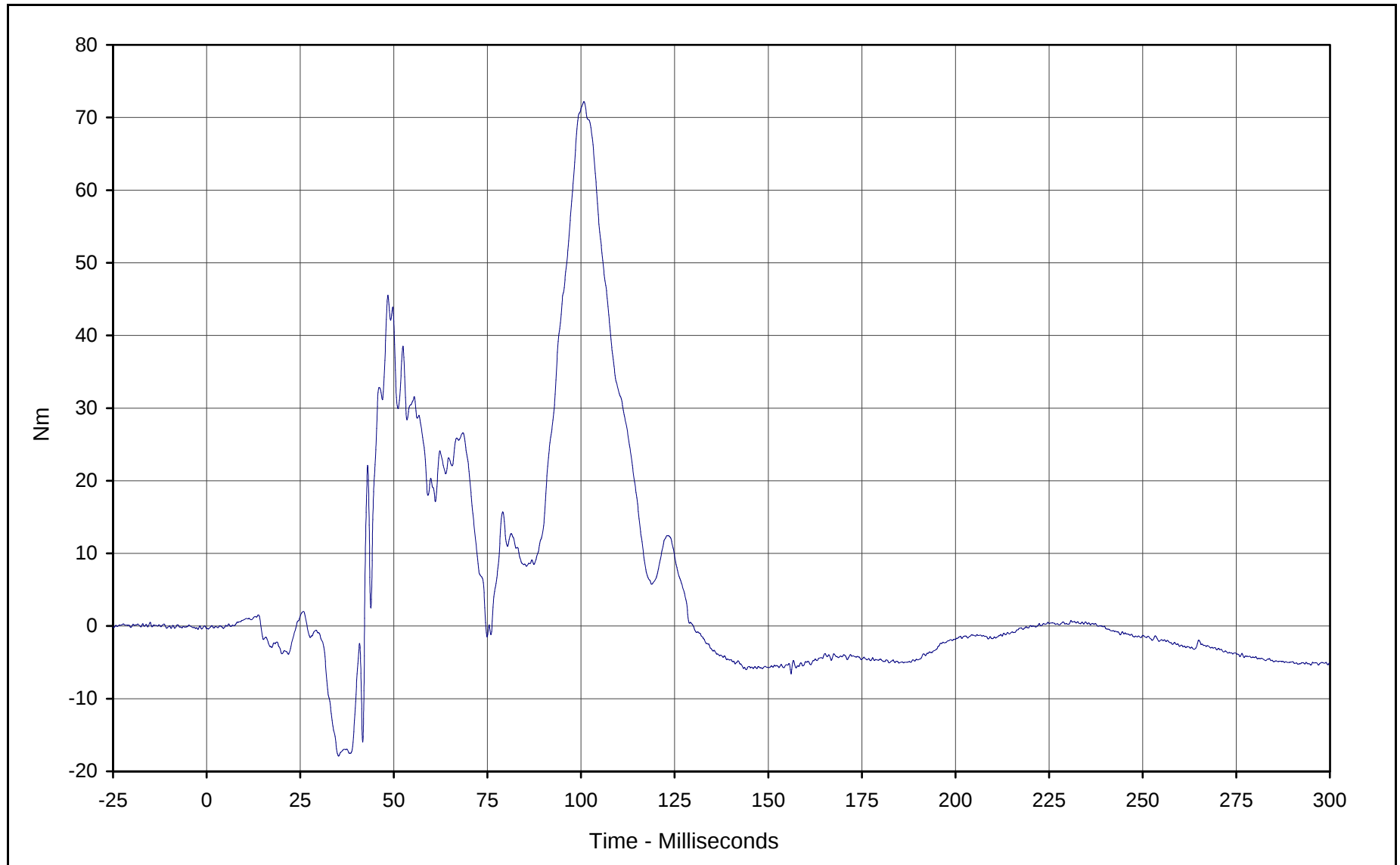




Curve Description: Driver Left Lower Tibia Moment X
Maximum Value: 3.5 at 25.8 Milliseconds
Minimum Value: -19.4 at 102.6 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-029

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

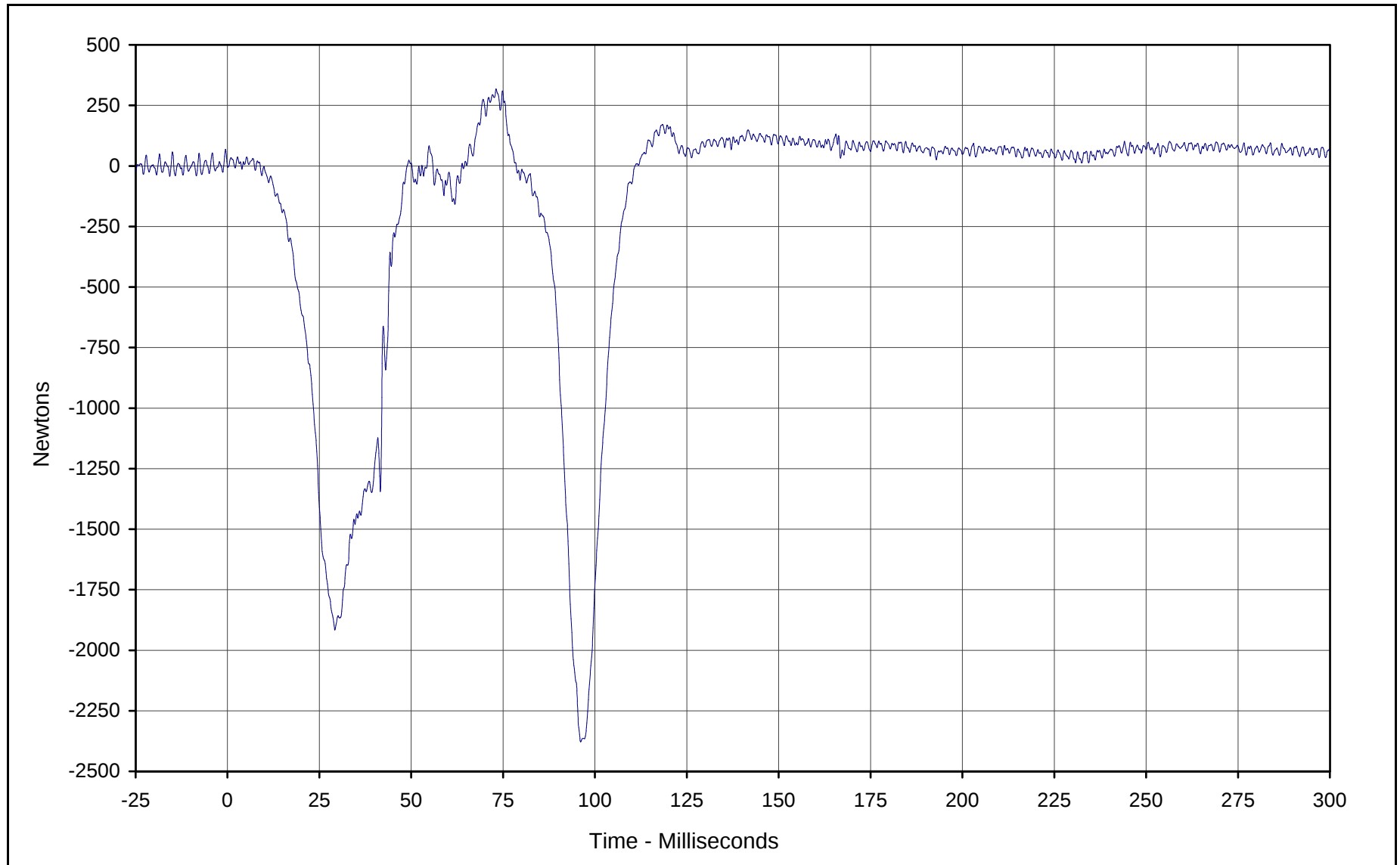




Curve Description: Driver Left Lower Tibia Moment Y
Maximum Value: 72.2 at 100.8 Milliseconds
Minimum Value: -17.9 at 35.3 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-030

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

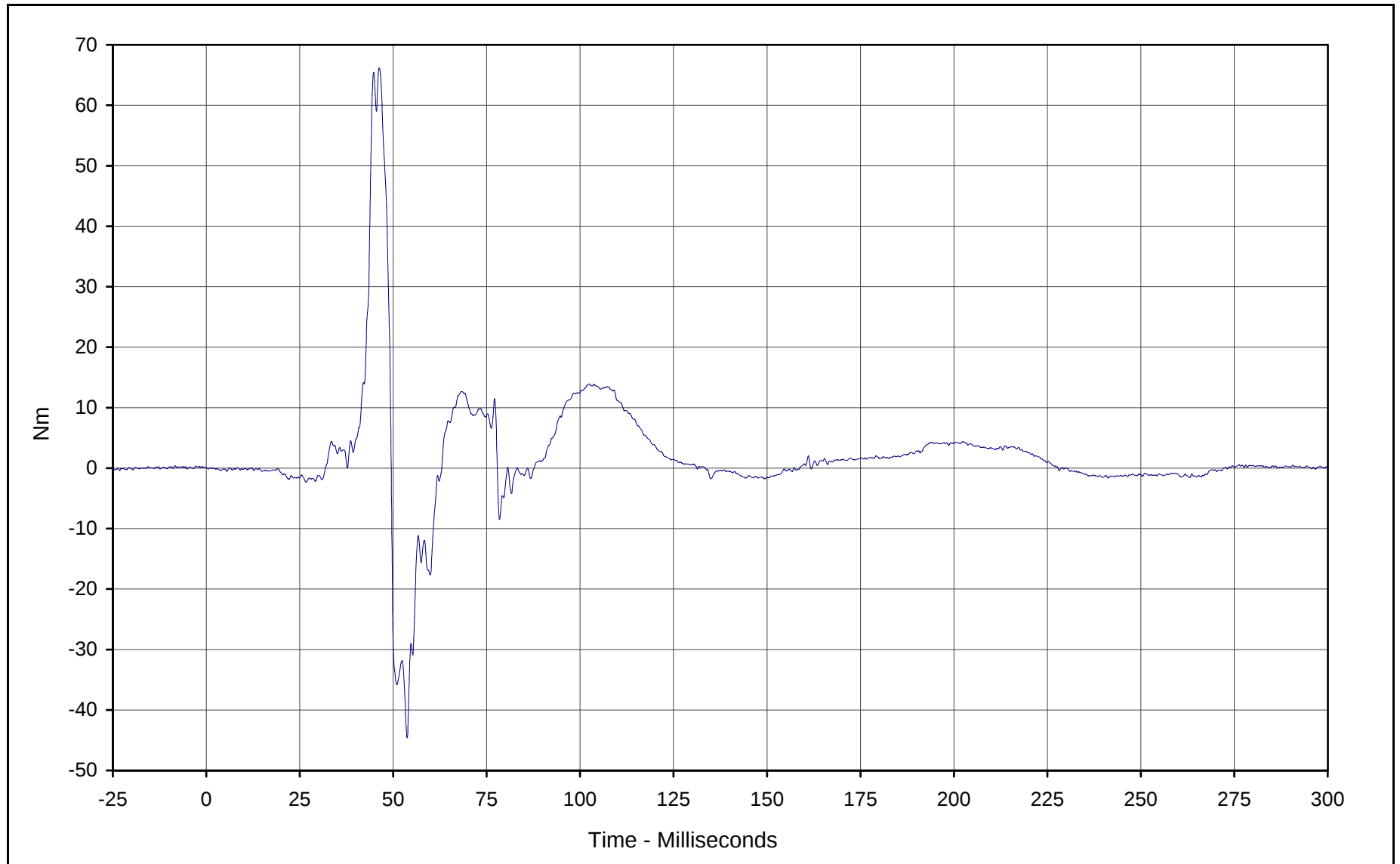




Curve Description: Driver Left Lower Tibia Force Z
Maximum Value: 318.2 at 73.1 Milliseconds
Minimum Value: -2378.1 at 96.1 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-031

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

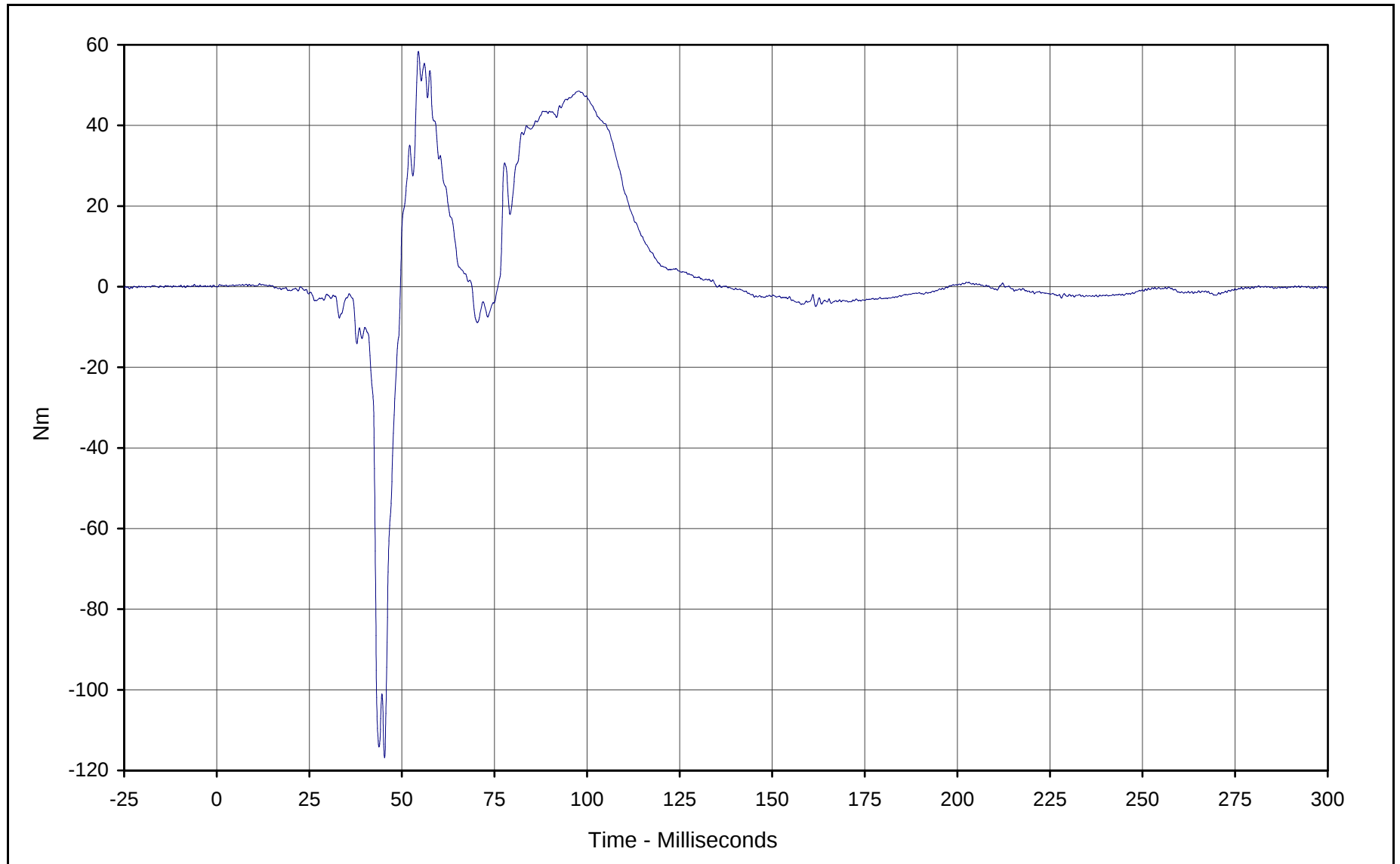




Curve Description: Driver Right Lower Tibia Moment X
Maximum Value: 66.2 at 46.2 Milliseconds
Minimum Value: -44.6 at 53.7 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-032

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

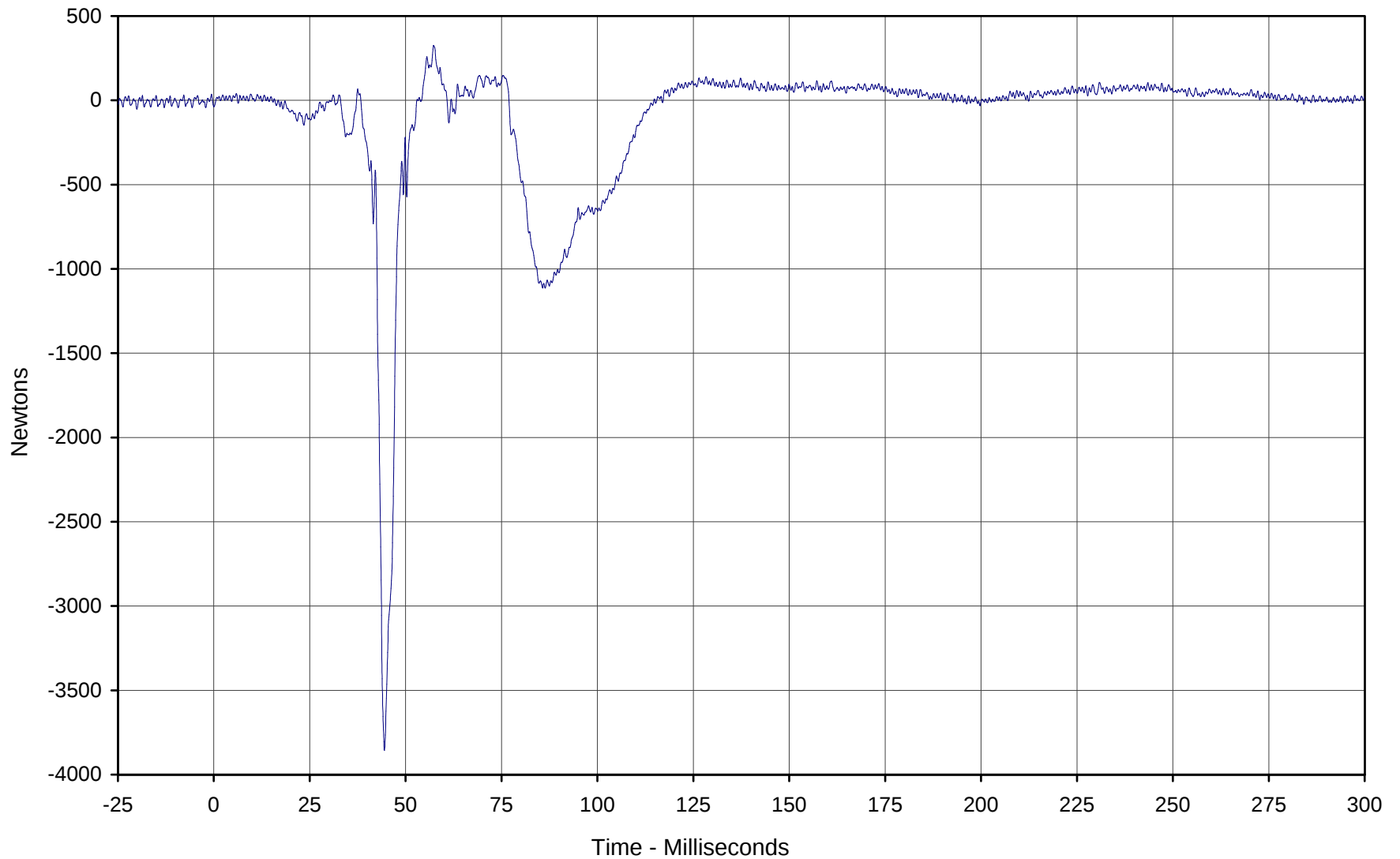




Curve Description: Driver Right Lower Tibia Moment Y
Maximum Value: 58.3 at 54.5 Milliseconds
Minimum Value: -116.9 at 45.3 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-033

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

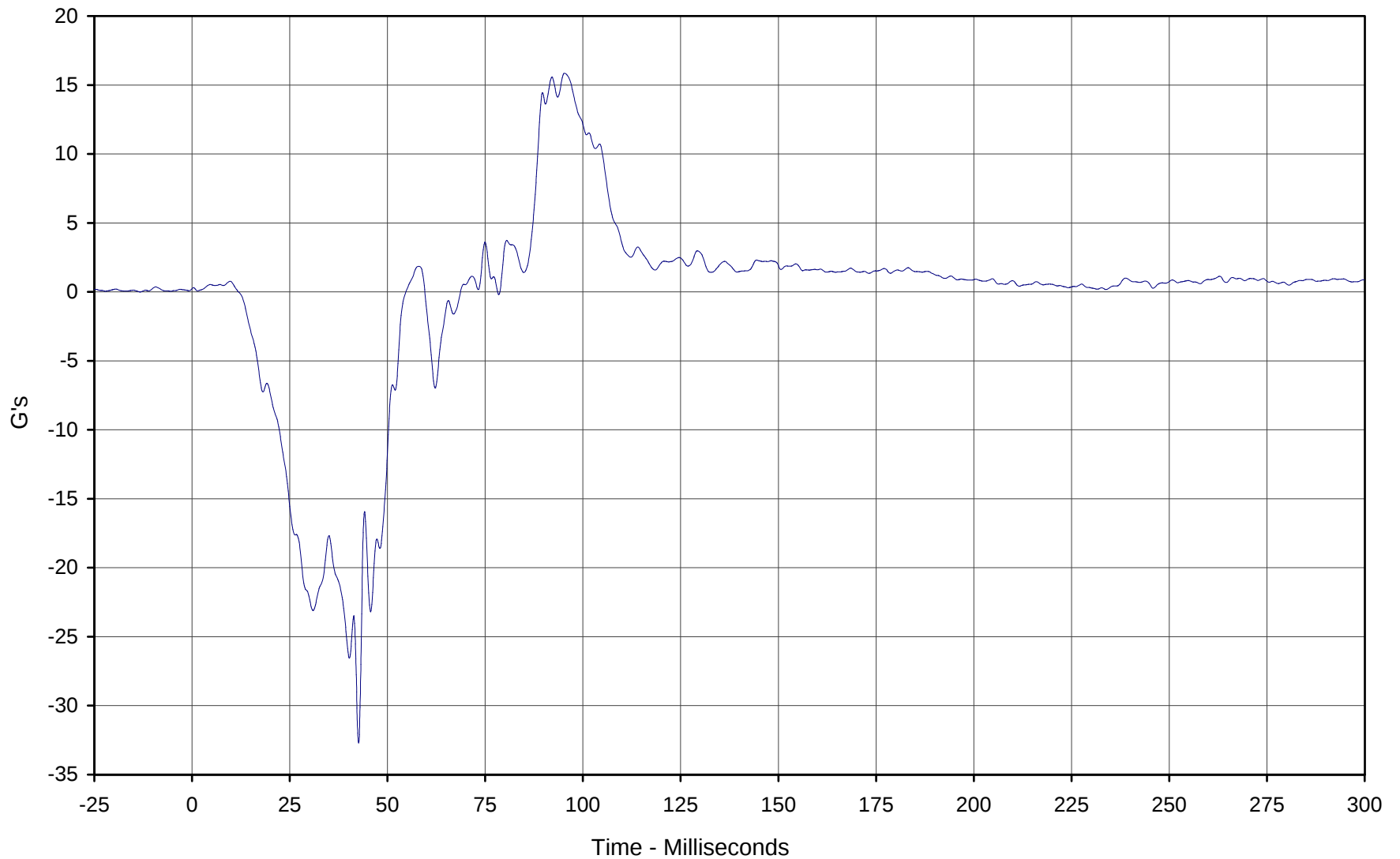




Curve Description: Driver Right Lower Tibia Force Z
Maximum Value: 326.4 at 57.3 Milliseconds
Minimum Value: -3855.9 at 44.5 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-034

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Driver Left Foot Aft X

Maximum Value: 15.9 at 95.3 Milliseconds

Minimum Value: -32.7 at 42.6 Milliseconds

SAE Filter Class: 180

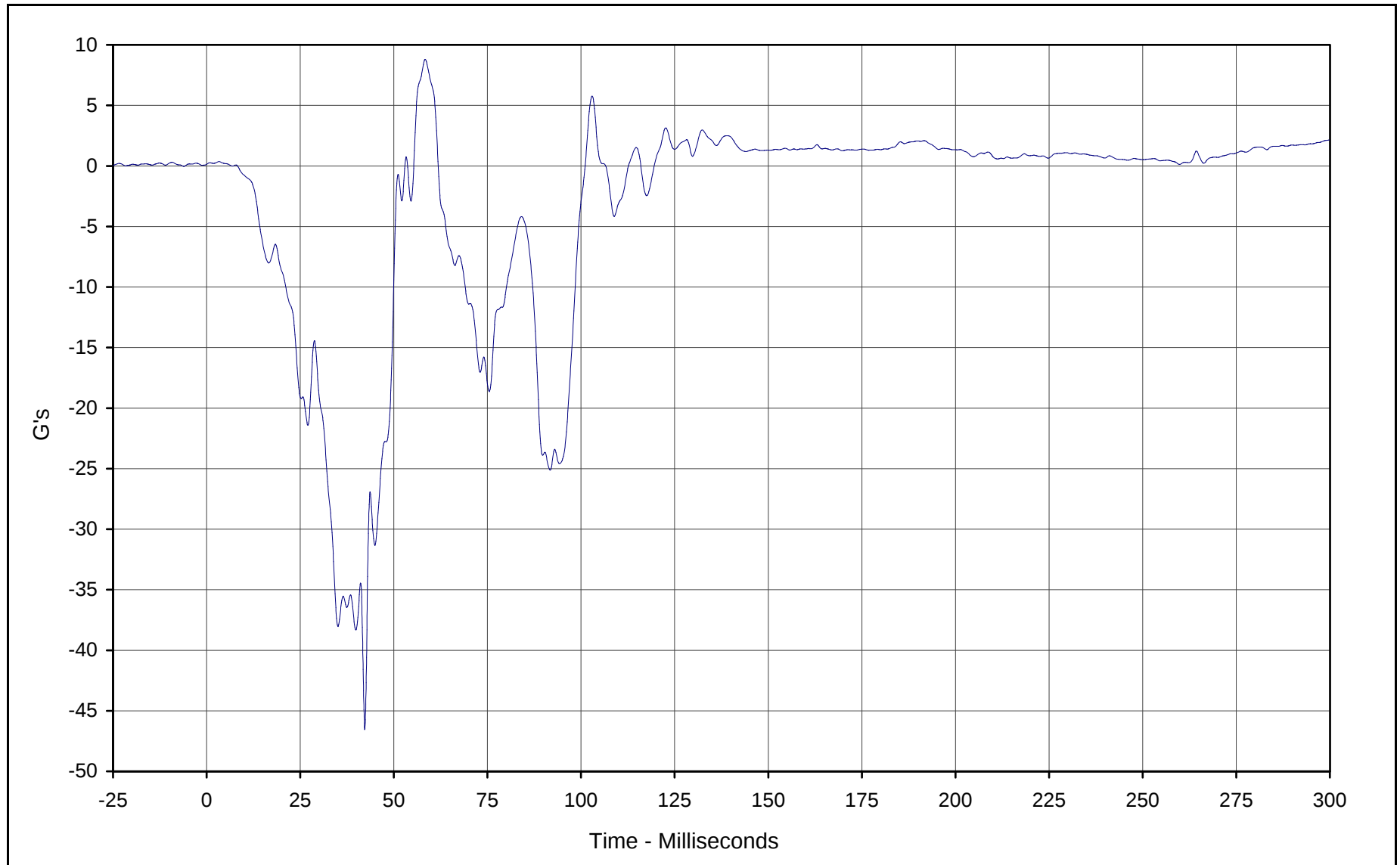
Date of Test: 01/18/01

Curve Number: FIL-035

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





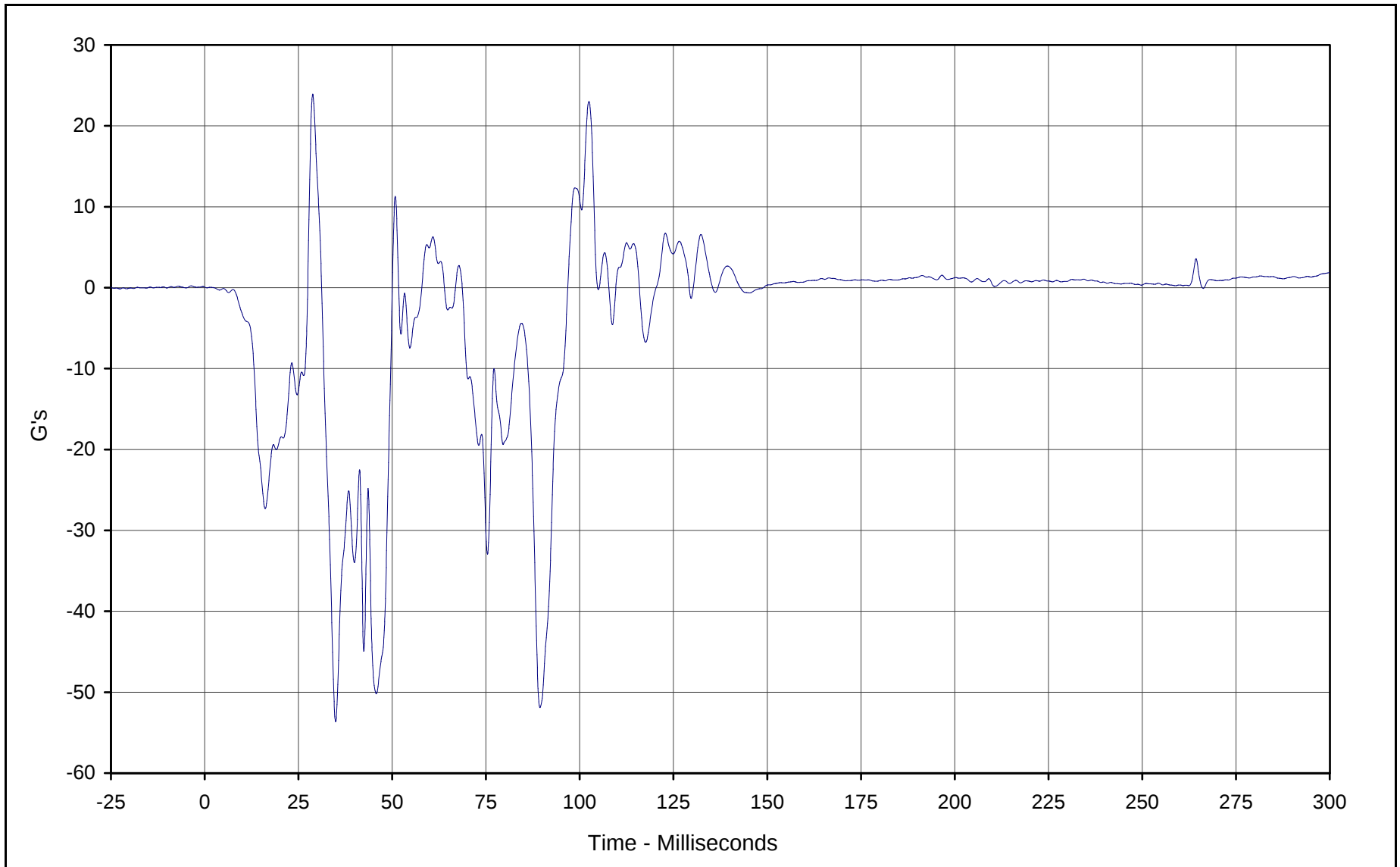
Curve Description: Driver Left Foot Aft Z

Maximum Value:	8.8	at	58.4	Milliseconds
Minimum Value:	-46.6	at	42.2	Milliseconds
SAE Filter Class:	180			
Date of Test:	01/18/01			
Curve Number:	FIL-036			

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





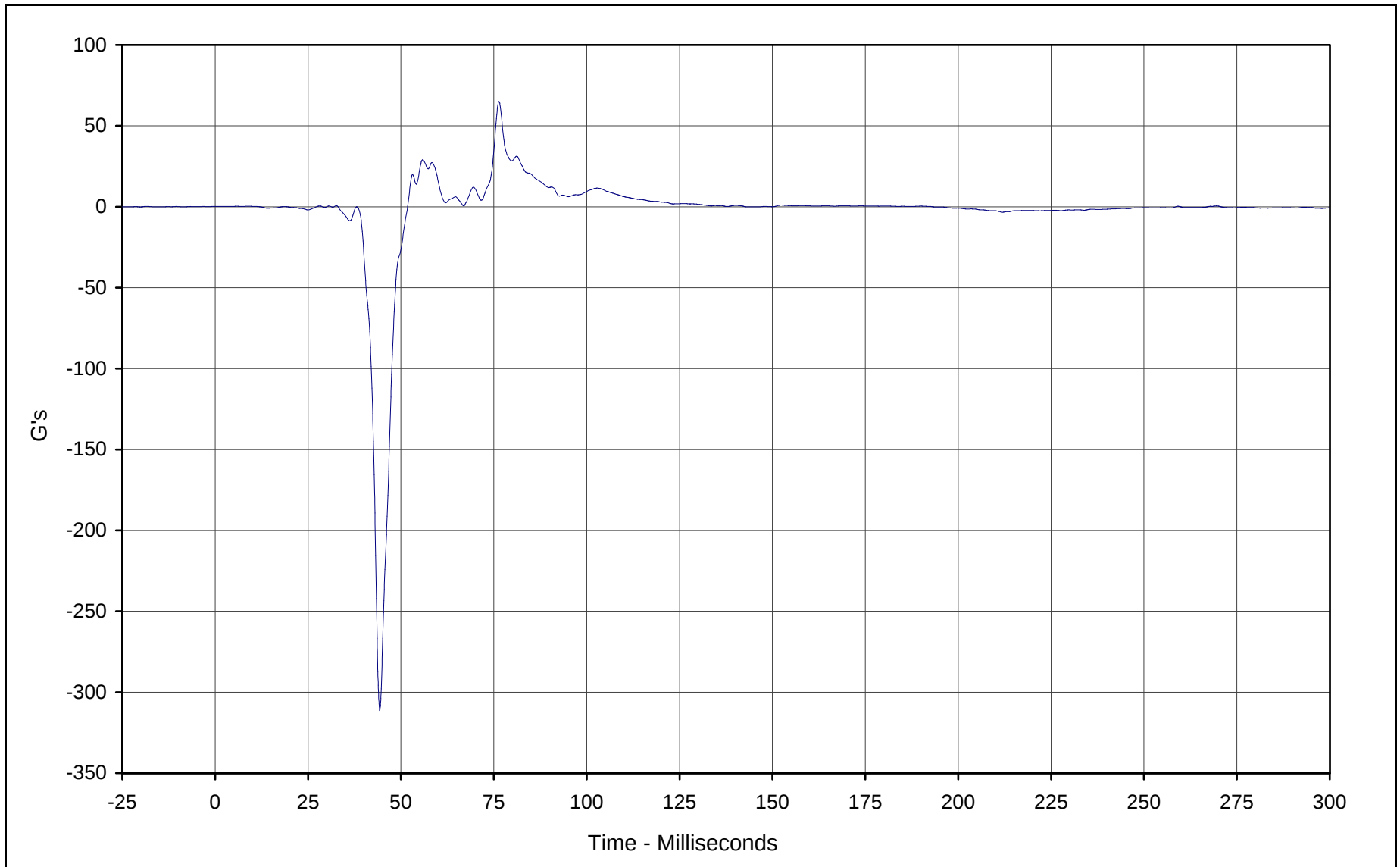
Curve Description: Driver Left Foot Fore Z

Maximum Value:	<u>23.9</u>	at	<u>28.8</u>	Milliseconds
Minimum Value:	<u>-53.7</u>	at	<u>34.9</u>	Milliseconds
SAE Filter Class:	<u>180</u>			
Date of Test:	<u>01/18/01</u>			
Curve Number:	<u>FIL-037</u>			

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





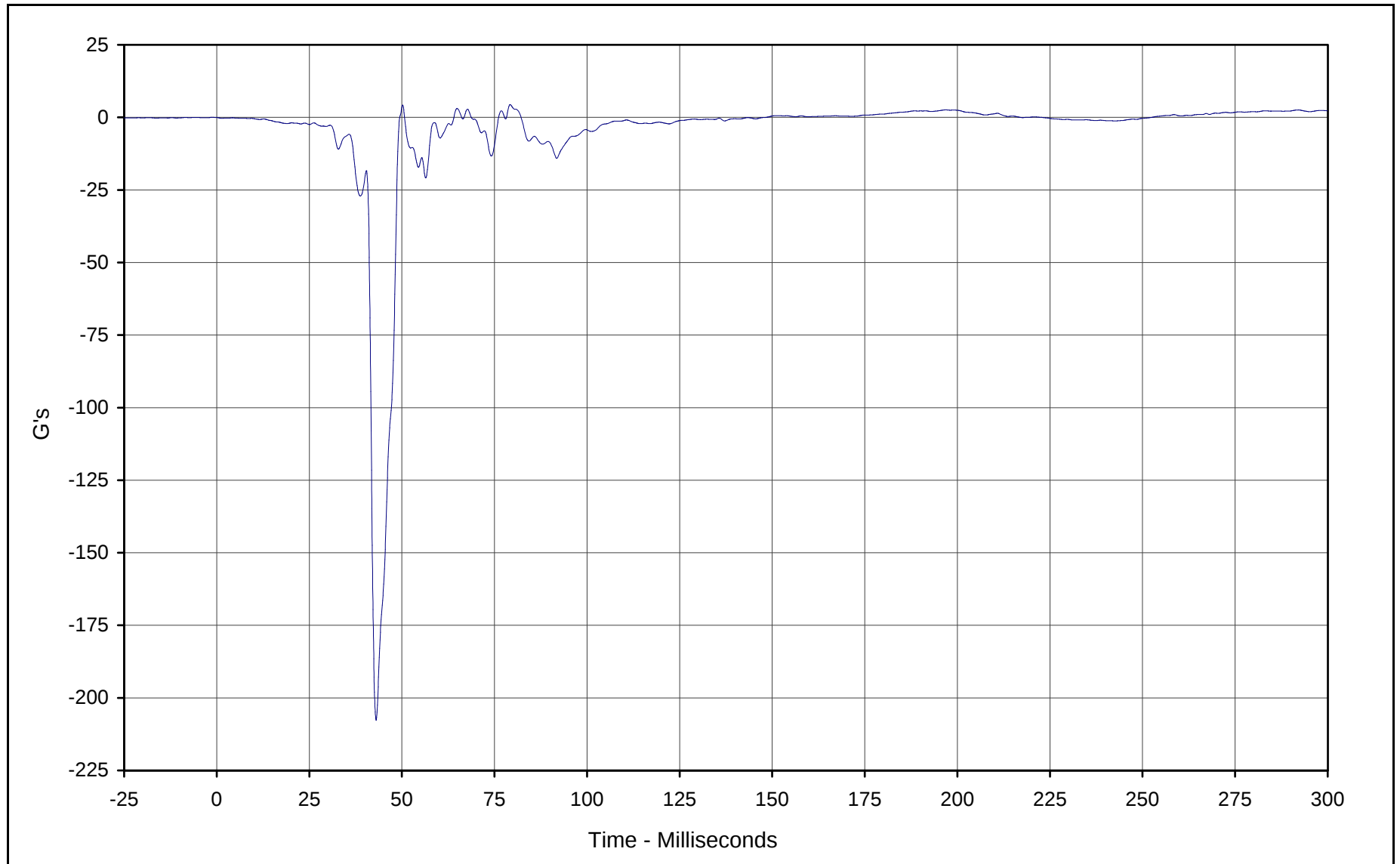
Curve Description: Driver Right Foot Aft X

Maximum Value:	65.1	at	76.4	Milliseconds
Minimum Value:	-311.4	at	44.3	Milliseconds
SAE Filter Class:	180			
Date of Test:	01/18/01			
Curve Number:	FIL-038			

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





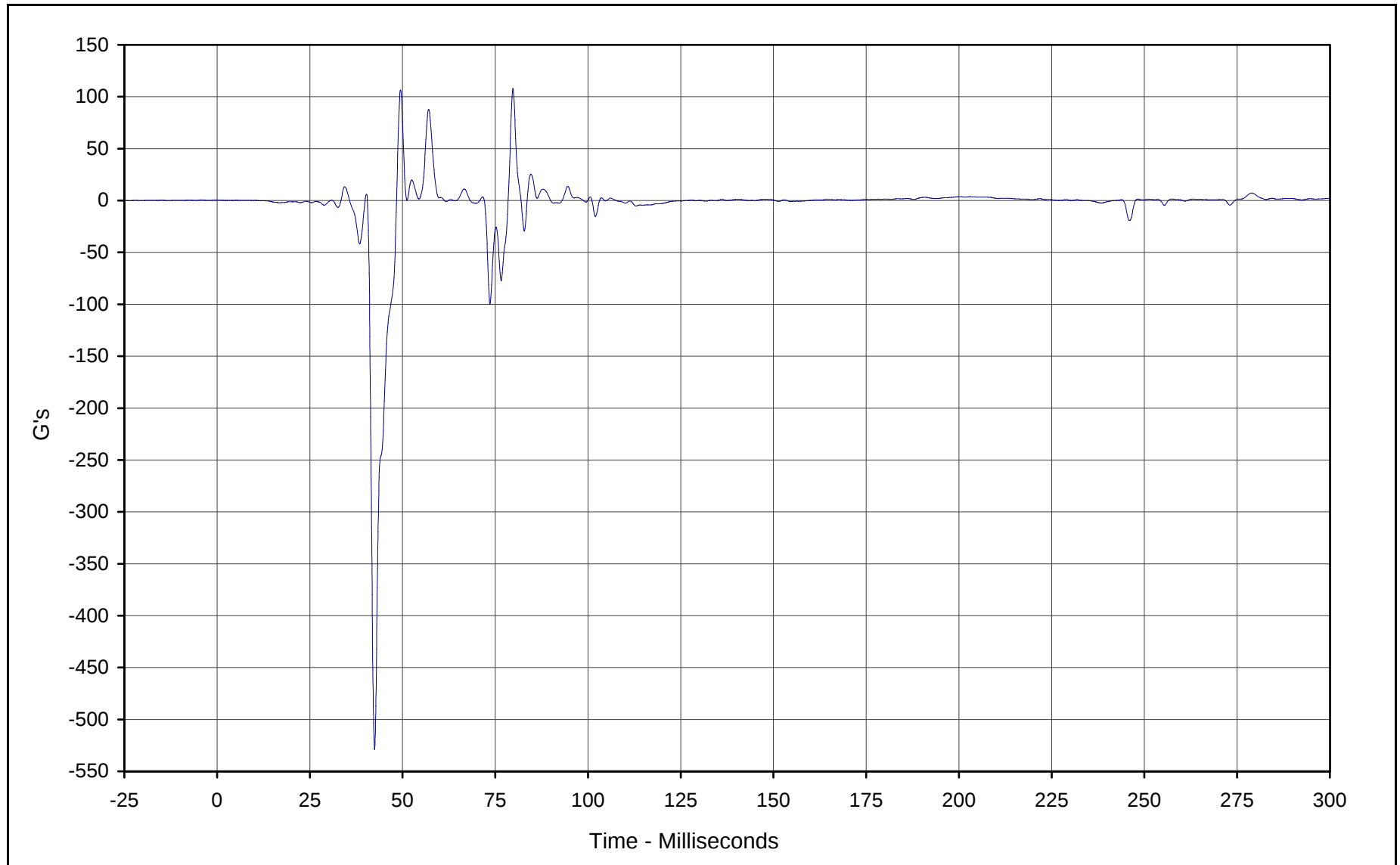
Curve Description: Driver Right Foot Aft Z

Maximum Value:	4.4	at	79.2	Milliseconds
Minimum Value:	-207.7	at	43.0	Milliseconds
SAE Filter Class:	180			
Date of Test:	01/18/01			
Curve Number:	FIL-039			

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





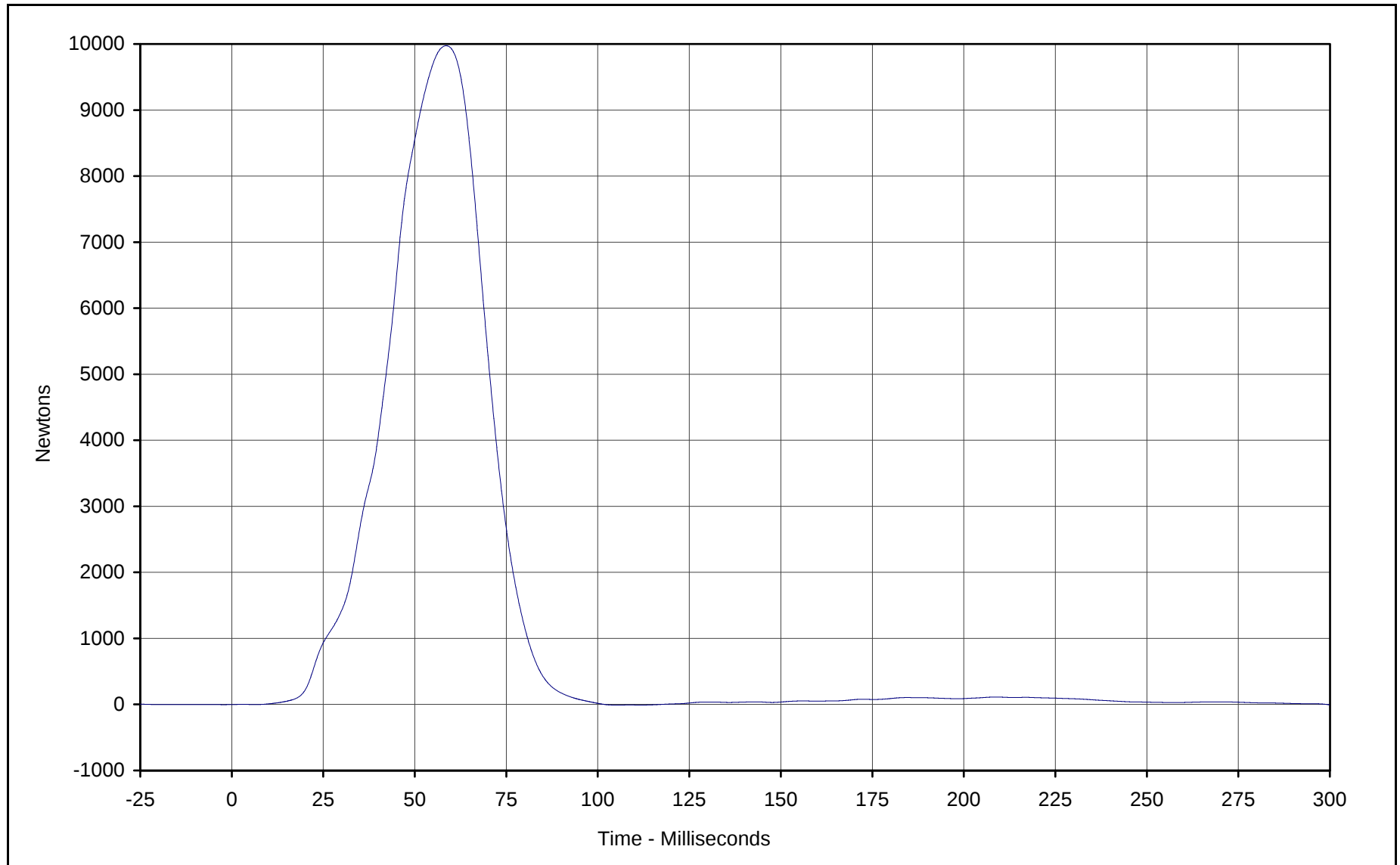
Curve Description: Driver Right Foot Fore Z

Maximum Value:	108.0	at	79.8	Milliseconds
Minimum Value:	-529.1	at	42.5	Milliseconds
SAE Filter Class:	180			
Date of Test:	01/18/01			
Curve Number:	FIL-040			

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



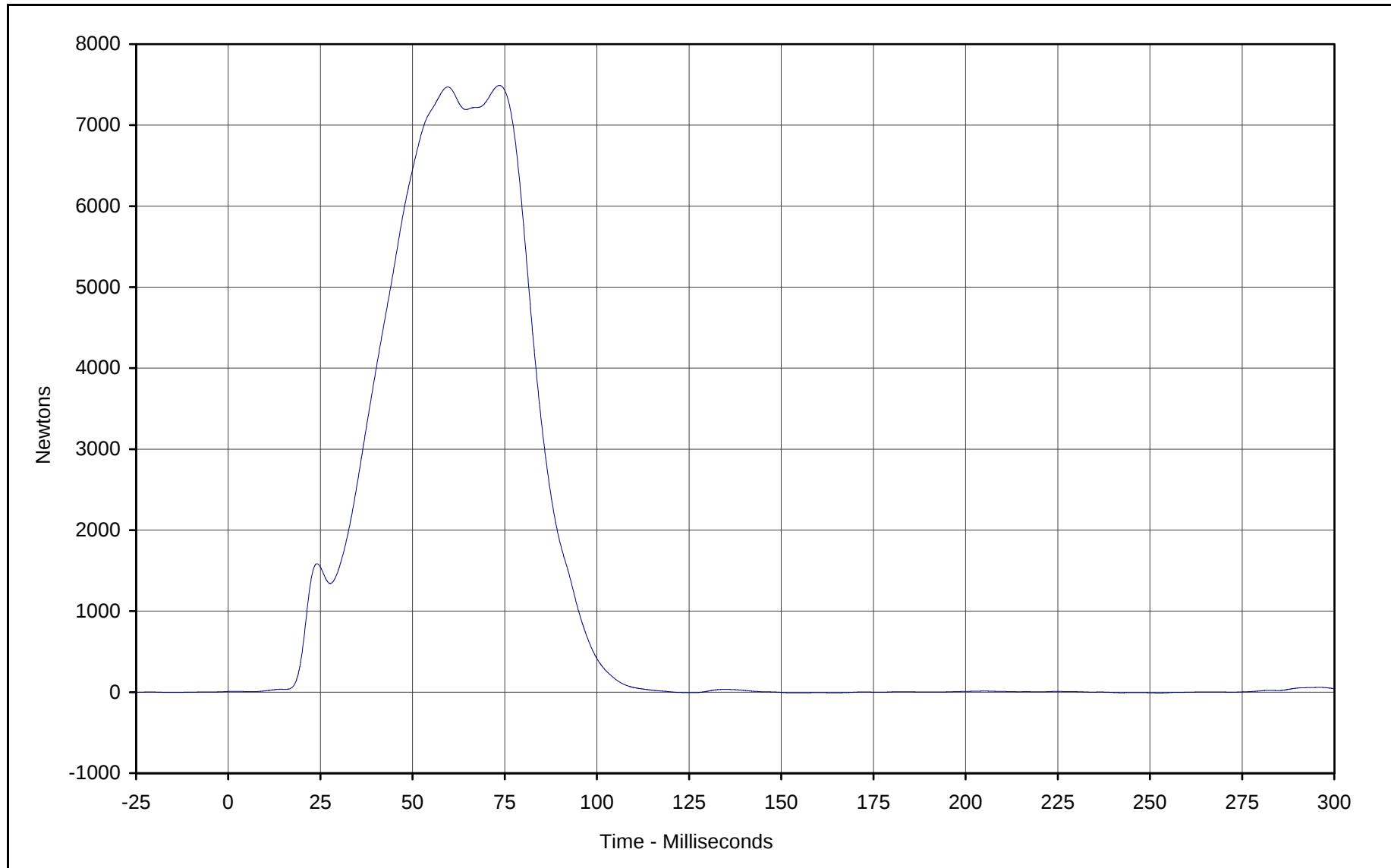


Curve Description: Driver Lap Belt Force
Maximum Value: 9974.3 at 58.6 Milliseconds
Minimum Value: -11.4 at 105.5 Milliseconds
SAE Filter Class: 60
Date of Test: 01/18/01
Curve Number: FIL-041

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



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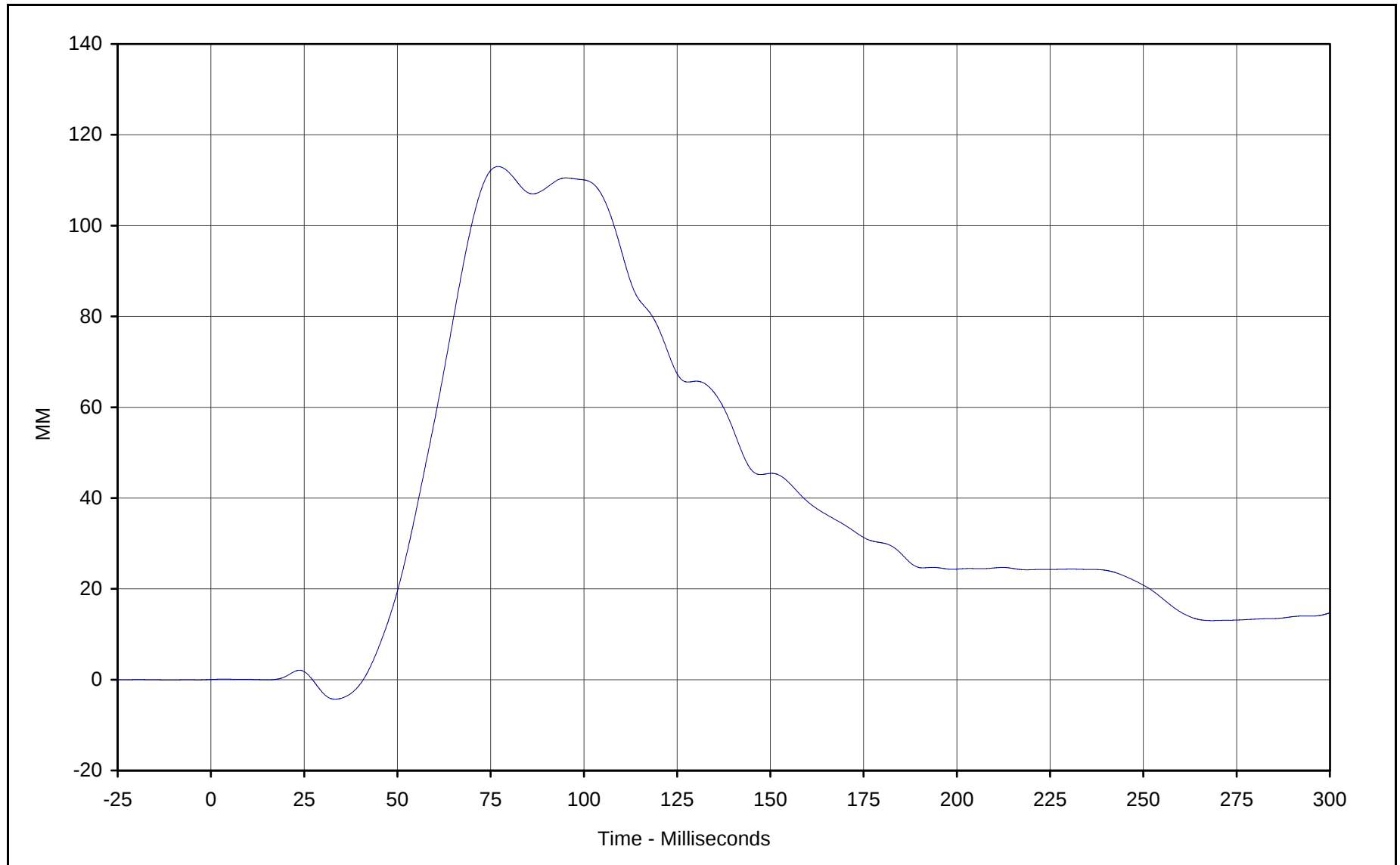
Curve Description: Driver Shoulder Belt Force
Maximum Value: 7490.0 at 73.6 Milliseconds
Minimum Value: -10.0 at 252.5 Milliseconds
SAE Filter Class: 60
Date of Test: 01/18/01
Curve Number: FIL-042

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



KAR21001-06

B-60

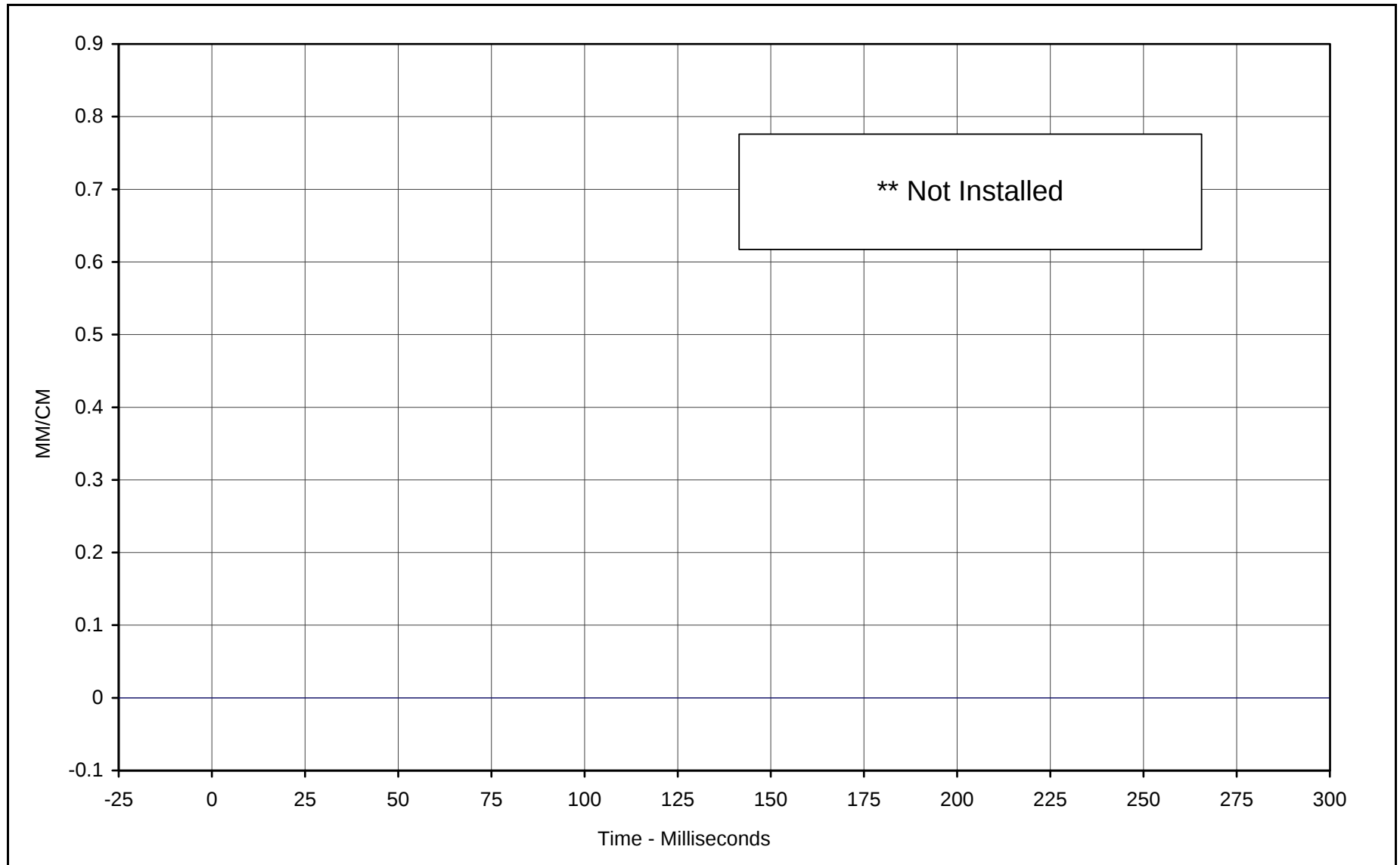


Curve Description: Driver Shoulder Belt Pullout
Maximum Value: 113.0 at 77.0 Milliseconds
Minimum Value: -4.3 at 33.3 Milliseconds
SAE Filter Class: 60
Date of Test: 01/18/01
Curve Number: FIL-043

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



KAR21001-06



Curve Description: Driver Shoulder Belt Elongation **

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Maximum Value: 0.0 at 0.0 Milliseconds

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

Minimum Value: 0.0 at 0.0 Milliseconds

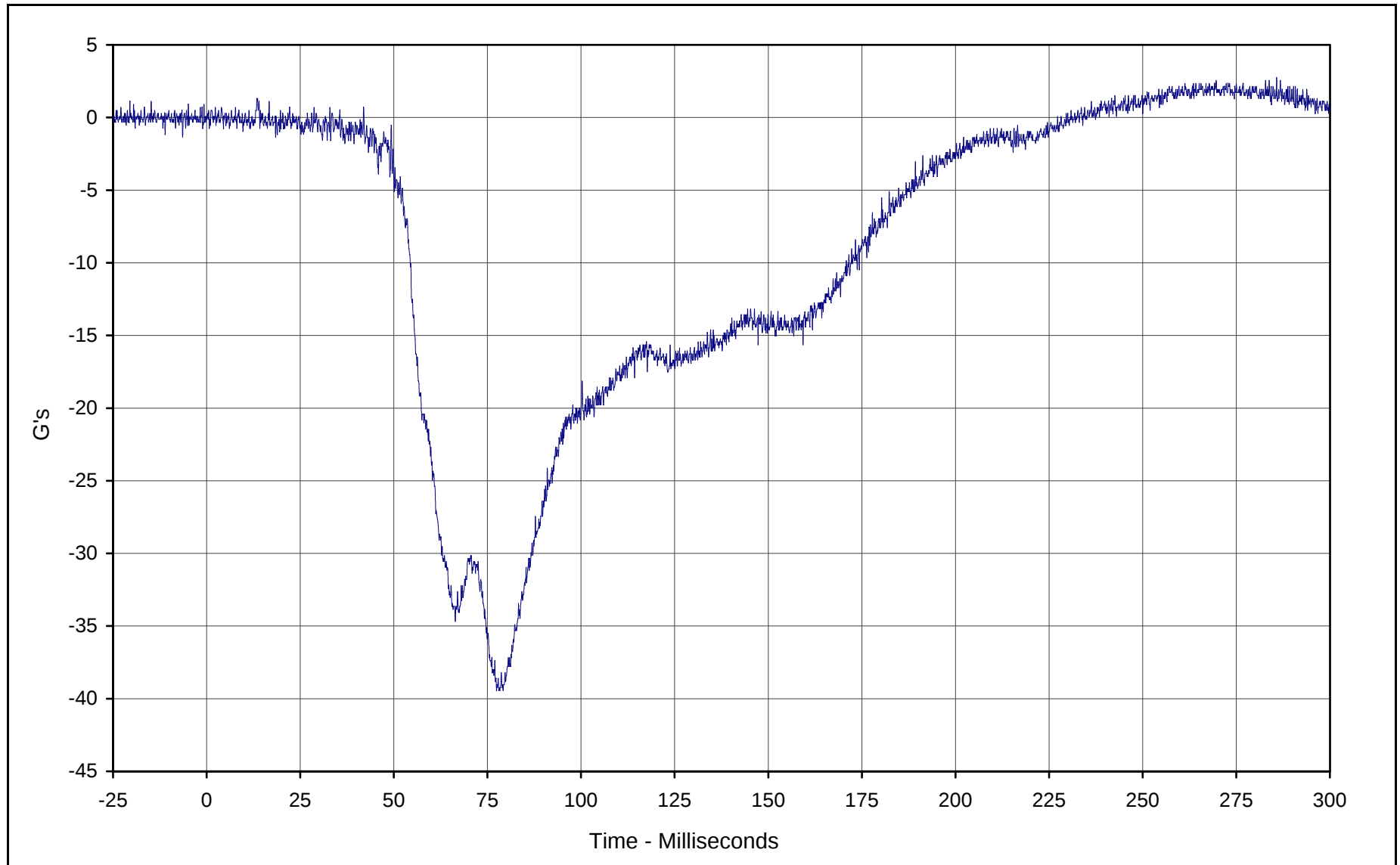
SAE Filter Class: 60

Date of Test: 01/18/01

Curve Number: FIL-044

** Not installed

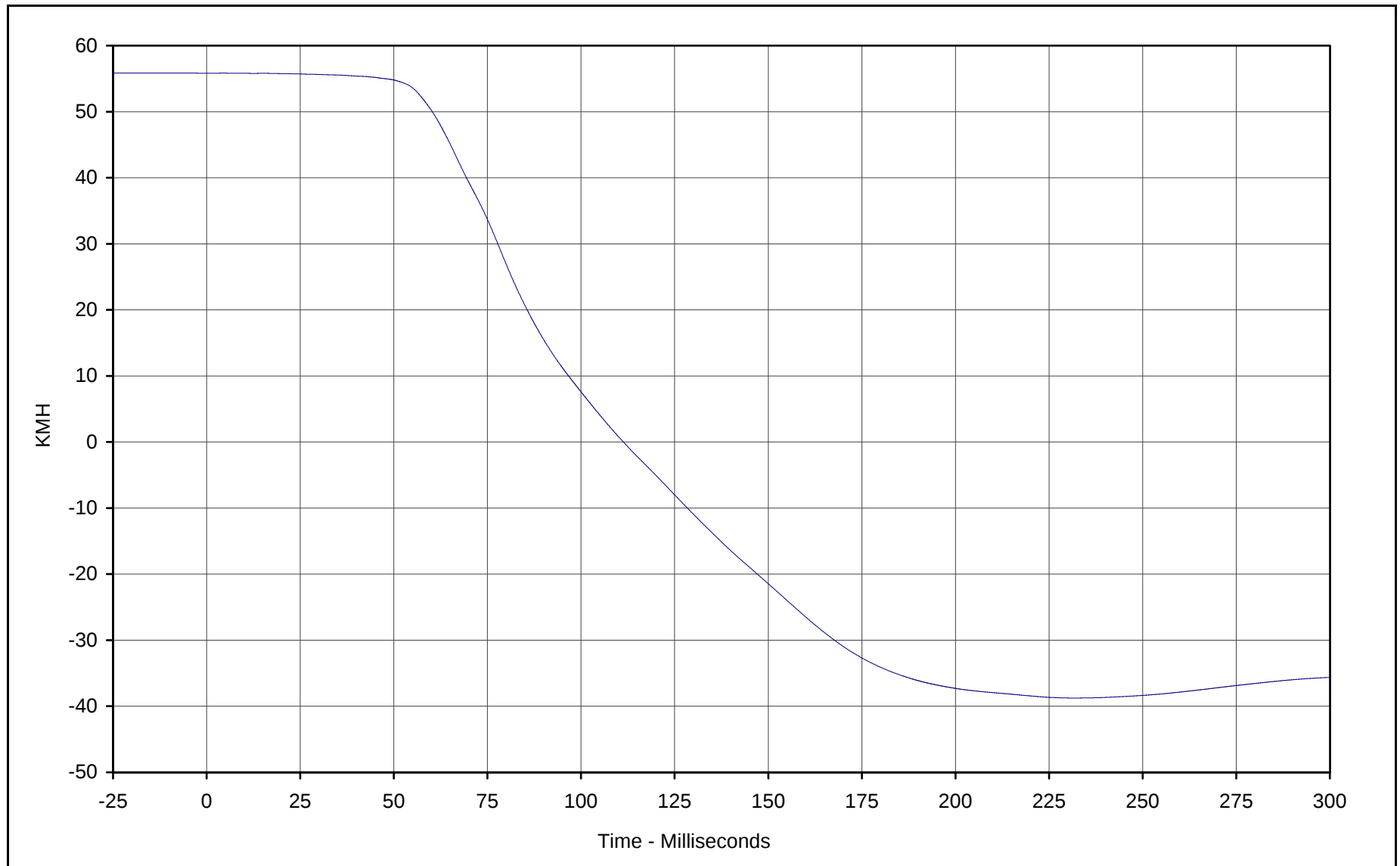




Curve Description: Passenger Head Primary X
Maximum Value: 2.8 at 285.8 Milliseconds
Minimum Value: -39.4 at 77.4 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-045

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

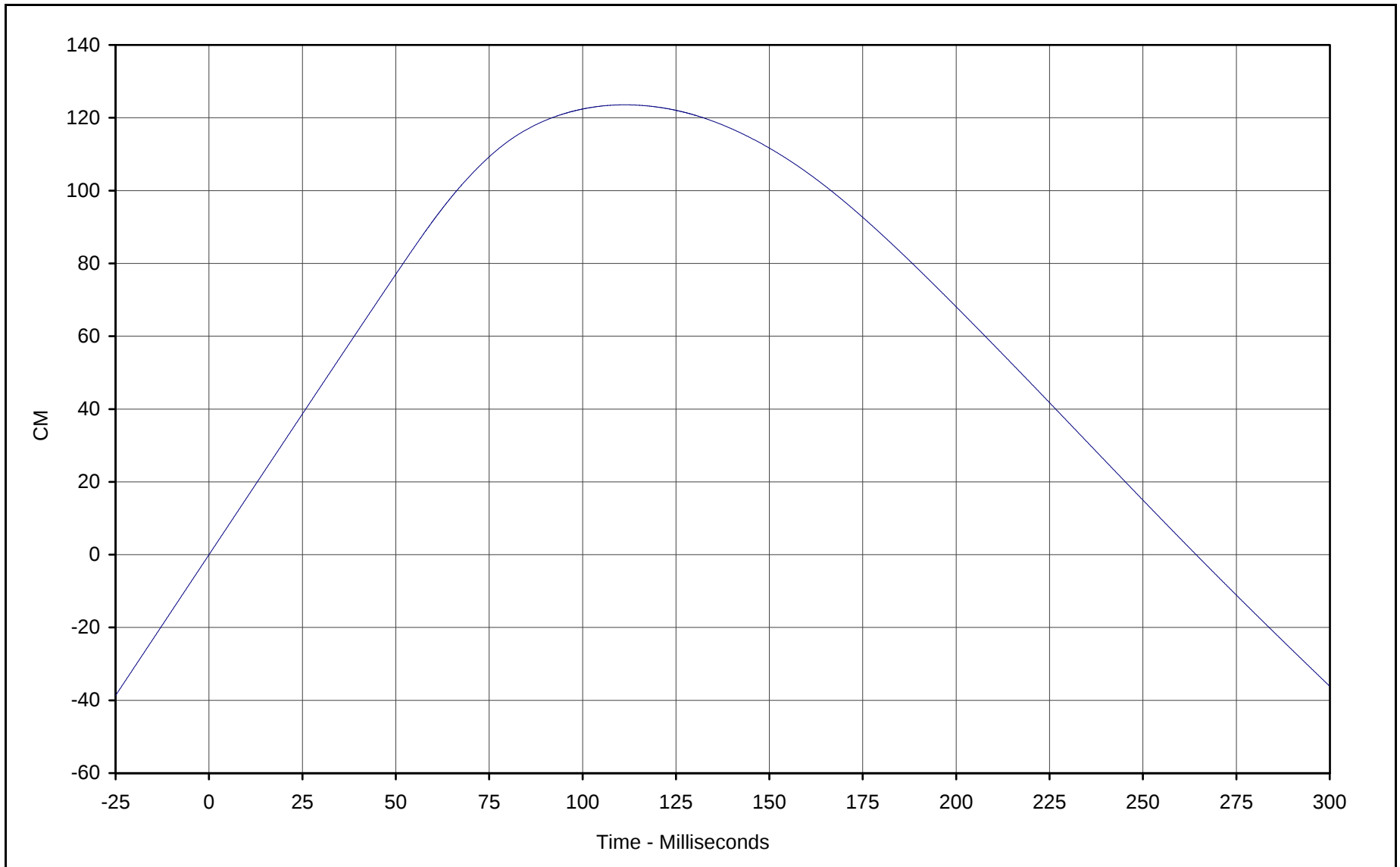




Curve Description: Passenger Head Primary X Velocity
Maximum Value: 55.8 at 4.5 Milliseconds
Minimum Value: -38.8 at 232.1 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN1-045

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

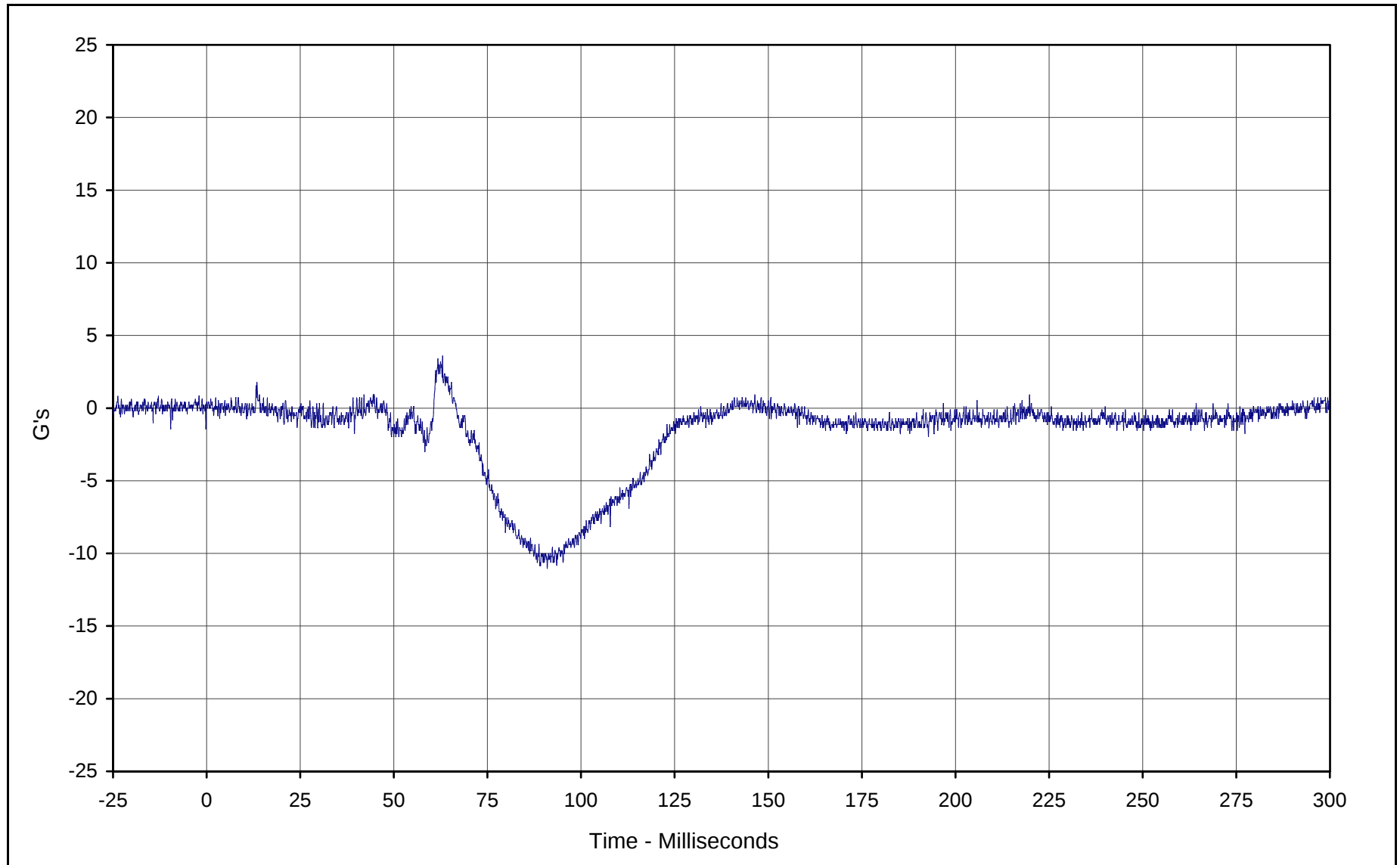




Curve Description: Passenger Head Primary X Displ.
Maximum Value: 123.6 at 111.3 Milliseconds
Minimum Value: -36.0 at 299.9 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN2-045

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

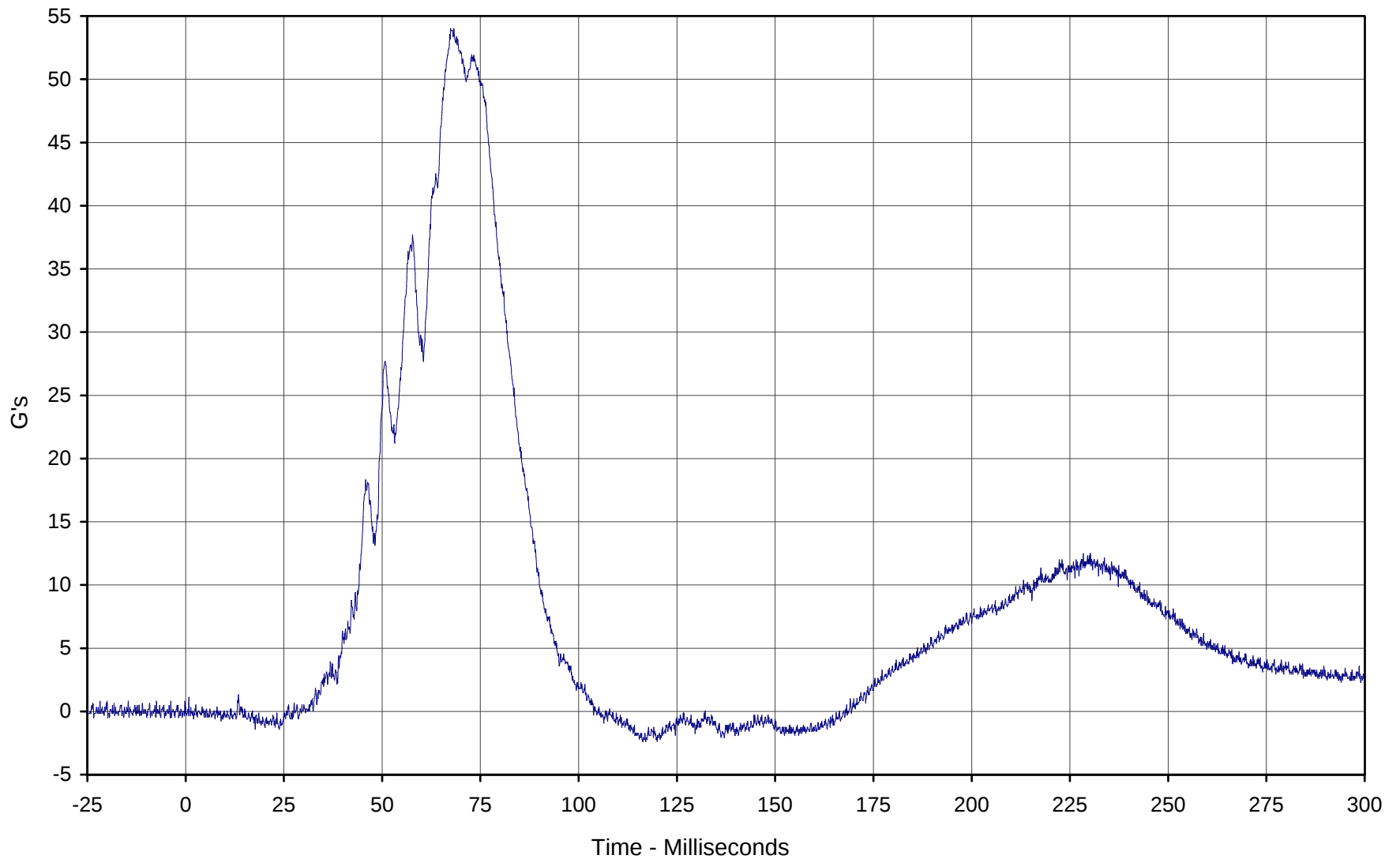




Curve Description: Passenger Head Primary Y
Maximum Value: 3.6 at 63.0 Milliseconds
Minimum Value: -11.0 at 91.0 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-046

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

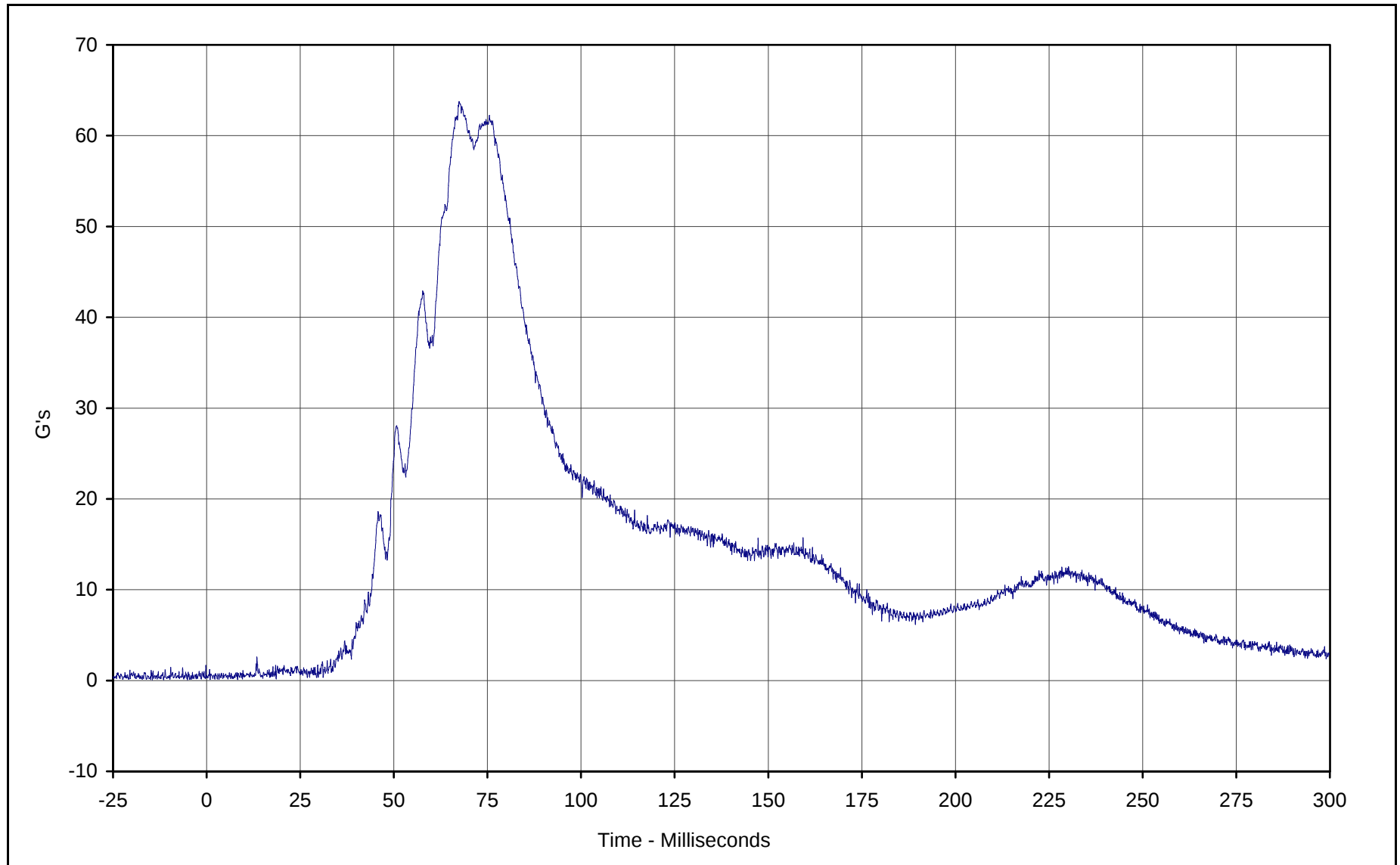




Curve Description: Passenger Head Primary Z
Maximum Value: 54.0 at 67.4 Milliseconds
Minimum Value: -2.4 at 116.3 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-047

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

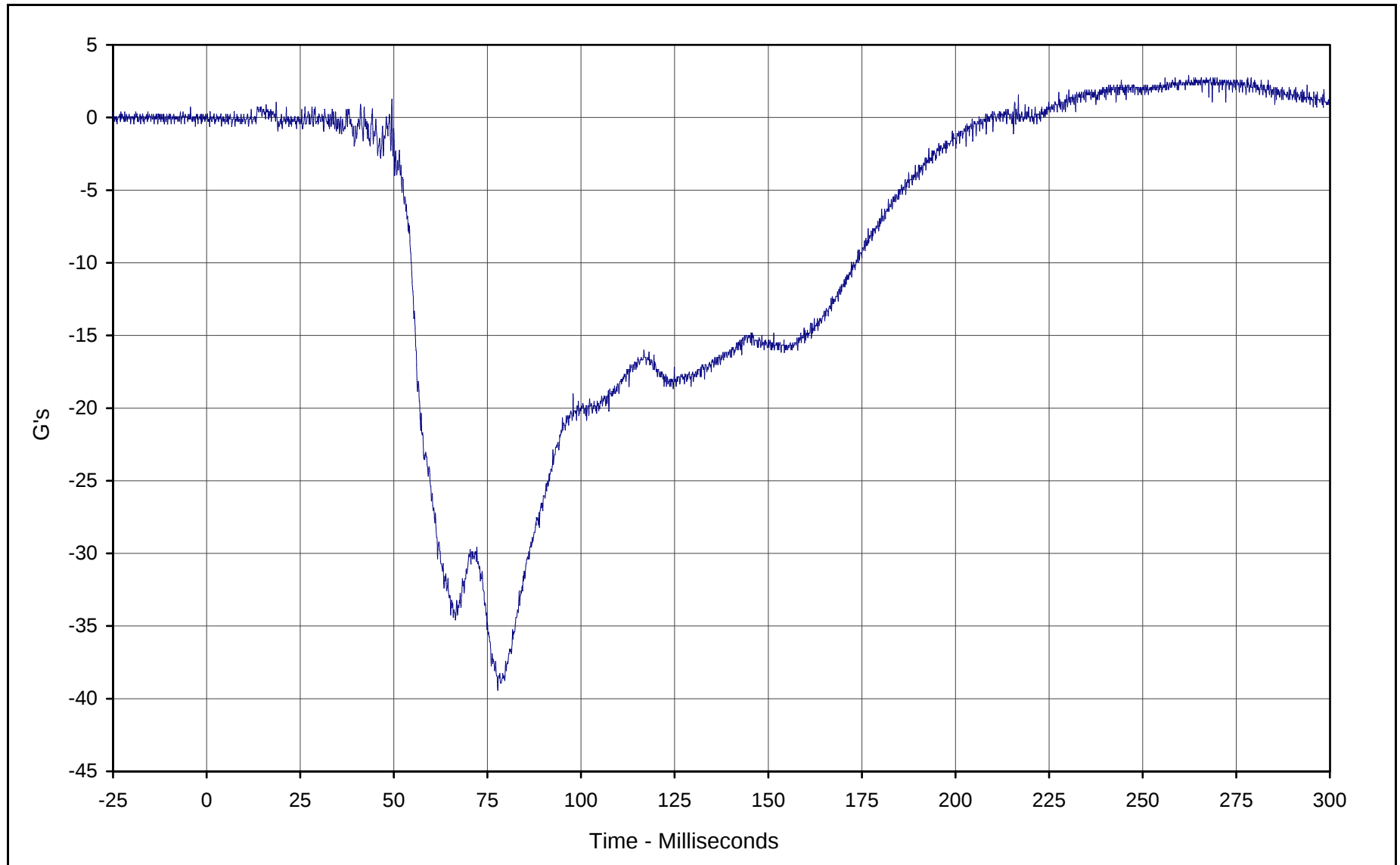




Curve Description: Passenger Head Resultant Primary
Maximum Value: 63.8 at 67.4 Milliseconds
Minimum Value: 0.1 at 0.9 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: RES-045

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

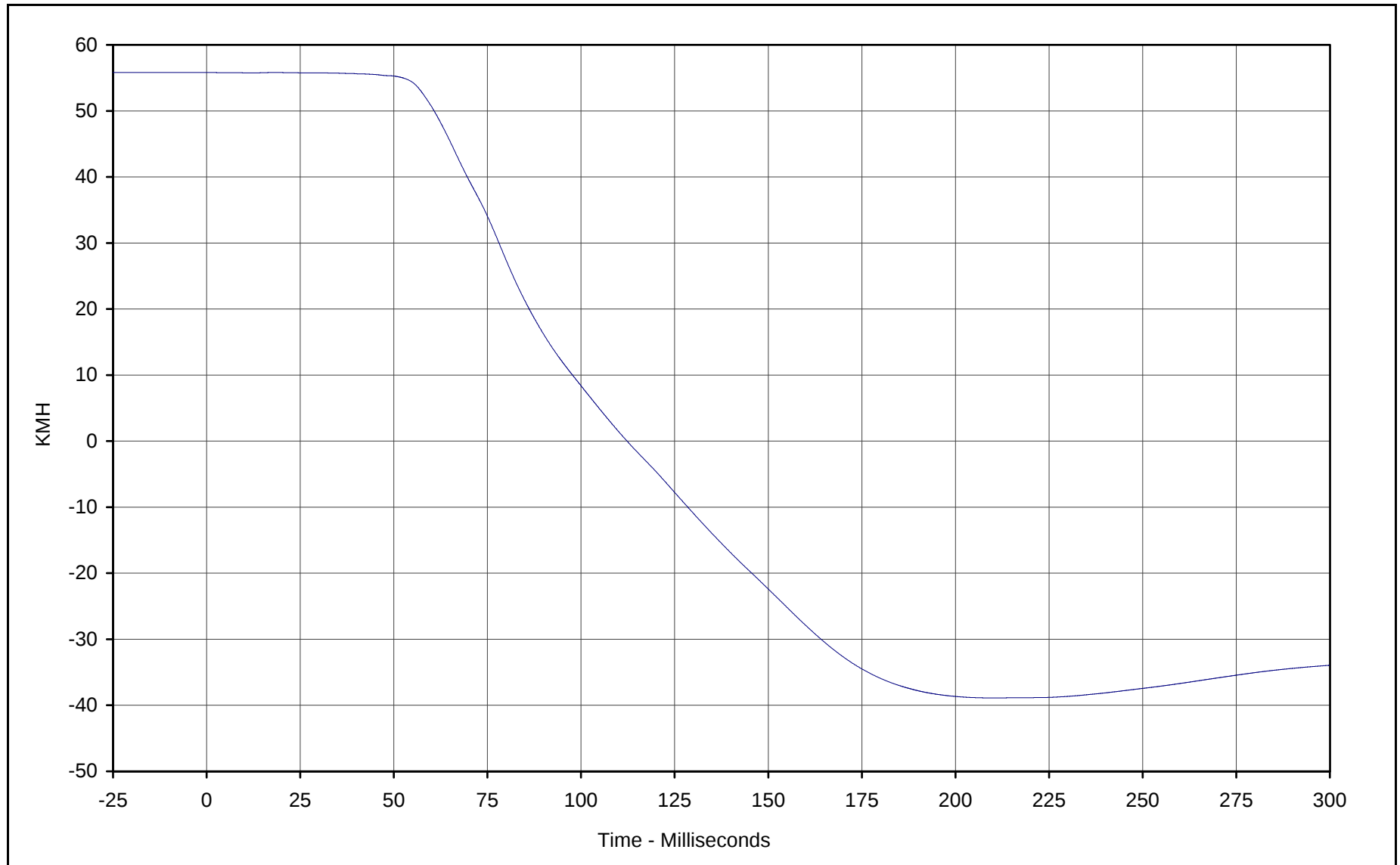




Curve Description: Passenger Head Redundant X
Maximum Value: 2.9 at 262.3 Milliseconds
Minimum Value: -39.4 at 77.8 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-048

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Head Redundant X Velocity

Maximum Value: 55.8 at 18.6 Milliseconds

Minimum Value: -38.9 at 210.2 Milliseconds

SAE Filter Class: 180

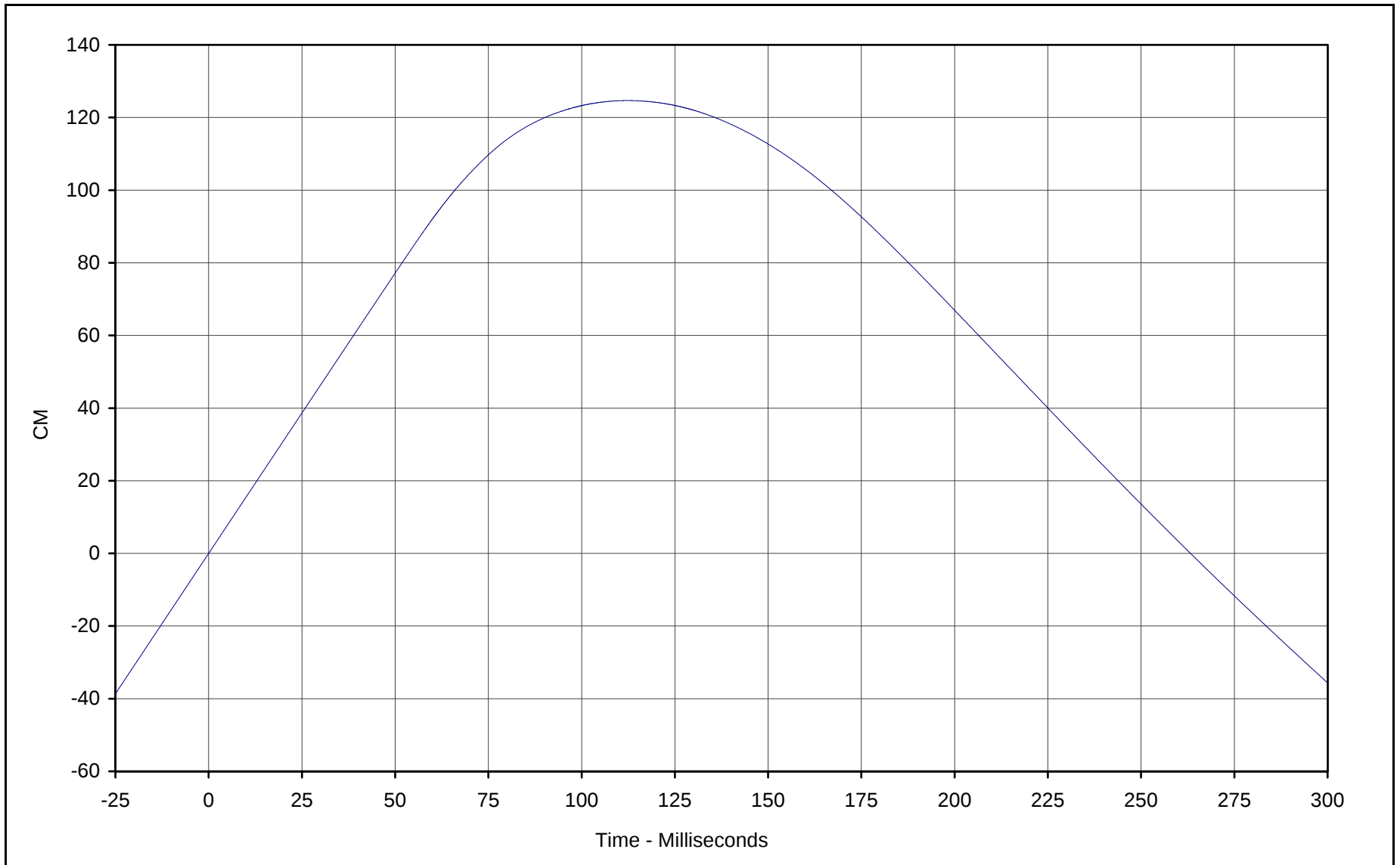
Date of Test: 01/18/01

Curve Number: IN1-048

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Head Redundant X Displ.

Maximum Value: 124.7 at 112.3 Milliseconds

Minimum Value: -35.6 at 299.9 Milliseconds

SAE Filter Class: 180

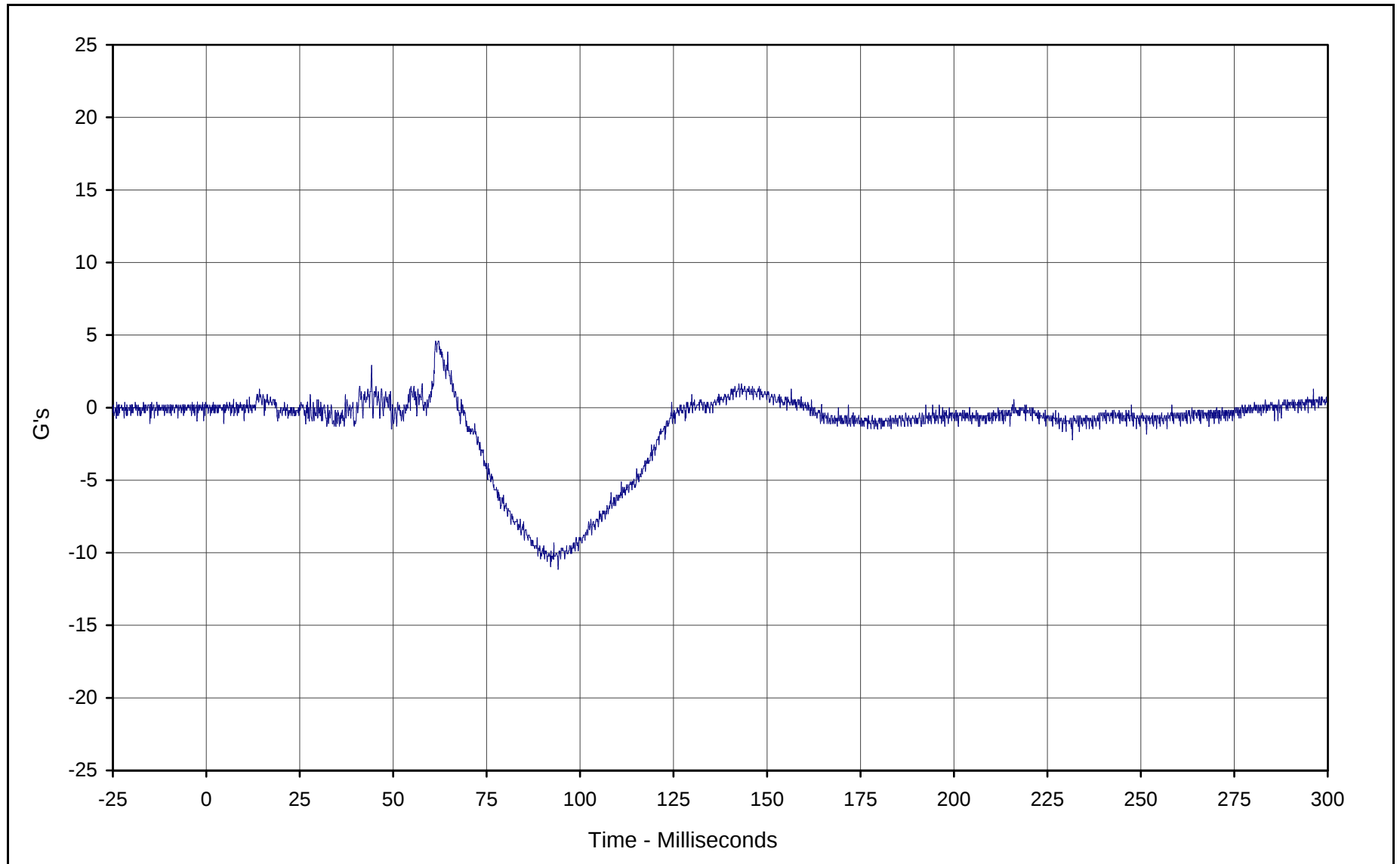
Date of Test: 01/18/01

Curve Number: IN2-048

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

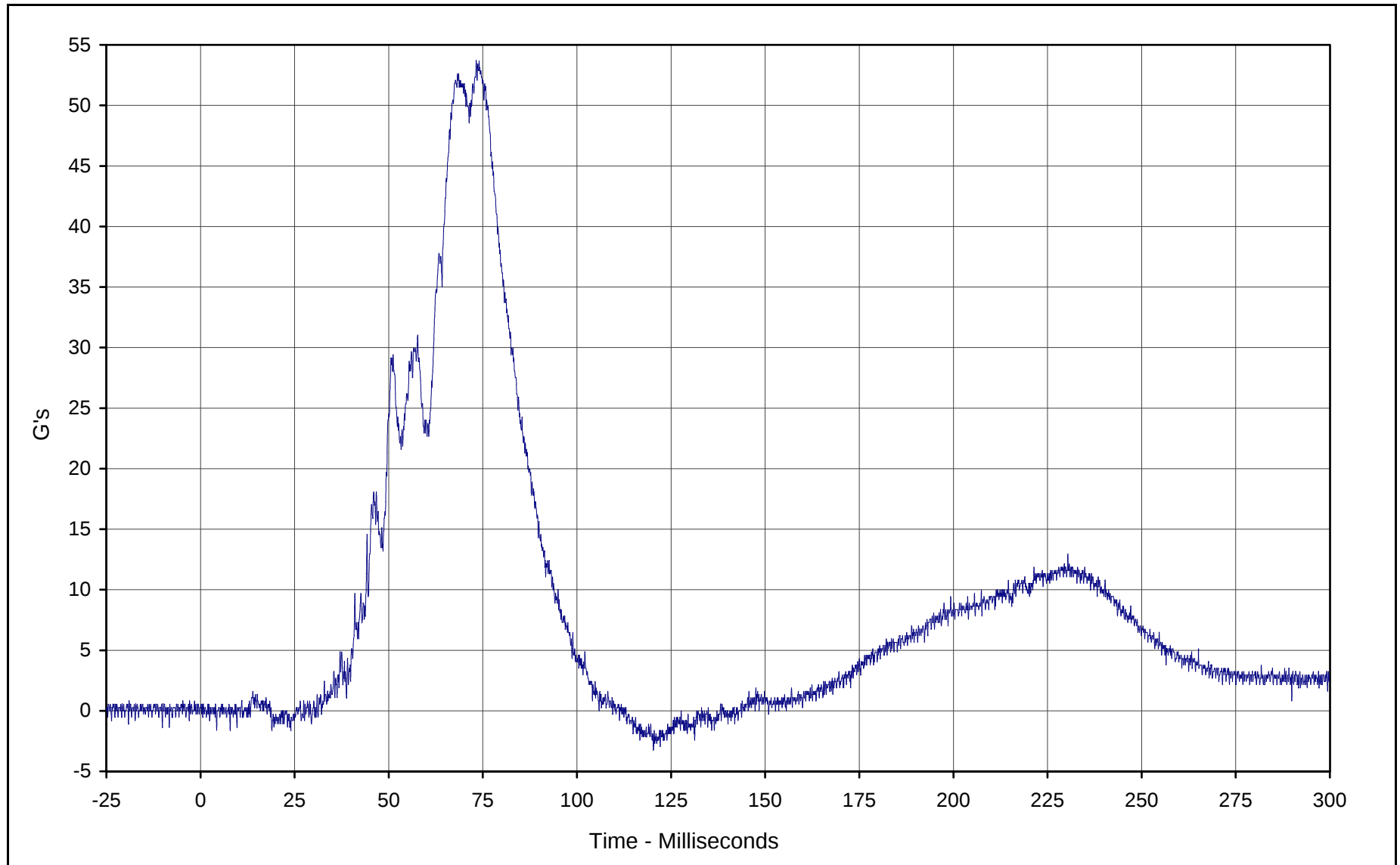




Curve Description: Passenger Head Redundant Y
Maximum Value: 4.6 at 61.3 Milliseconds
Minimum Value: -11.2 at 94.1 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-049

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

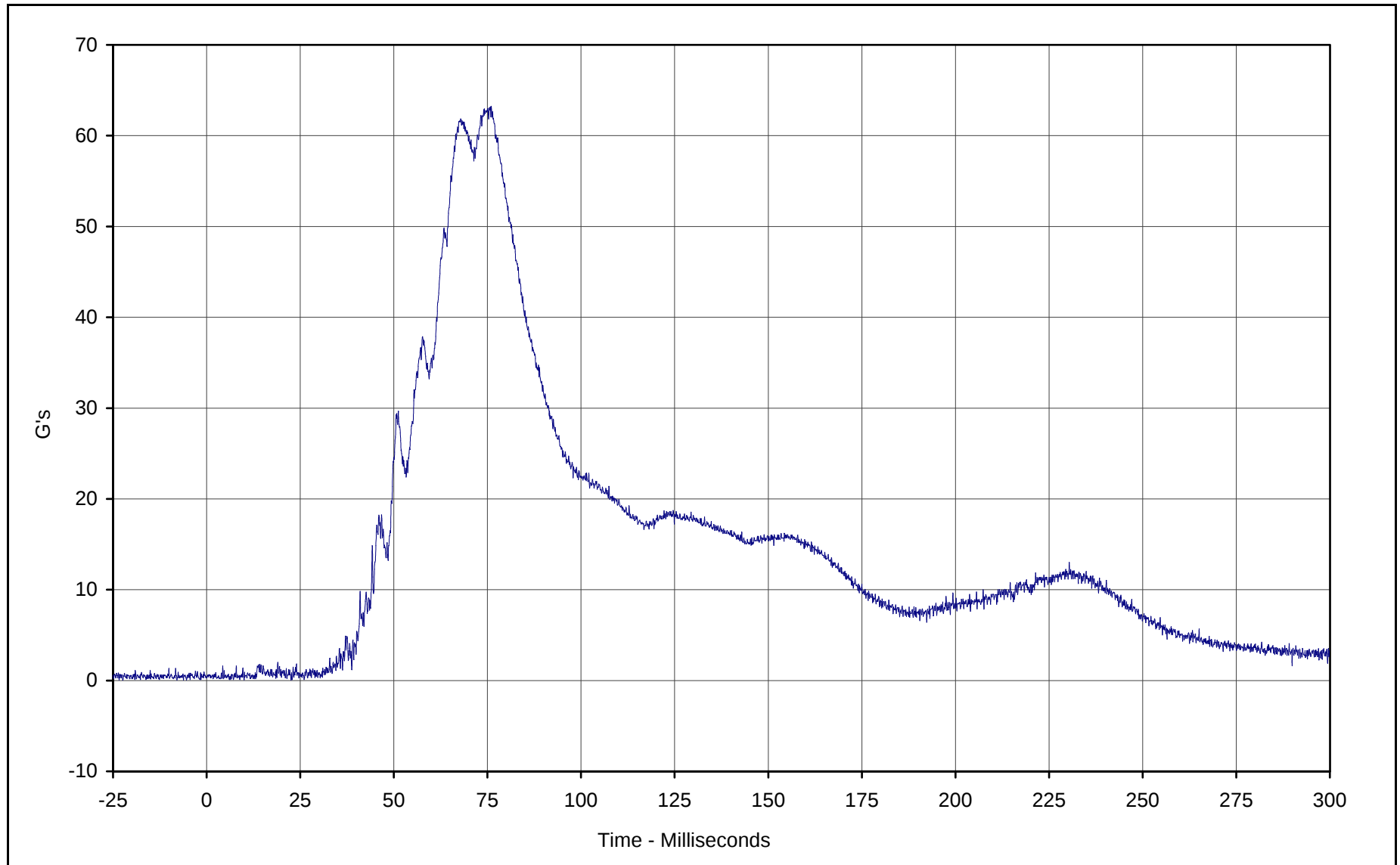




Curve Description: Passenger Head Redundant Z
Maximum Value: 53.7 at 73.2 Milliseconds
Minimum Value: -3.2 at 120.3 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-050

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Head Resultant Redundant

Maximum Value: 63.2 at 76.0 Milliseconds

Minimum Value: 0.1 at 22.5 Milliseconds

SAE Filter Class: 1000

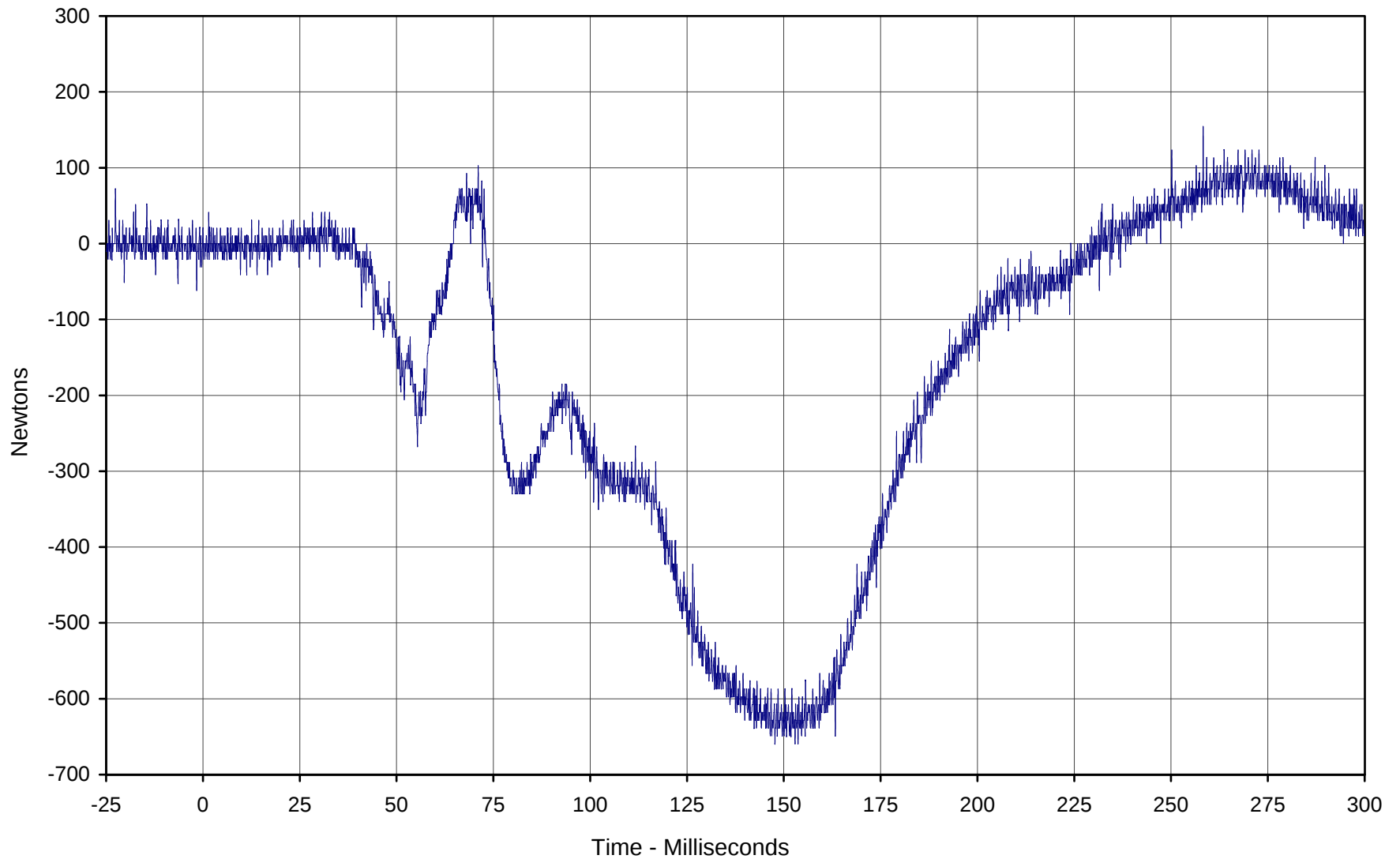
Date of Test: 01/18/01

Curve Number: RES-048

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

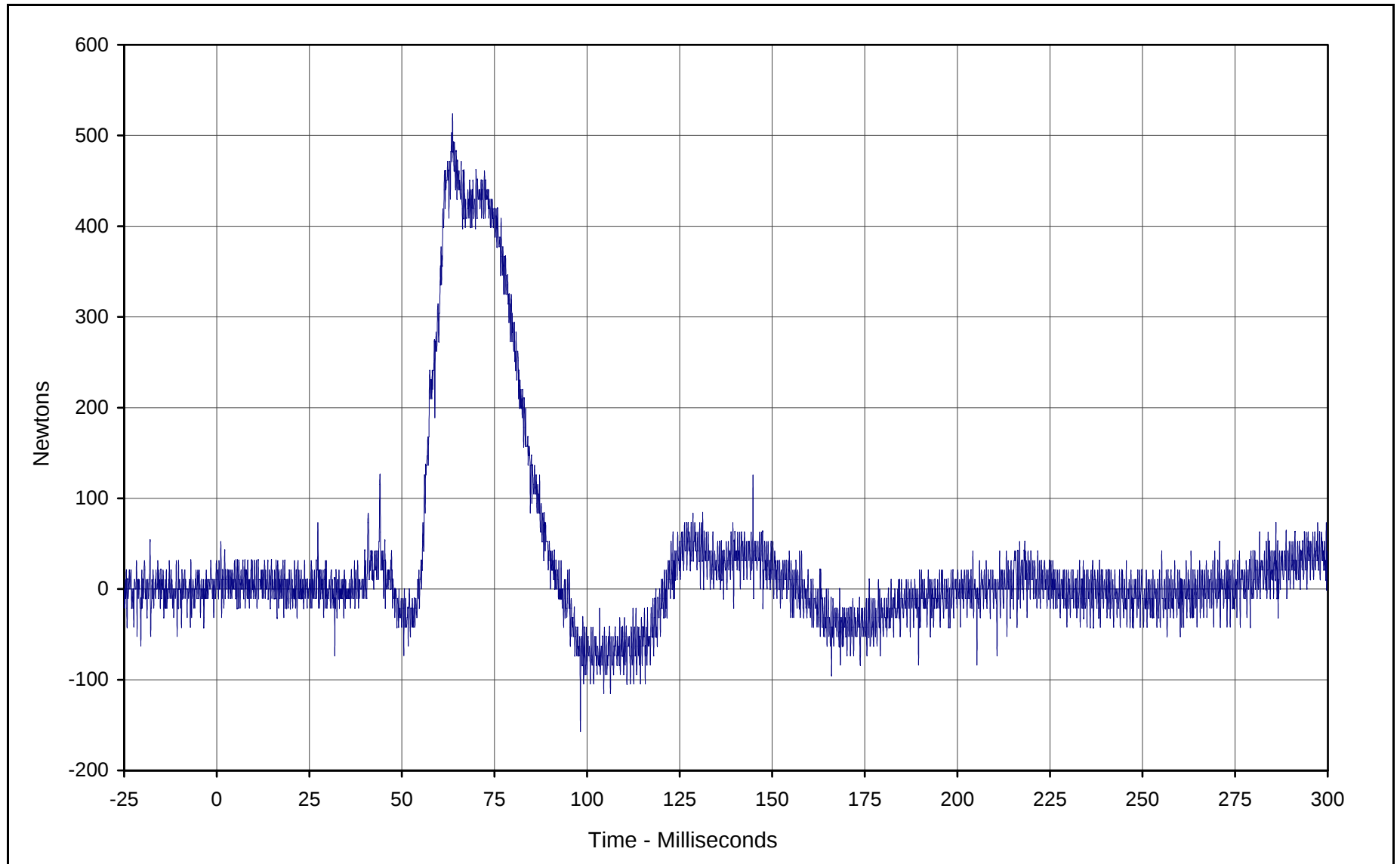




Curve Description: Passenger Neck Force X
Maximum Value: 154.5 at 258.3 Milliseconds
Minimum Value: -659.3 at 147.7 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-051

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

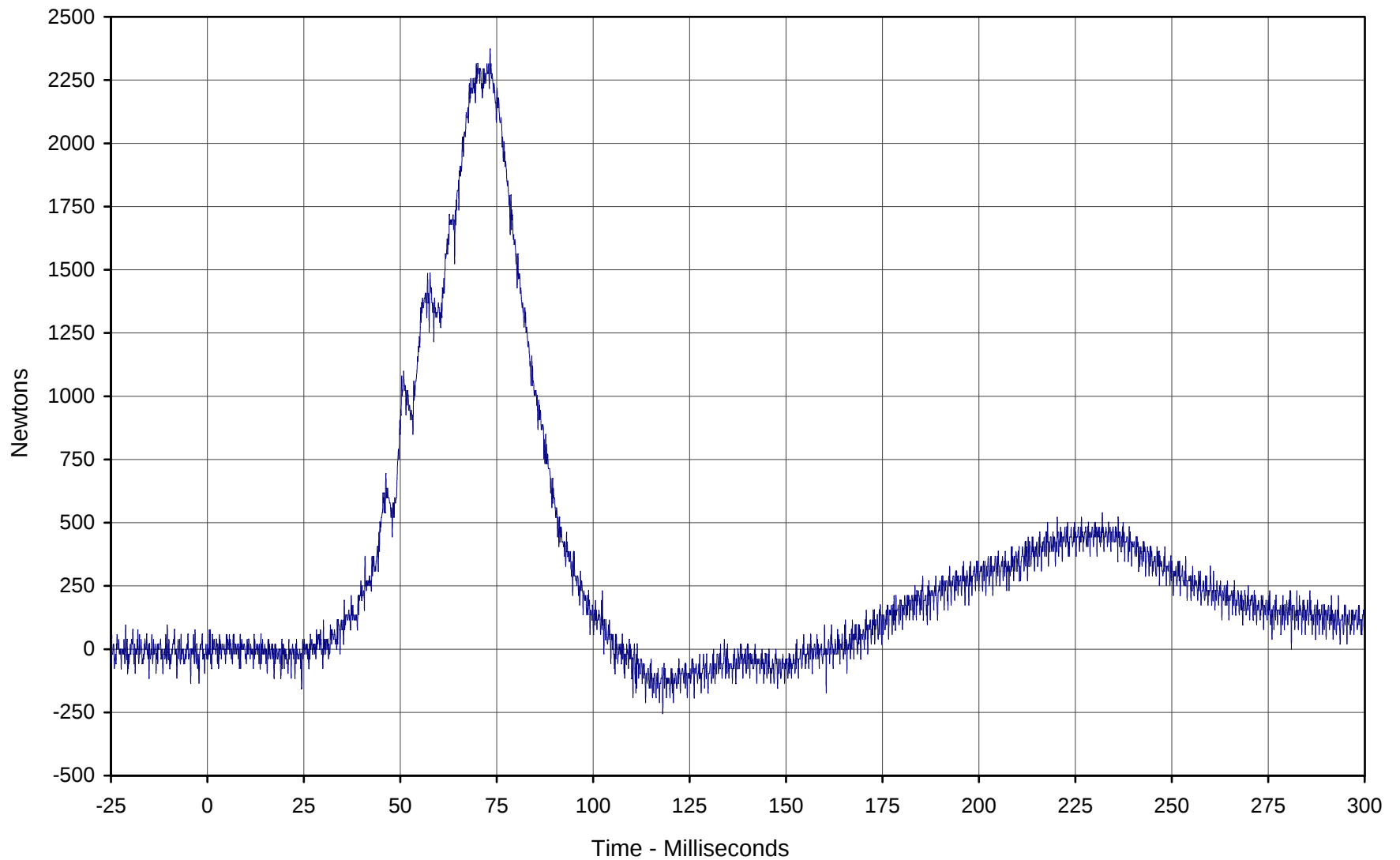




Curve Description: Passenger Neck Force Y
Maximum Value: 524.1 at 63.7 Milliseconds
Minimum Value: -157.2 at 98.2 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-052

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

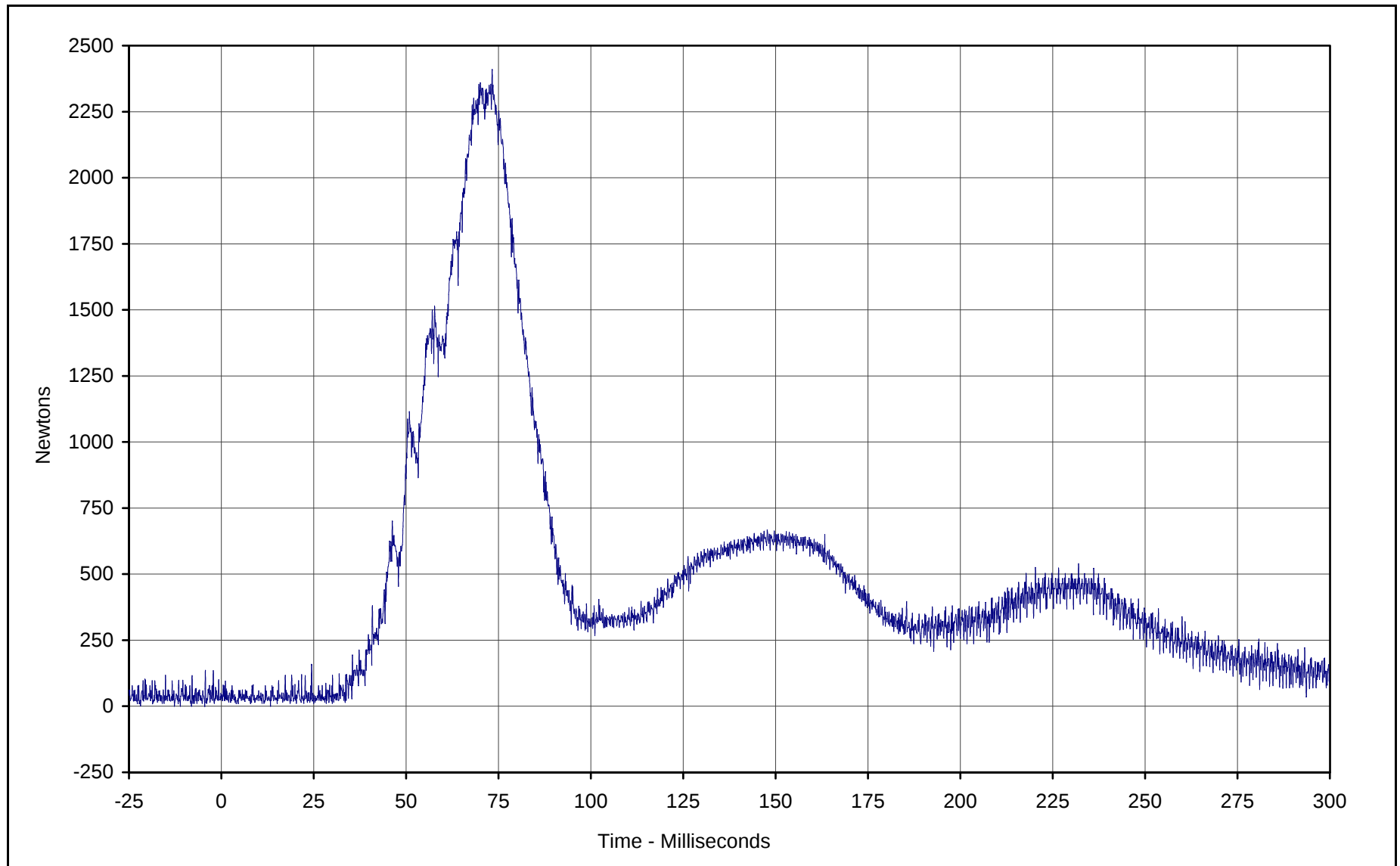




Curve Description: Passenger Neck Force Z
Maximum Value: 2372.3 at 73.3 Milliseconds
Minimum Value: -250.7 at 118.0 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-053

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

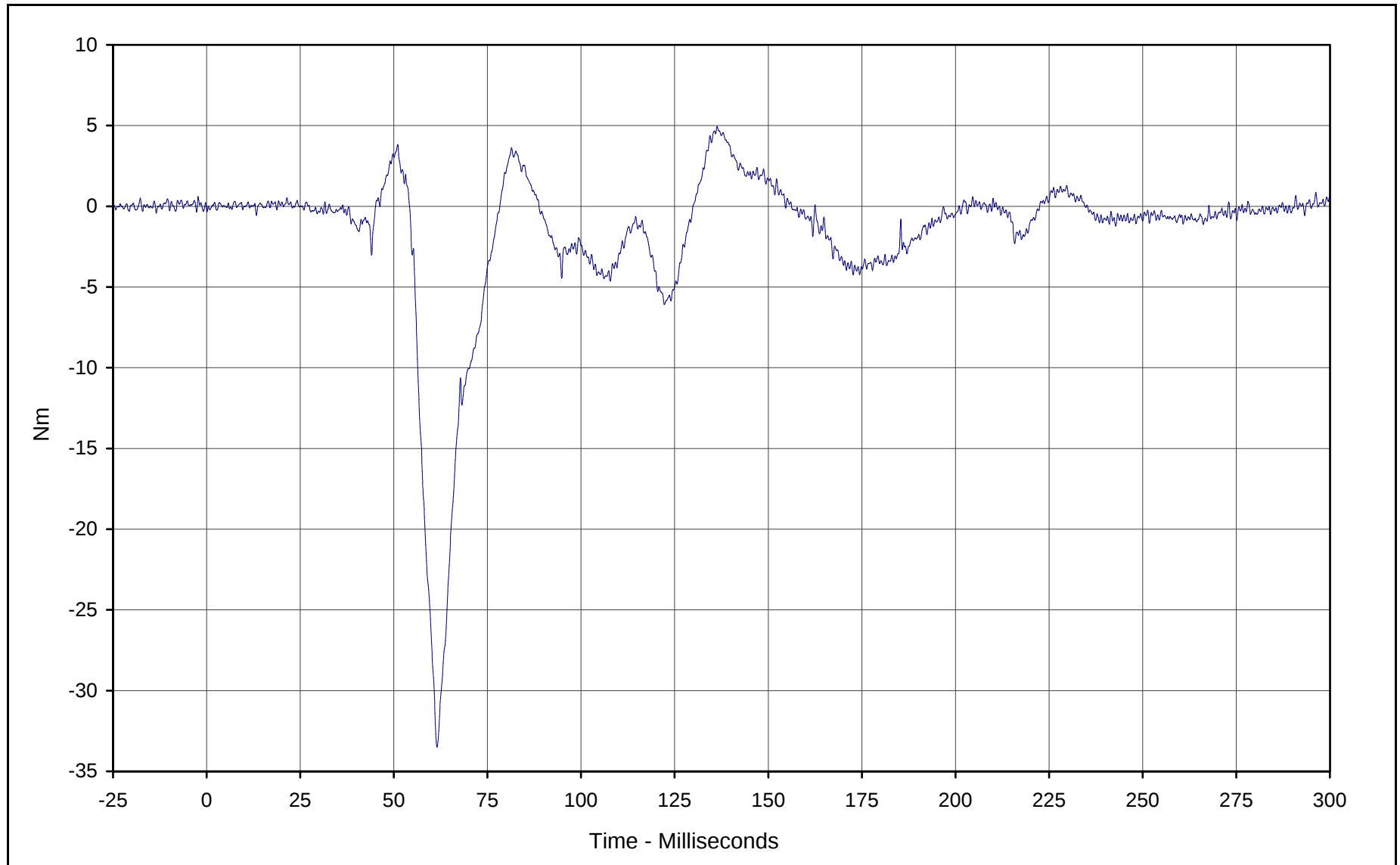




Curve Description: Passenger Neck Force Resultant
Maximum Value: 2409.1 at 73.3 Milliseconds
Minimum Value: 0.0 at 13.3 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: RES-051

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

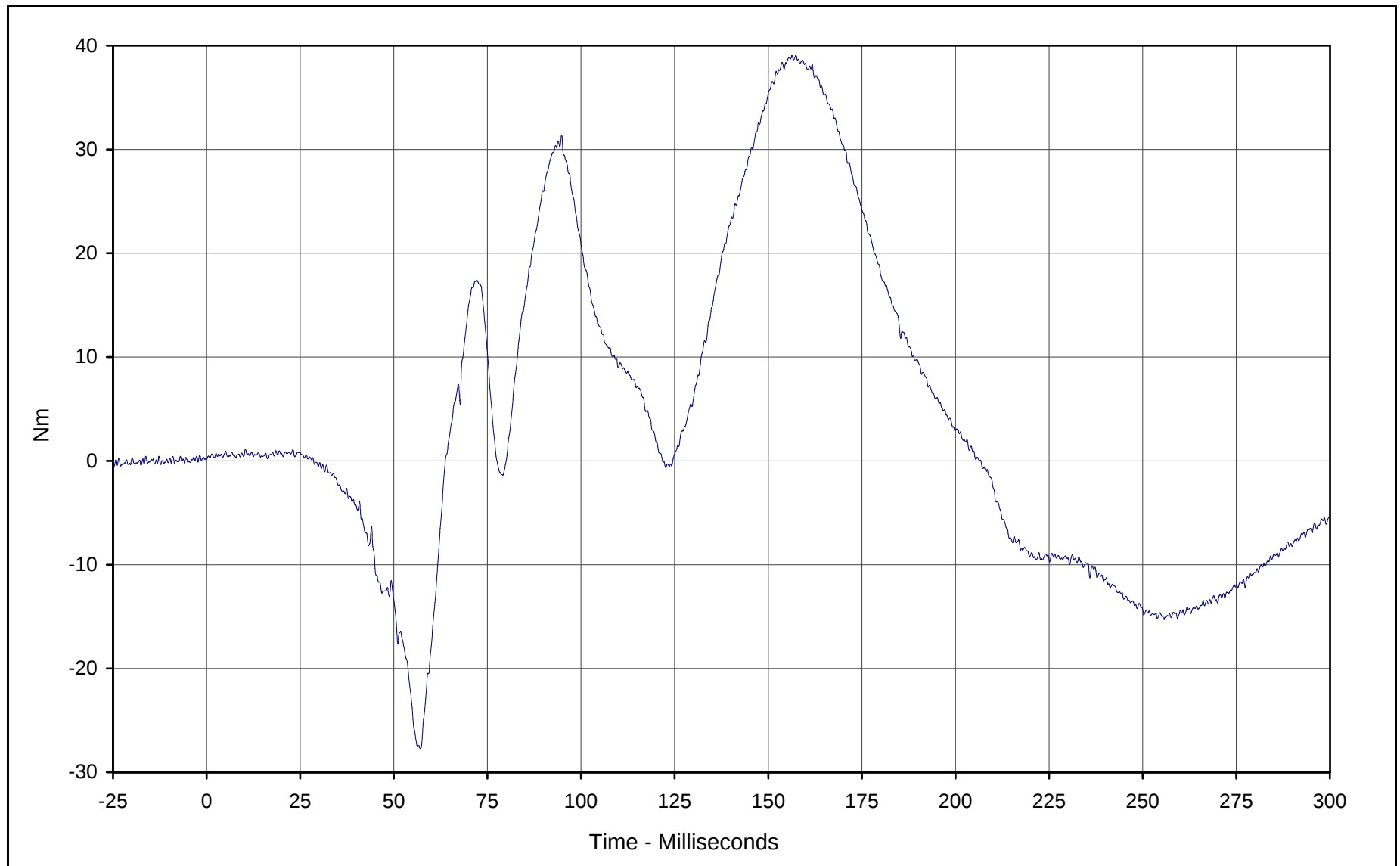




Curve Description: Passenger Neck Moment X
Maximum Value: 4.9 at 136.4 Milliseconds
Minimum Value: -33.5 at 61.5 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-054

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

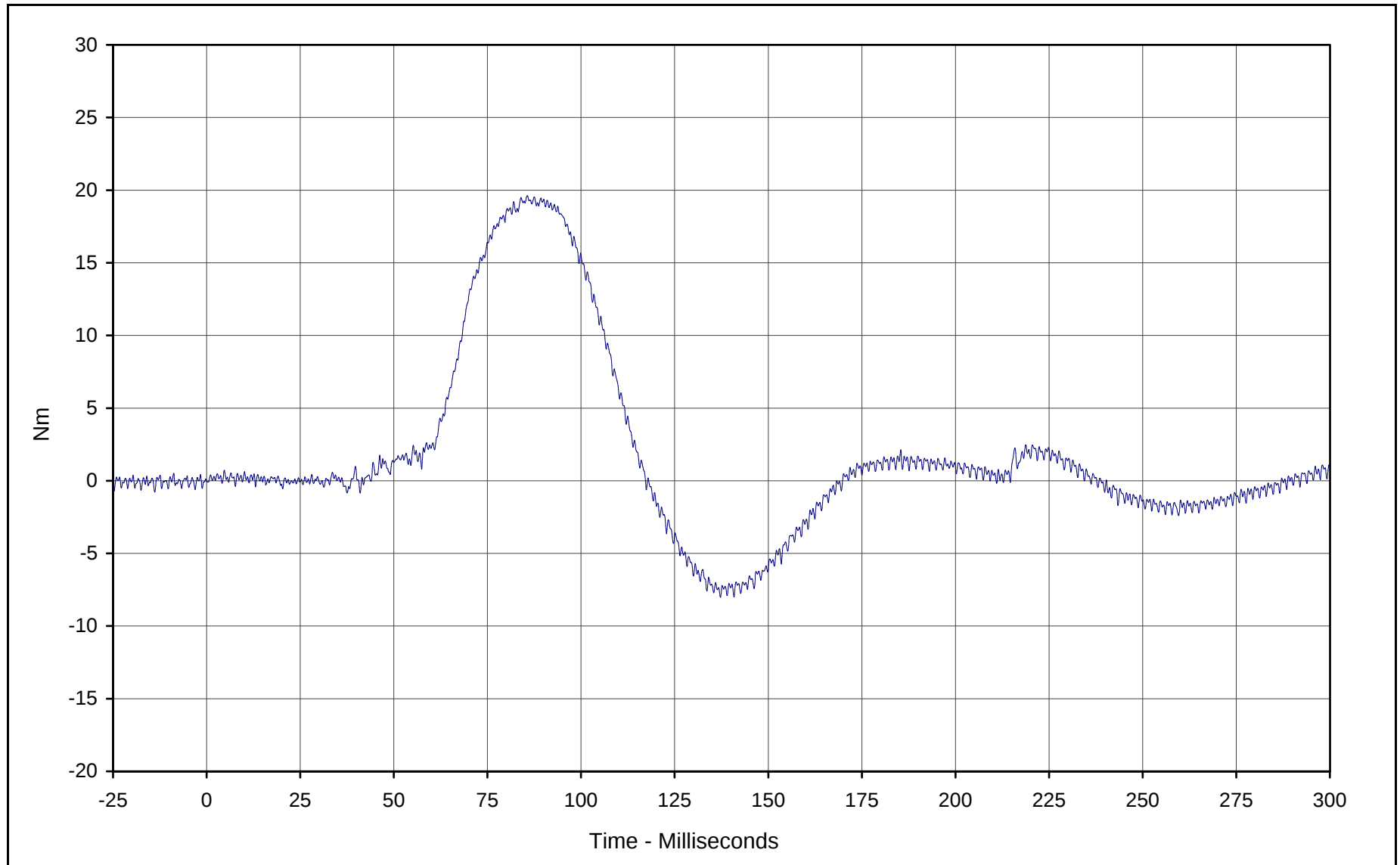




Curve Description: Passenger Neck Moment Y
Maximum Value: 39.1 at 157.4 Milliseconds
Minimum Value: -27.7 at 57.1 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-055

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

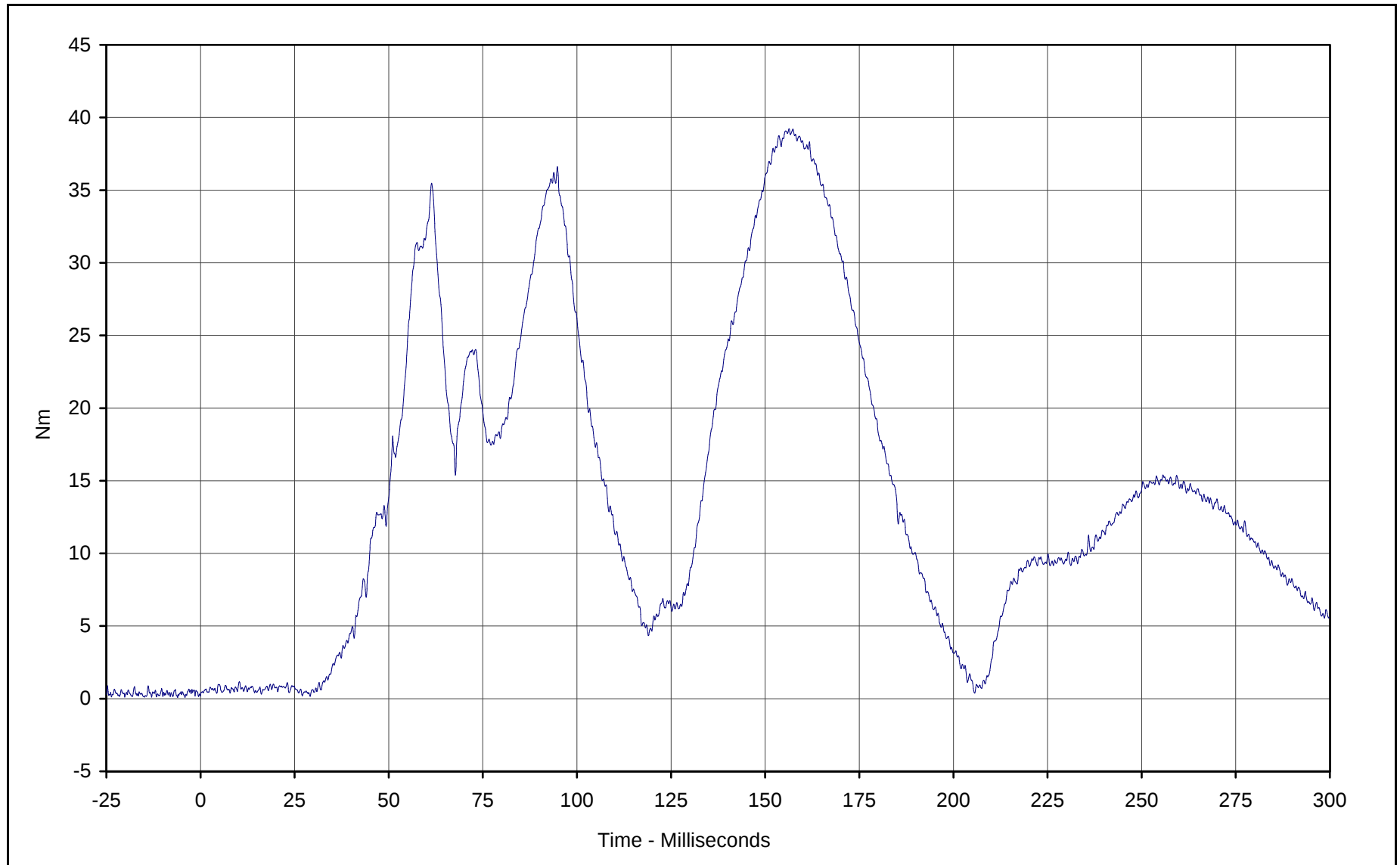




Curve Description: Passenger Neck Moment Z
Maximum Value: 19.6 at 85.7 Milliseconds
Minimum Value: -8.0 at 137.2 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-056

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

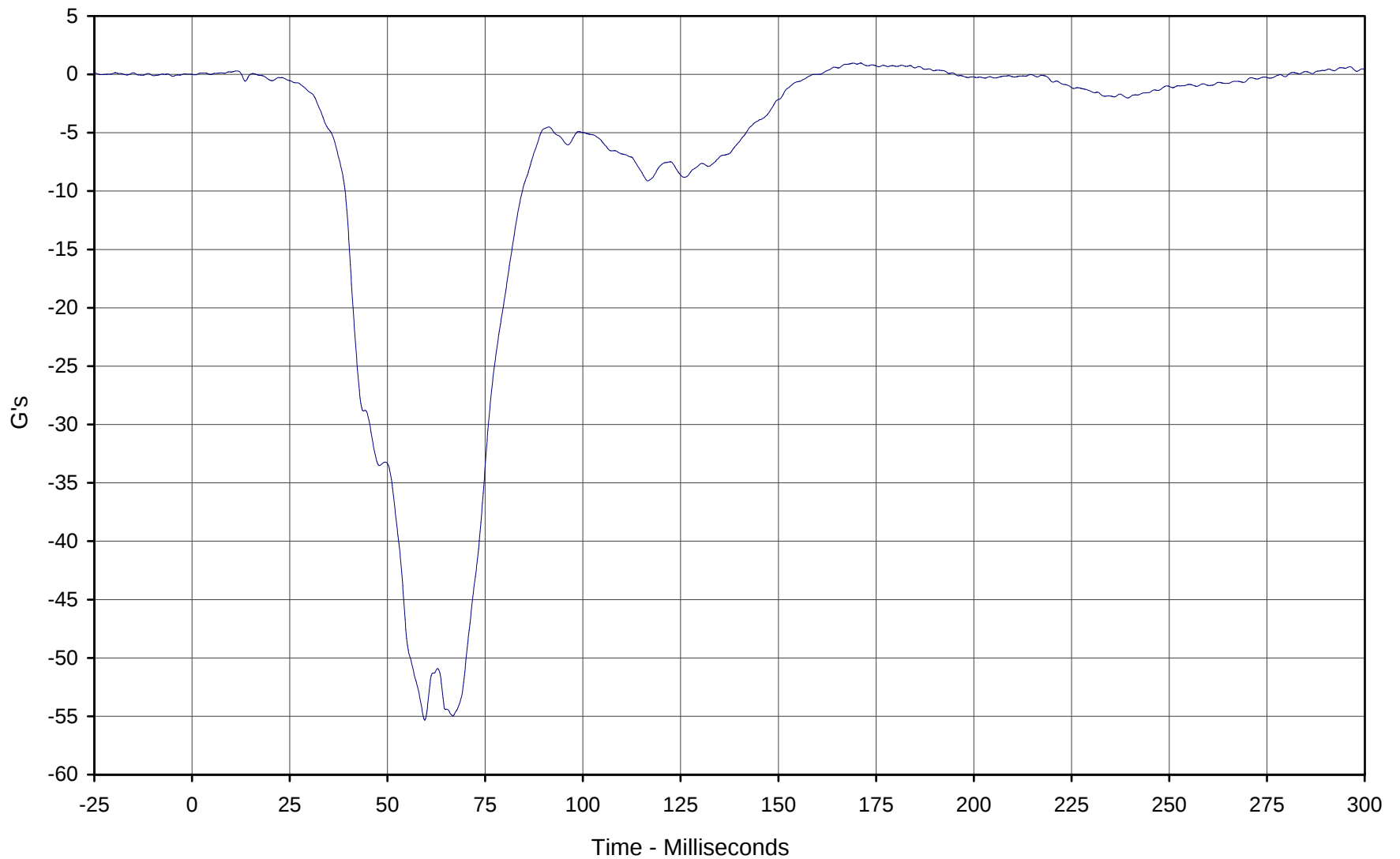




Curve Description: Passenger Neck Moment Resultant
Maximum Value: 39.2 at 156.3 Milliseconds
Minimum Value: 0.2 at 29.1 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: RES-054

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

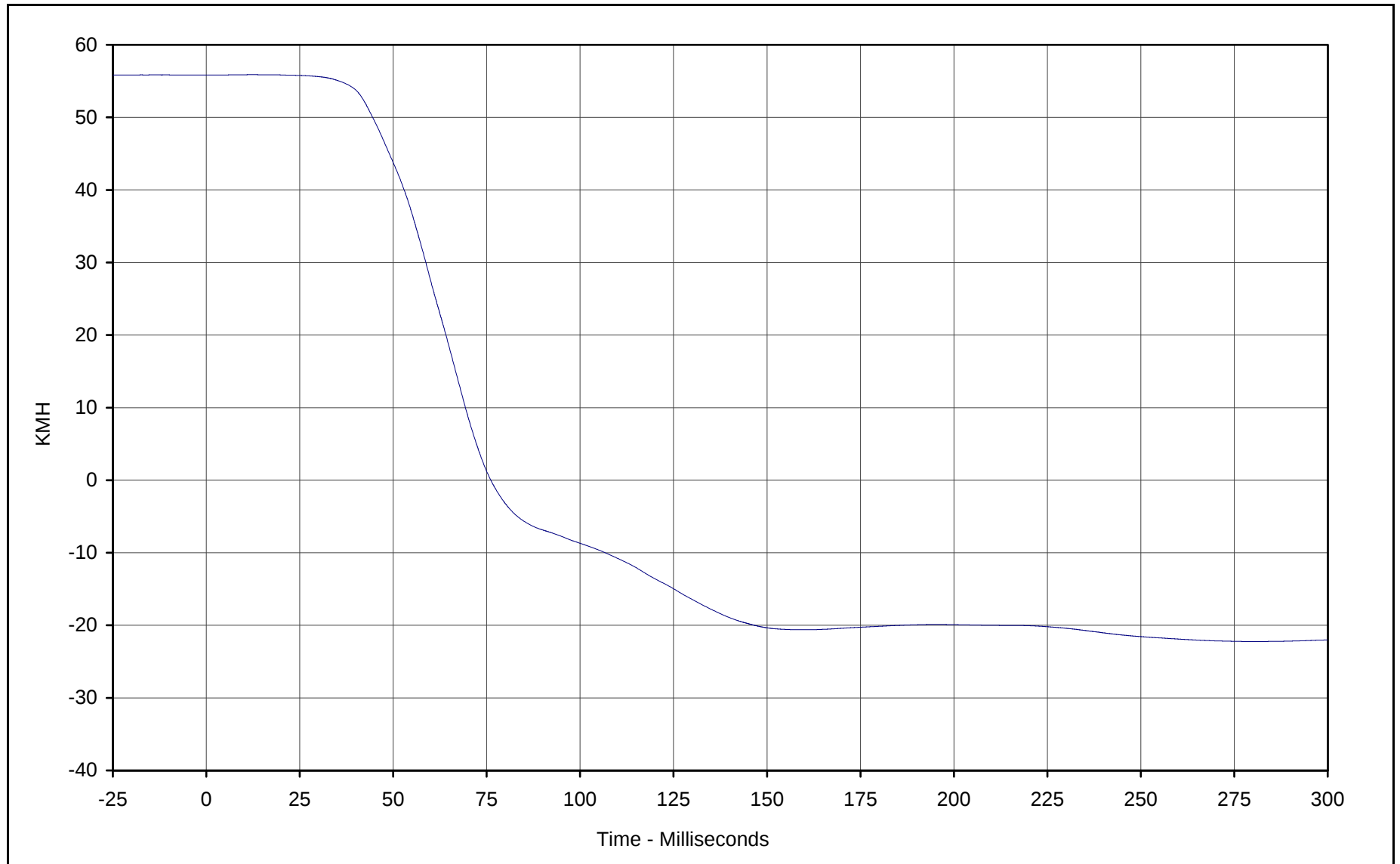




Curve Description: Passenger Chest Primary X
Maximum Value: 1.0 at 171.0 Milliseconds
Minimum Value: -55.3 at 59.5 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-057

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Chest Primary X Velocity

Maximum Value: 55.9 at 12.7 Milliseconds

Minimum Value: -22.2 at 280.5 Milliseconds

SAE Filter Class: 180

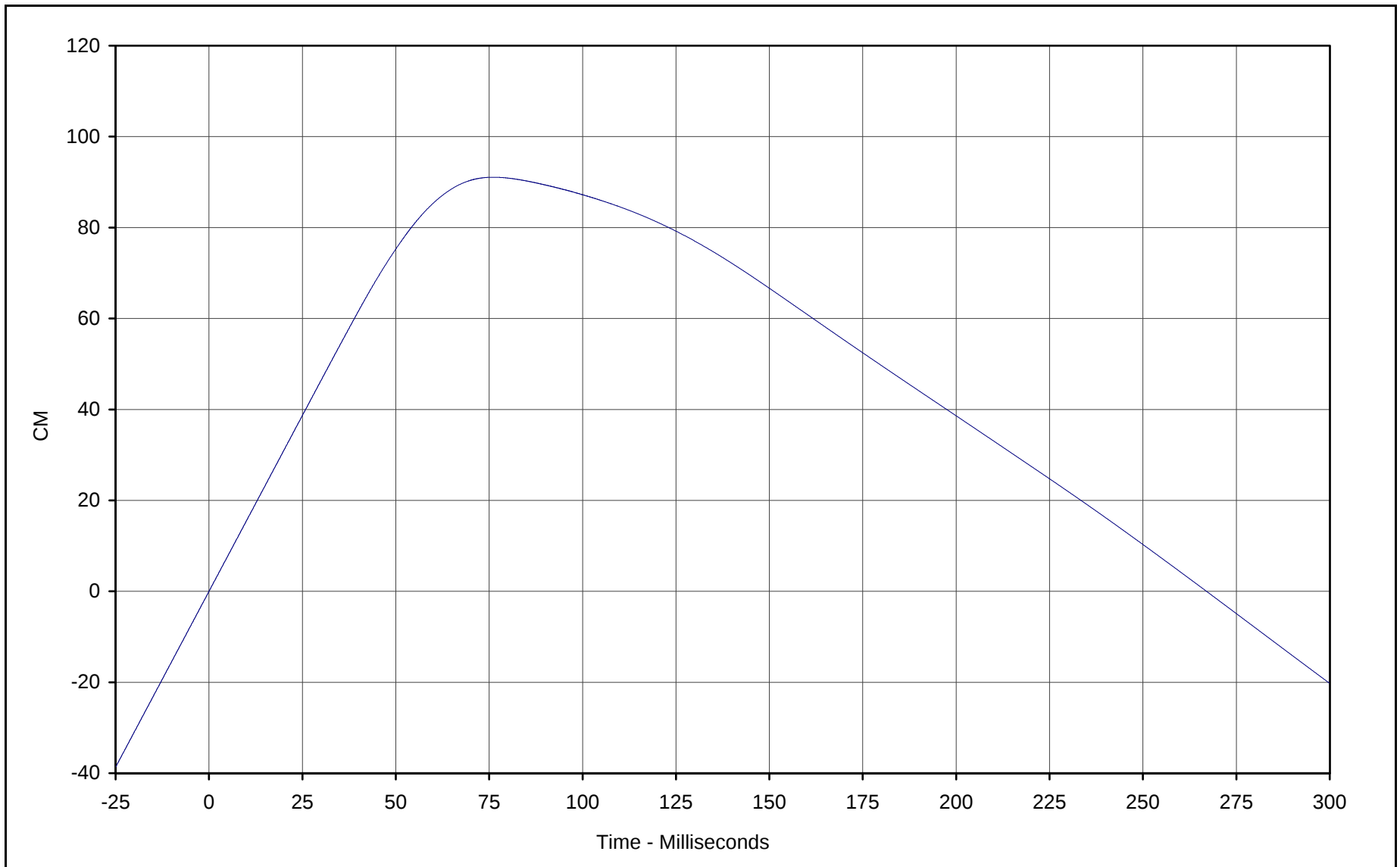
Date of Test: 01/18/01

Curve Number: IN1-057

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

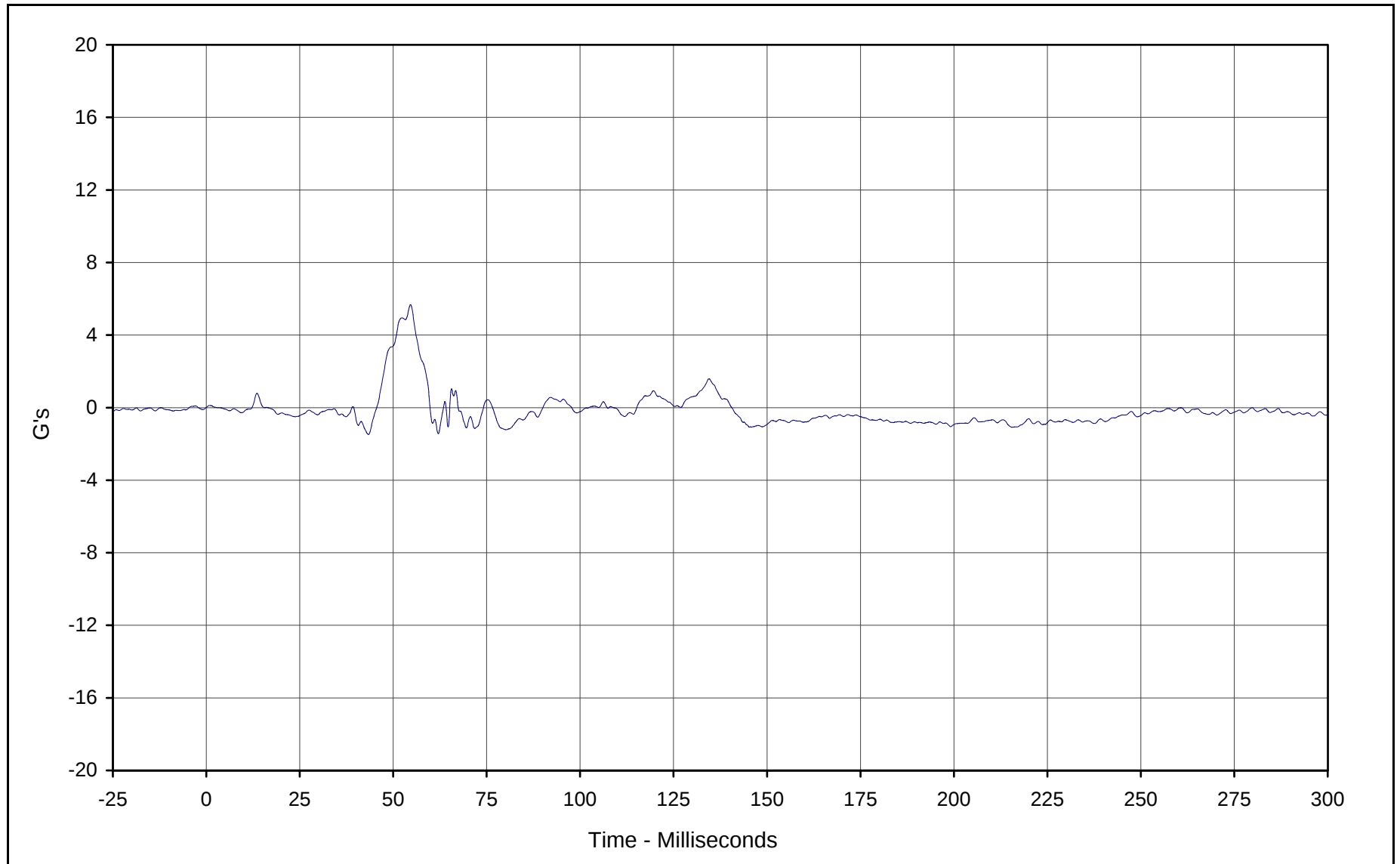




Curve Description: Passenger Chest Primary X Displ.
Maximum Value: 91.1 at 76.1 Milliseconds
Minimum Value: -20.2 at 299.9 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN2-057

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

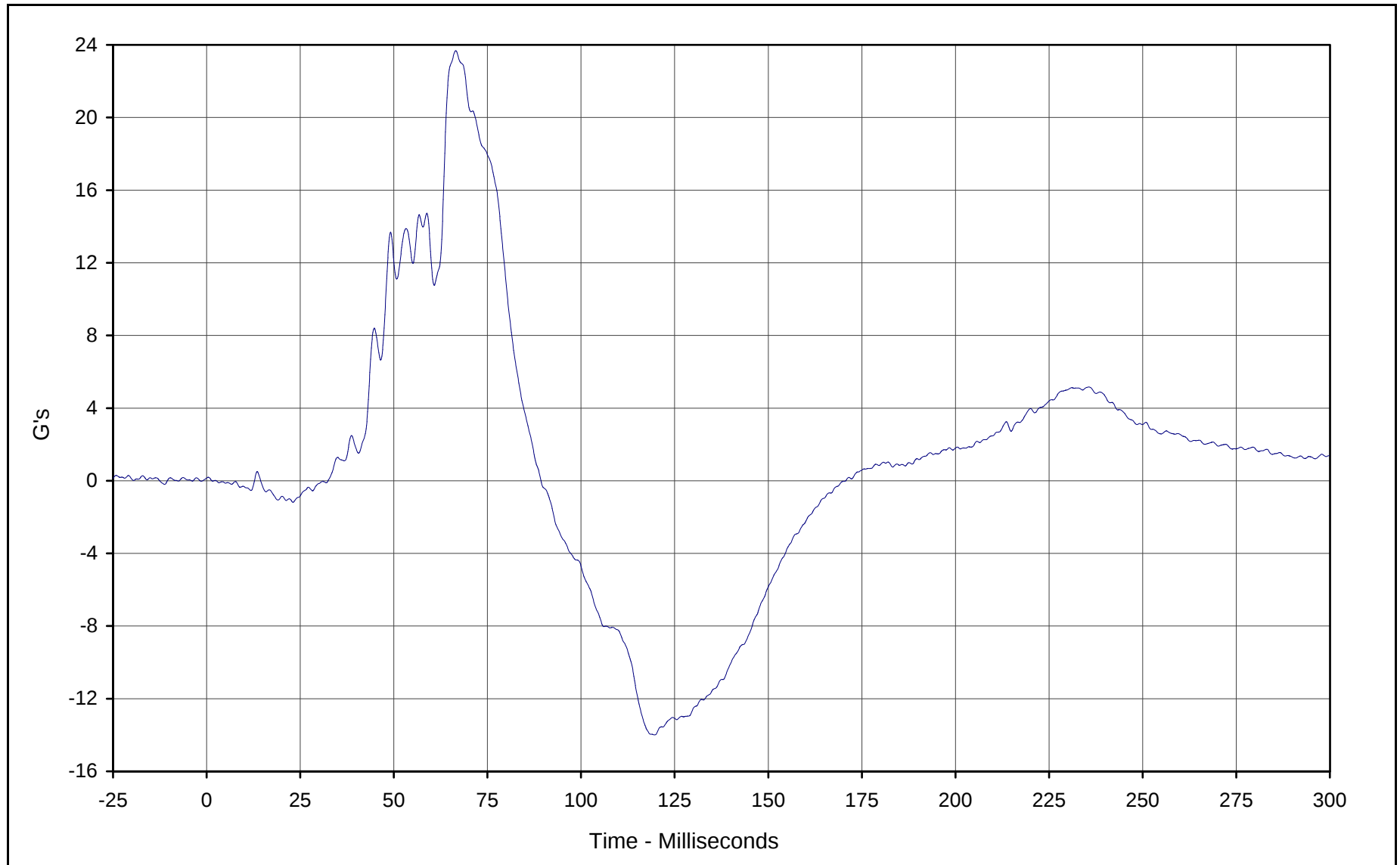




Curve Description: Passenger Chest Primary Y
Maximum Value: 5.7 at 54.6 Milliseconds
Minimum Value: -1.5 at 43.4 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-058

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

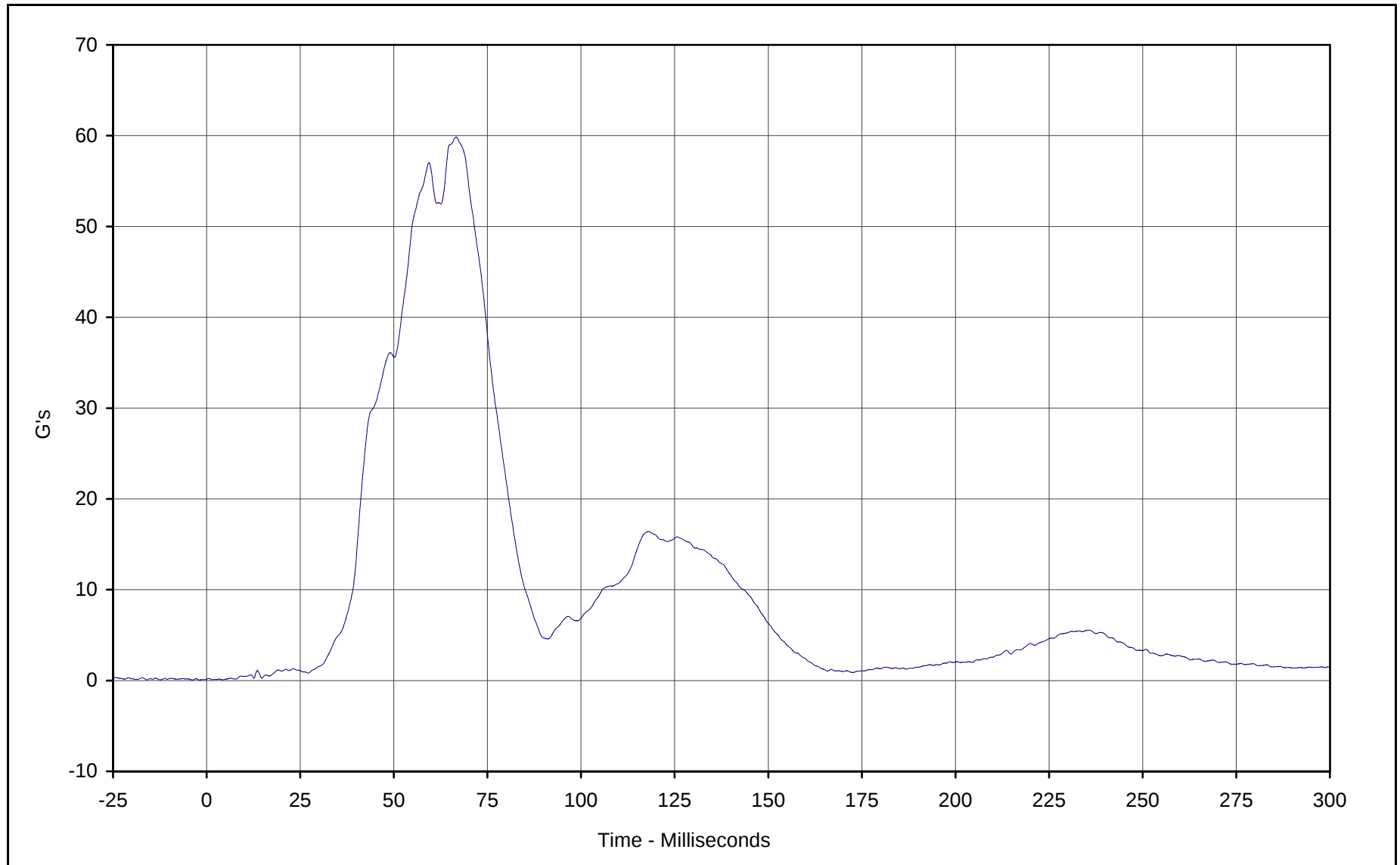




Curve Description: Passenger Chest Primary Z
Maximum Value: 23.7 at 66.5 Milliseconds
Minimum Value: -14.0 at 119.7 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-059

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

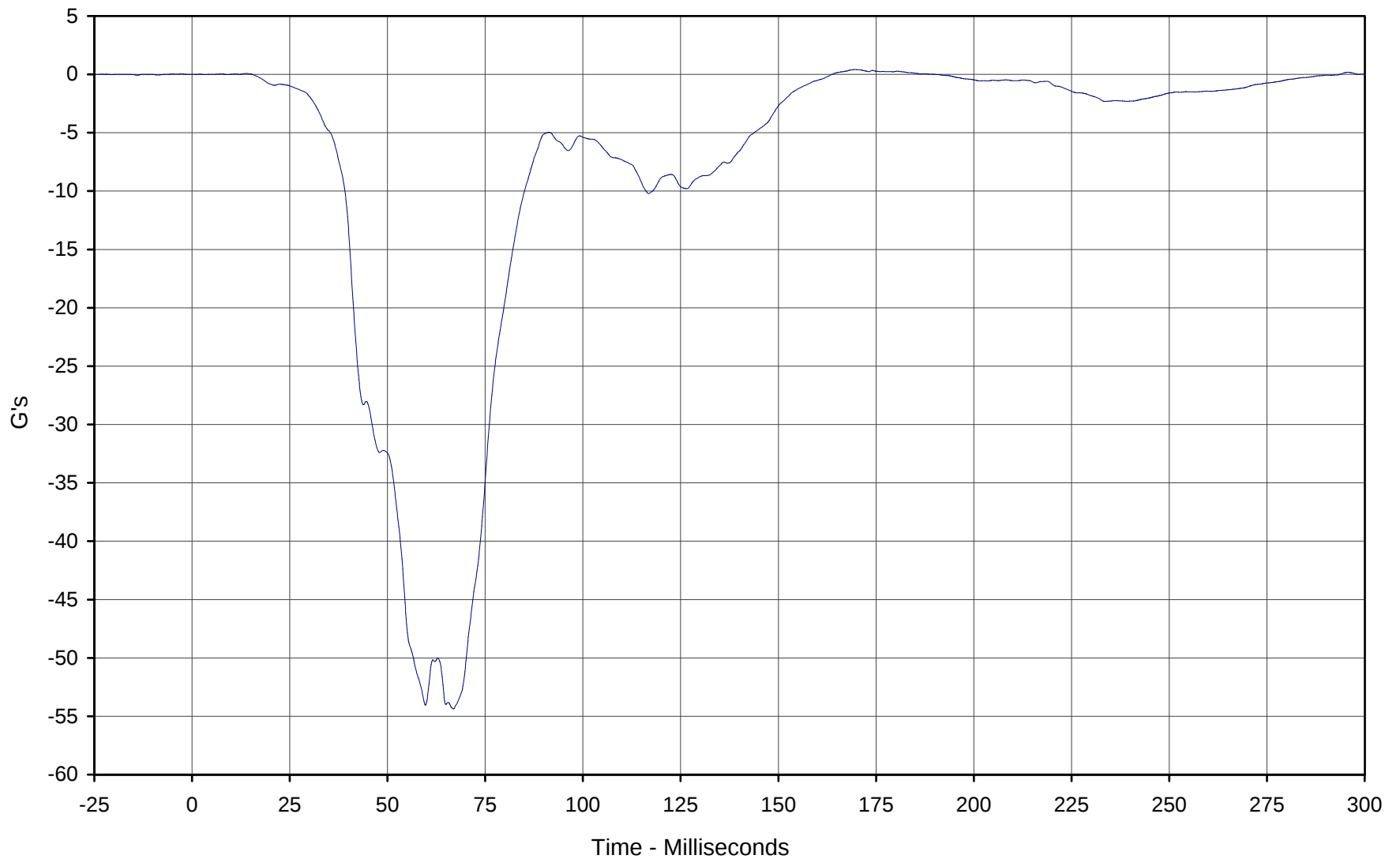




Curve Description: Passenger Chest Resultant Primary
Maximum Value: 59.8 at 66.7 Milliseconds
Minimum Value: 0.1 at 4.3 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: RES-057

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

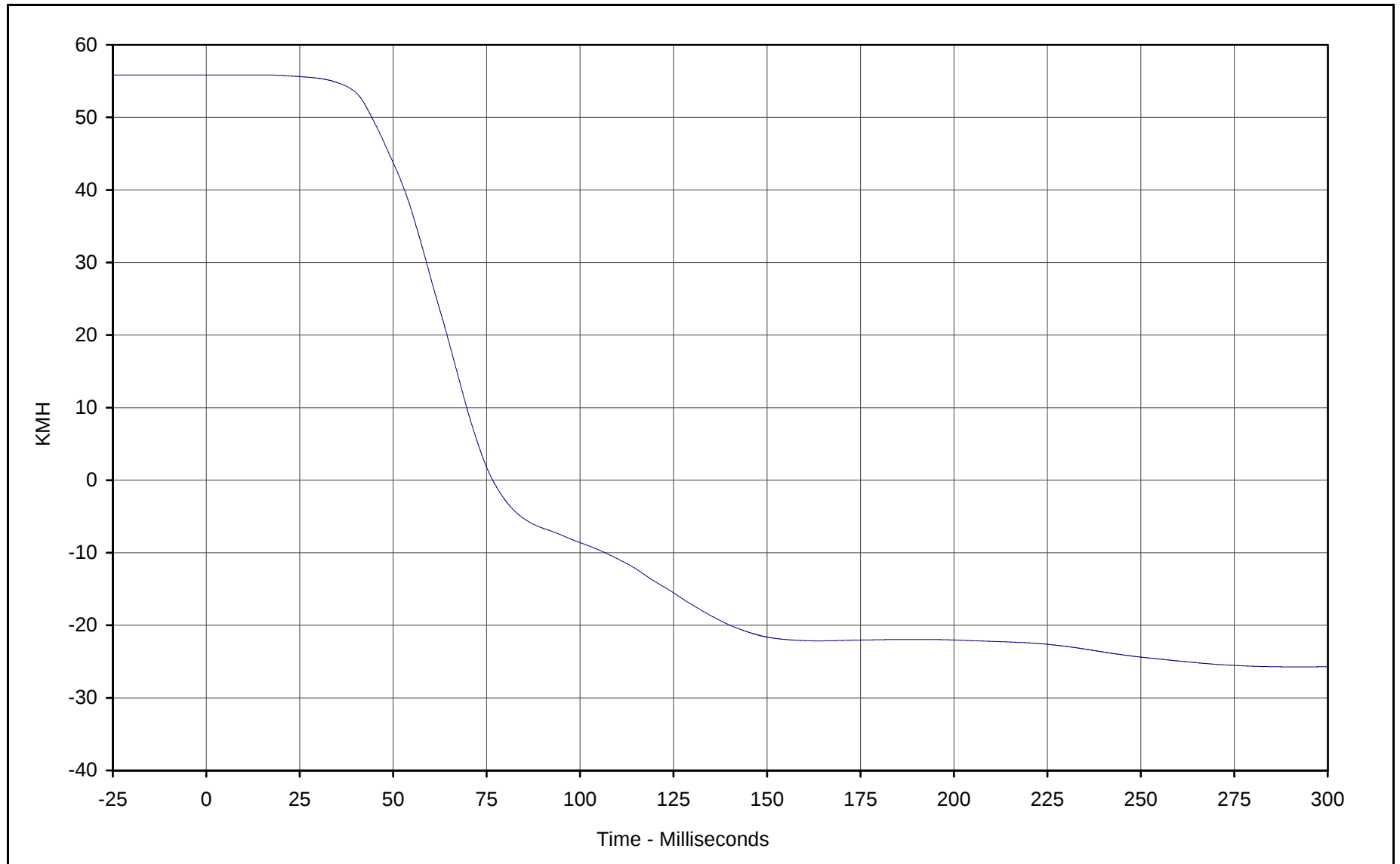




Curve Description: Passenger Chest Redundant X
Maximum Value: 0.4 at 169.6 Milliseconds
Minimum Value: -54.4 at 66.9 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-060

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Chest Redundant X Velocity

Maximum Value: 55.8 at 15.4 Milliseconds

Minimum Value: -25.7 at 293.6 Milliseconds

SAE Filter Class: 180

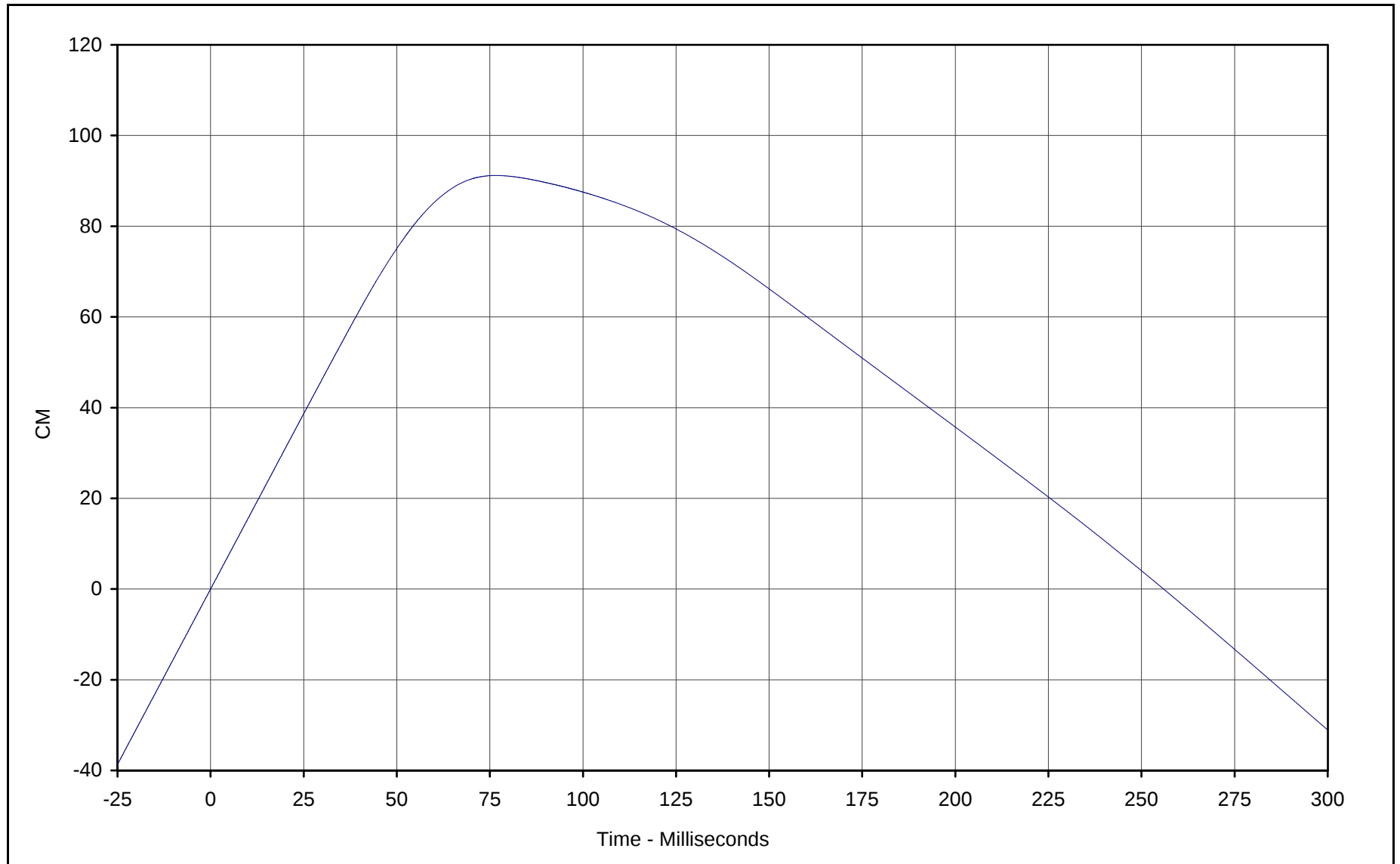
Date of Test: 01/18/01

Curve Number: IN1-060

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Chest Redundant X Displ.

Maximum Value: 91.2 at 76.6 Milliseconds

Minimum Value: -31.0 at 299.9 Milliseconds

SAE Filter Class: 180

Date of Test: 01/18/01

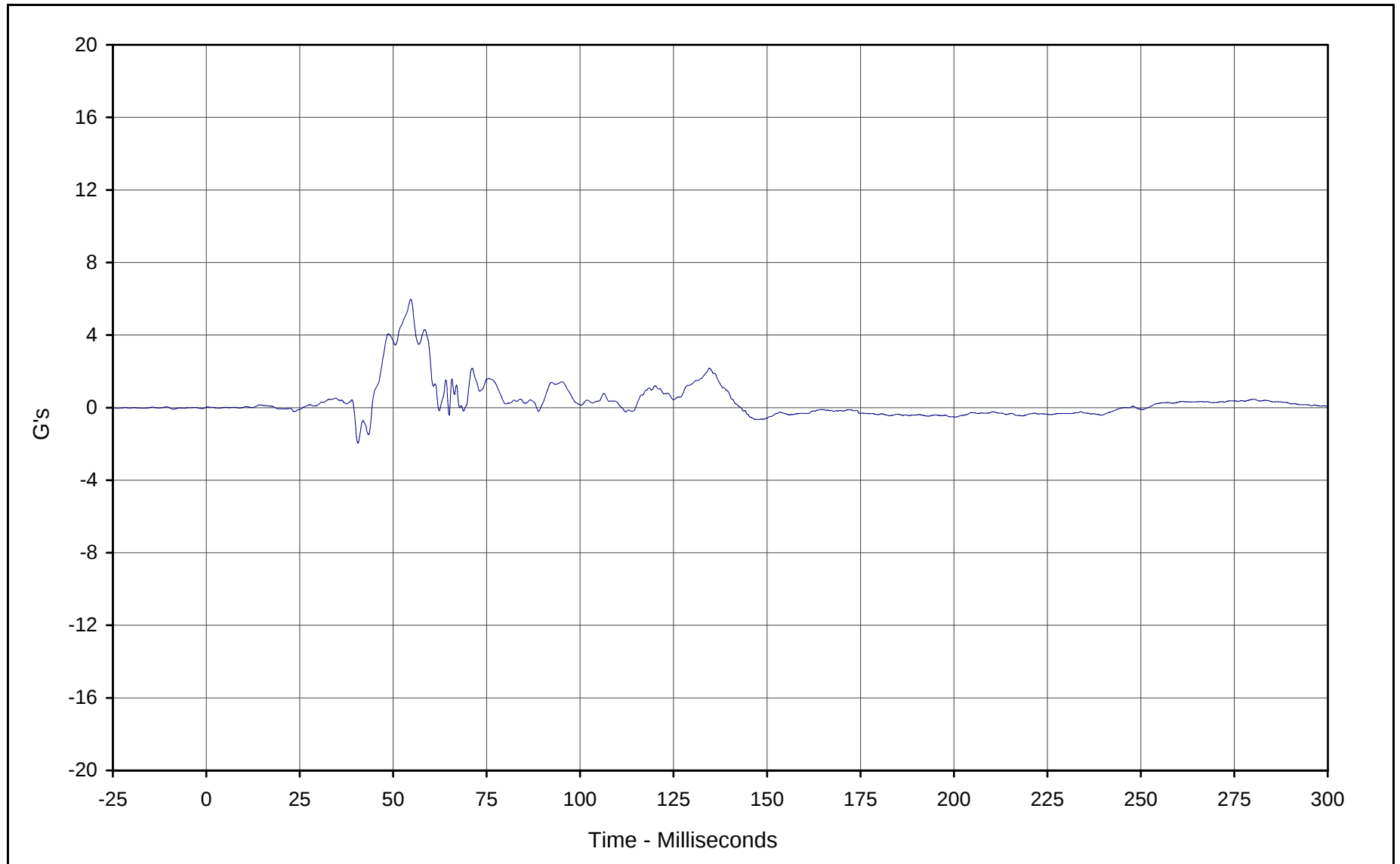
Curve Number: IN2-060

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



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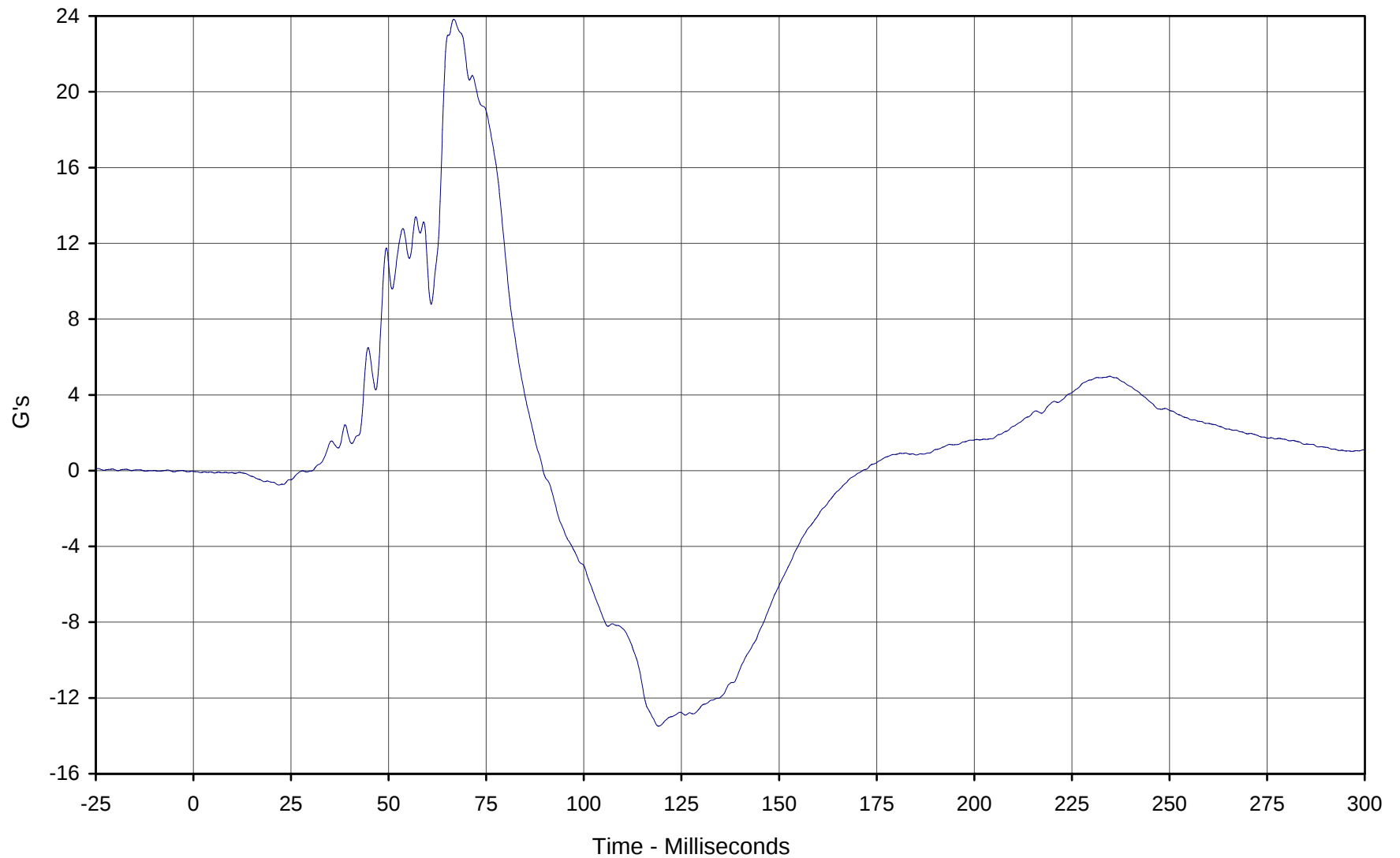
Curve Description: Passenger Chest Redundant Y
Maximum Value: 6.0 at 54.7 Milliseconds
Minimum Value: -2.0 at 40.6 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-061

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



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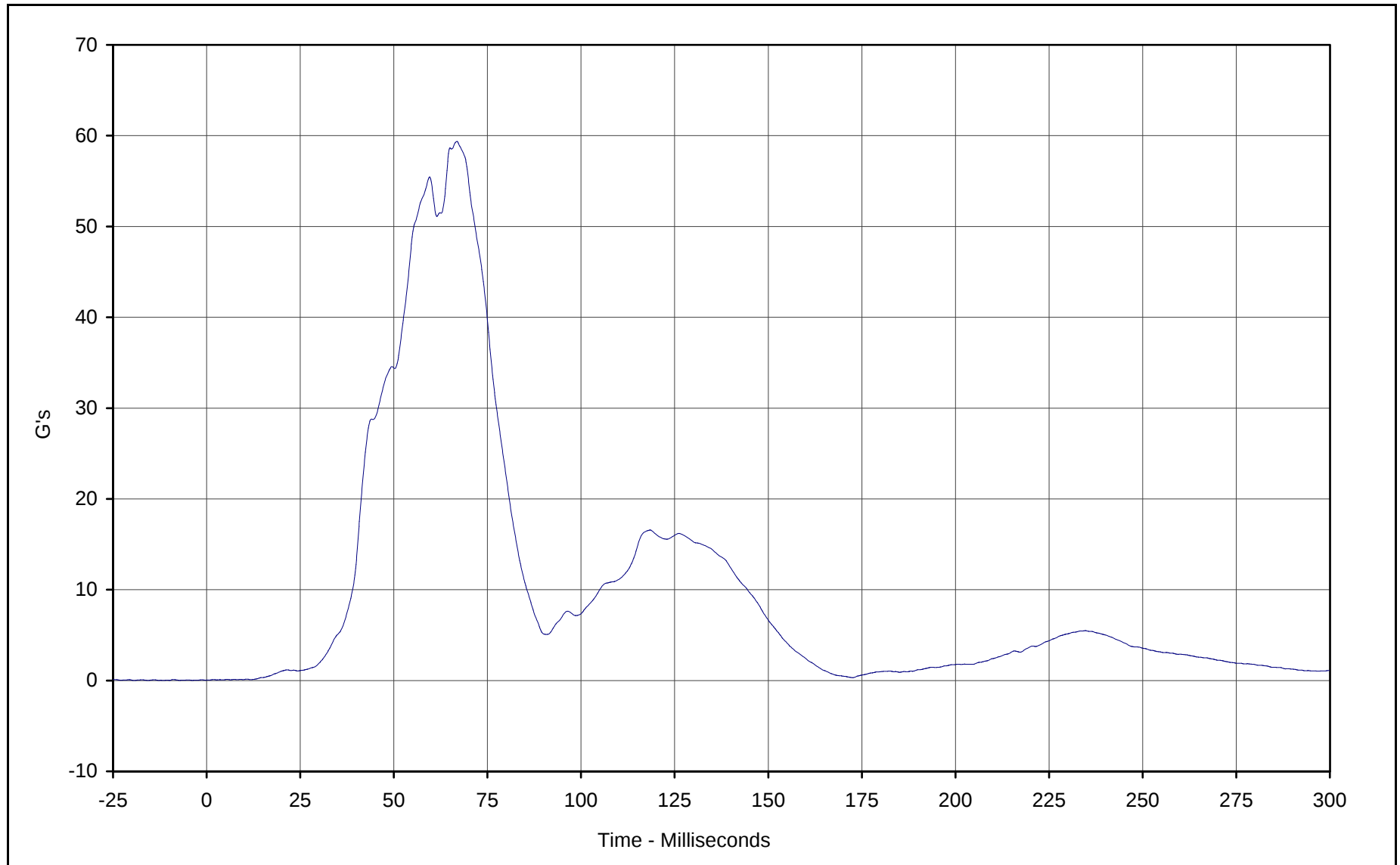


Curve Description: Passenger Chest Redundant Z
Maximum Value: 23.8 at 66.7 Milliseconds
Minimum Value: -13.5 at 119.2 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-062

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



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Curve Description: Passenger Chest Resultant Redundant

Maximum Value: 59.4 at 66.8 Milliseconds

Minimum Value: 0.0 at 0.0 Milliseconds

SAE Filter Class: 180

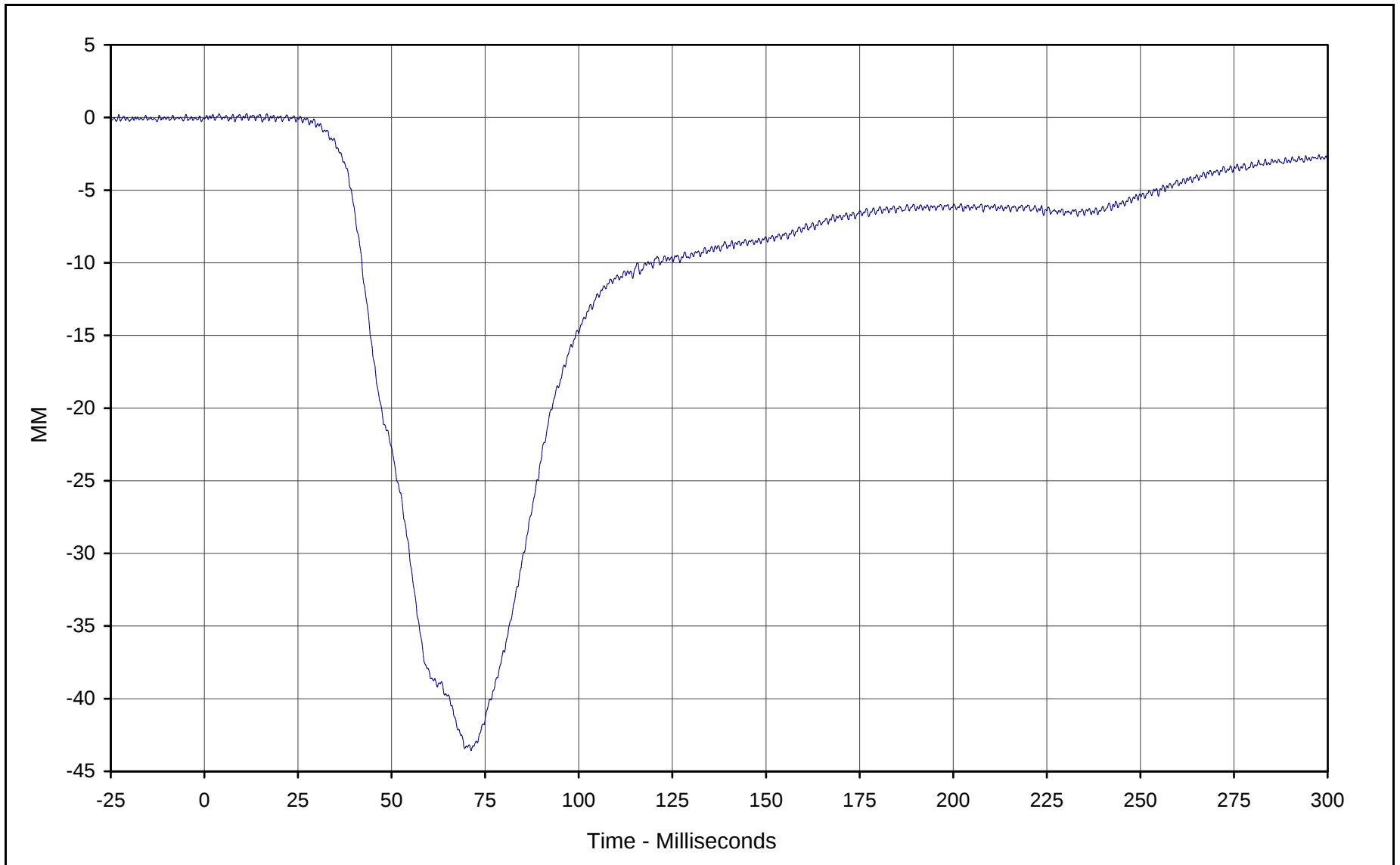
Date of Test: 01/18/01

Curve Number: RES-060

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

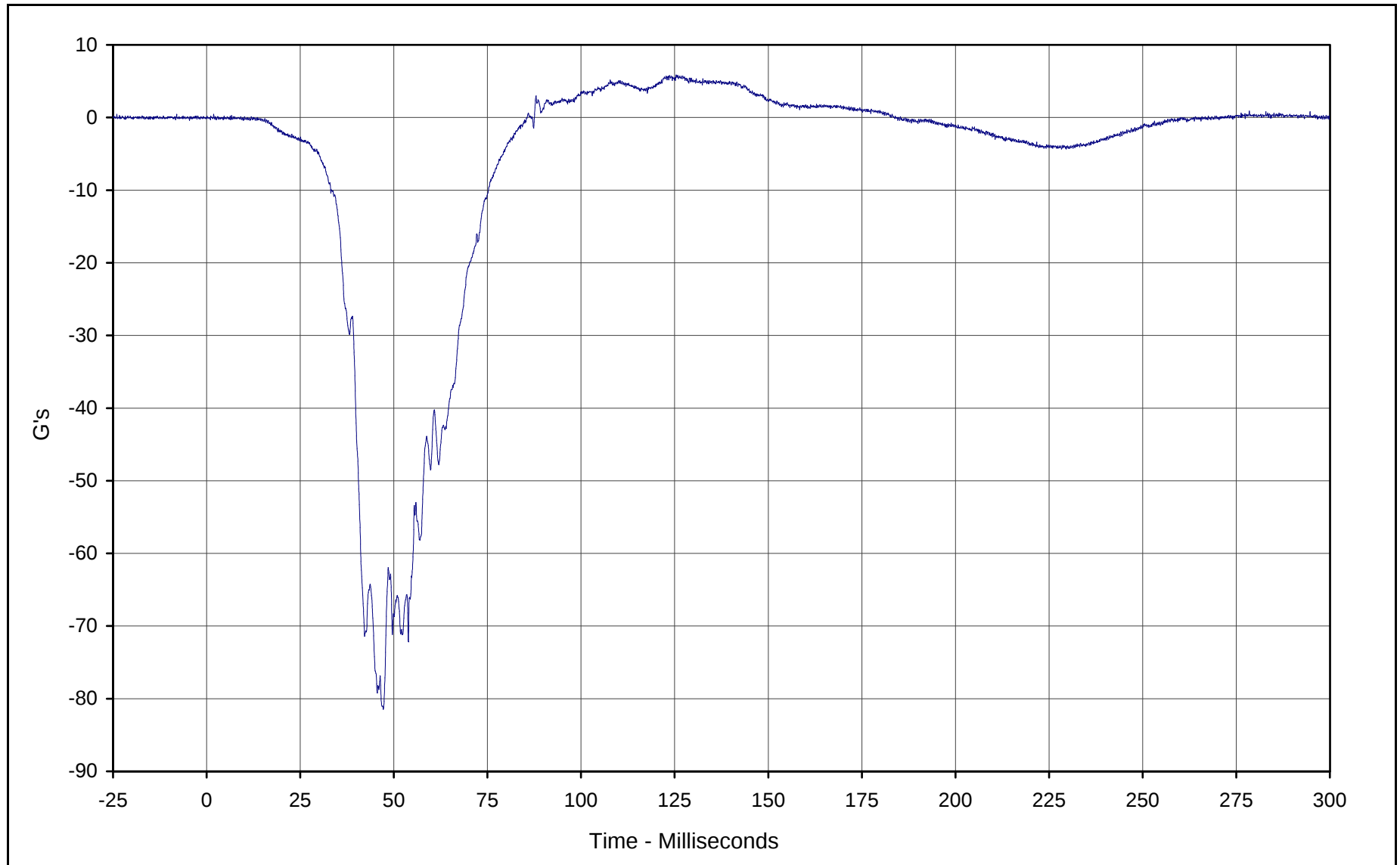




Curve Description: Passenger Chest Displacement X
Maximum Value: 0.3 at 11.3 Milliseconds
Minimum Value: -43.6 at 71.2 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-063

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Pelvis X

Maximum Value: 5.9 at 125.4 Milliseconds

Minimum Value: -81.5 at 47.2 Milliseconds

SAE Filter Class: 1000

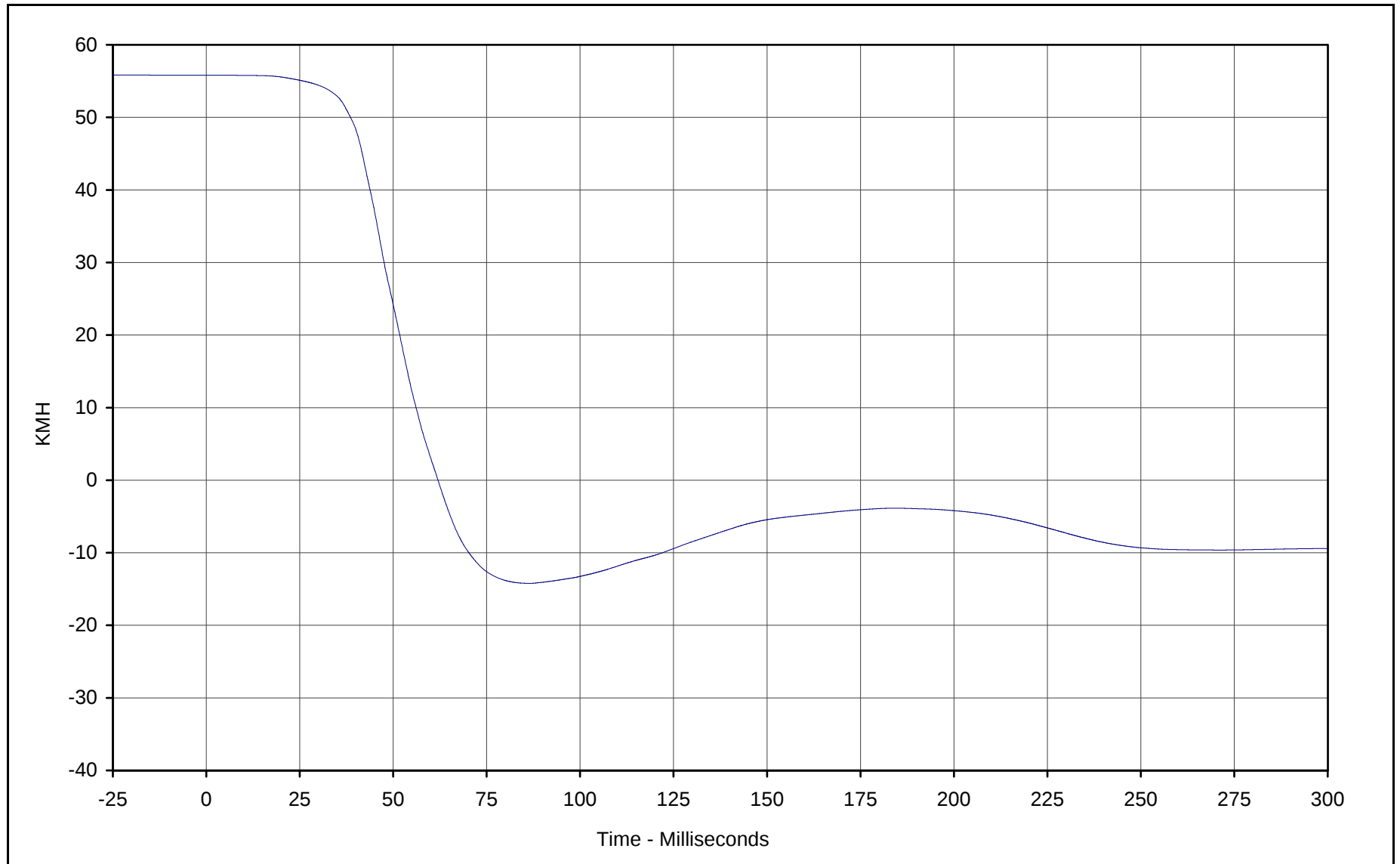
Date of Test: 01/18/01

Curve Number: FIL-064

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

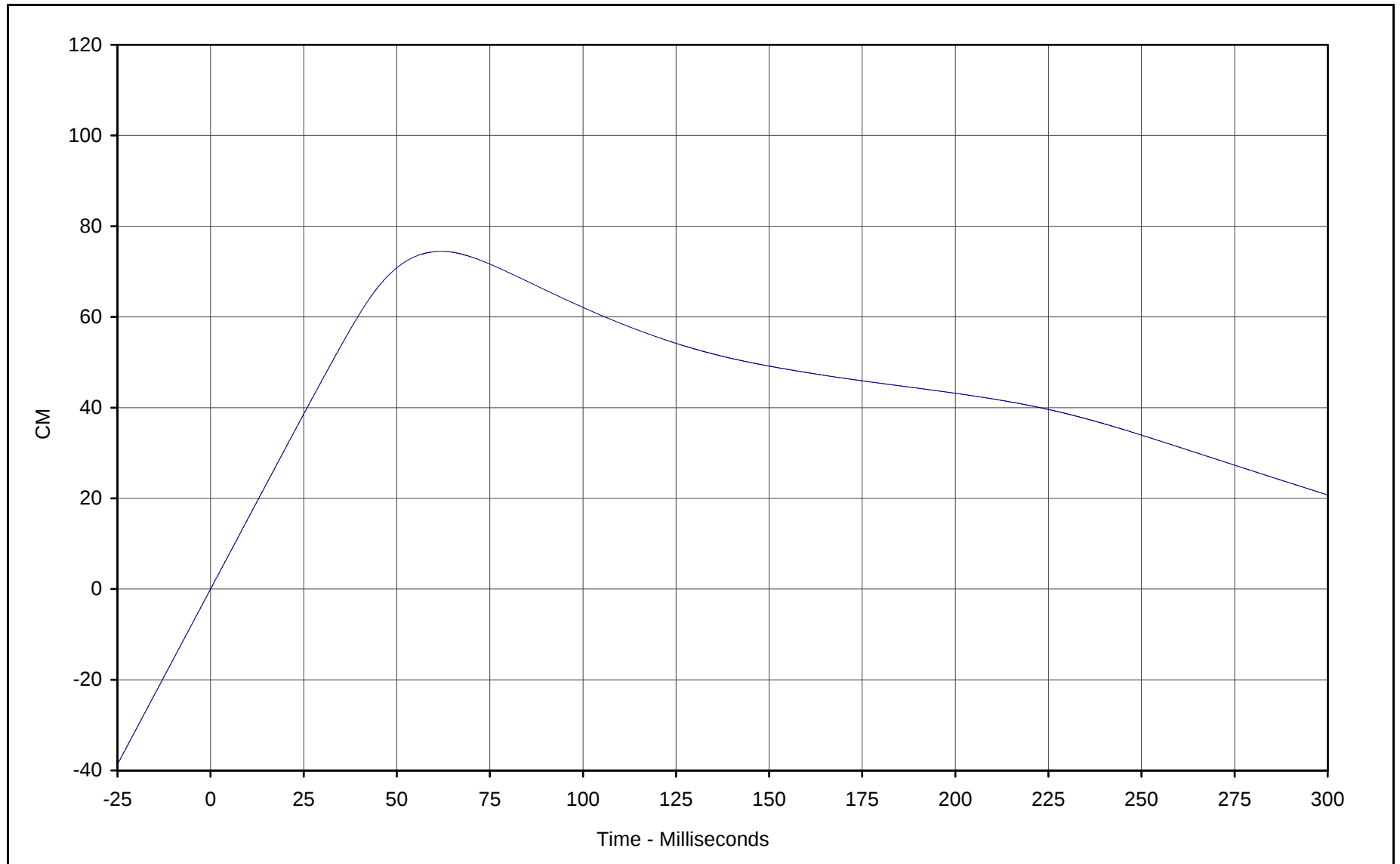




Curve Description: Passenger Pelvis X Velocity
Maximum Value: 55.8 at 0.0 Milliseconds
Minimum Value: -14.2 at 85.7 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN1-064

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



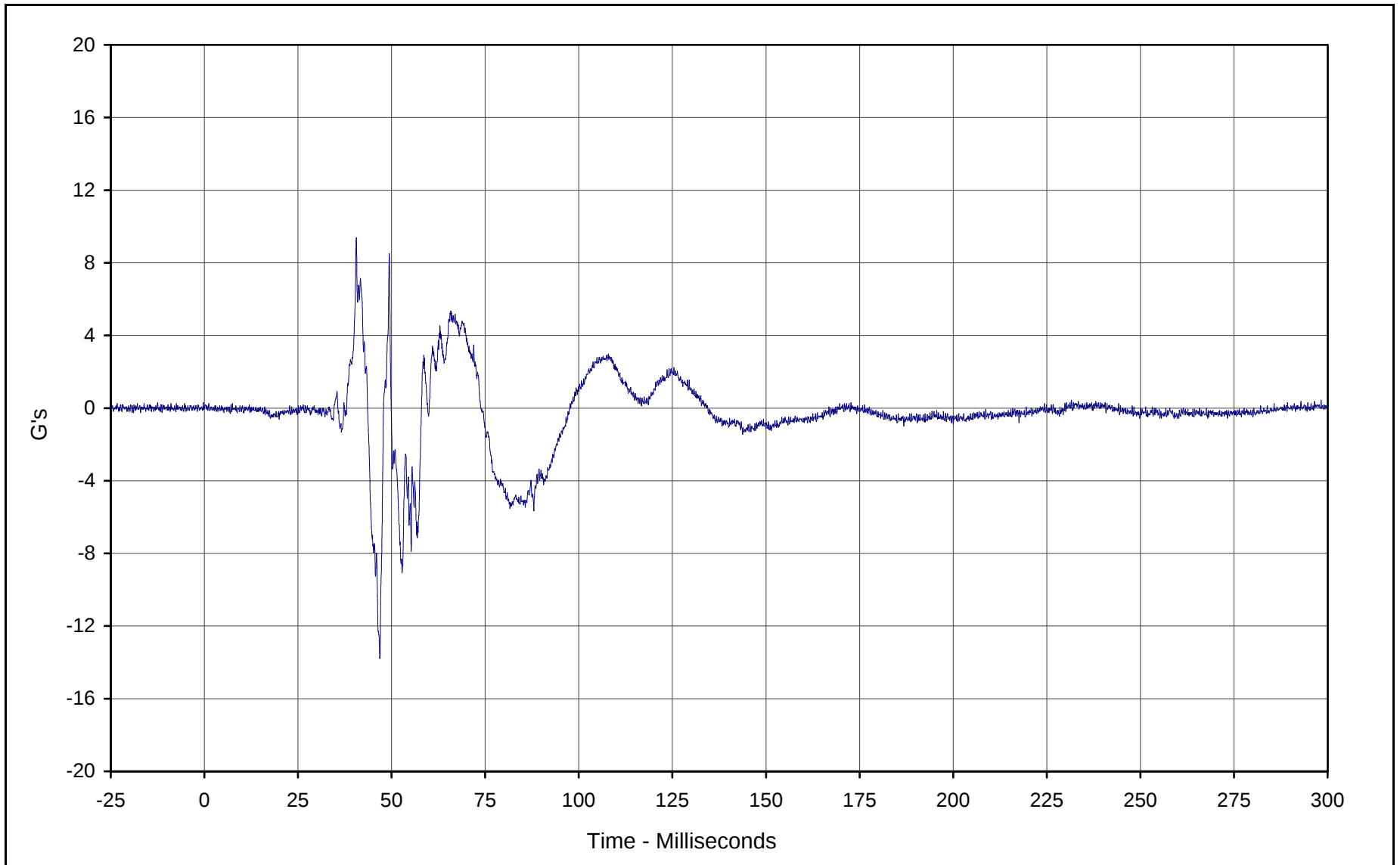


Curve Description: Passenger Pelvis X Displ.
Maximum Value: 74.5 at 62.0 Milliseconds
Minimum Value: 0.0 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN2-064

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



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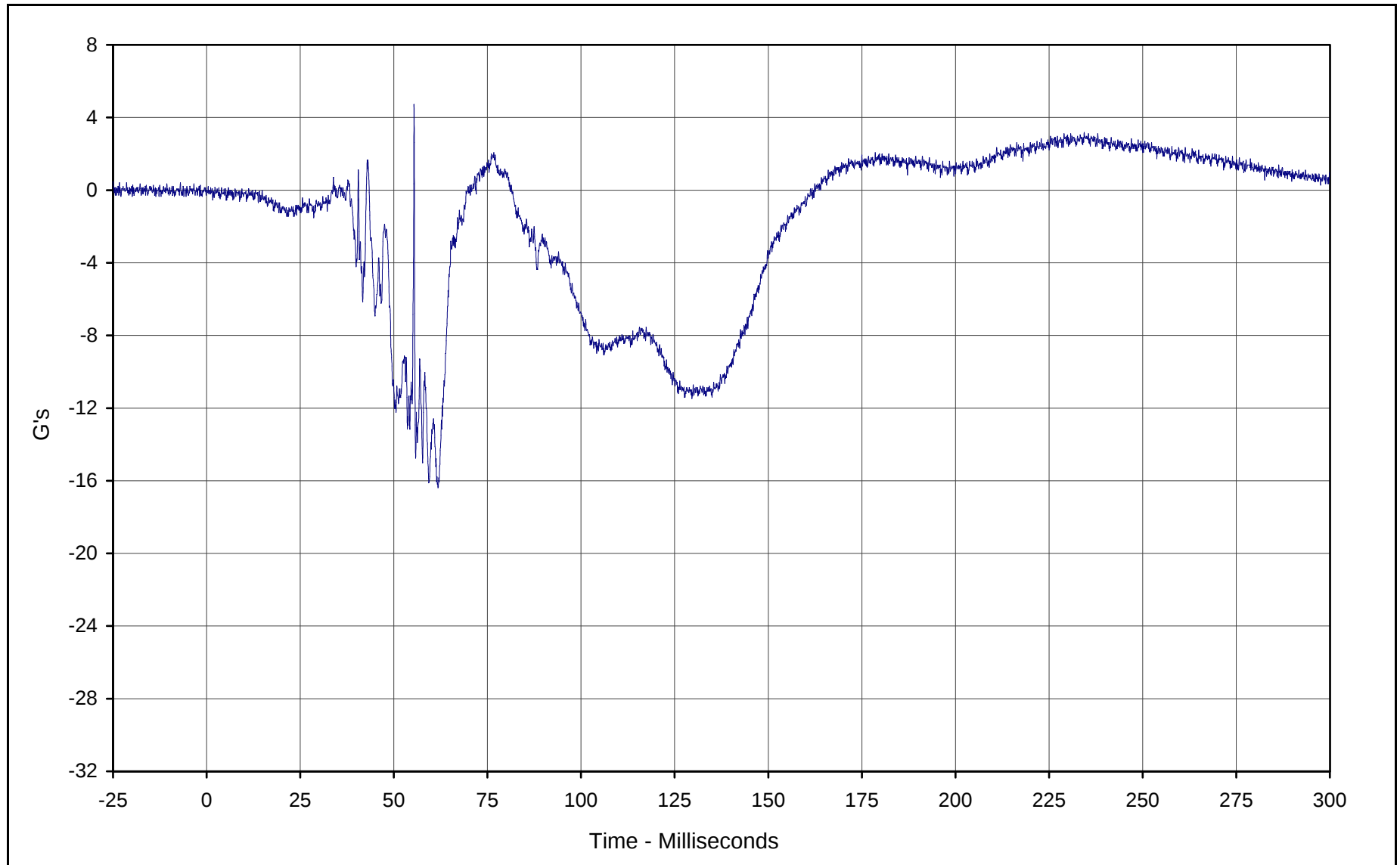


Curve Description: Passenger Pelvis Y
Maximum Value: 9.4 at 40.6 Milliseconds
Minimum Value: -13.8 at 46.8 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: FIL-065

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



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Curve Description: Passenger Pelvis Z

Maximum Value: 4.7 at 55.4 Milliseconds

Minimum Value: -16.4 at 61.8 Milliseconds

SAE Filter Class: 1000

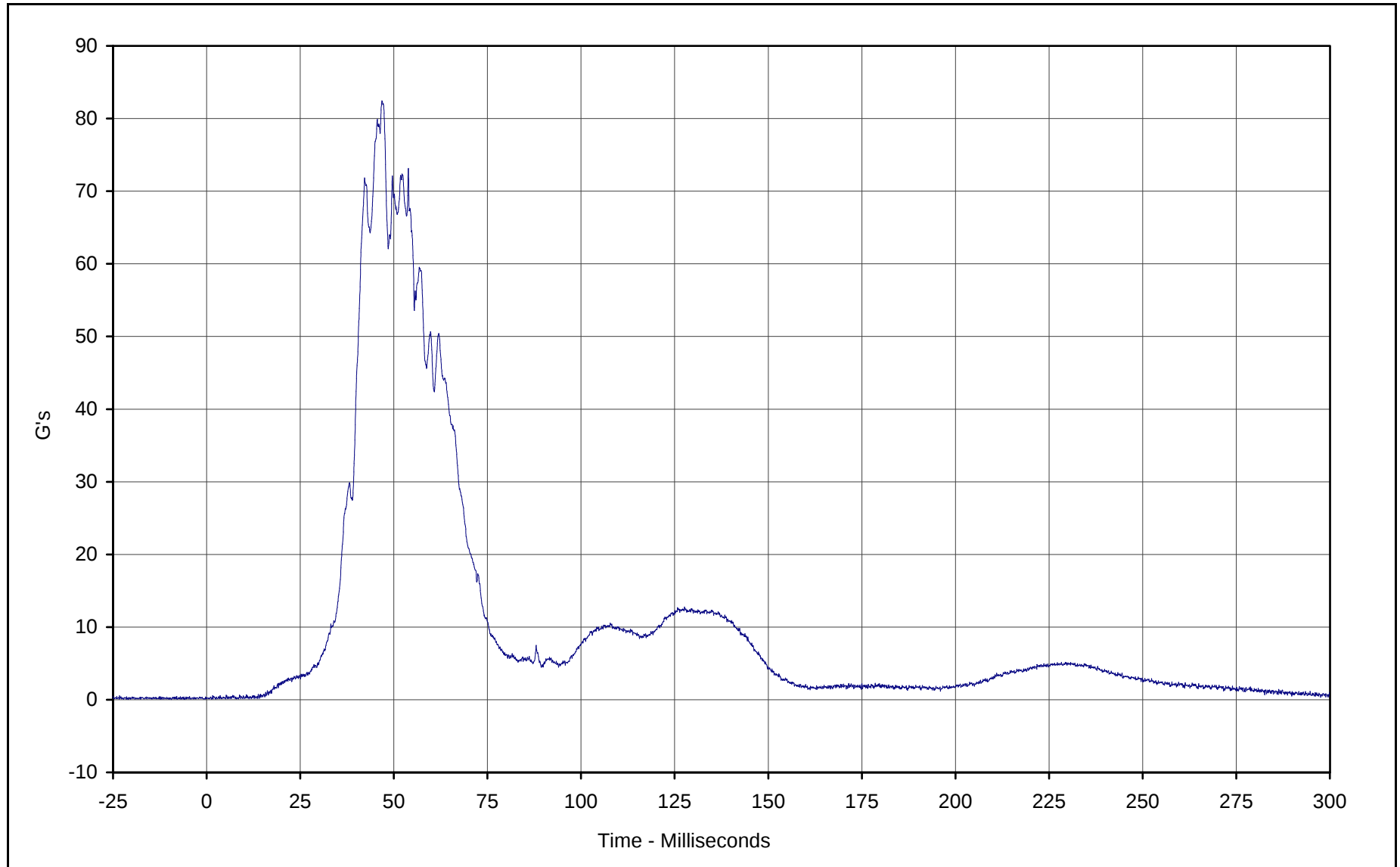
Date of Test: 01/18/01

Curve Number: FIL-066

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

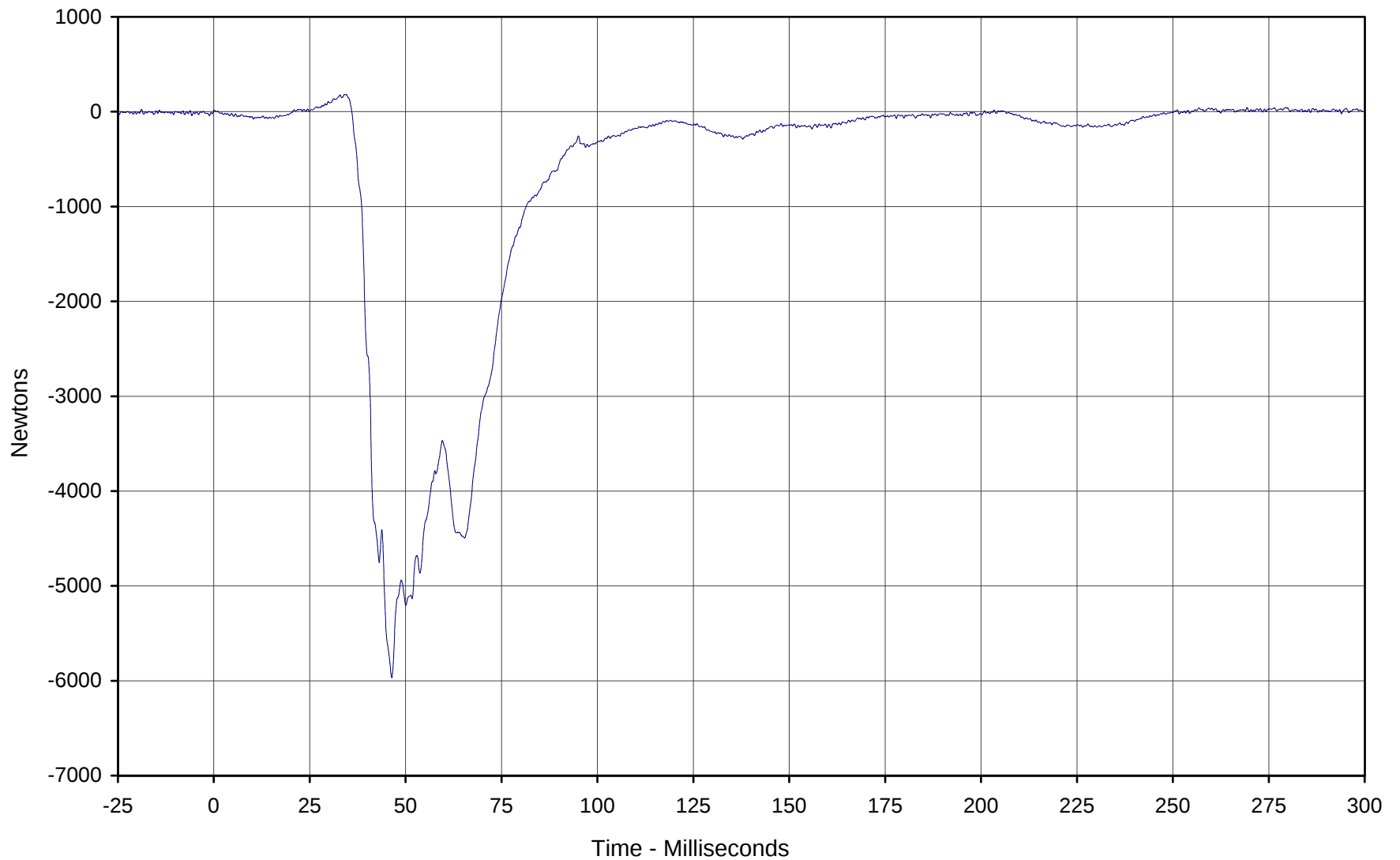




Curve Description: Passenger Pelvis Resultant
Maximum Value: 82.4 at 46.8 Milliseconds
Minimum Value: 0.1 at 1.3 Milliseconds
SAE Filter Class: 1000
Date of Test: 01/18/01
Curve Number: RES-064

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

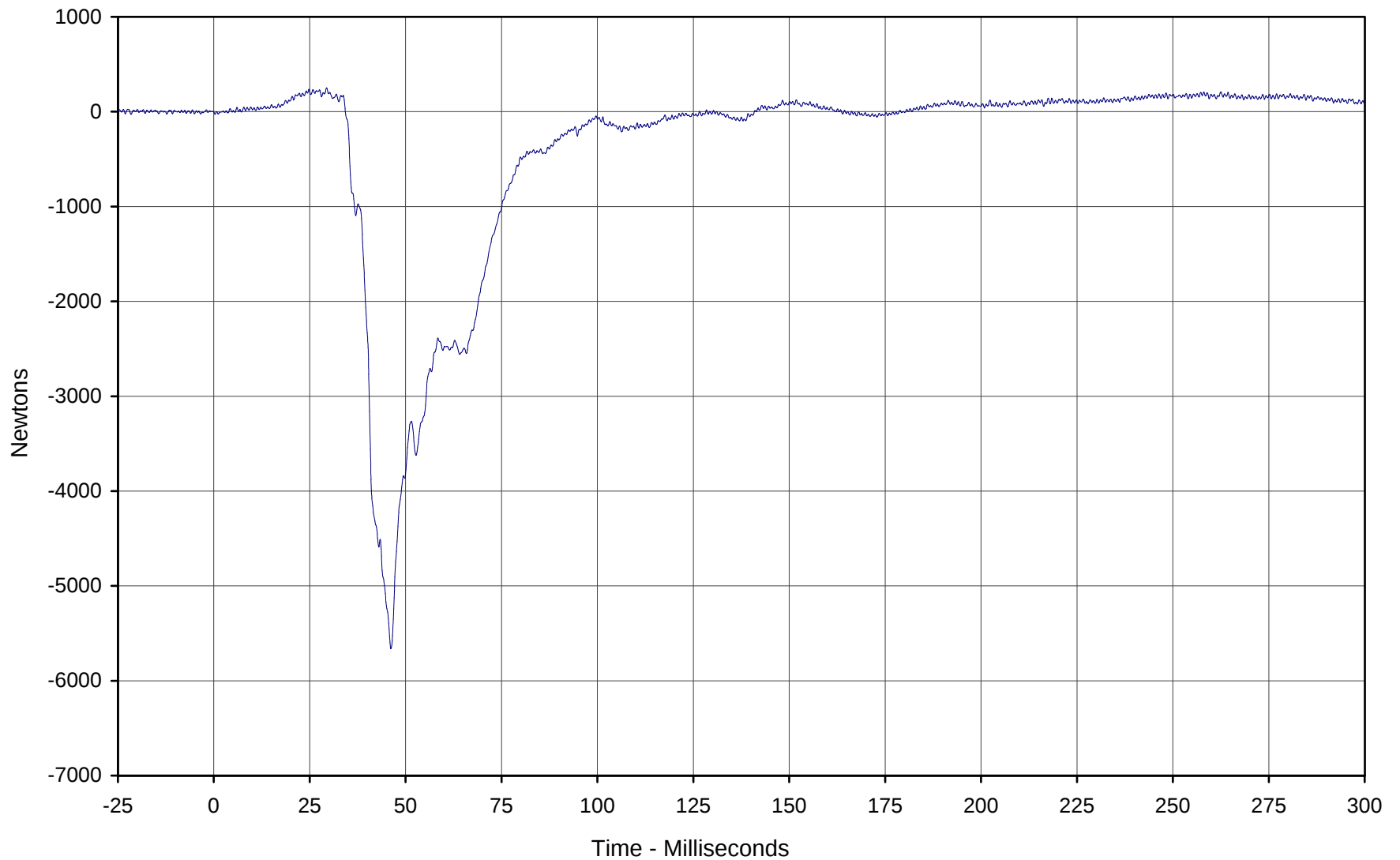




Curve Description: Passenger Left Femur Force
Maximum Value: 182.6 at 34.1 Milliseconds
Minimum Value: -5967.7 at 46.4 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-067

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

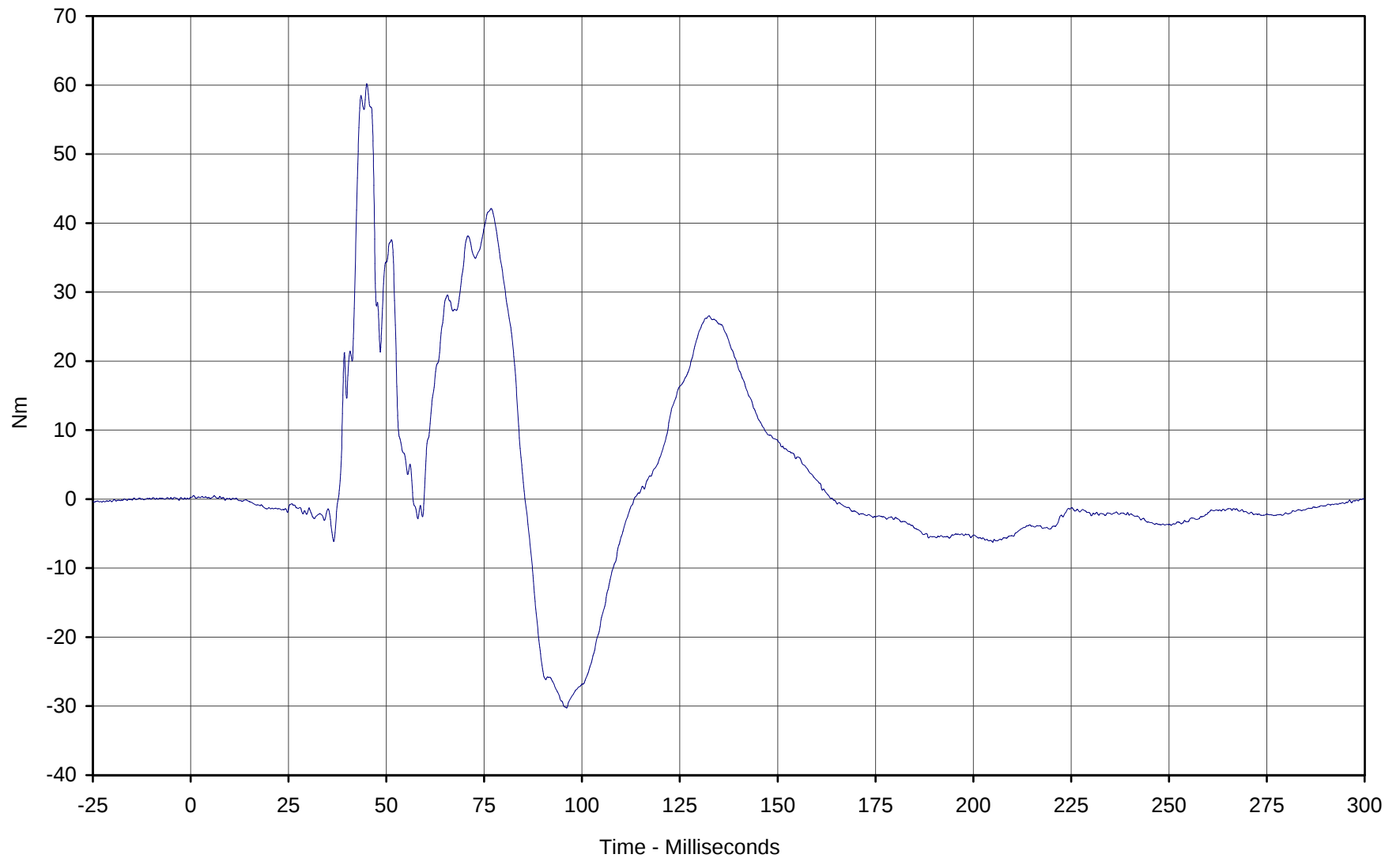




Curve Description: Passenger Right Femur Force
Maximum Value: 251.9 at 29.4 Milliseconds
Minimum Value: -5661.7 at 46.2 Milliseconds
SAE Filter Class: 600
Date of Test: 01/18/01
Curve Number: FIL-068

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Left Upper Tibia Moment X

Maximum Value: 60.2 at 45.0 Milliseconds

Minimum Value: -30.3 at 96.1 Milliseconds

SAE Filter Class: 600

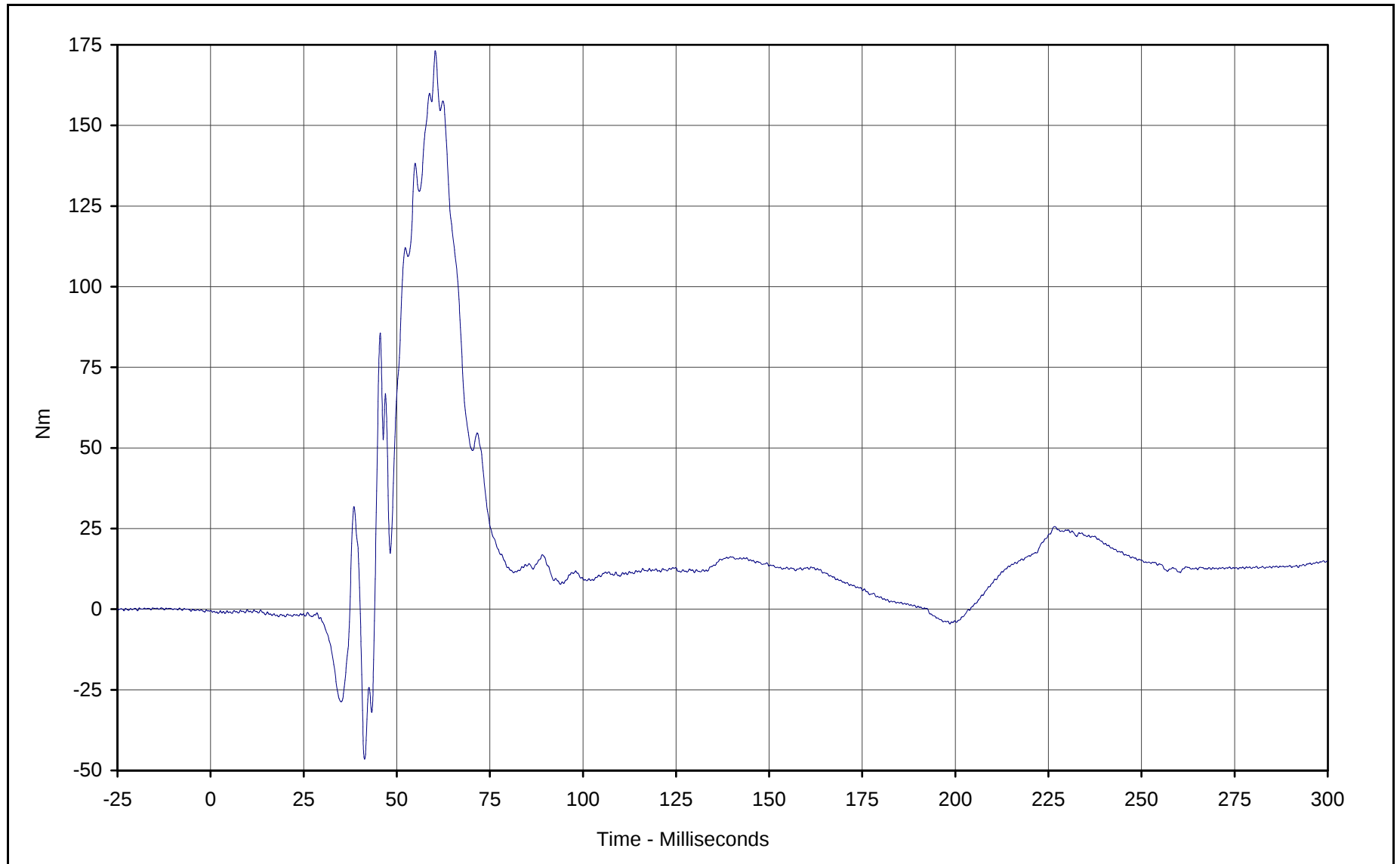
Date of Test: 01/18/01

Curve Number: FIL-069

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Left Upper Tibia Moment Y

Maximum Value: 173.1 at 60.4 Milliseconds

Minimum Value: -46.5 at 41.3 Milliseconds

SAE Filter Class: 600

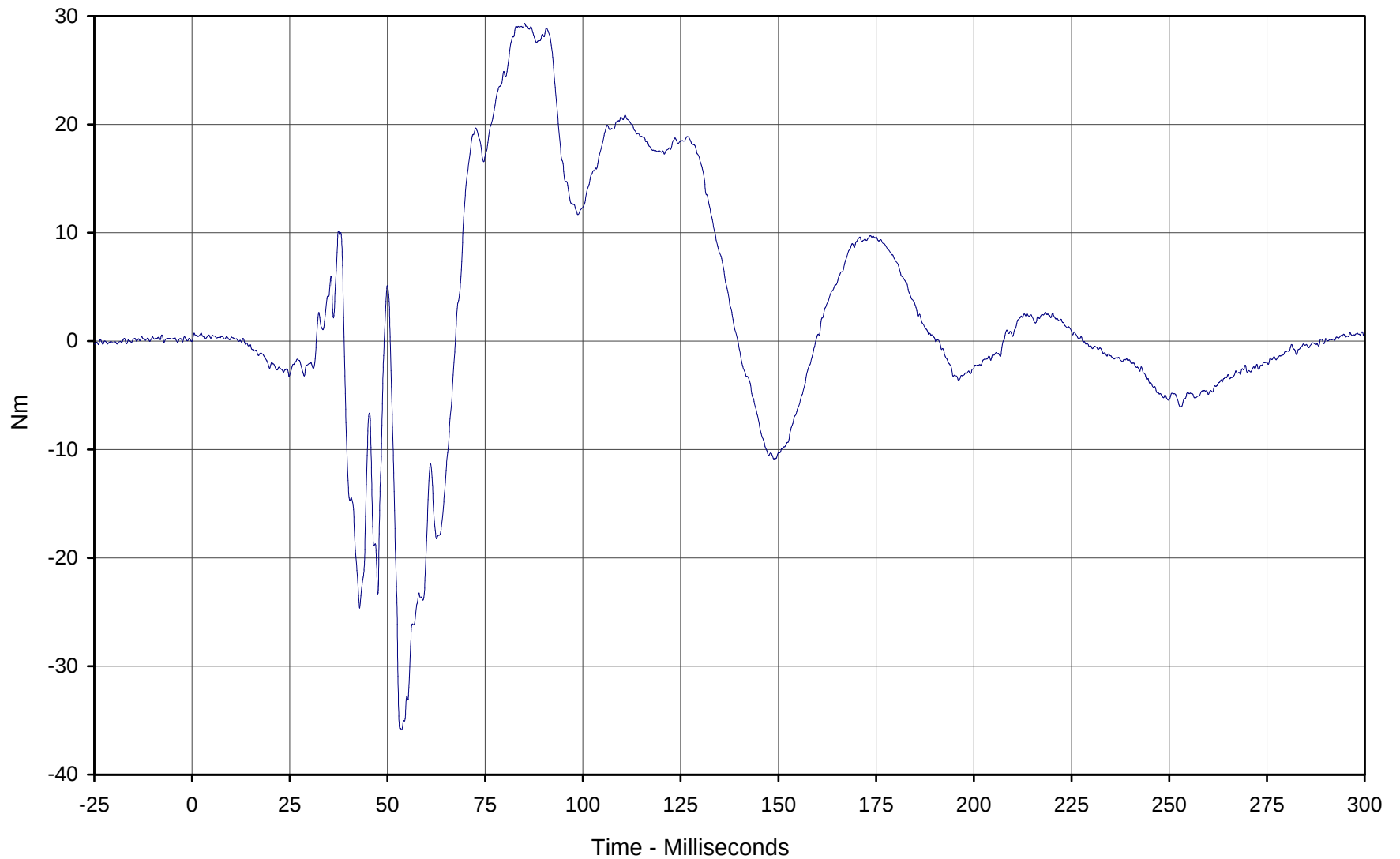
Date of Test: 01/18/01

Curve Number: FIL-070

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Right Upper Tibia Moment X

Maximum Value: 29.3 at 85.1 Milliseconds

Minimum Value: -35.9 at 53.6 Milliseconds

SAE Filter Class: 600

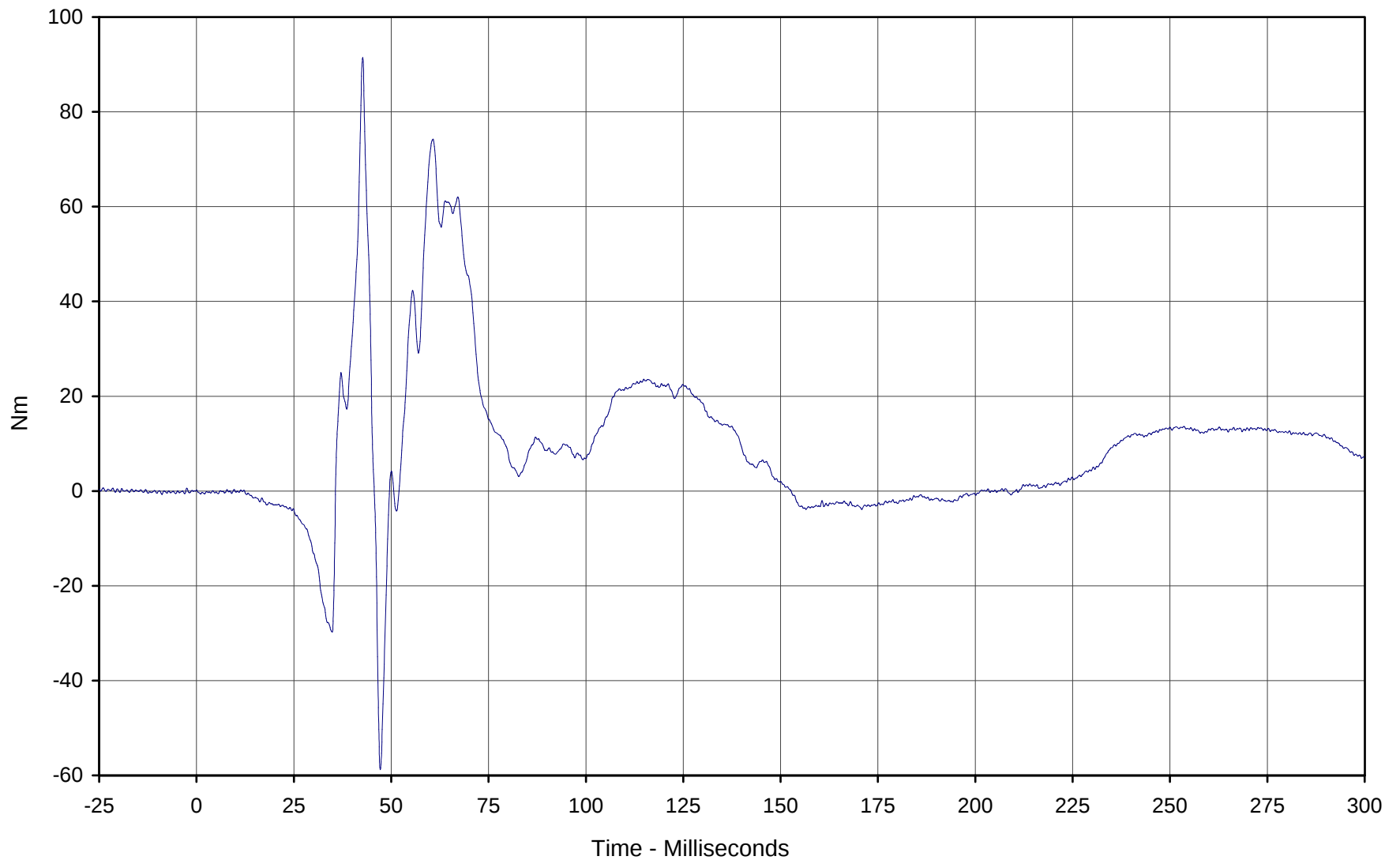
Date of Test: 01/18/01

Curve Number: FIL-071

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Right Upper Tibia Moment Y

Maximum Value: 91.5 at 42.7 Milliseconds

Minimum Value: -58.8 at 47.2 Milliseconds

SAE Filter Class: 600

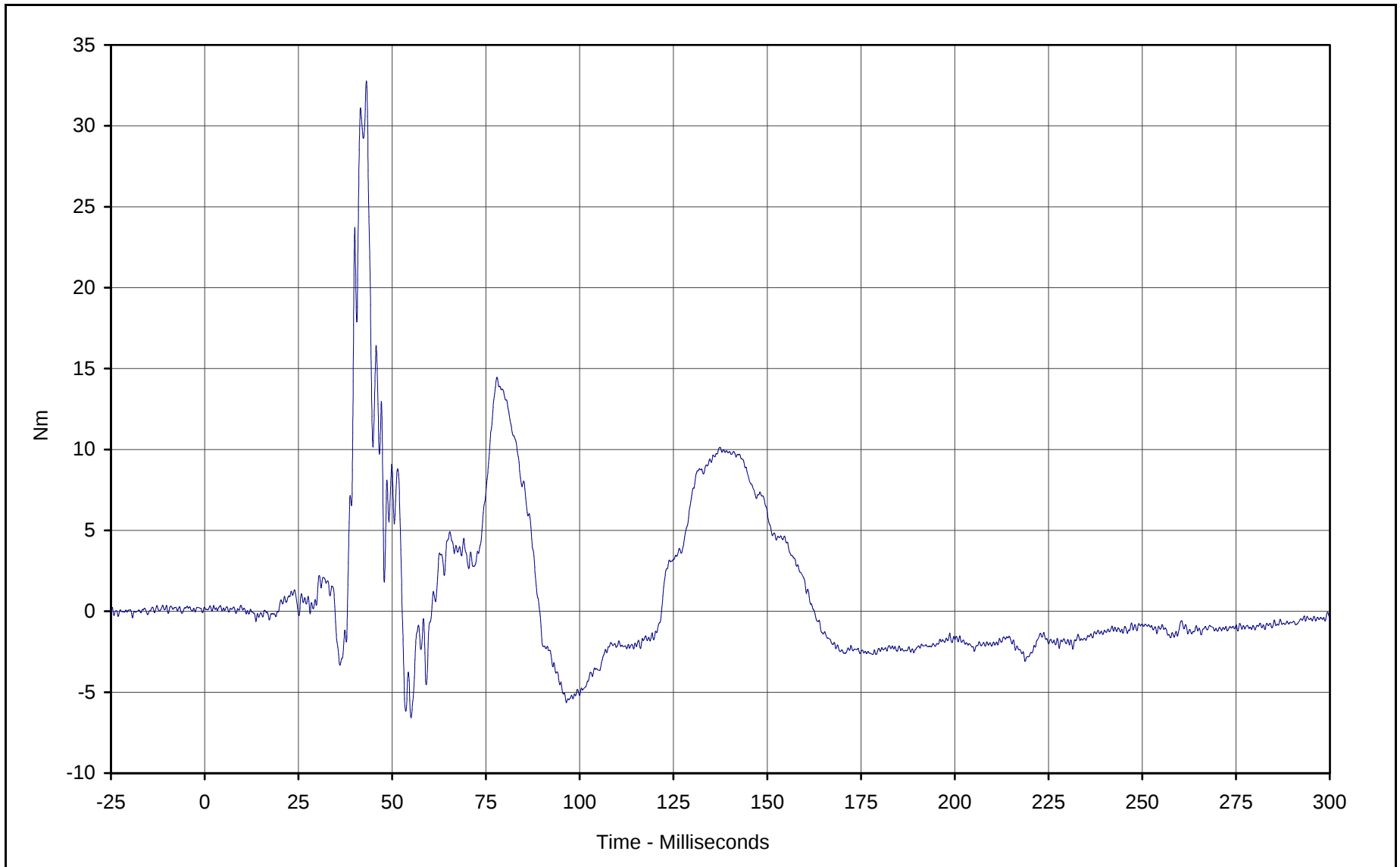
Date of Test: 01/18/01

Curve Number: FIL-072

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Left Lower Tibia Moment X

Maximum Value: 32.8 at 43.1 Milliseconds

Minimum Value: -6.6 at 55.0 Milliseconds

SAE Filter Class: 600

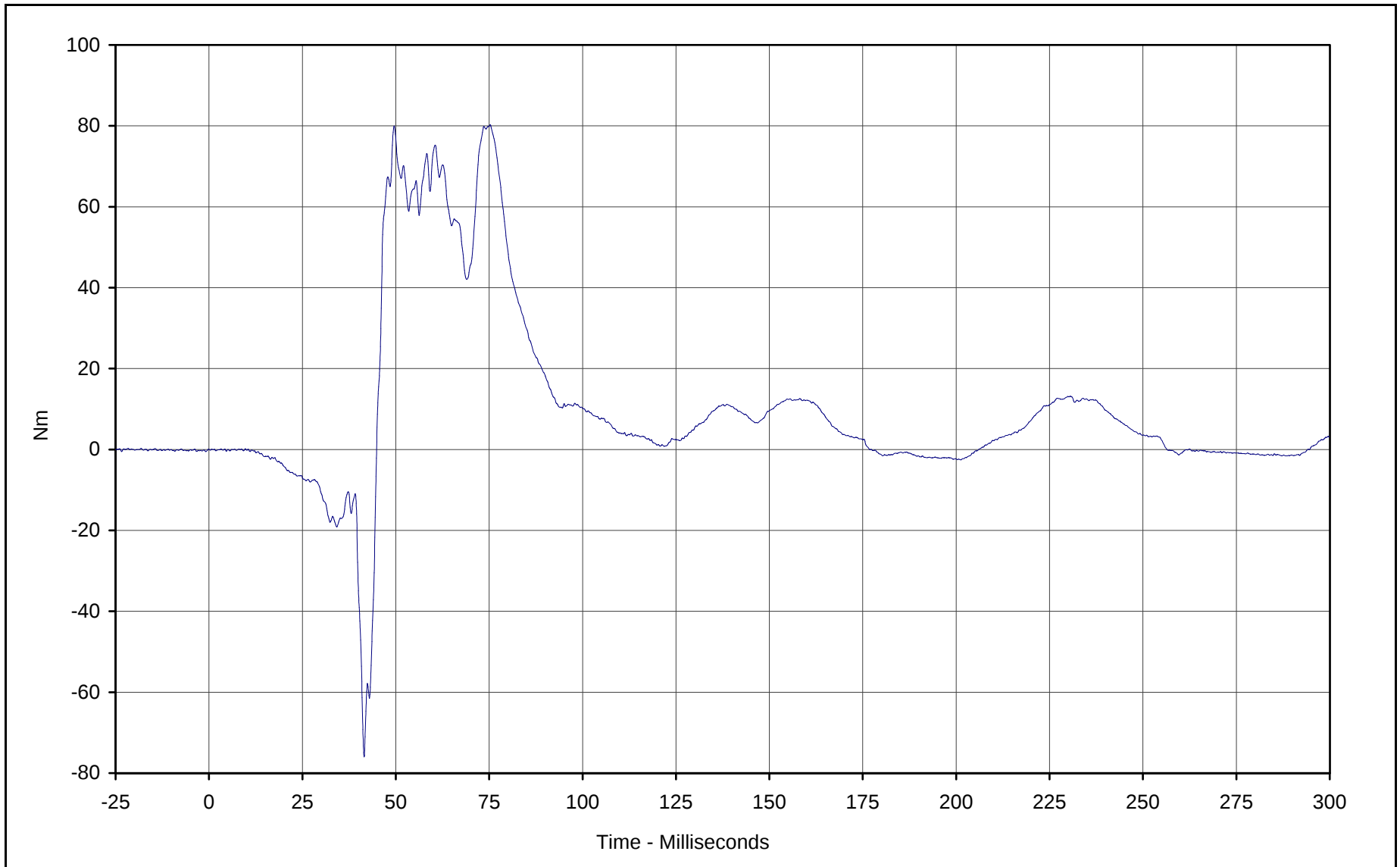
Date of Test: 01/18/01

Curve Number: FIL-073

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Left Lower Tibia Moment Y

Maximum Value: 80.3 at 75.3 Milliseconds

Minimum Value: -76.0 at 41.5 Milliseconds

SAE Filter Class: 600

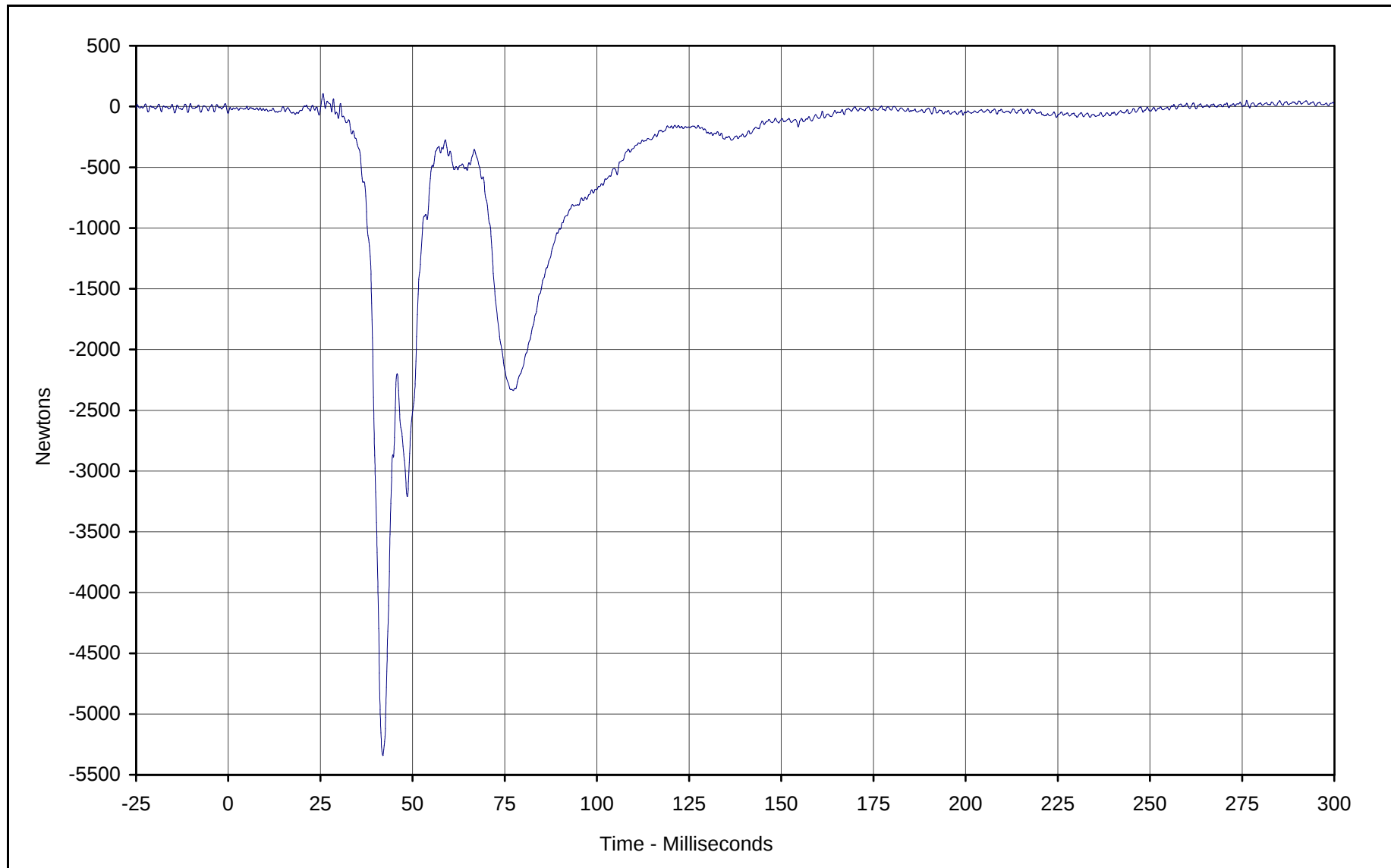
Date of Test: 01/18/01

Curve Number: FIL-074

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Left Lower Tibia Force Z

Maximum Value: 106.5 at 25.7 Milliseconds

Minimum Value: -5342.5 at 41.9 Milliseconds

SAE Filter Class: 600

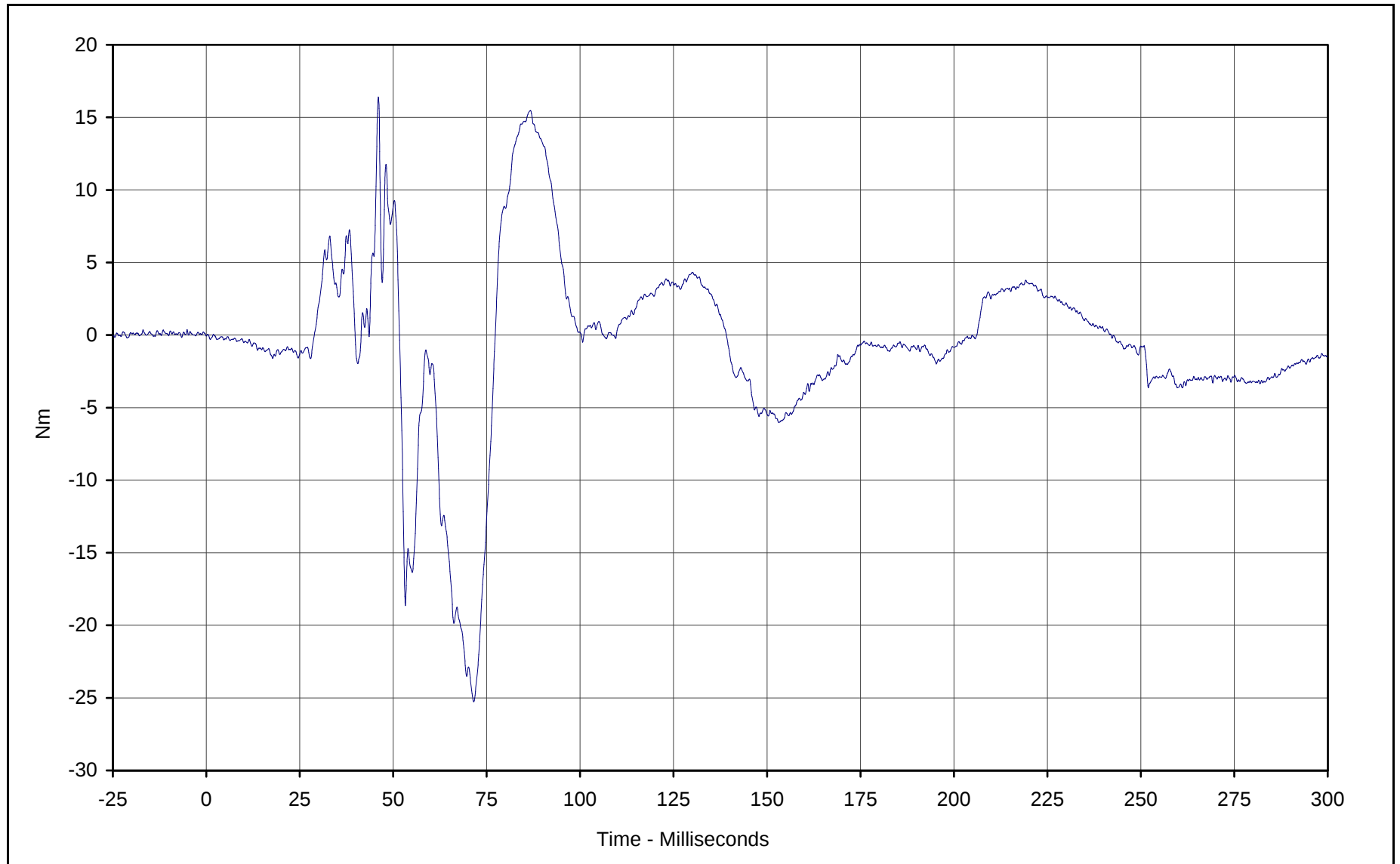
Date of Test: 01/18/01

Curve Number: FIL-075

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Right Lower Tibia Moment X

Maximum Value: 16.4 at 46.0 Milliseconds

Minimum Value: -25.3 at 71.6 Milliseconds

SAE Filter Class: 600

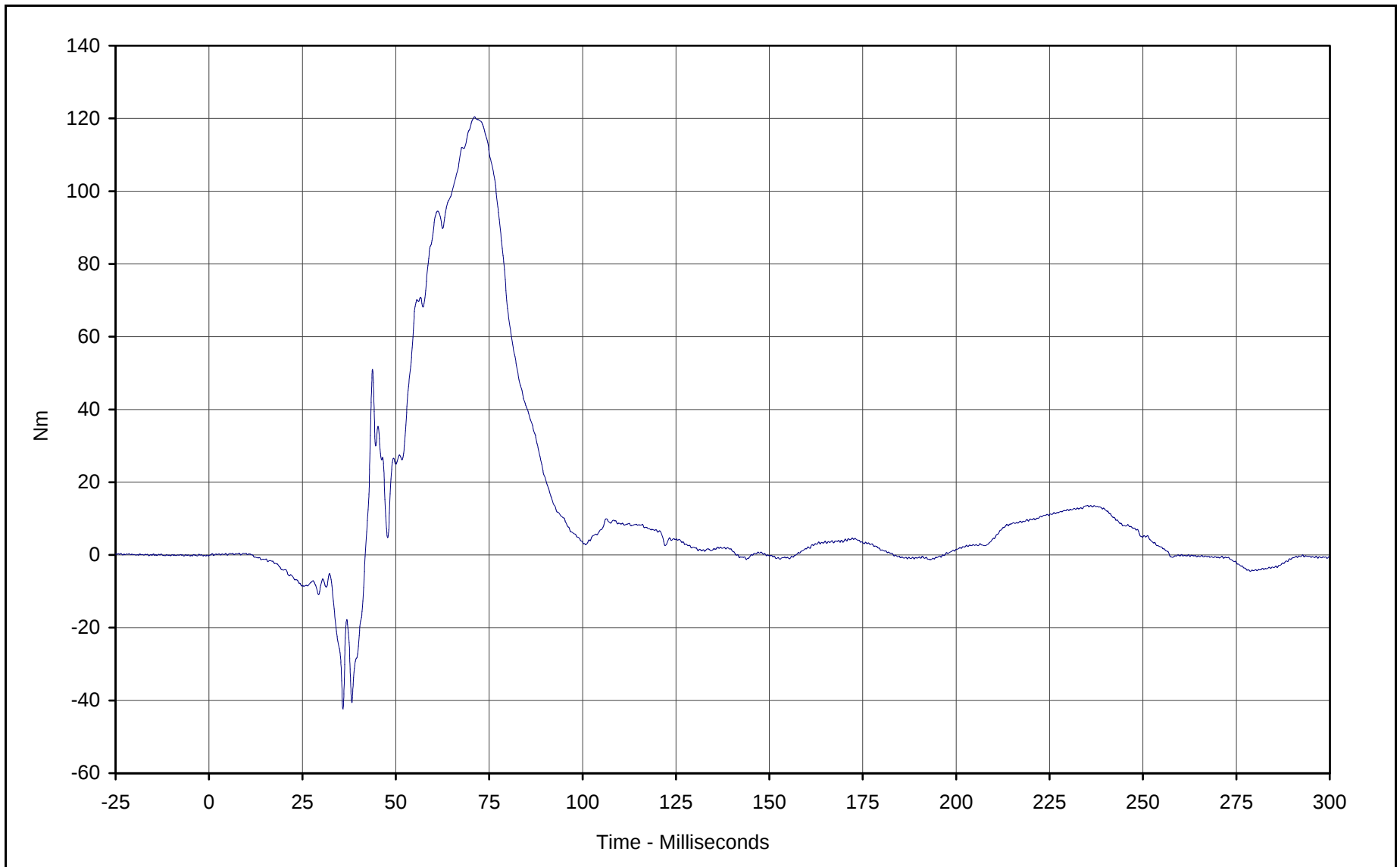
Date of Test: 01/18/01

Curve Number: FIL-076

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Right Lower Tibia Moment Y

Maximum Value: 120.5 at 71.1 Milliseconds

Minimum Value: -42.4 at 35.9 Milliseconds

SAE Filter Class: 600

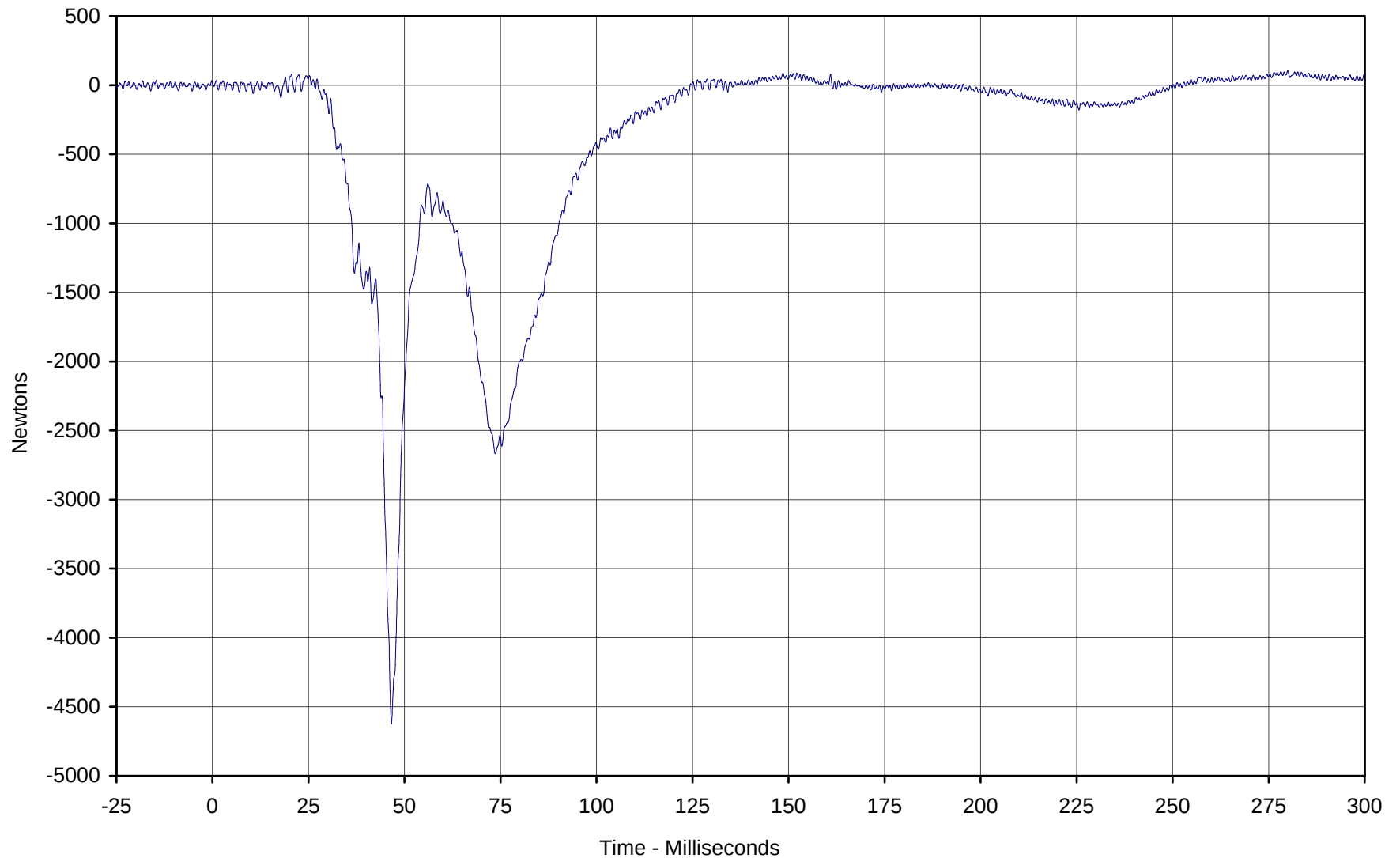
Date of Test: 01/18/01

Curve Number: FIL-077

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Right lower Tibia Force Z

Maximum Value: 103.9 at 280.0 Milliseconds

Minimum Value: -4624.9 at 46.6 Milliseconds

SAE Filter Class: 600

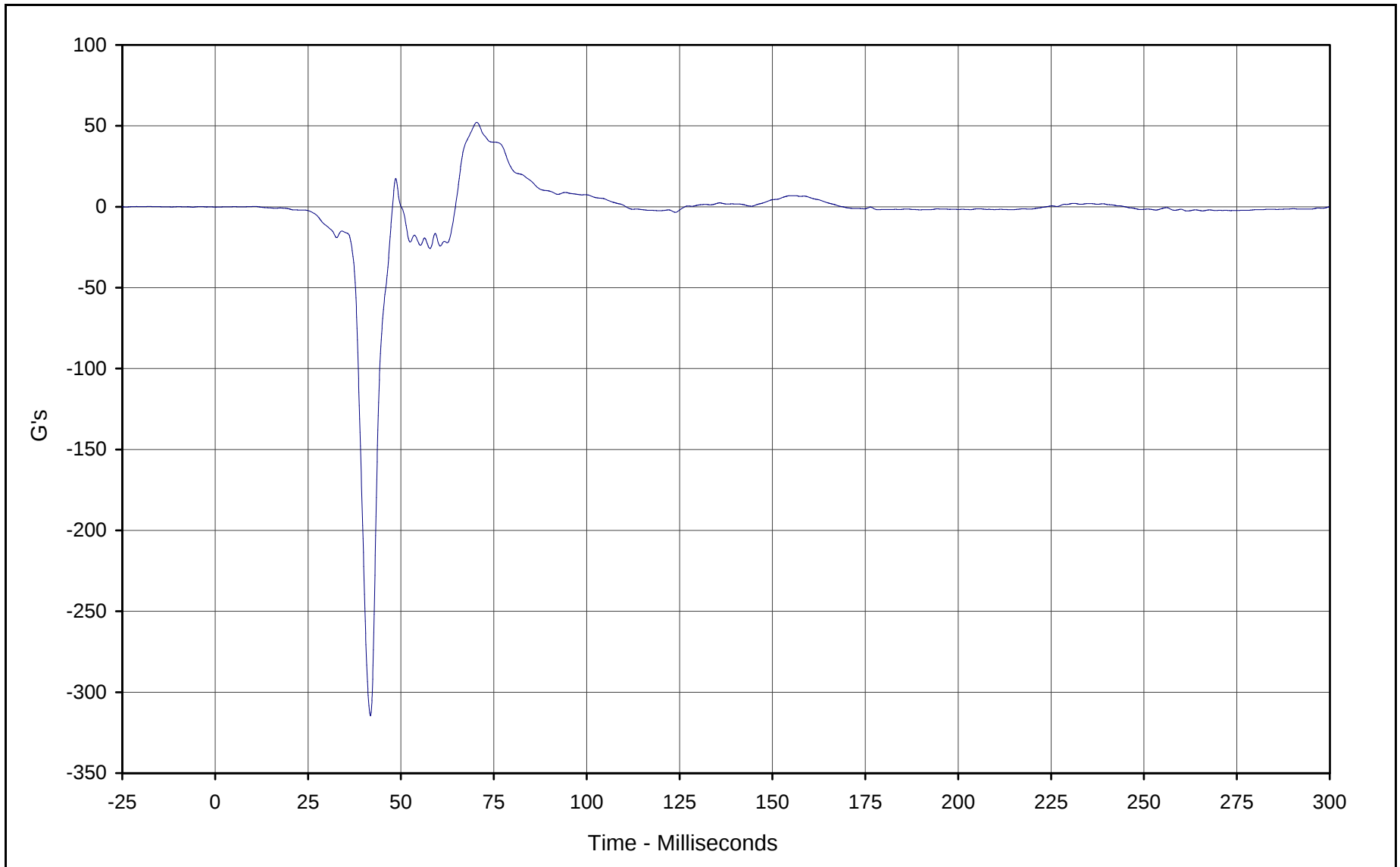
Date of Test: 01/18/01

Curve Number: FIL-078

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

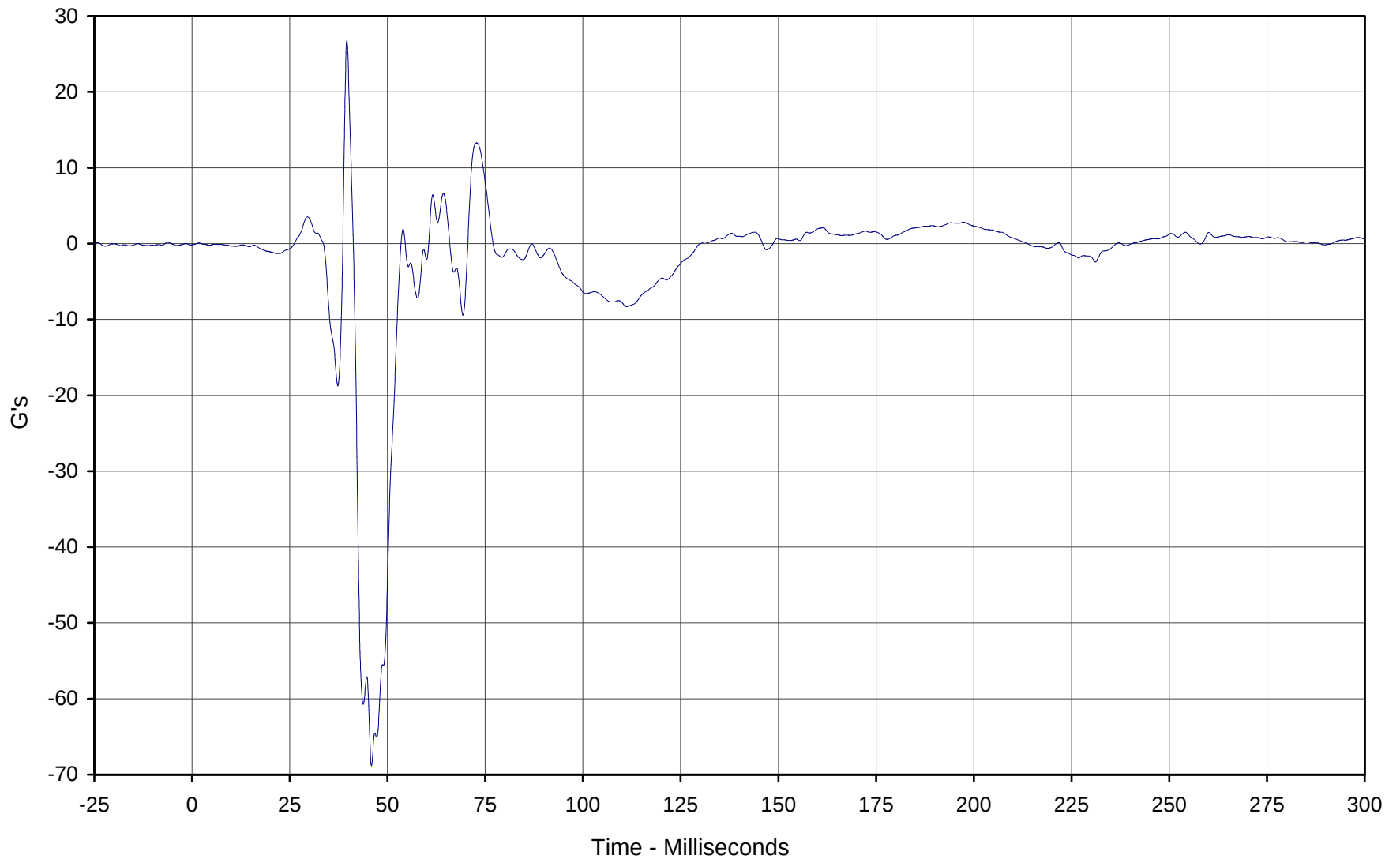




Curve Description: Passenger Left Foot Aft X
Maximum Value: 52.2 at 70.4 Milliseconds
Minimum Value: -314.6 at 41.8 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-079

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

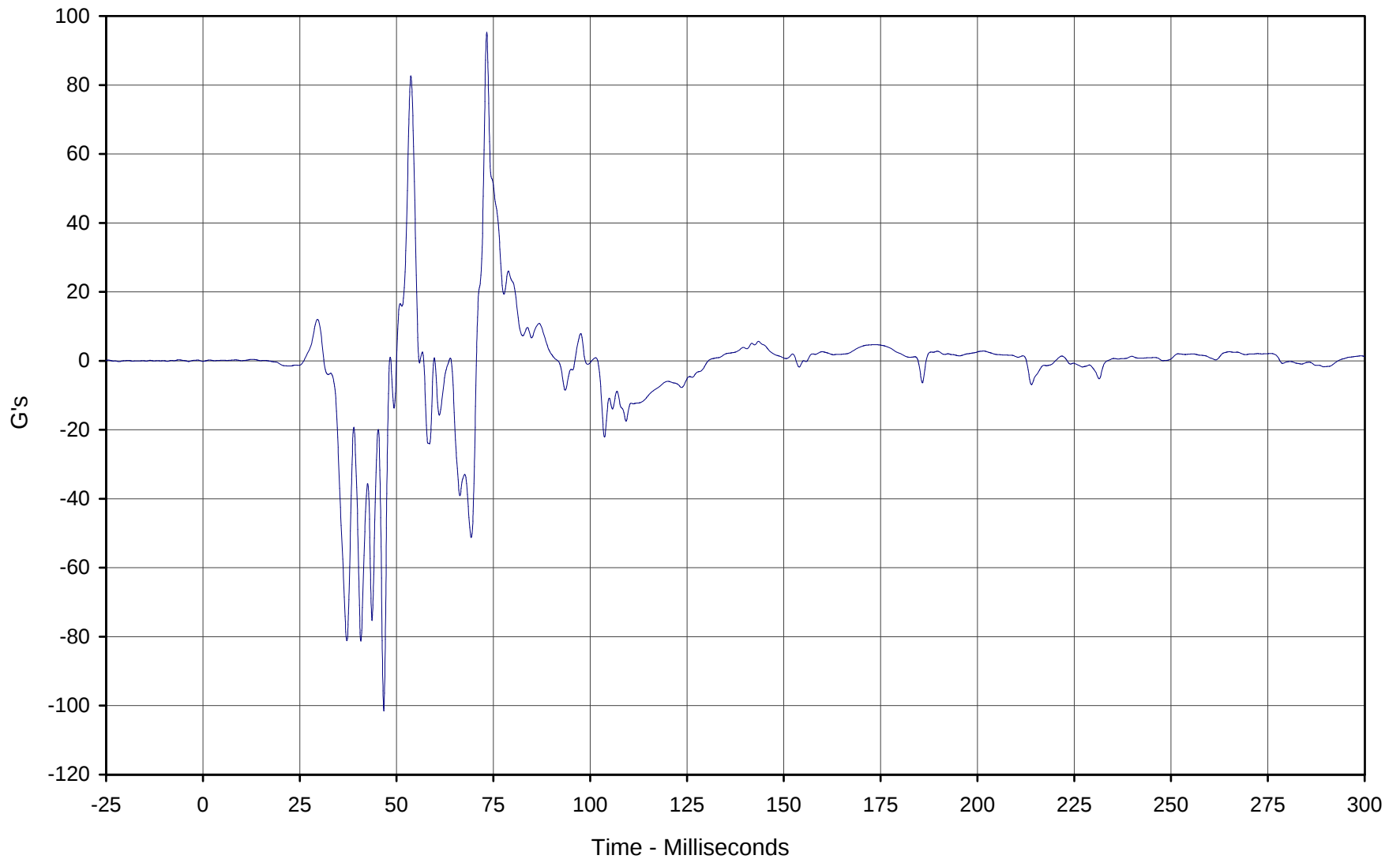




Curve Description: Passenger Left Foot Aft Z
Maximum Value: 26.8 at 39.6 Milliseconds
Minimum Value: -68.8 at 45.9 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-080

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

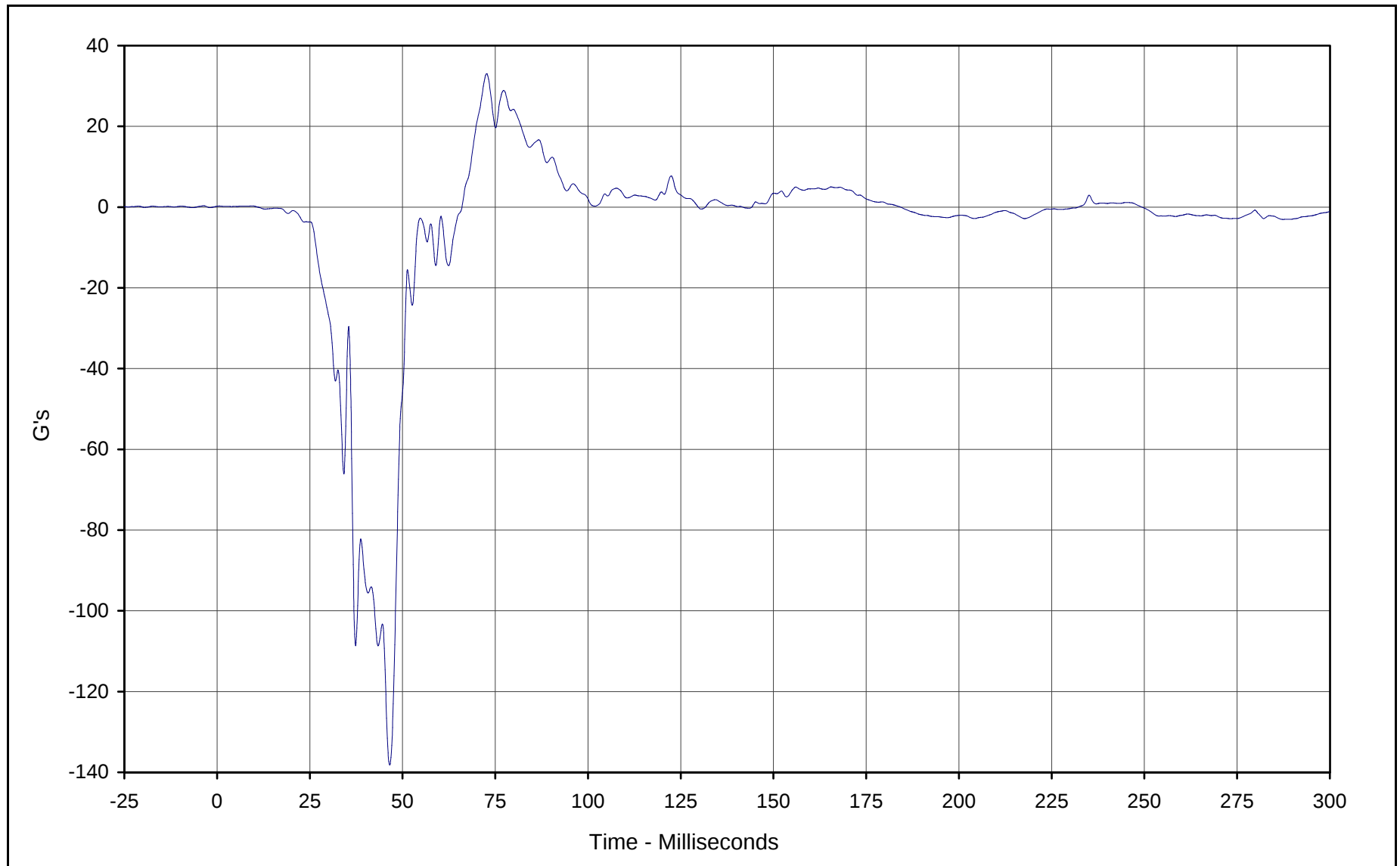




Curve Description: Passenger Left Foot Fore Z
Maximum Value: 95.3 at 73.3 Milliseconds
Minimum Value: -101.6 at 46.7 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-081

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

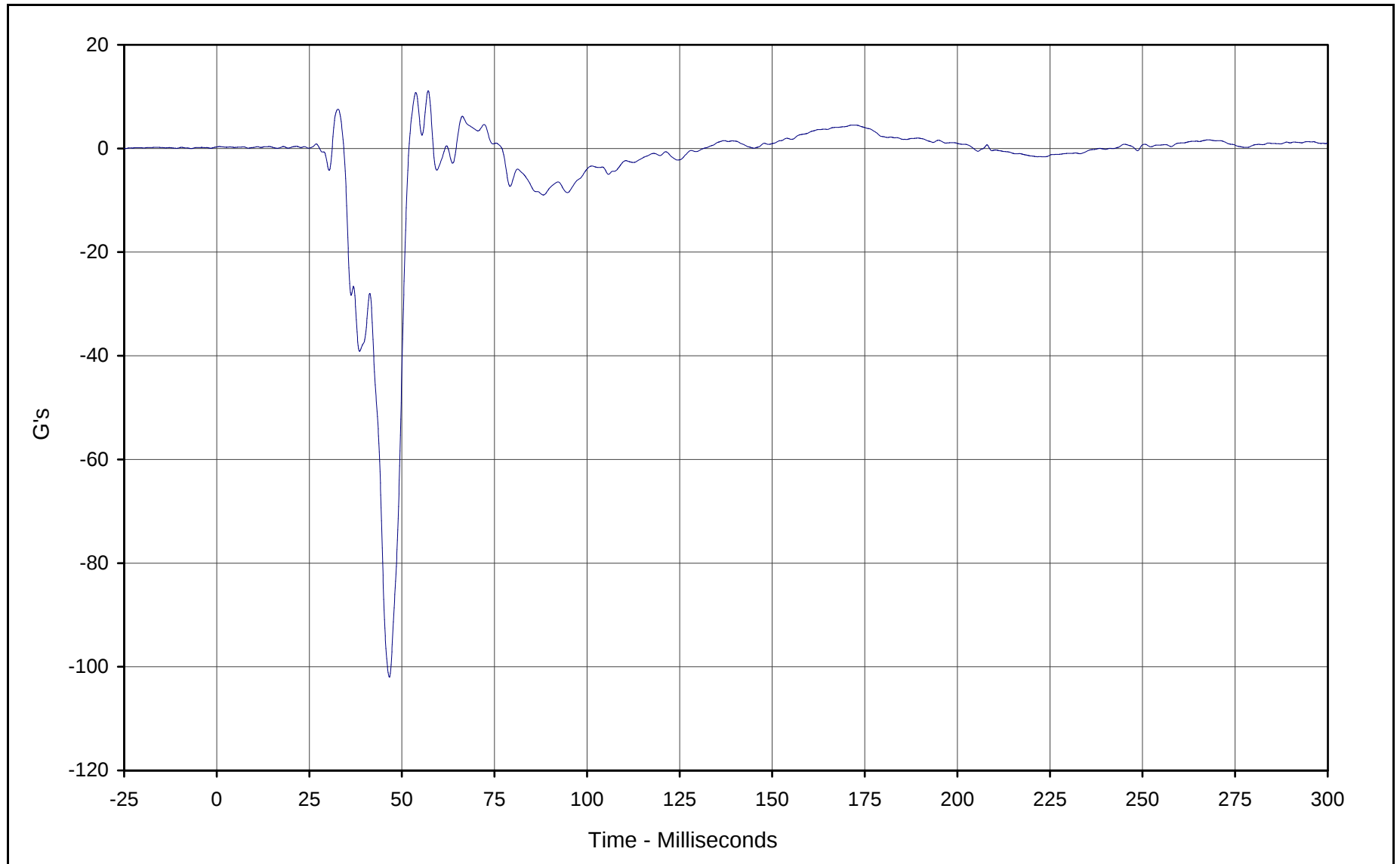




Curve Description: Passenger Right Foot Aft X
Maximum Value: 33.1 at 72.7 Milliseconds
Minimum Value: -138.1 at 46.5 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-082

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

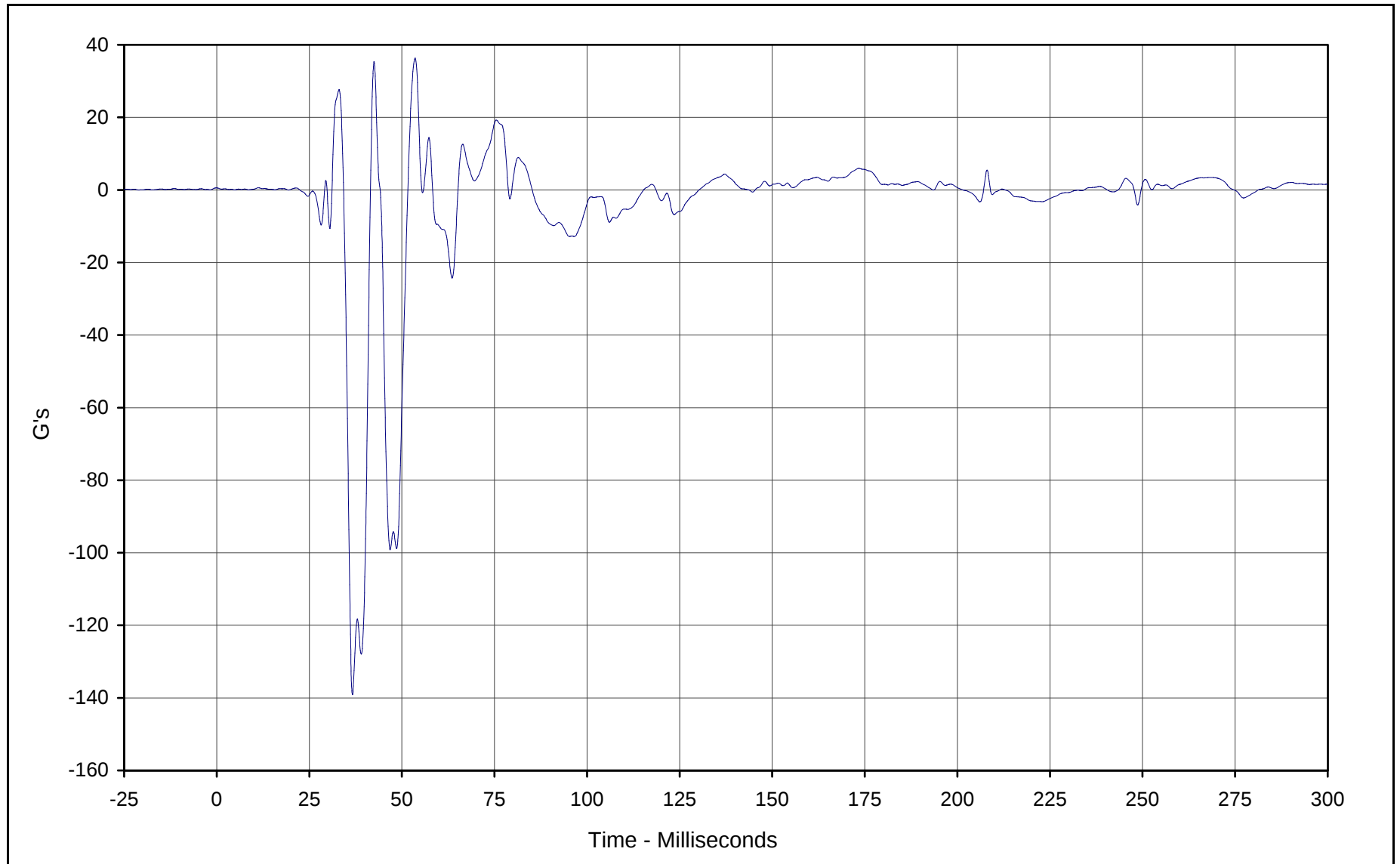




Curve Description: Passenger Right Foot Aft Z
Maximum Value: 11.1 at 57.1 Milliseconds
Minimum Value: -102.0 at 46.6 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-083

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

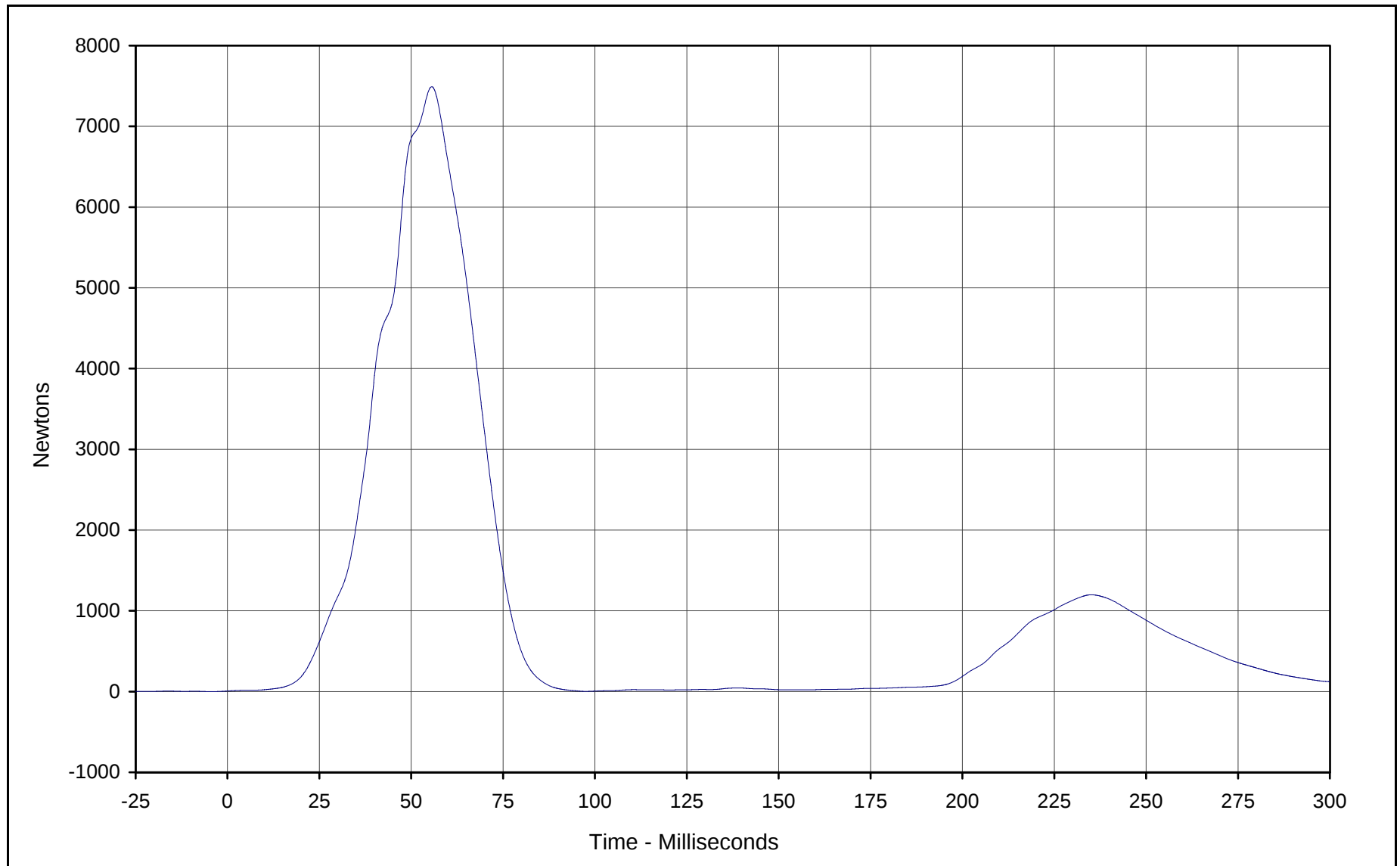




Curve Description: Passenger Right Foot Fore Z
Maximum Value: 36.3 at 53.6 Milliseconds
Minimum Value: -139.1 at 36.6 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: FIL-084

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

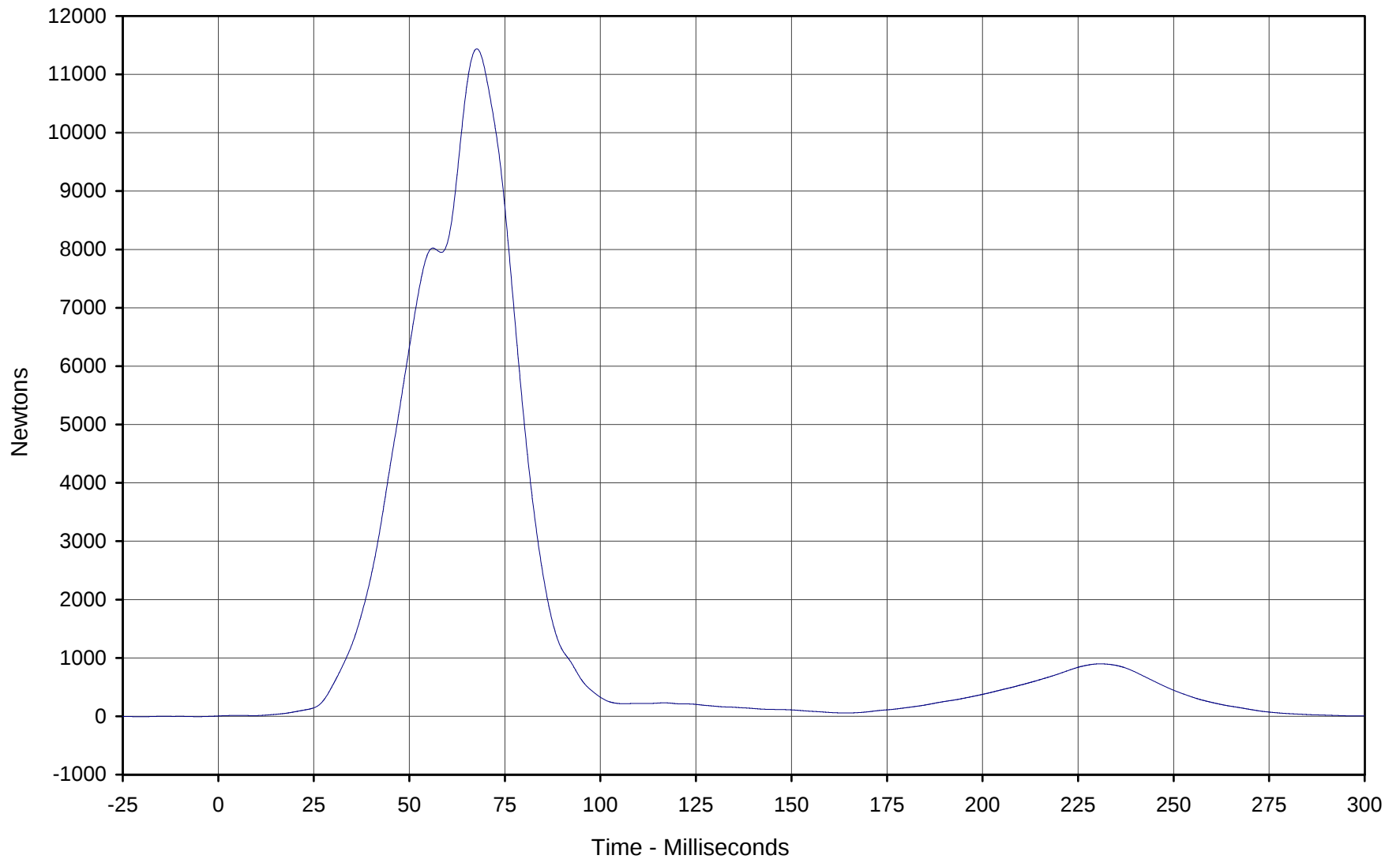




Curve Description: Passenger Lap Belt Force
Maximum Value: 7491.5 at 55.6 Milliseconds
Minimum Value: 2.2 at 97.5 Milliseconds
SAE Filter Class: 60
Date of Test: 01/18/01
Curve Number: FIL-085

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

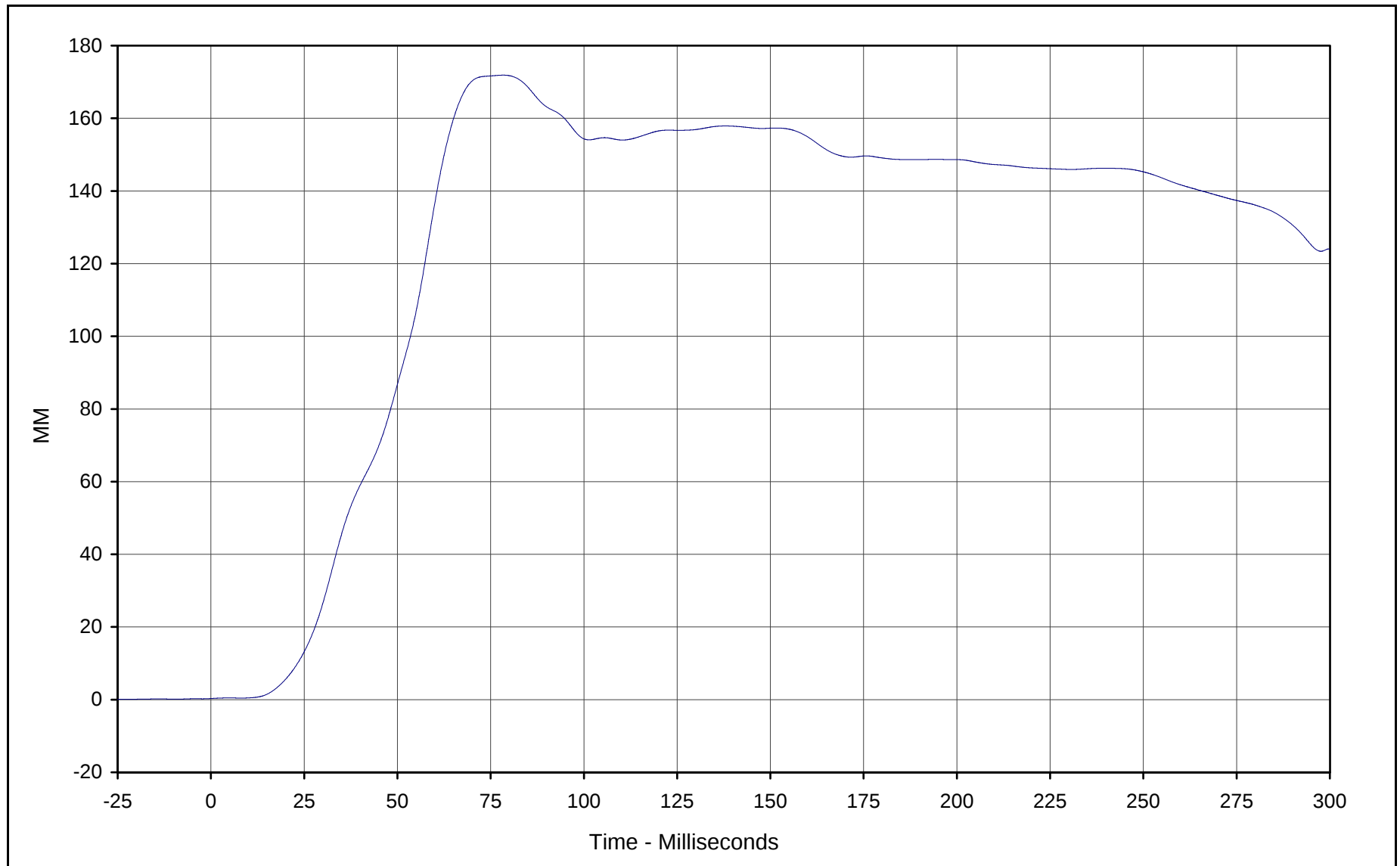




Curve Description: Passenger Shoulder Belt Force
Maximum Value: 11438.6 at 67.7 Milliseconds
Minimum Value: 4.9 at 0.0 Milliseconds
SAE Filter Class: 60
Date of Test: 01/18/01
Curve Number: FIL-086

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

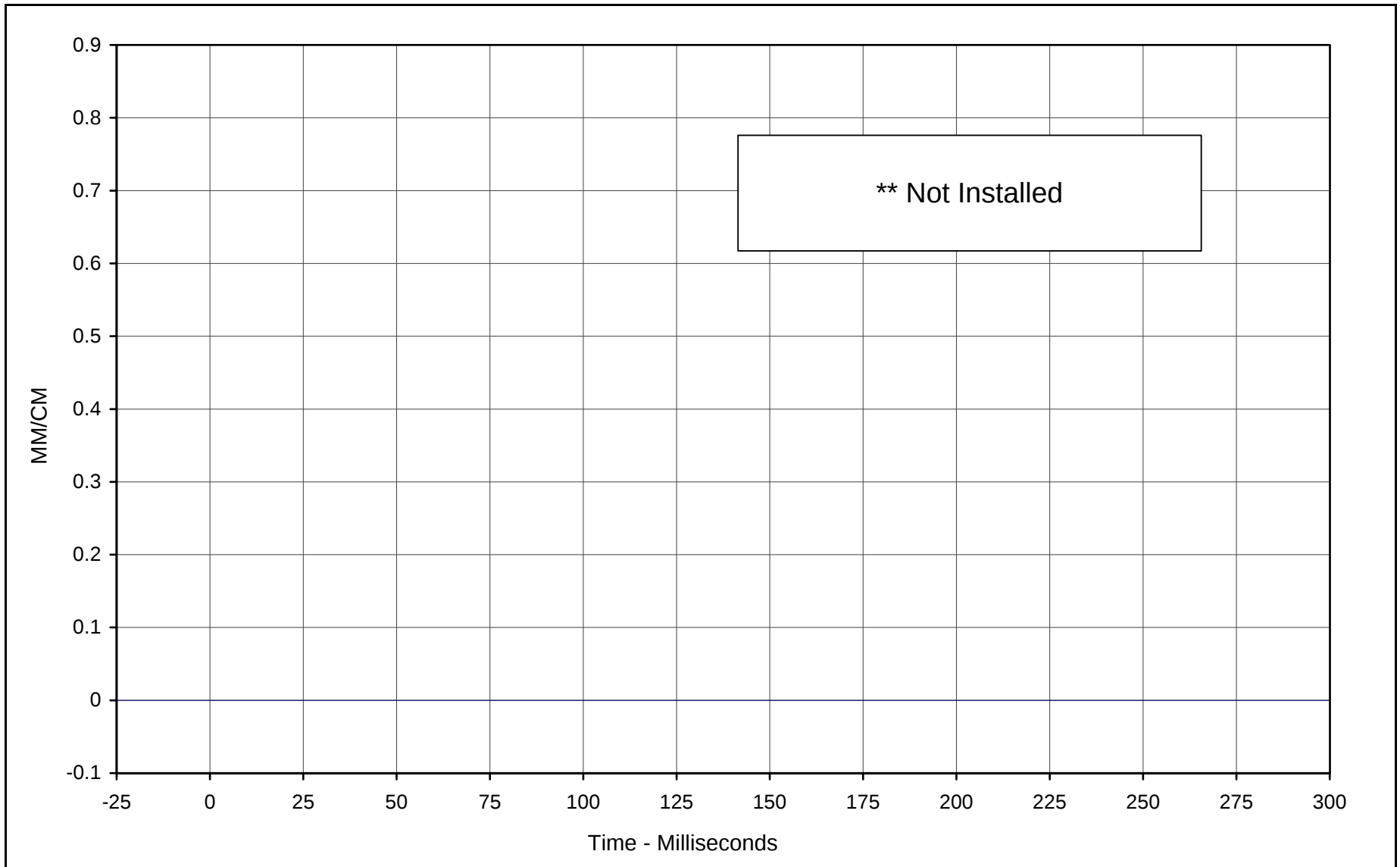




Curve Description: Passenger Shoulder Belt Pullout
Maximum Value: 171.9 at 78.3 Milliseconds
Minimum Value: 0.3 at 0.0 Milliseconds
SAE Filter Class: 60
Date of Test: 01/18/01
Curve Number: FIL-087

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Passenger Shoulder Belt Elongation **

Maximum Value: 0.00 at 0.0 Milliseconds

Minimum Value: 0.00 at 0.0 Milliseconds

SAE Filter Class: 60

Date of Test: 01/18/01

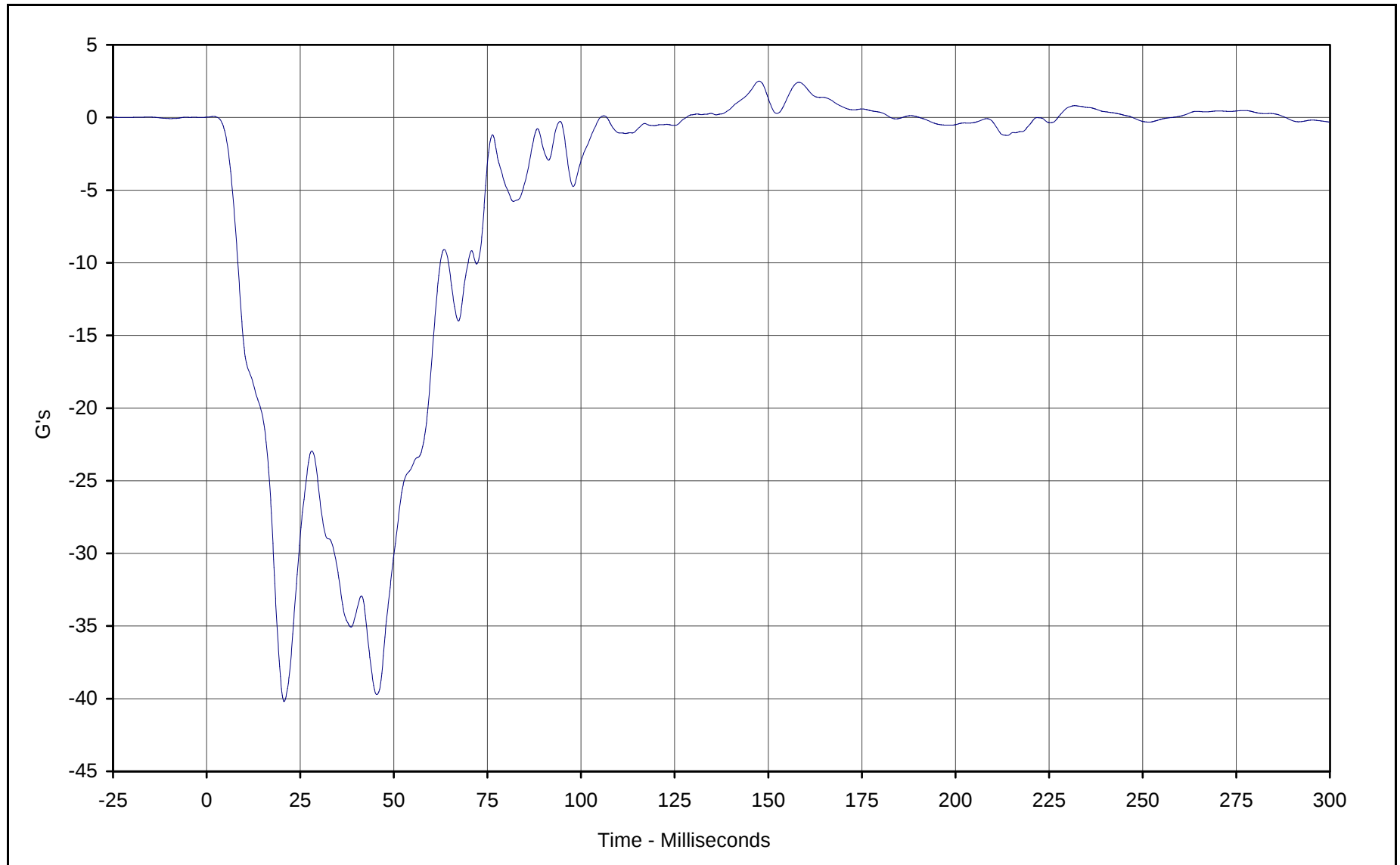
Curve Number: FIL-088

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

** Not installed

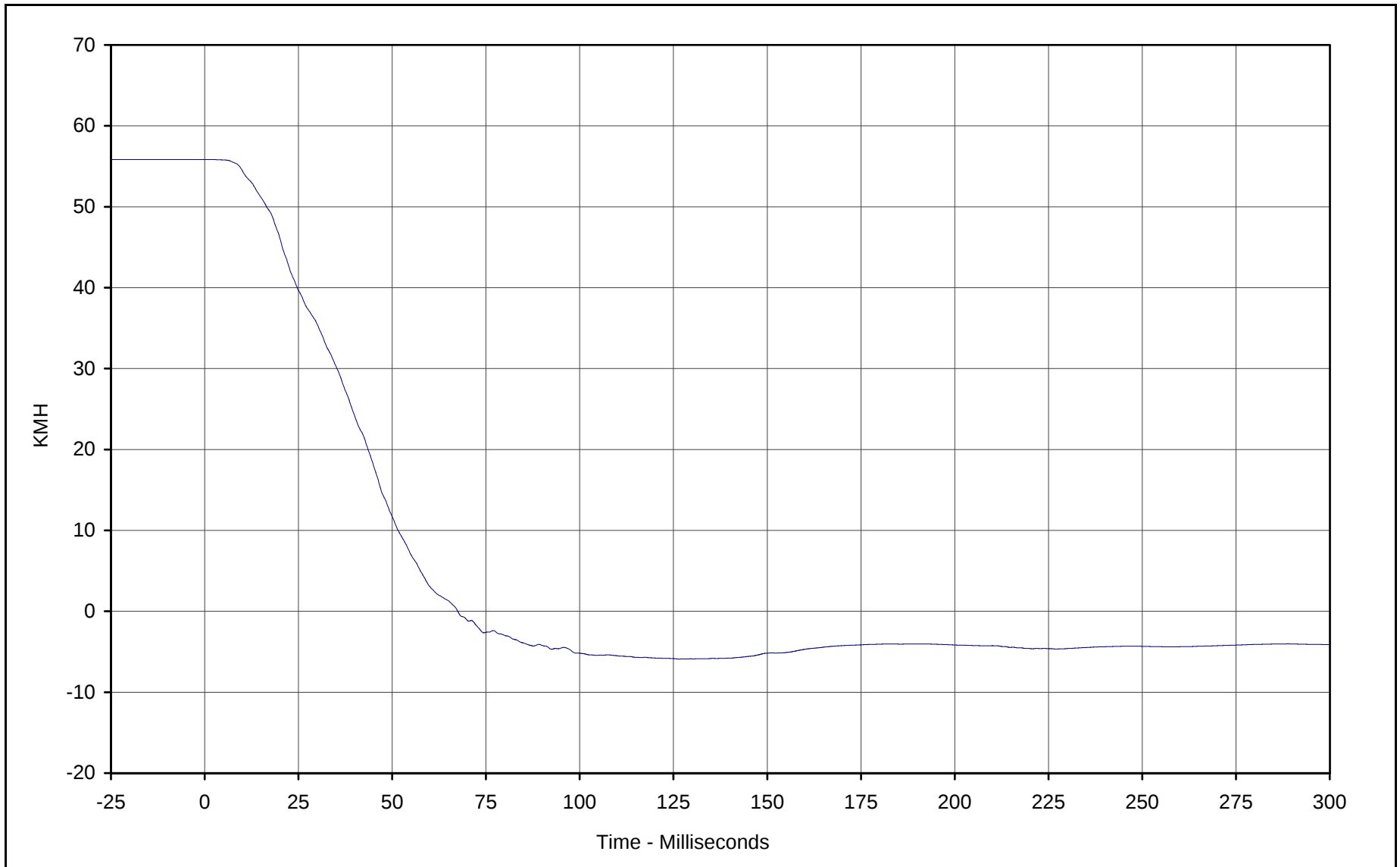




Curve Description: Vehicle Left Rear Primary
Maximum Value: 2.5 at 147.6 Milliseconds
Minimum Value: -40.2 at 20.7 Milliseconds
SAE Filter Class: 60
Date of Test: 01/18/01
Curve Number: FIL-089

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





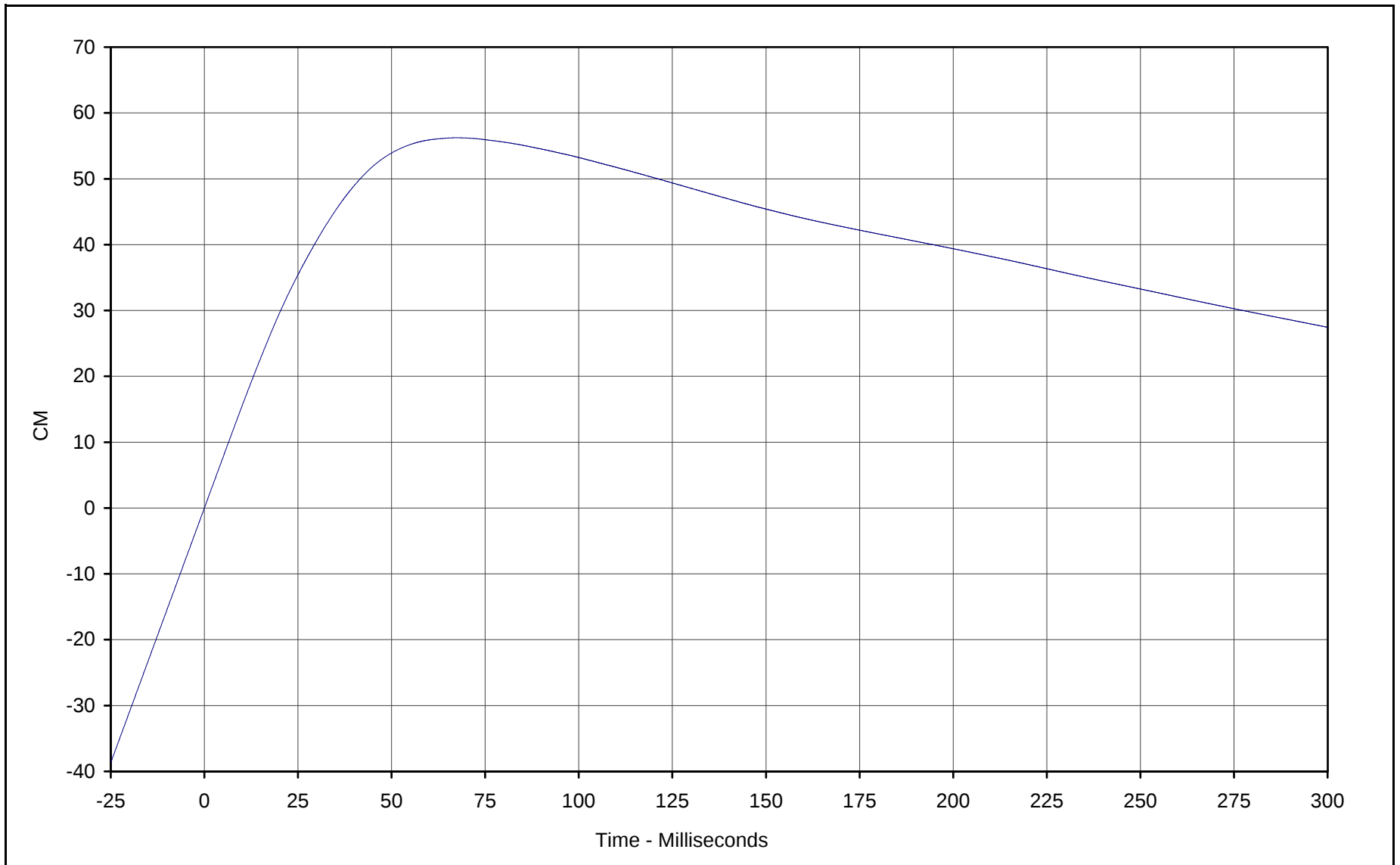
Curve Description: Vehicle Left Rear Primary Velocity
Maximum Value: 55.8 at 0.4 Milliseconds
Minimum Value: -5.9 at 126.5 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN1-089

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



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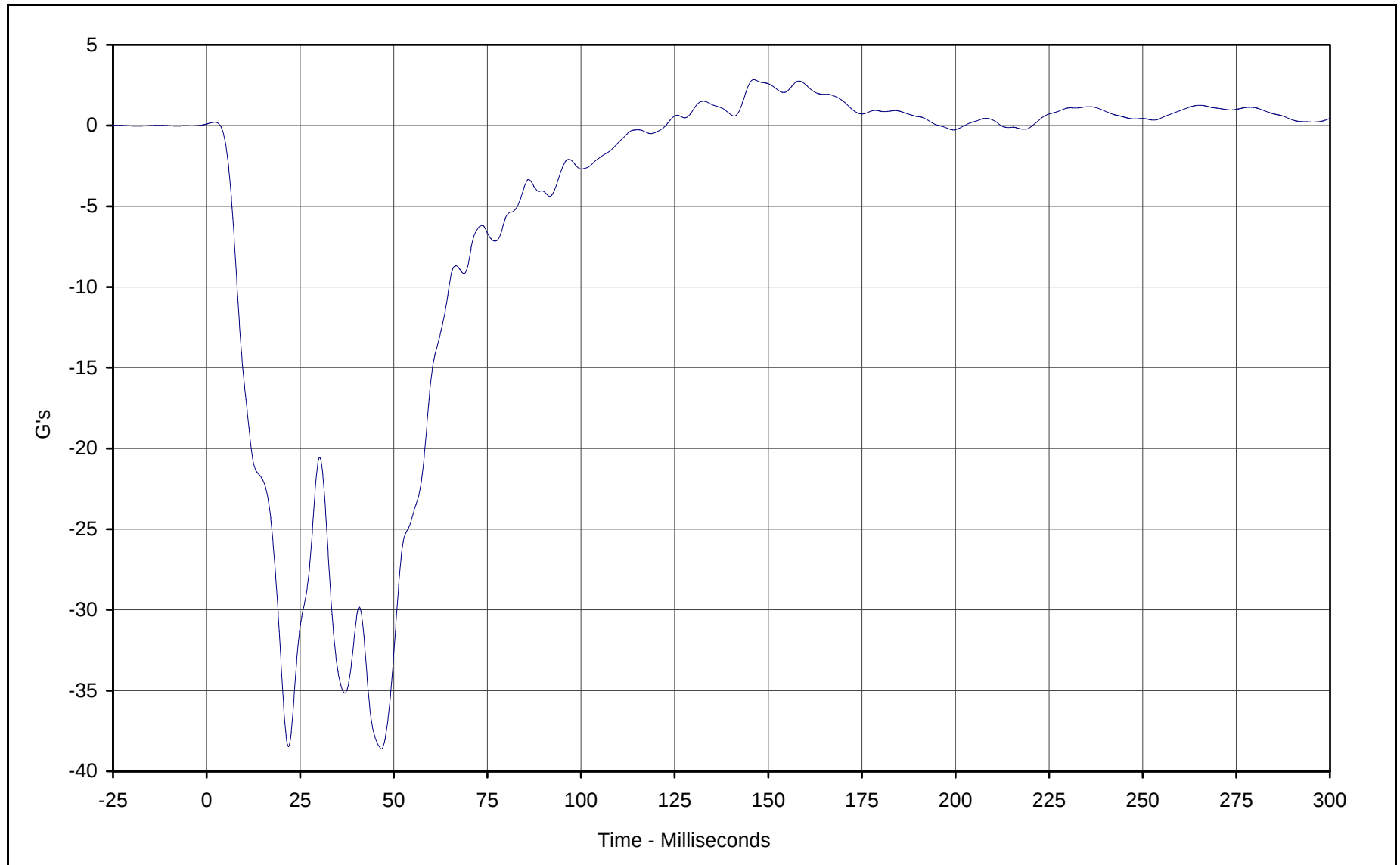
KAR21001-06



Curve Description: Vehicle Left Rear Primary Displ.
Maximum Value: 56.2 at 67.5 Milliseconds
Minimum Value: 0.0 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN2-089

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

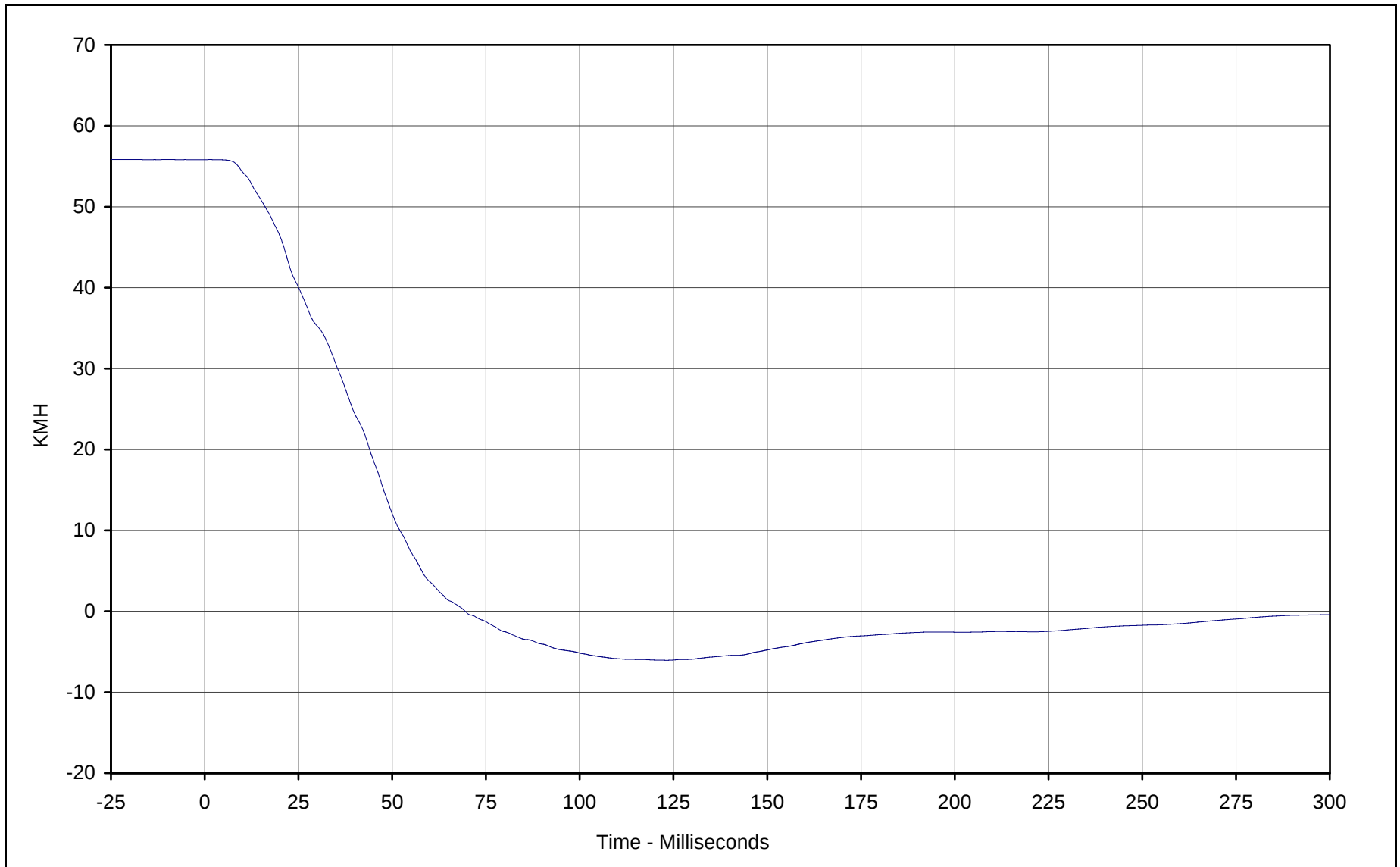




Curve Description: Vehicle Right Rear Primary
Maximum Value: 2.8 at 146.1 Milliseconds
Minimum Value: -38.6 at 46.7 Milliseconds
SAE Filter Class: 60
Date of Test: 01/18/01
Curve Number: FIL-090

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

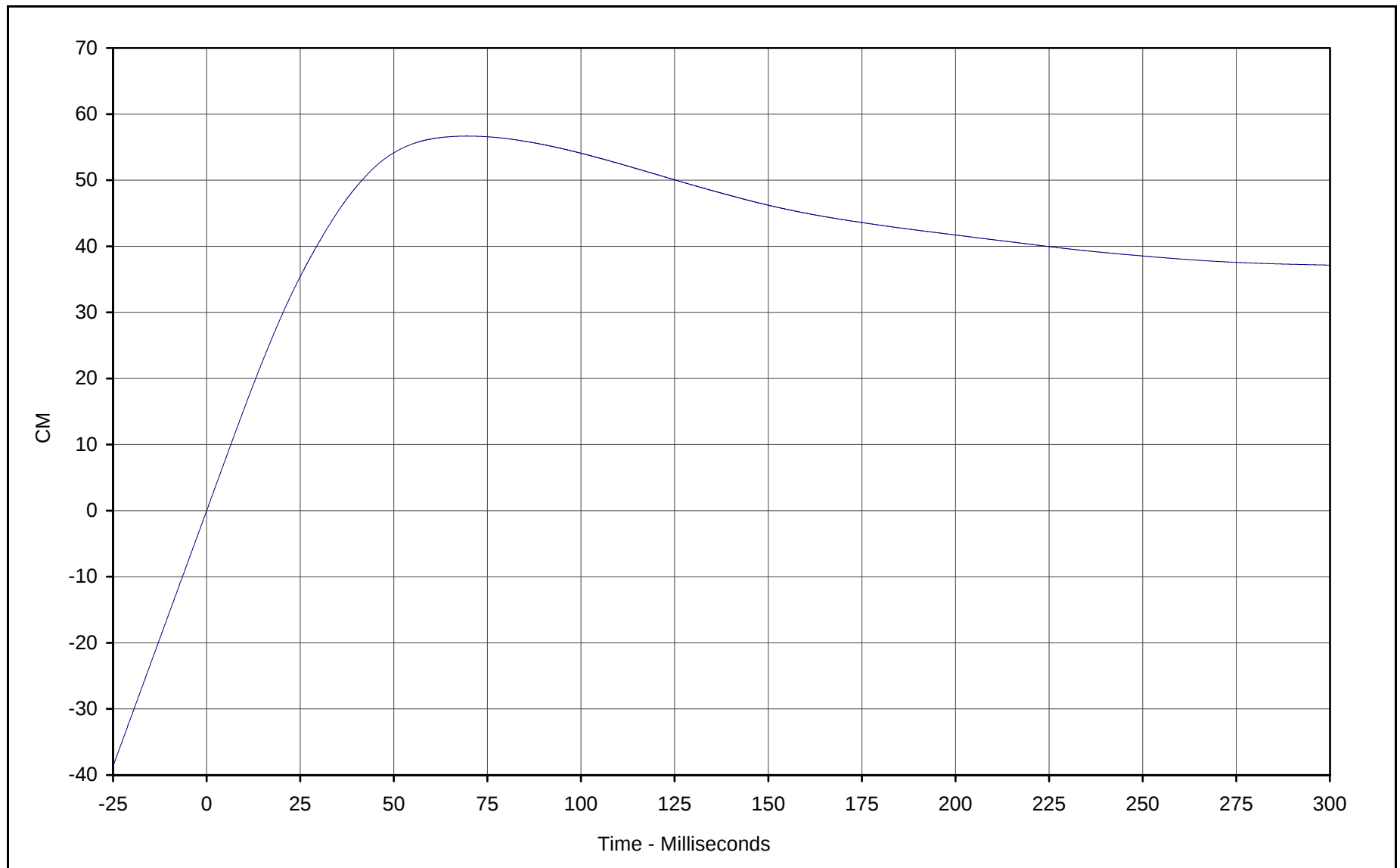




Curve Description: Vehicle Right Rear Primary Velocity
Maximum Value: 55.8 at 1.5 Milliseconds
Minimum Value: -6.1 at 123.2 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN1-090

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

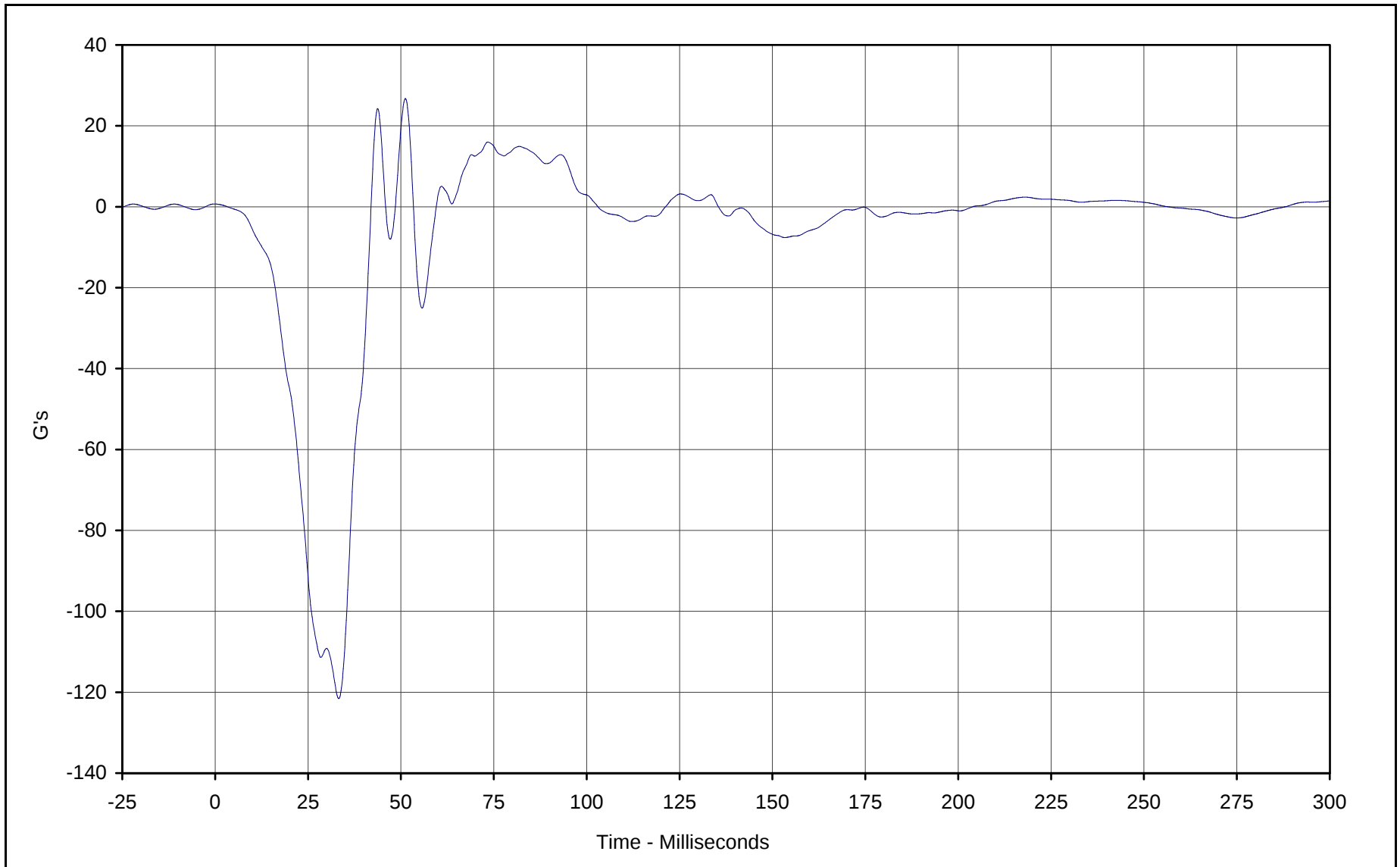




Curve Description: Vehicle Right Rear Primary Displ.
Maximum Value: 56.7 at 69.5 Milliseconds
Minimum Value: 0.0 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN2-090

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Vehicle Engine Top

Maximum Value: 26.8 at 51.2 Milliseconds

Minimum Value: -121.6 at 33.3 Milliseconds

SAE Filter Class: 60

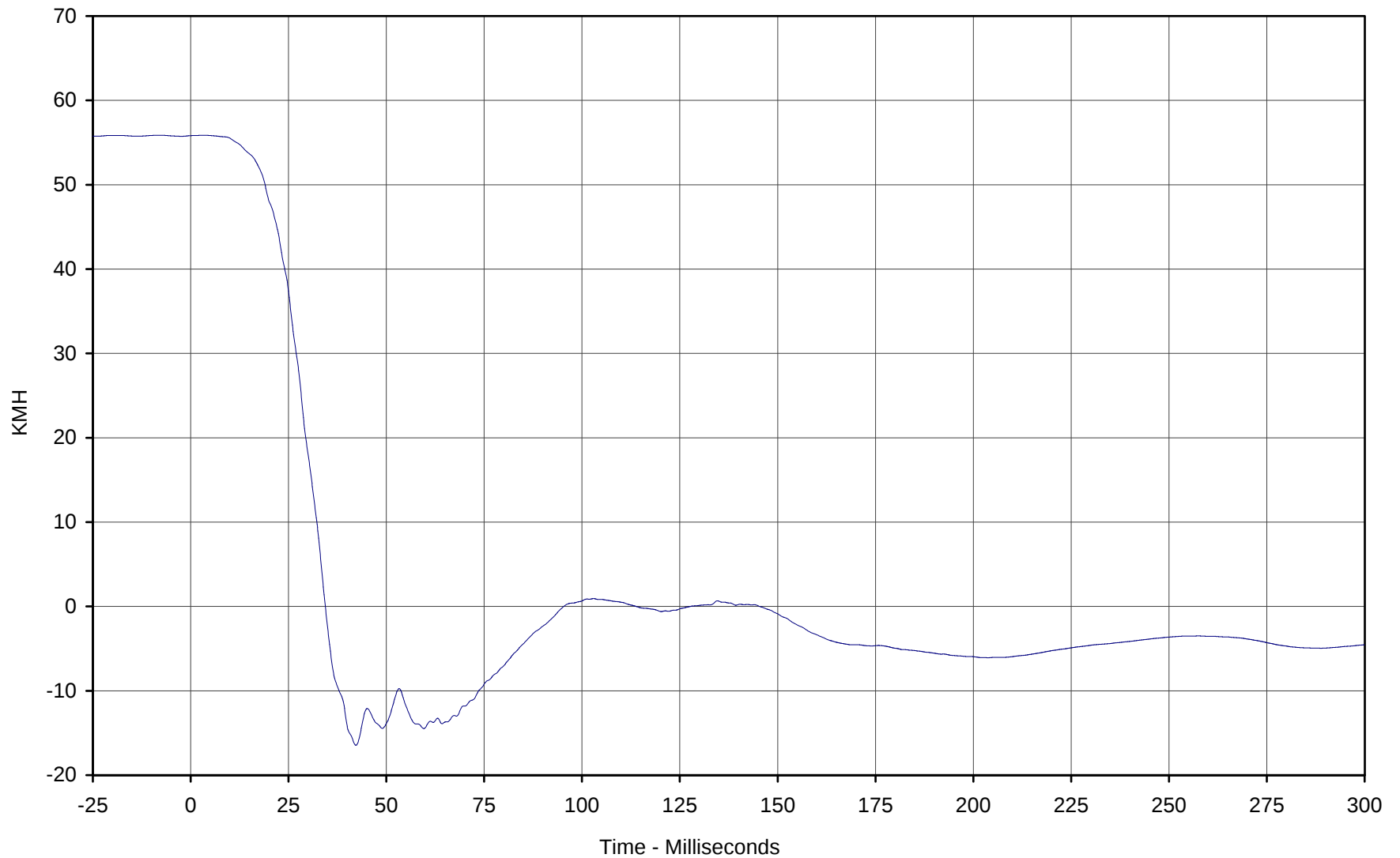
Date of Test: 01/18/01

Curve Number: FIL-091

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

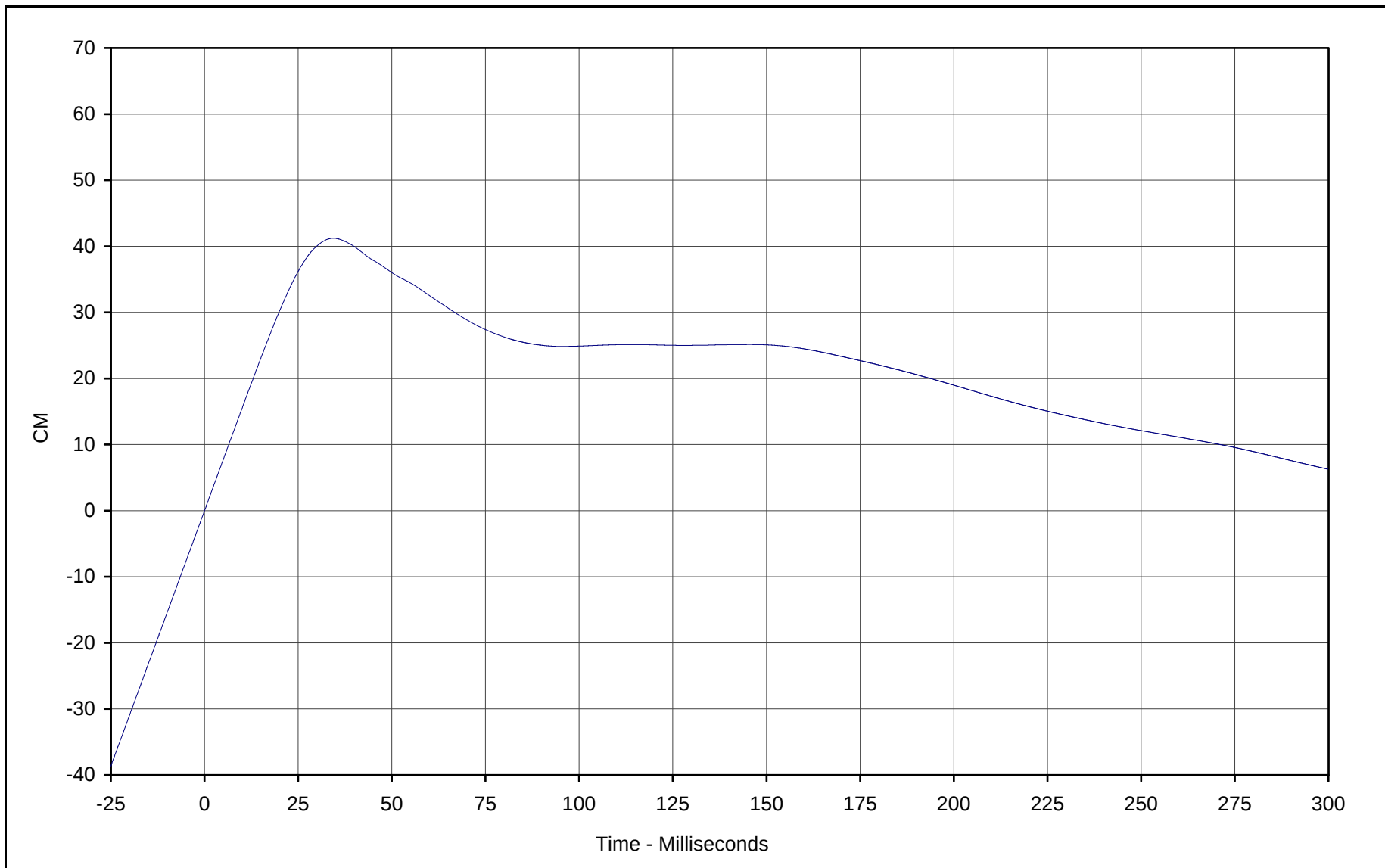




Curve Description: Vehicle Engine Top Velocity
Maximum Value: 55.9 at 3.4 Milliseconds
Minimum Value: -16.5 at 42.2 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN1-091

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

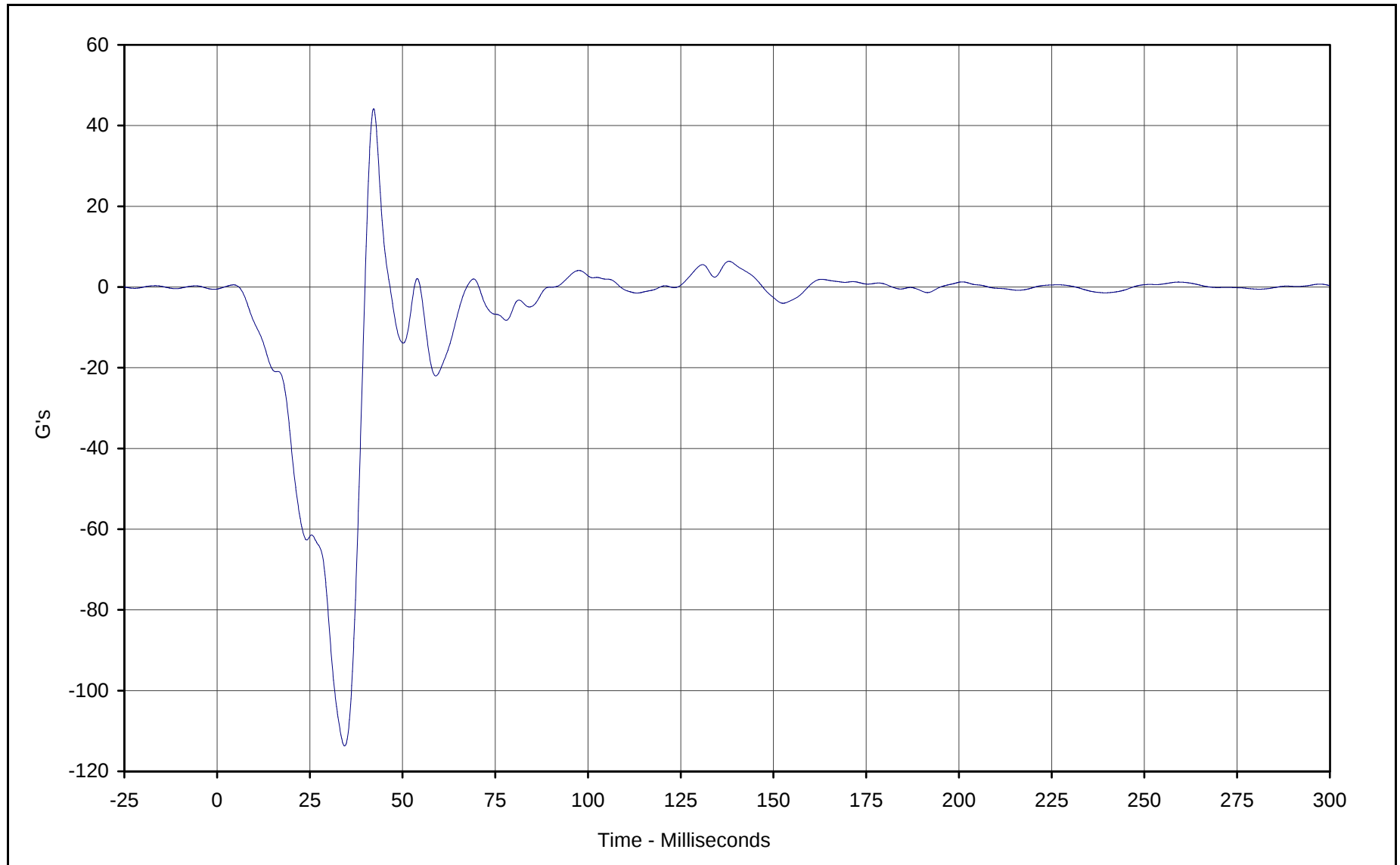




Curve Description: Vehicle Engine Top Displ.
Maximum Value: 41.2 at 34.4 Milliseconds
Minimum Value: 0.0 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN2-091

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Vehicle Engine Bottom

Maximum Value: 44.2 at 42.2 Milliseconds

Minimum Value: -113.7 at 34.4 Milliseconds

SAE Filter Class: 60

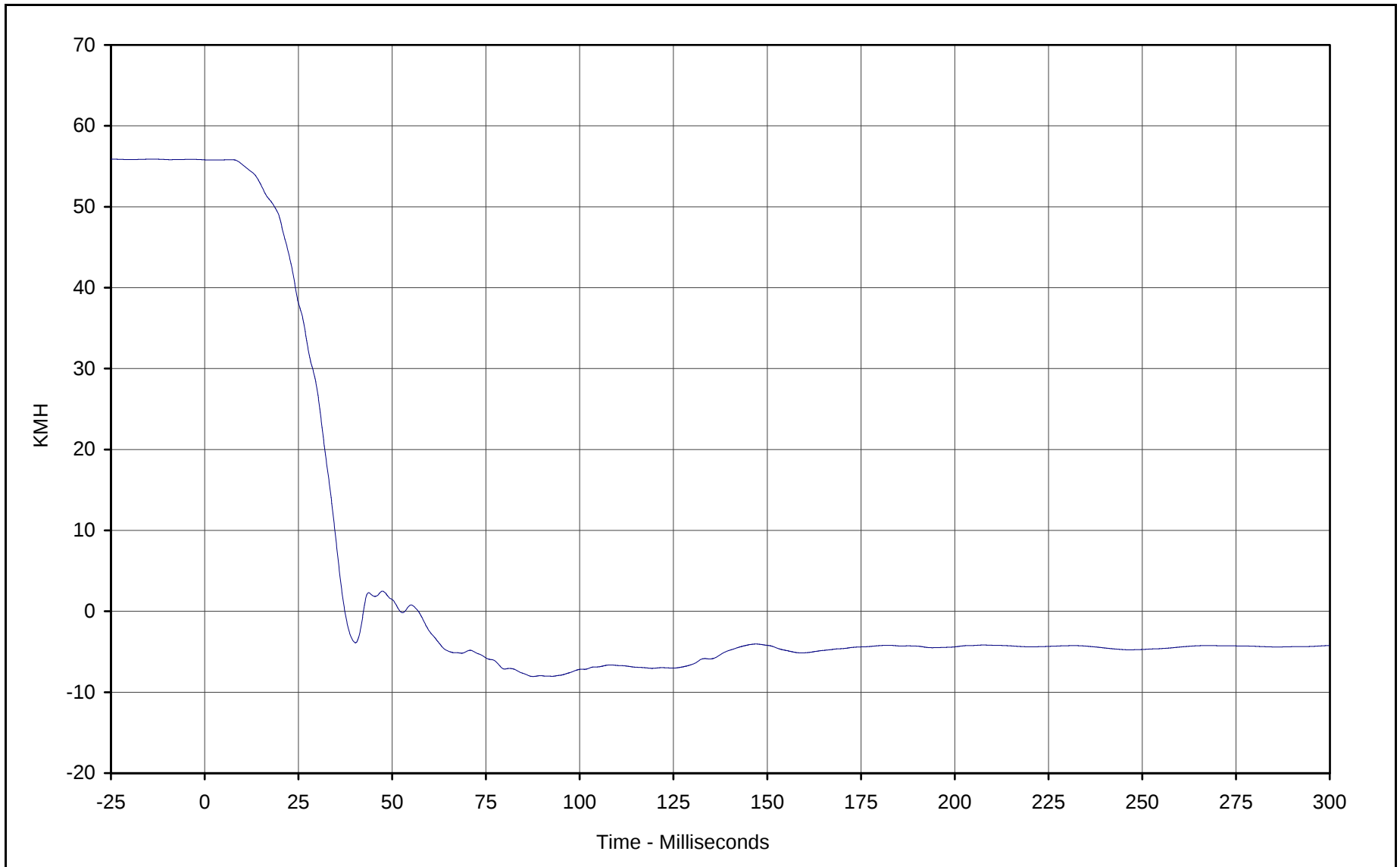
Date of Test: 01/18/01

Curve Number: FIL-092

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

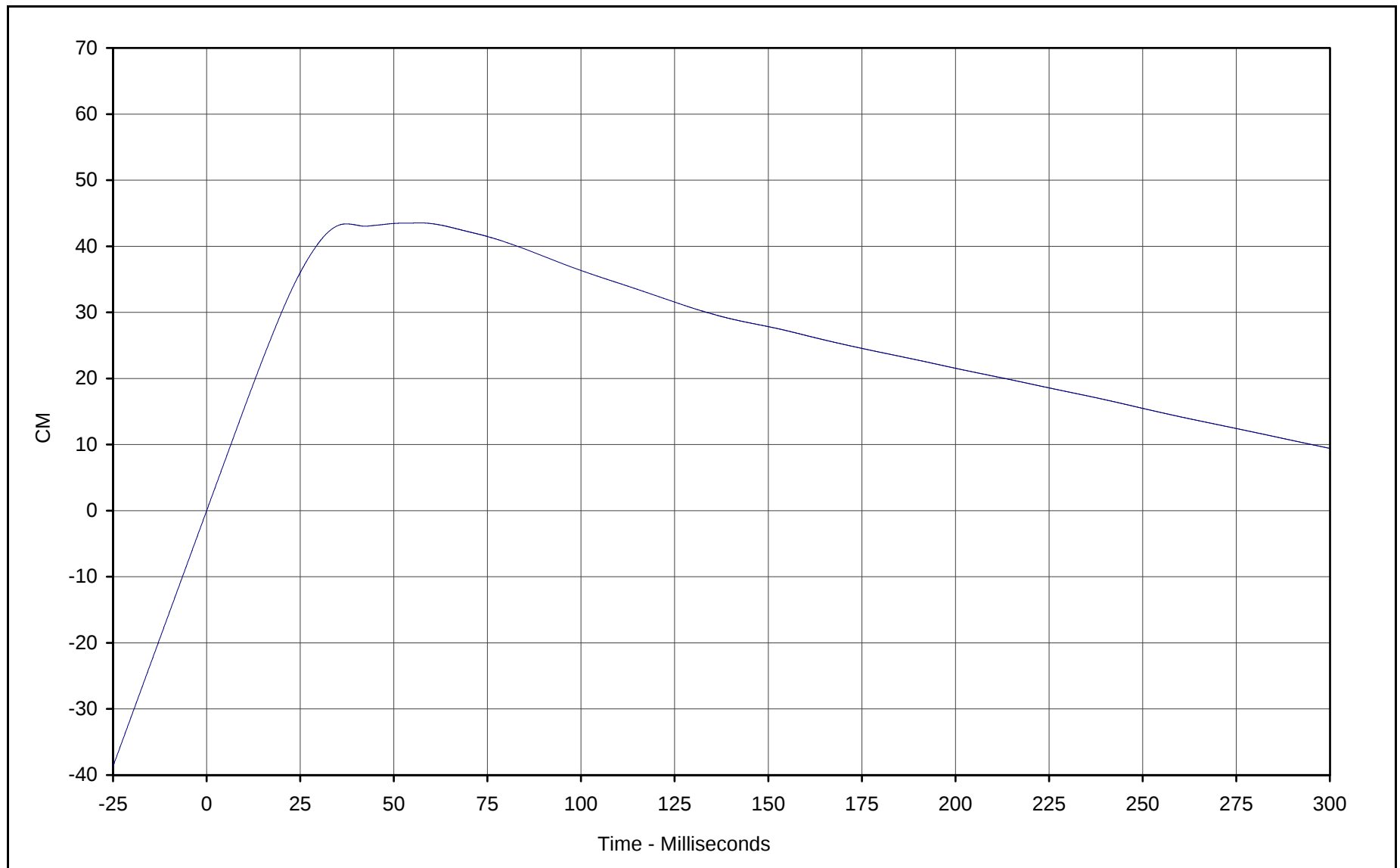




Curve Description: Vehicle Engine Bottom Velocity
Maximum Value: 55.8 at 7.1 Milliseconds
Minimum Value: -8.1 at 87.5 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN1-092

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

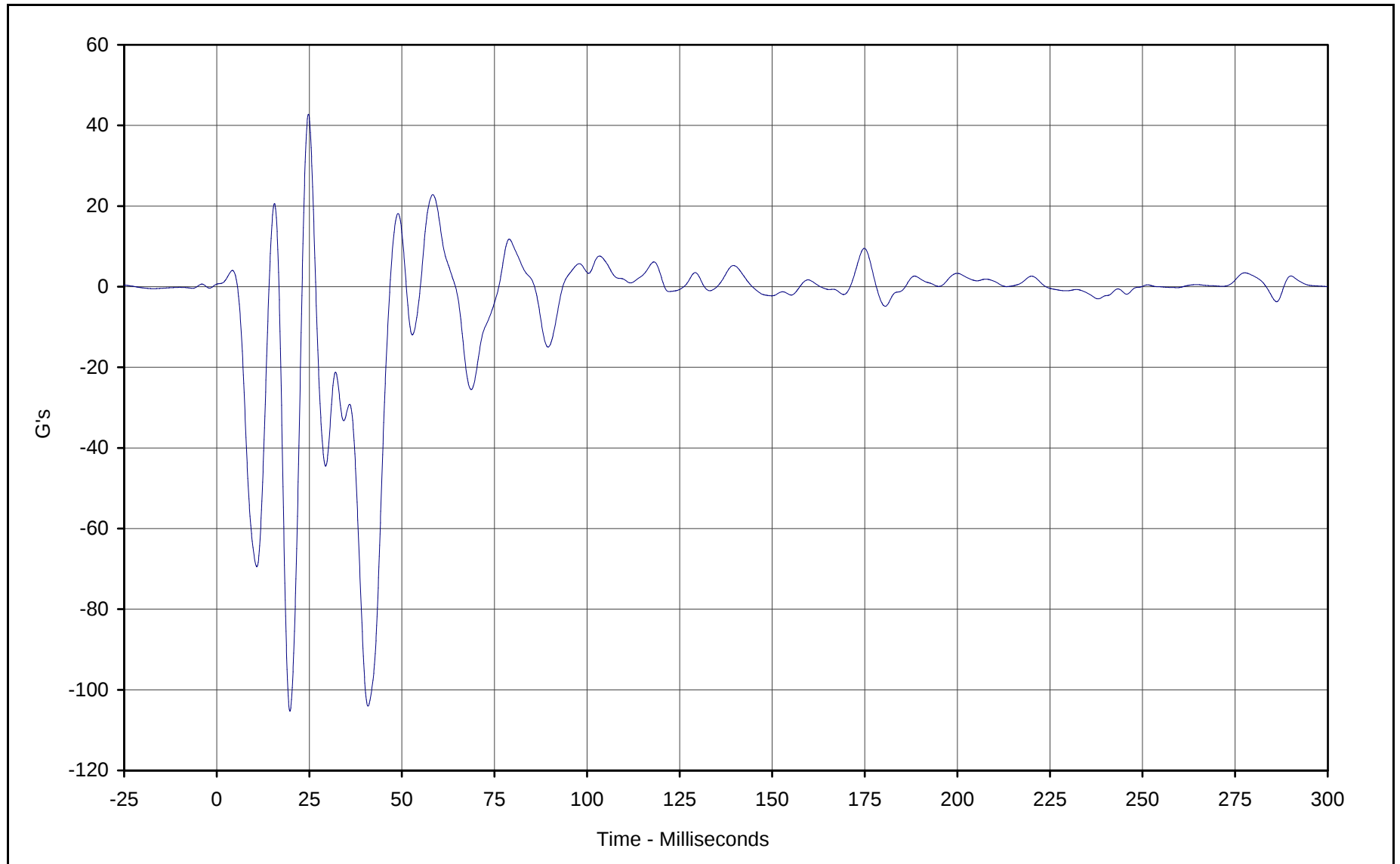




Curve Description: Vehicle Engine Bottom Displ.
Maximum Value: 43.5 at 57.0 Milliseconds
Minimum Value: 0.0 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN2-092

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Vehicle Left Brake Caliper

Maximum Value: 42.8 at 24.8 Milliseconds

Minimum Value: -105.3 at 19.8 Milliseconds

SAE Filter Class: 60

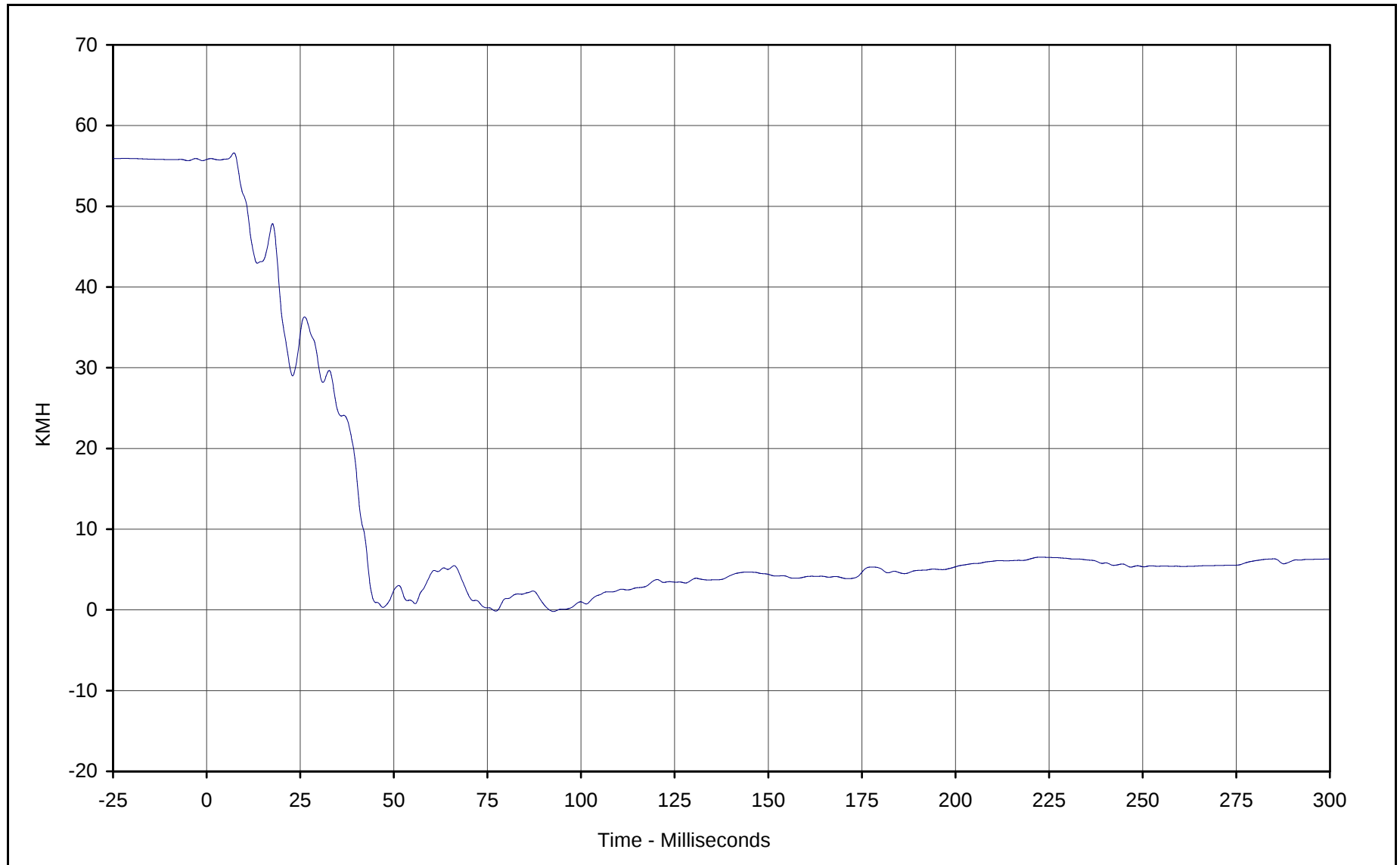
Date of Test: 01/18/01

Curve Number: FIL-093

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

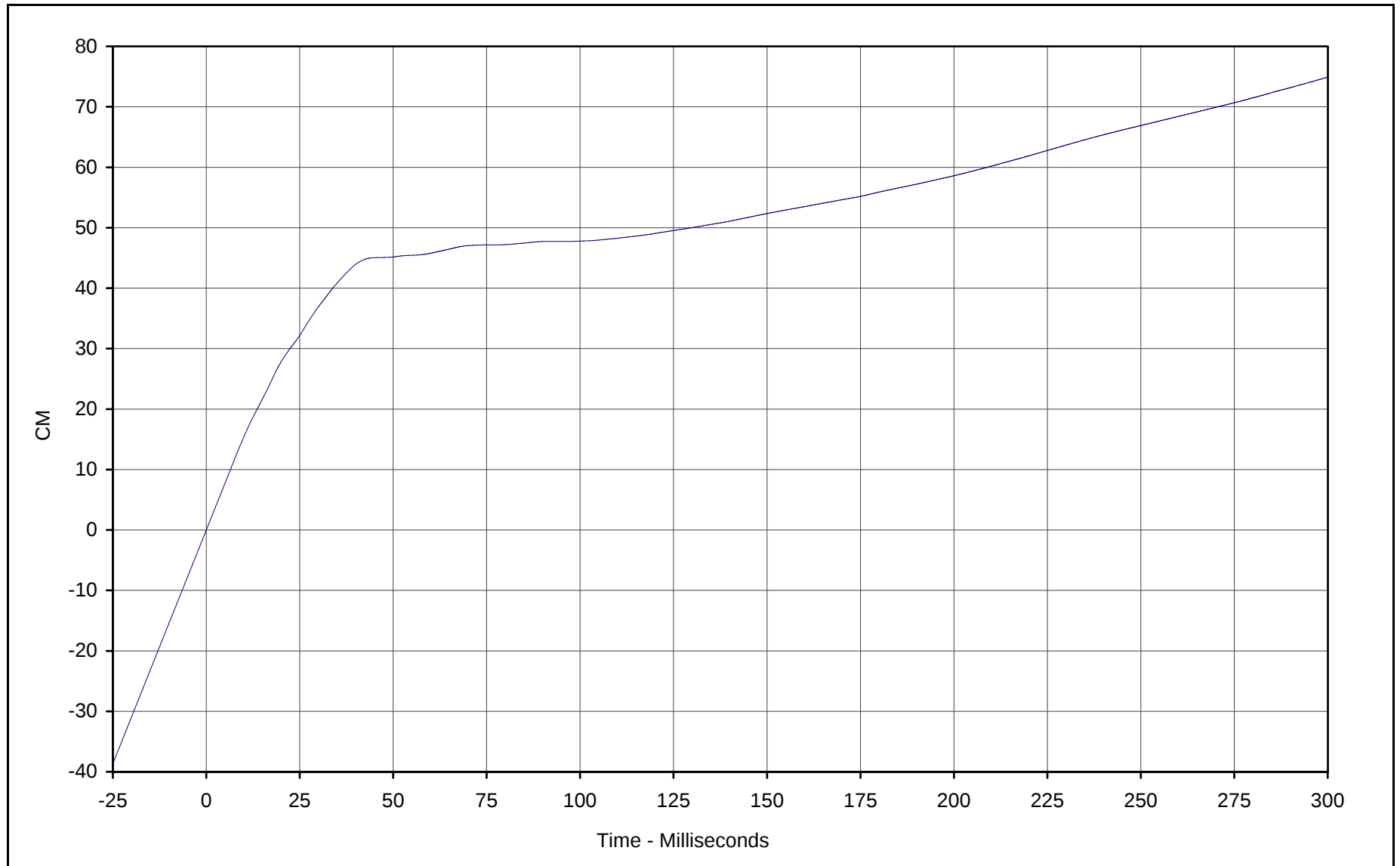




Curve Description: Vehicle Left Brake Caliper Velocity
Maximum Value: 56.6 at 7.3 Milliseconds
Minimum Value: -0.2 at 92.6 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN1-093

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

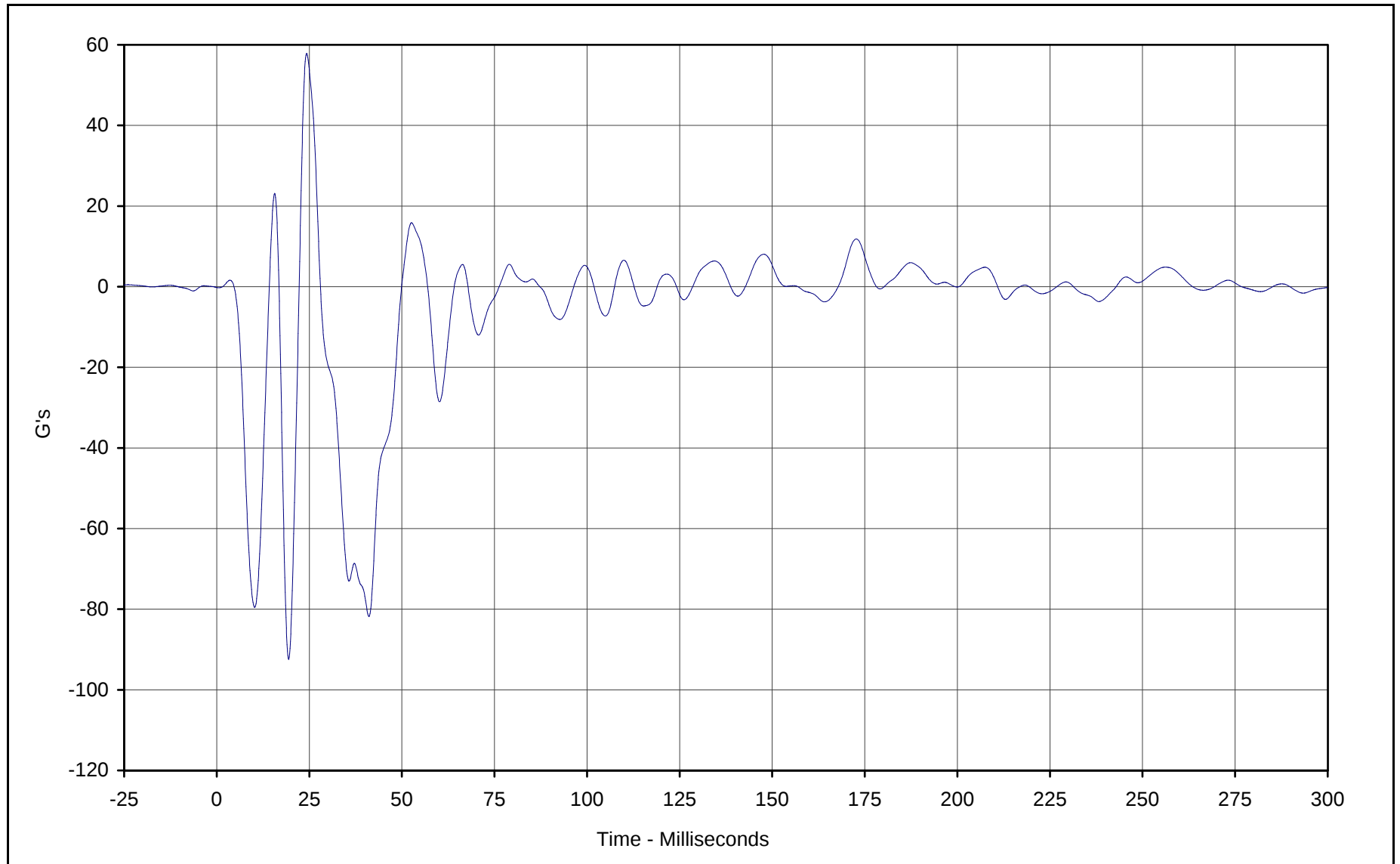




Curve Description: Vehicle Left Brake Caliper Displ.
Maximum Value: 74.9 at 299.9 Milliseconds
Minimum Value: 0.0 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN2-093

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Vehicle Right Brake Caliper

Maximum Value: 57.9 at 24.3 Milliseconds

Minimum Value: -92.5 at 19.4 Milliseconds

SAE Filter Class: 60

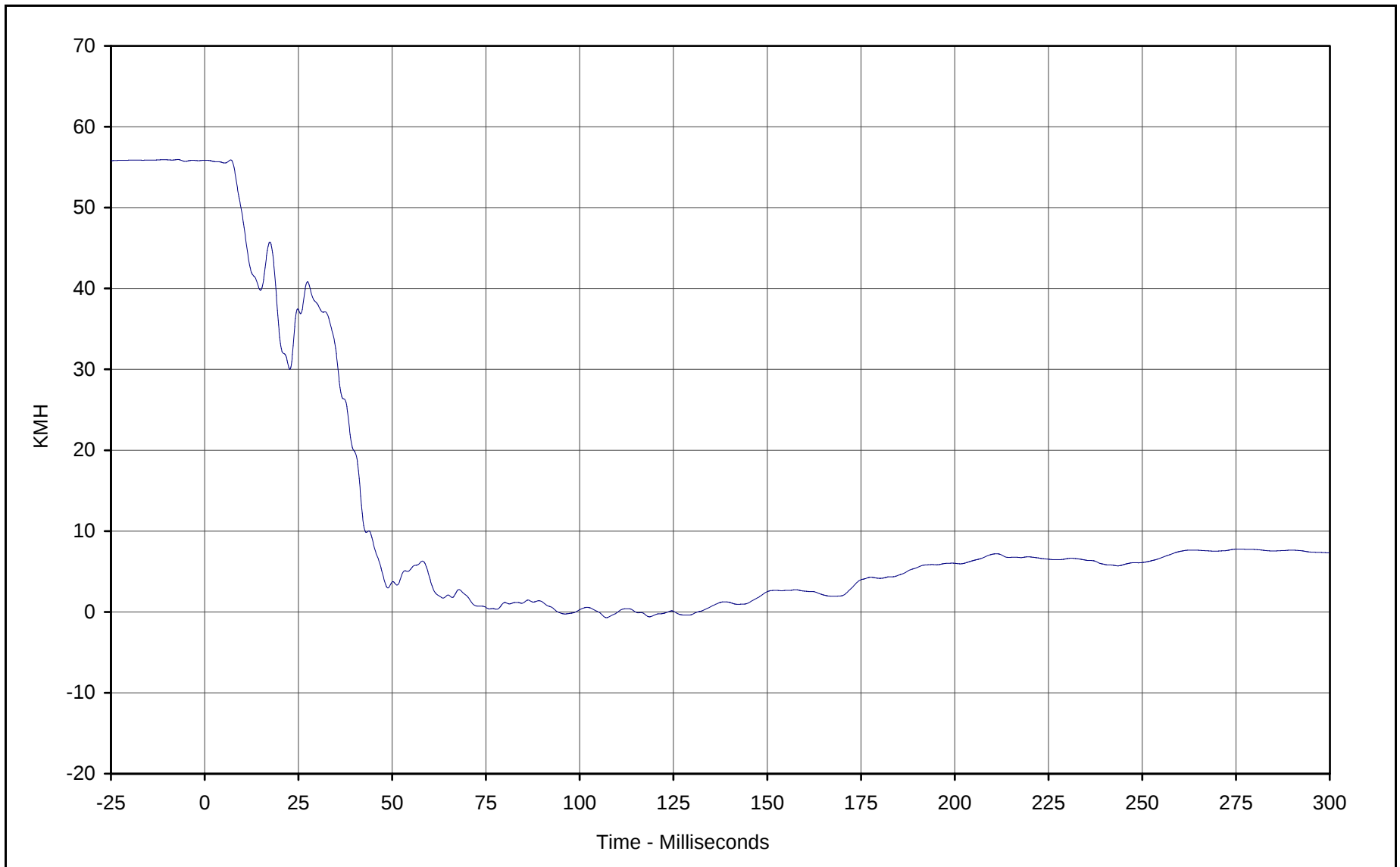
Date of Test: 01/18/01

Curve Number: FIL-094

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



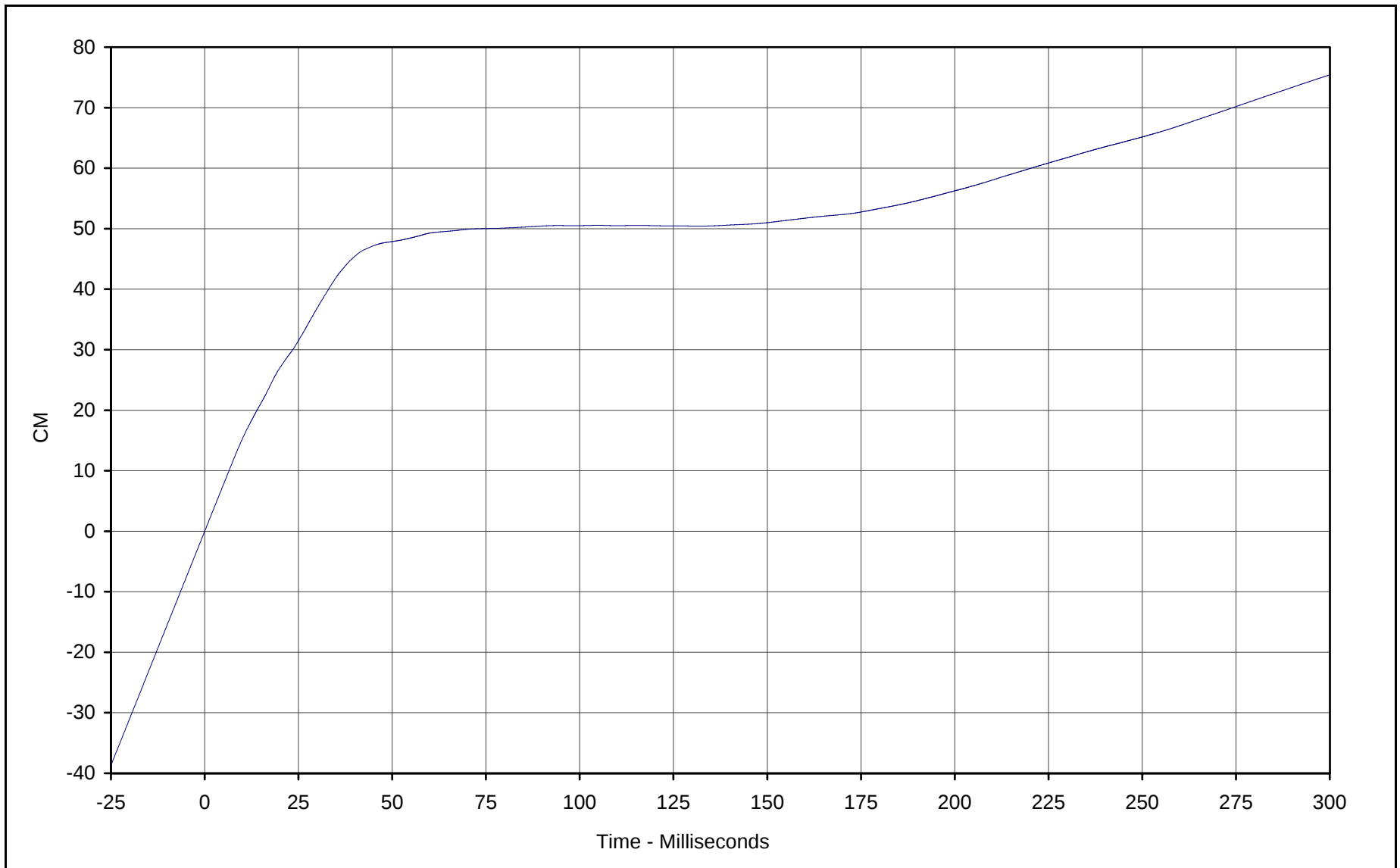


Curve Description: Vehicle Right Brake Caliper Velocity
Maximum Value: 55.9 at 6.9 Milliseconds
Minimum Value: -0.7 at 107.1 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN1-094

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



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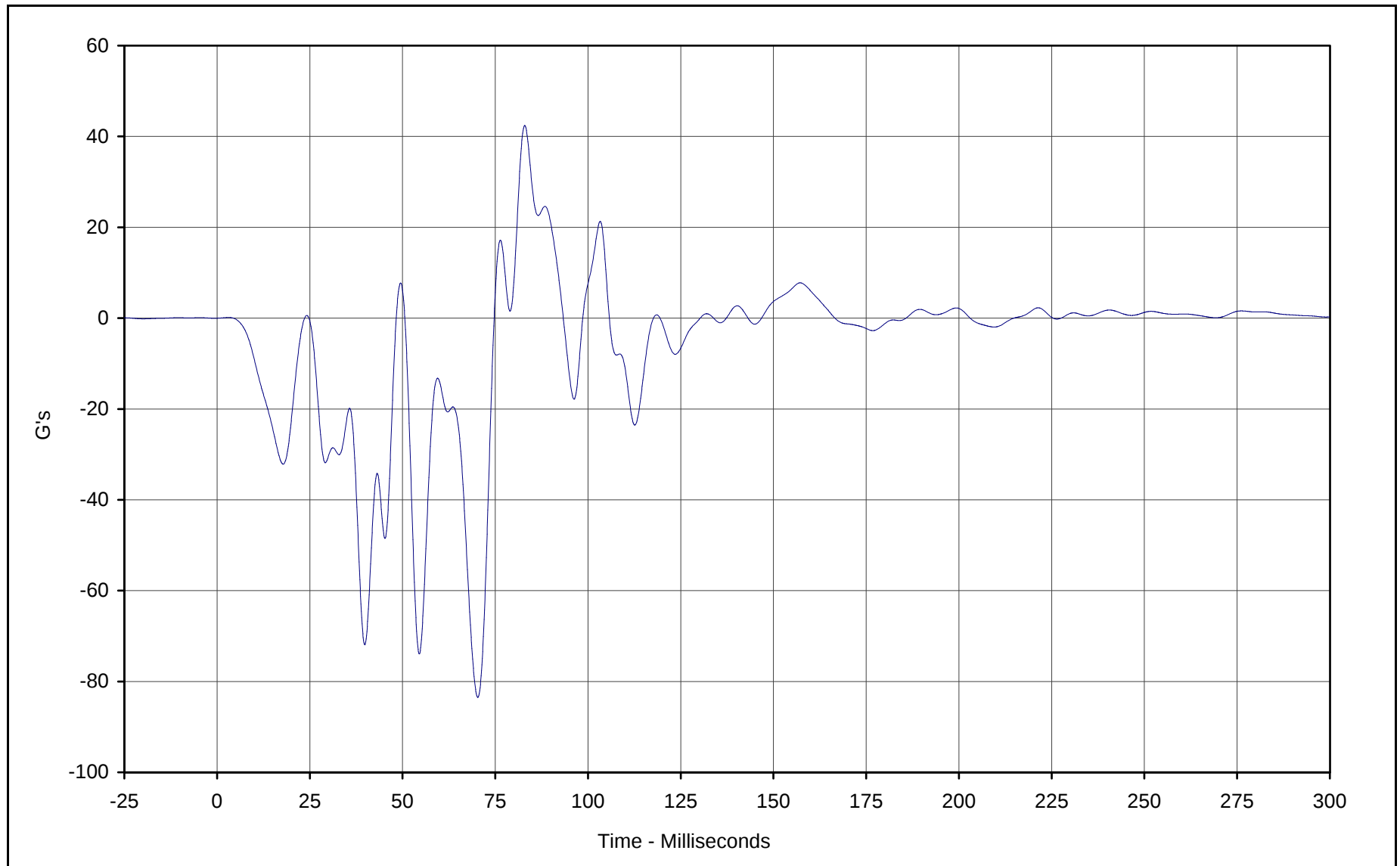


Curve Description: Vehicle Right Brake Caliper Displ.
Maximum Value: 75.4 at 299.9 Milliseconds
Minimum Value: 0.0 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN2-094

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



KAR21001-06



Curve Description: Vehicle Instrument Panel

Maximum Value: 42.4 at 82.9 Milliseconds

Minimum Value: -83.5 at 70.3 Milliseconds

SAE Filter Class: 60

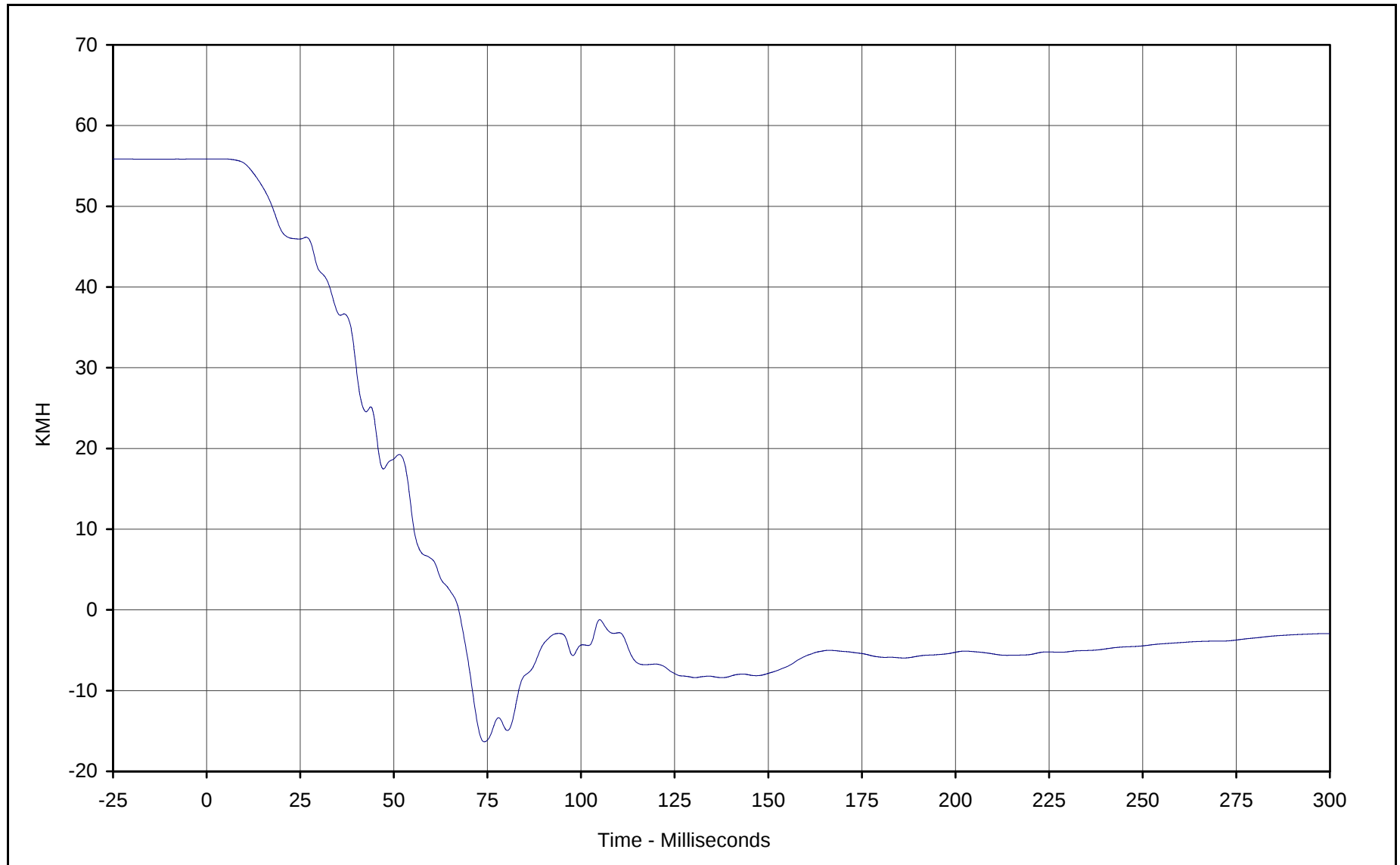
Date of Test: 01/18/01

Curve Number: FIL-095

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

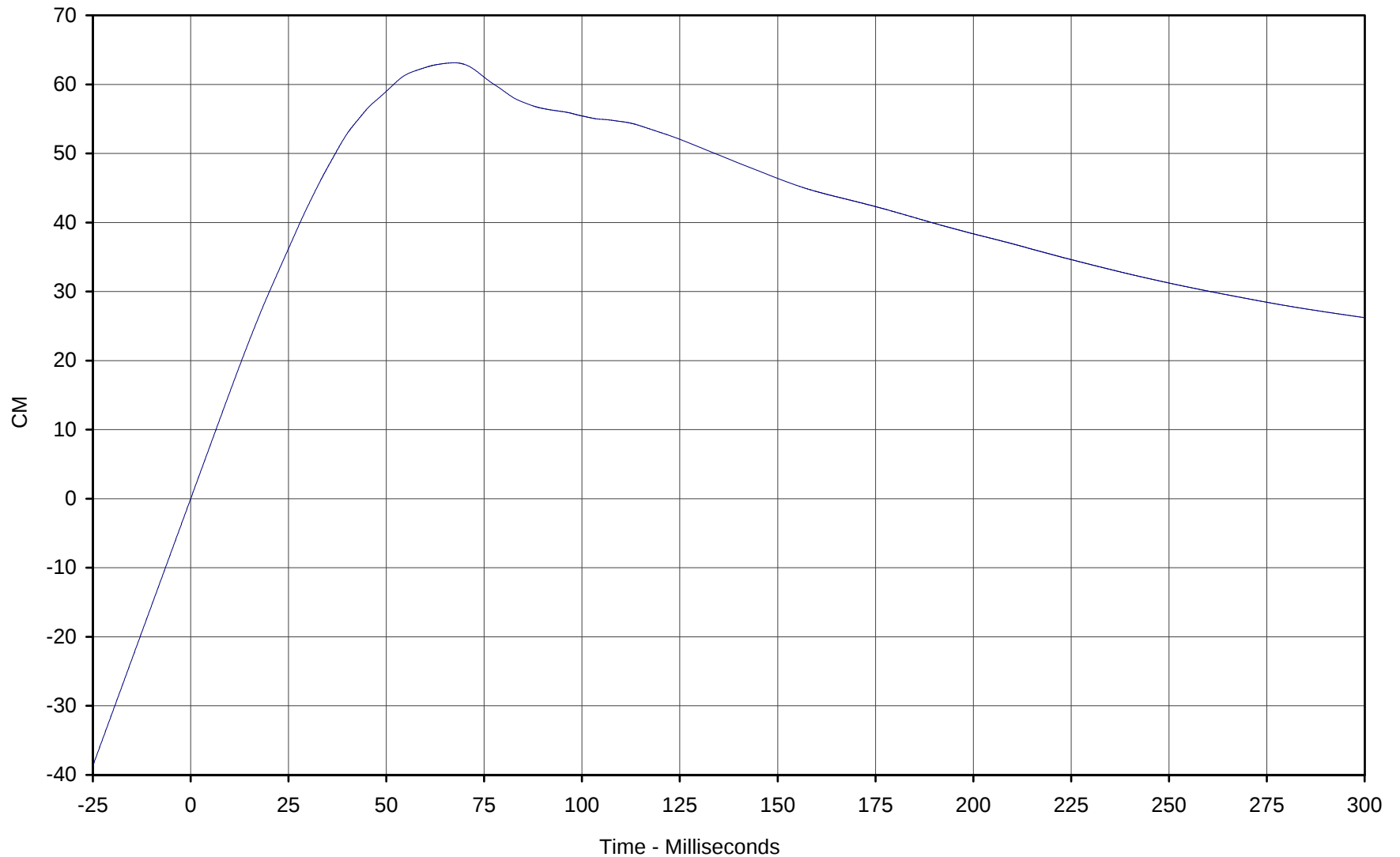




Curve Description: Vehicle Instrument Panel Velocity
Maximum Value: 55.9 at 4.8 Milliseconds
Minimum Value: -16.3 at 74.2 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN1-095

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

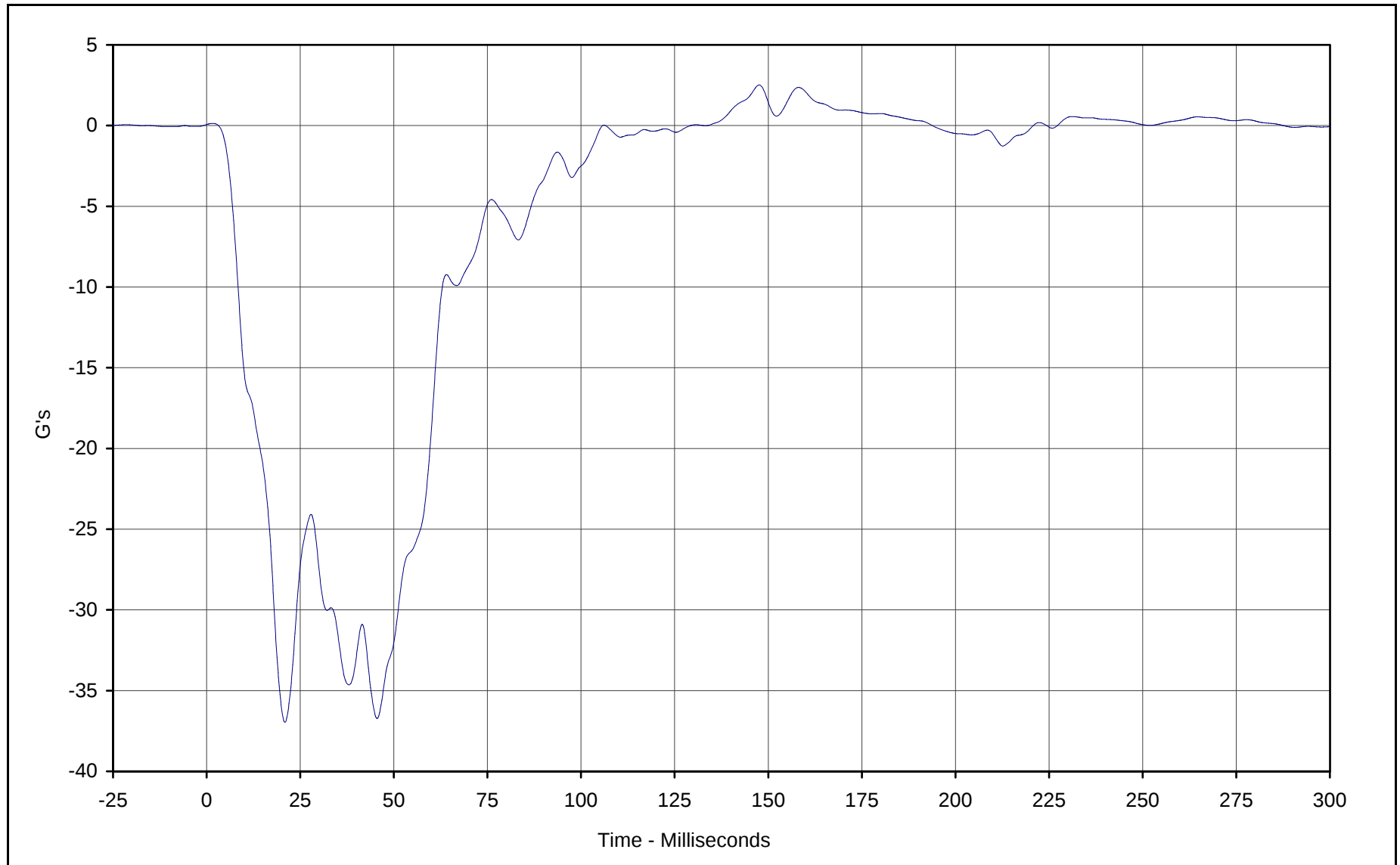




Curve Description: Vehicle Instrument Panel Displ.
Maximum Value: 63.1 at 67.3 Milliseconds
Minimum Value: 0.0 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN2-095

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



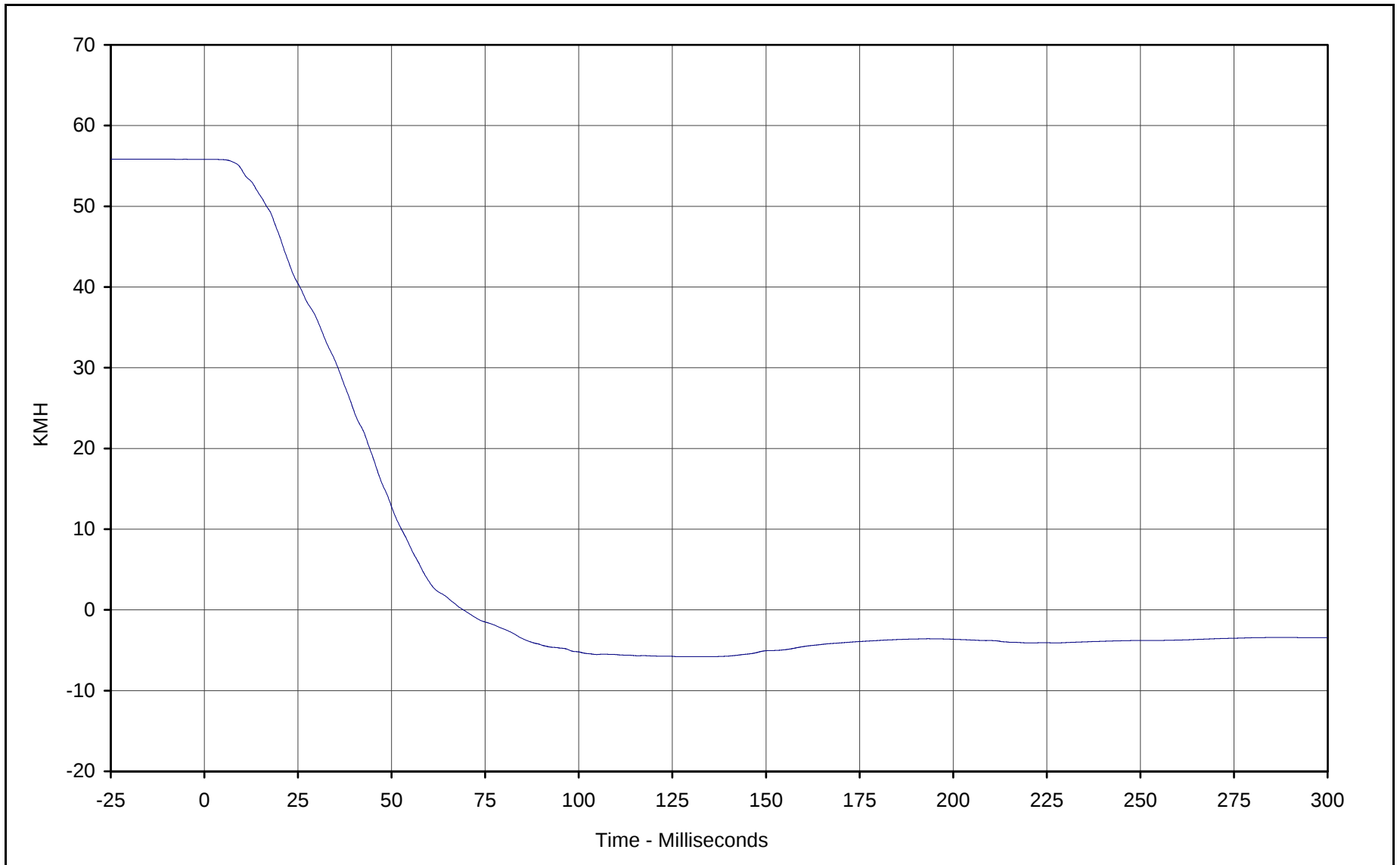


Curve Description: Vehicle Left Rear Redundant
Maximum Value: 2.5 at 147.6 Milliseconds
Minimum Value: -37.0 at 20.9 Milliseconds
SAE Filter Class: 60
Date of Test: 01/18/01
Curve Number: FIL-096

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



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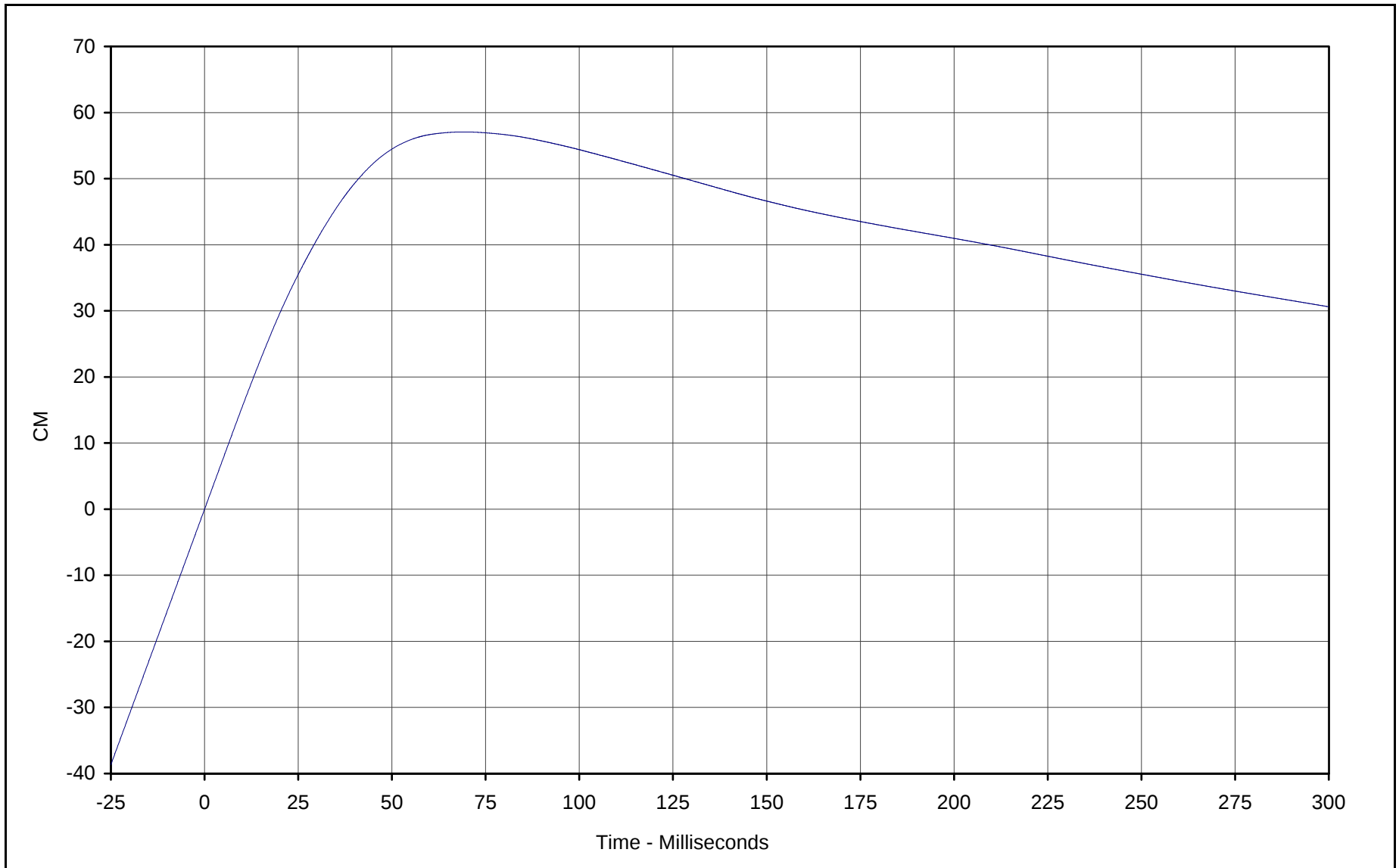


Curve Description: Vehicle Left Rear Redundant Velocity
Maximum Value: 55.8 at 1.2 Milliseconds
Minimum Value: -5.8 at 134.5 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN1-096

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



KAR21001-06



Curve Description: Vehicle Left Rear Redundant Displ.
Maximum Value: 57.1 at 69.2 Milliseconds
Minimum Value: 0.0 at 0.0 Milliseconds
SAE Filter Class: 180
Date of Test: 01/18/01
Curve Number: IN2-096

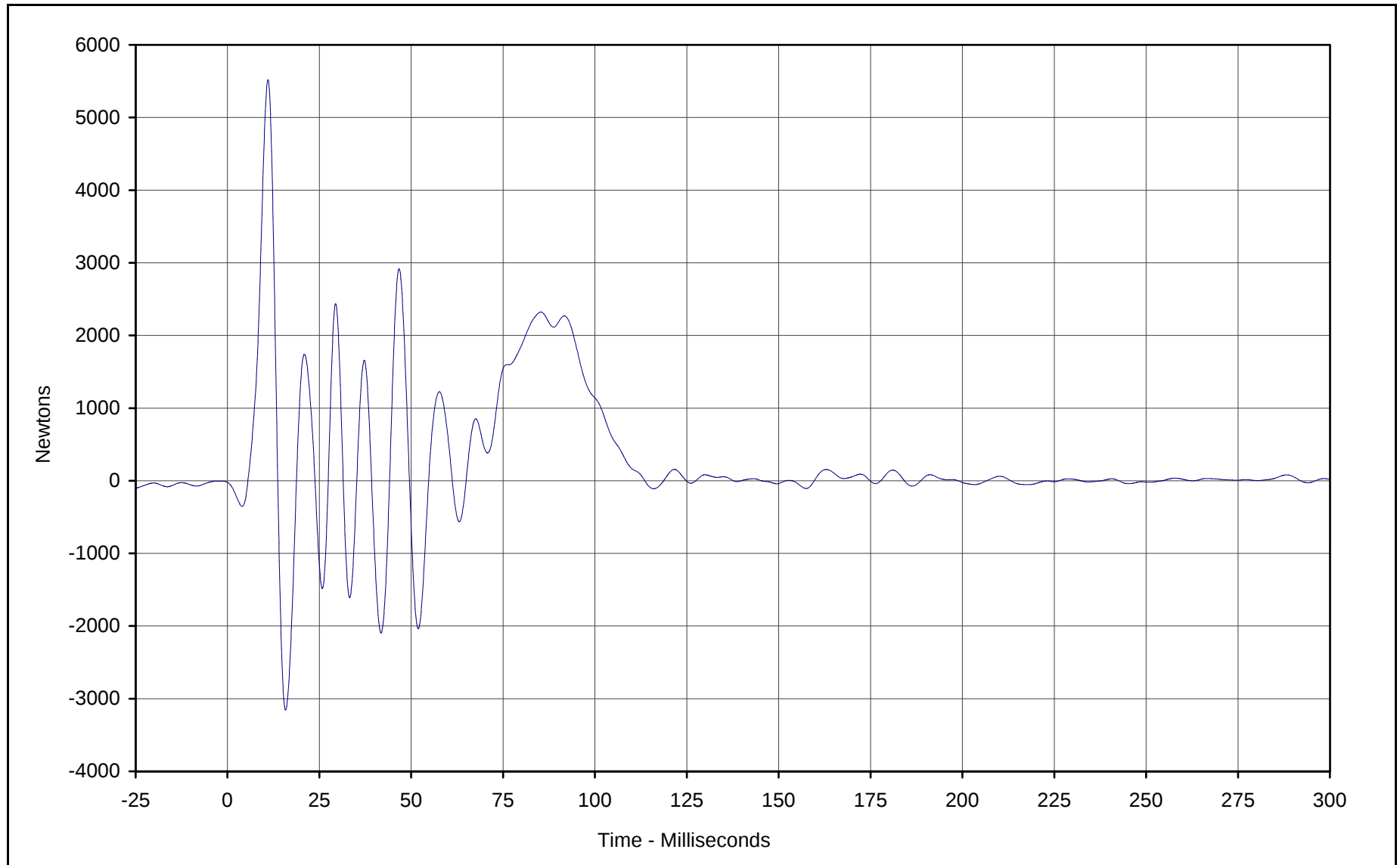
Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



APPENDIX C

LOAD CELL BARRIER INFORMATION

C-1



Curve Description: Barrier Force A2

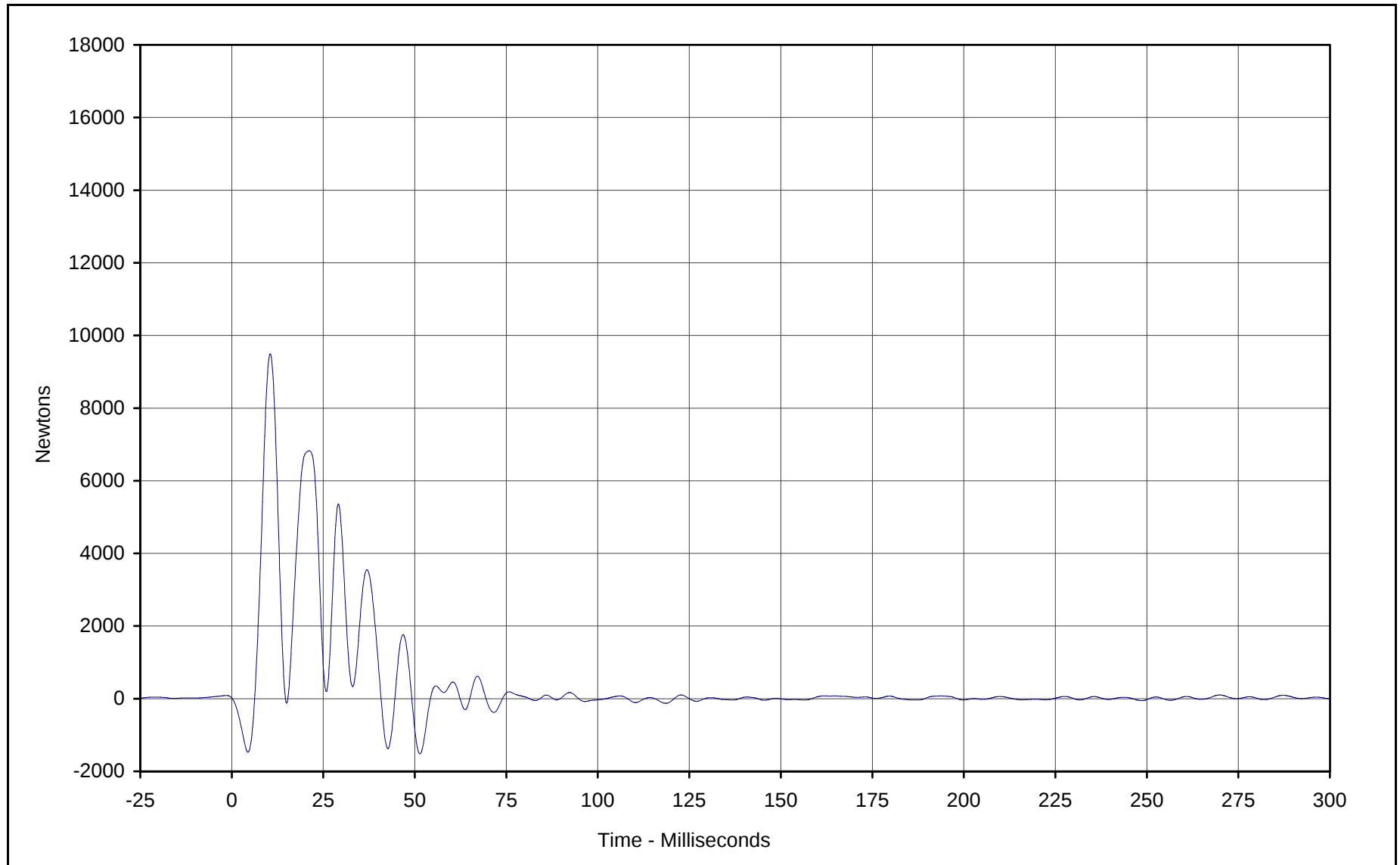
Maximum Value:	<u>5520.0</u>	at	<u>11.0</u>	Milliseconds
Minimum Value:	<u>-3157.5</u>	at	<u>15.8</u>	Milliseconds
SAE Filter Class:	<u>60</u>			
Date of Test:	<u>01/18/01</u>			
Curve Number:	<u>FIL-099</u>			

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



KAR21001-06



Curve Description: Barrier Force A3

Maximum Value: 9495.4 at 10.5 Milliseconds

Minimum Value: -1521.3 at 51.4 Milliseconds

SAE Filter Class: 60

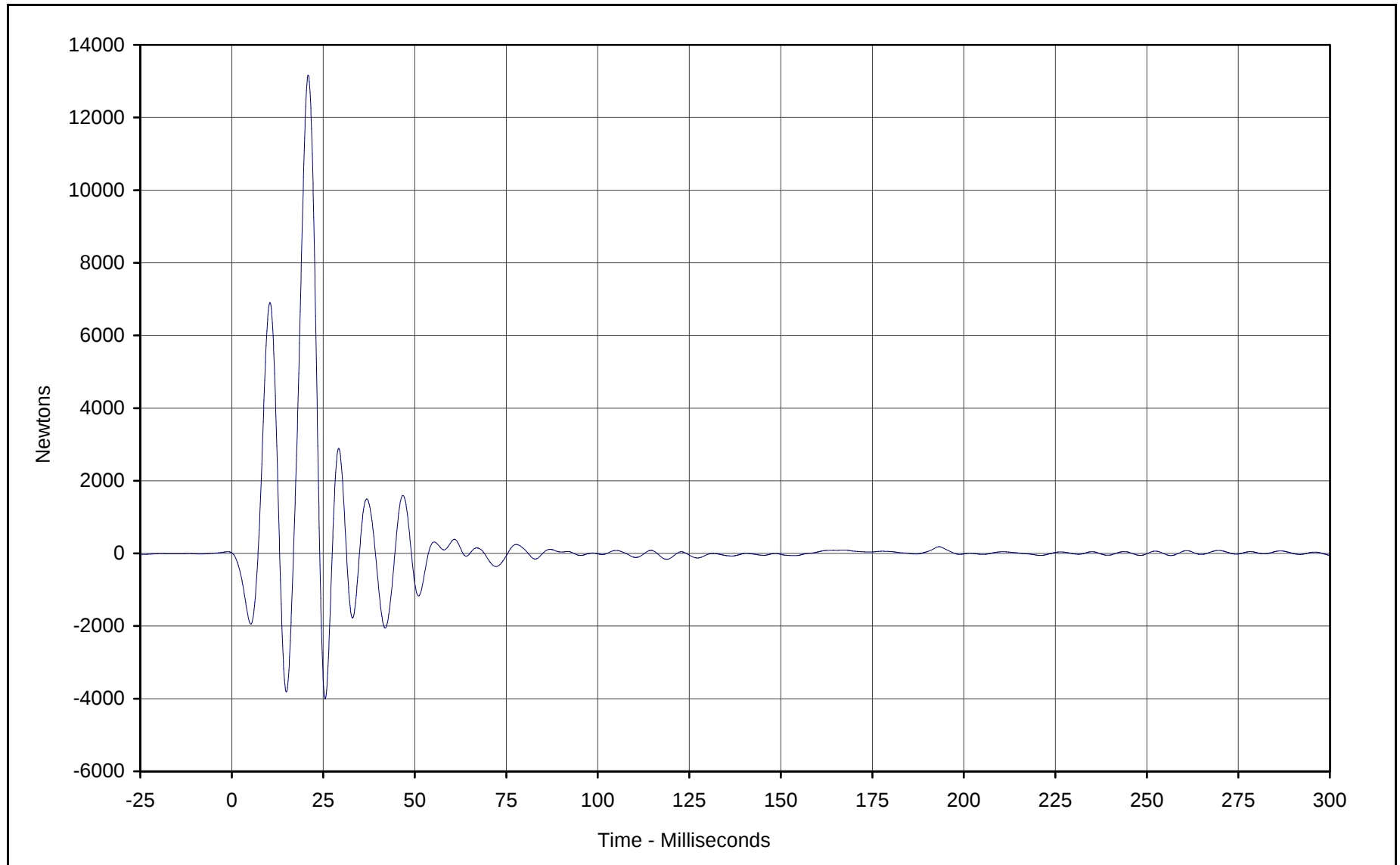
Date of Test: 01/18/01

Curve Number: FIL-100

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Barrier Force A4

Maximum Value: 13169.0 at 20.9 Milliseconds

Minimum Value: -4009.2 at 25.5 Milliseconds

SAE Filter Class: 60

Date of Test: 01/18/01

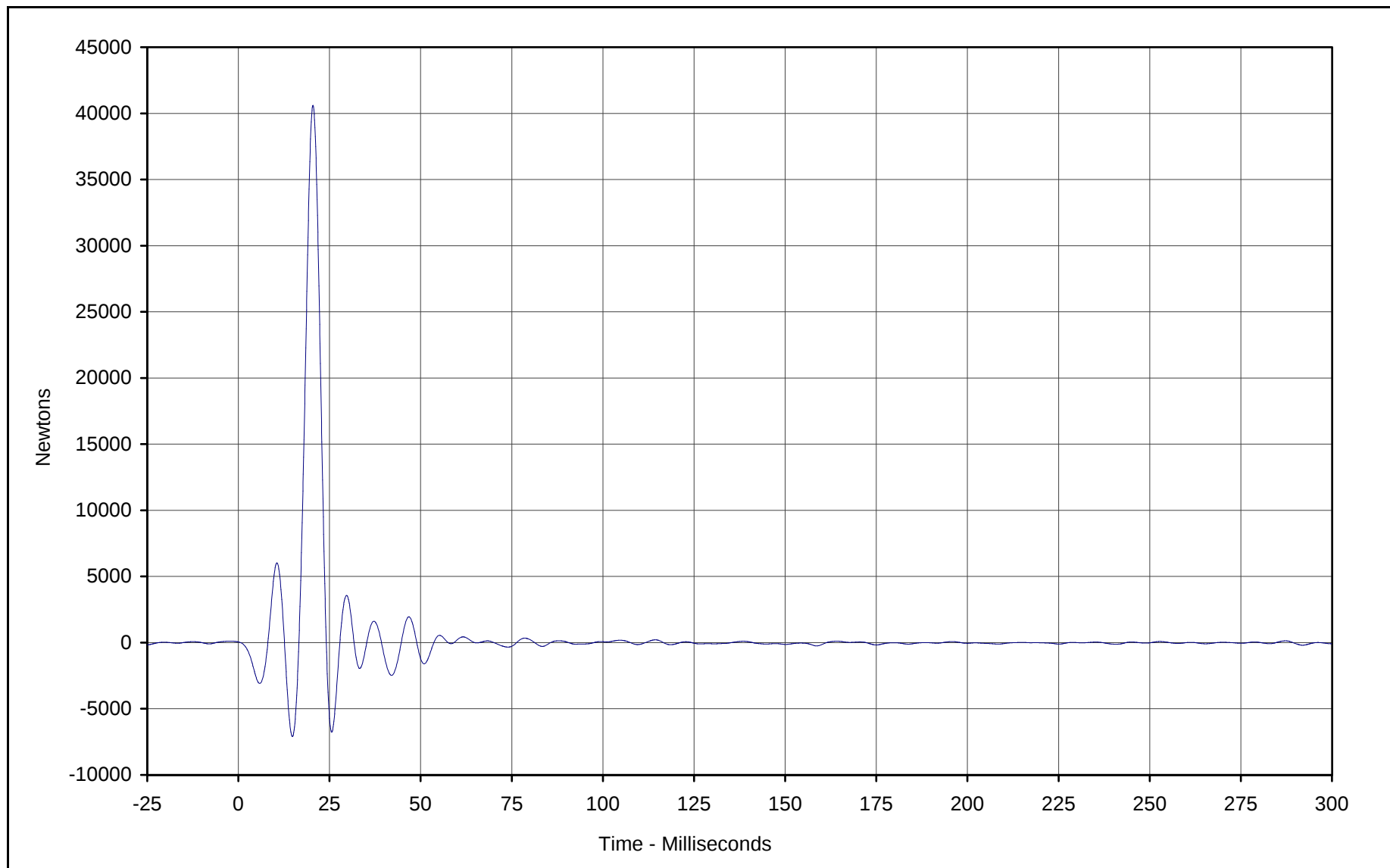
Curve Number: FIL-101

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



C-4



Curve Description: Barrier Force A5

Maximum Value: 40596.3 at 20.5 Milliseconds

Minimum Value: -7099.3 at 14.8 Milliseconds

SAE Filter Class: 60

Date of Test: 01/18/01

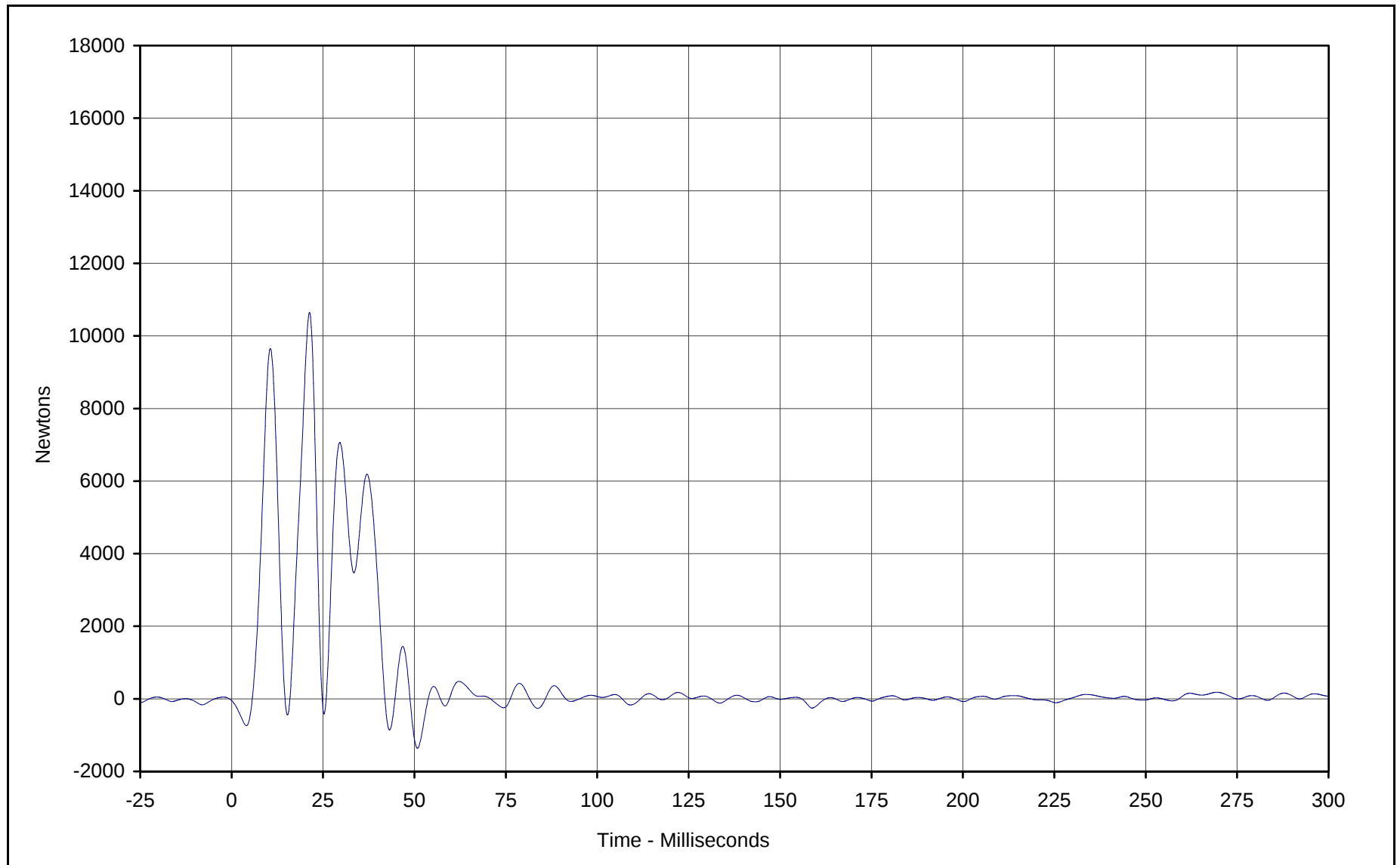
Curve Number: FIL-102

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



KAR21001-06



Curve Description: Barrier Force A6

Maximum Value: 10646.2 at 21.3 Milliseconds

Minimum Value: -1359.8 at 50.8 Milliseconds

SAE Filter Class: 60

Date of Test: 01/18/01

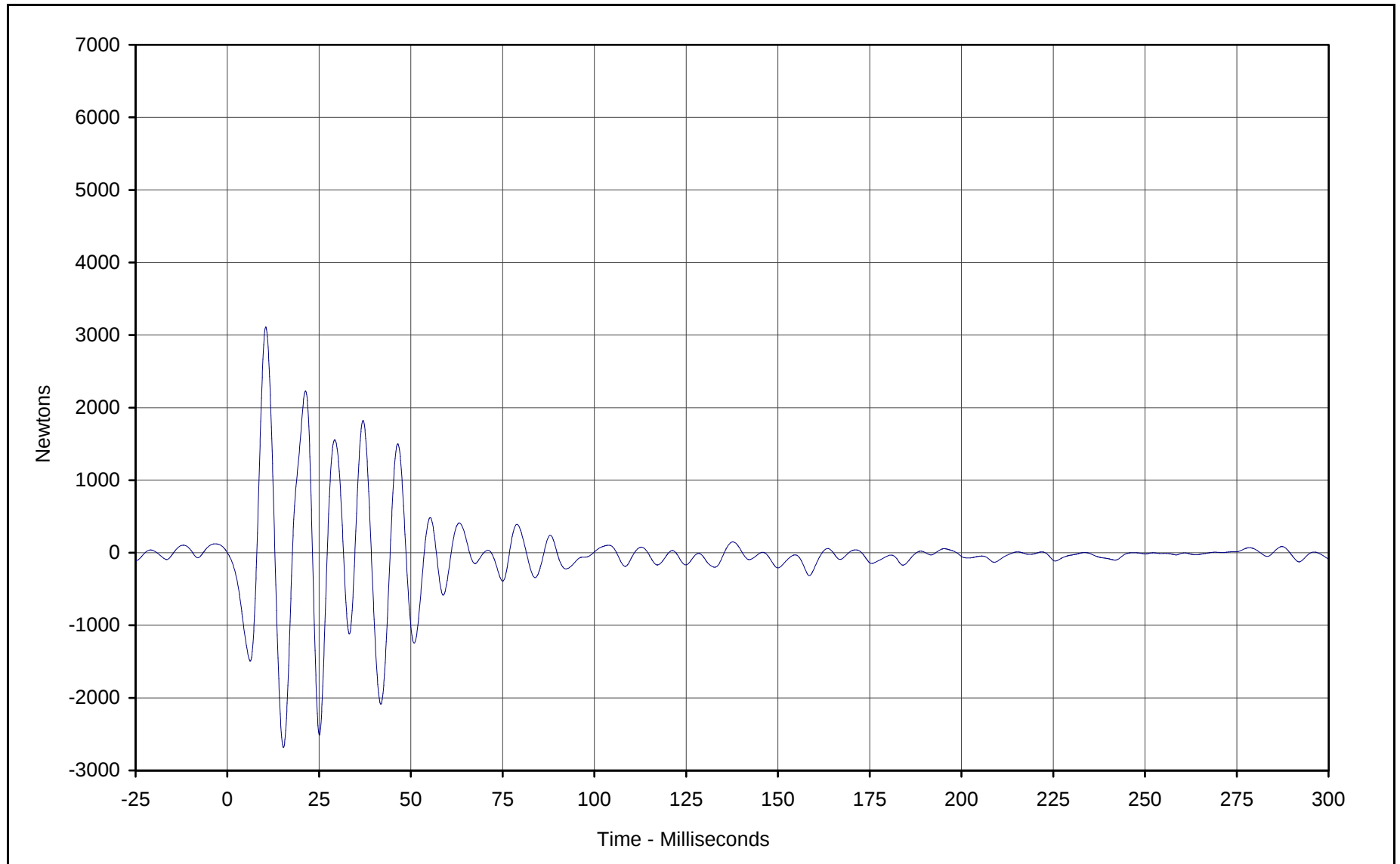
Curve Number: FIL-103

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



C-6



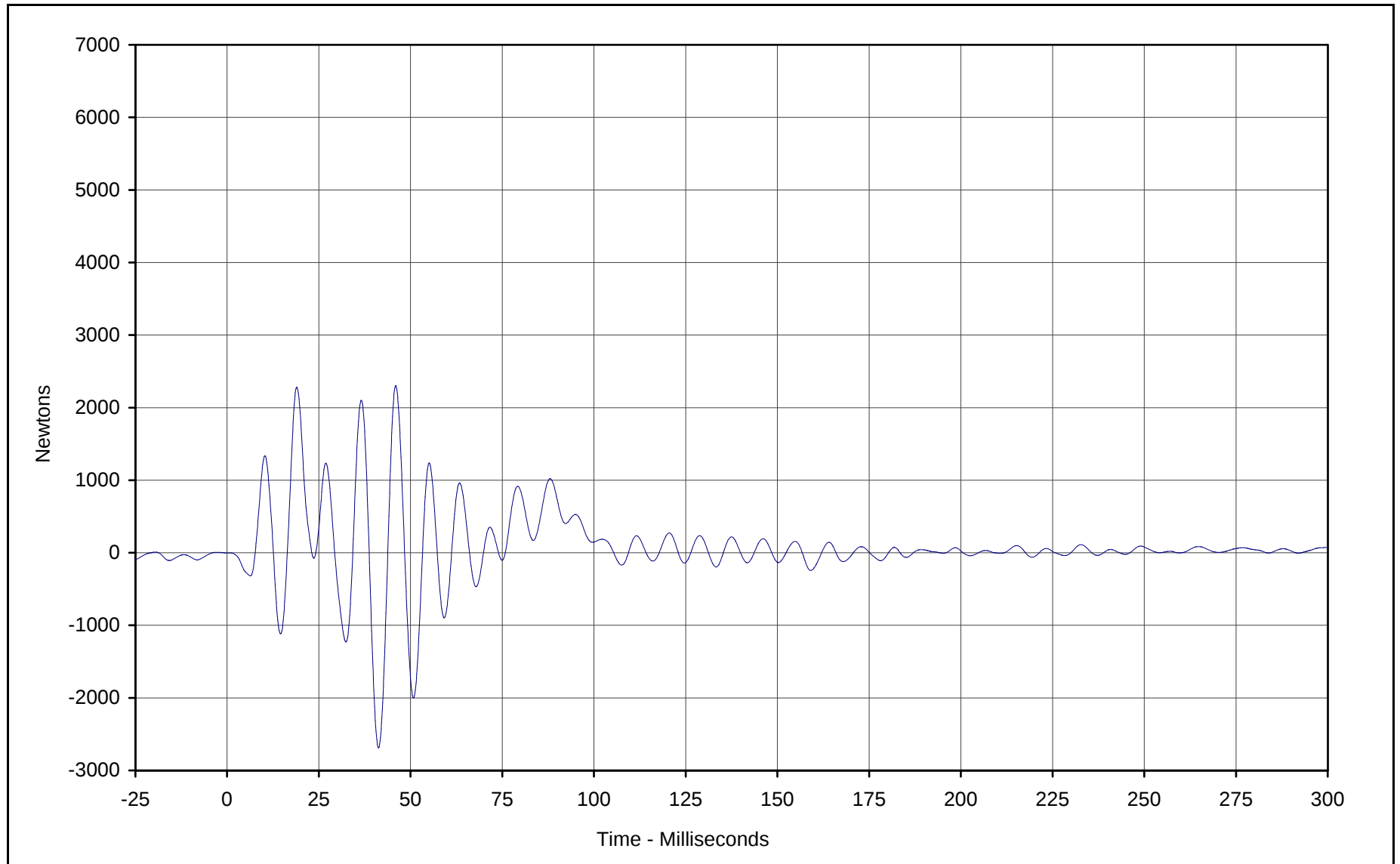
Curve Description:	Barrier Force A7		
Maximum Value:	3110.8	at	10.5 Milliseconds
Minimum Value:	-2684.9	at	15.3 Milliseconds
SAE Filter Class:	60		
Date of Test:	01/18/01		
Curve Number:	FIL-104		

Test Program:	2001 NHTSA 35mph NCAP	No.: M15602
Test Vehicle:	2001 Mitsubishi Montero Sport 4WD SUV	



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C-7



Curve Description: Barrier Force A8

Maximum Value: 2303.0 at 46.0 Milliseconds

Minimum Value: -2688.1 at 41.3 Milliseconds

SAE Filter Class: 60

Date of Test: 01/18/01

Curve Number: FIL-105

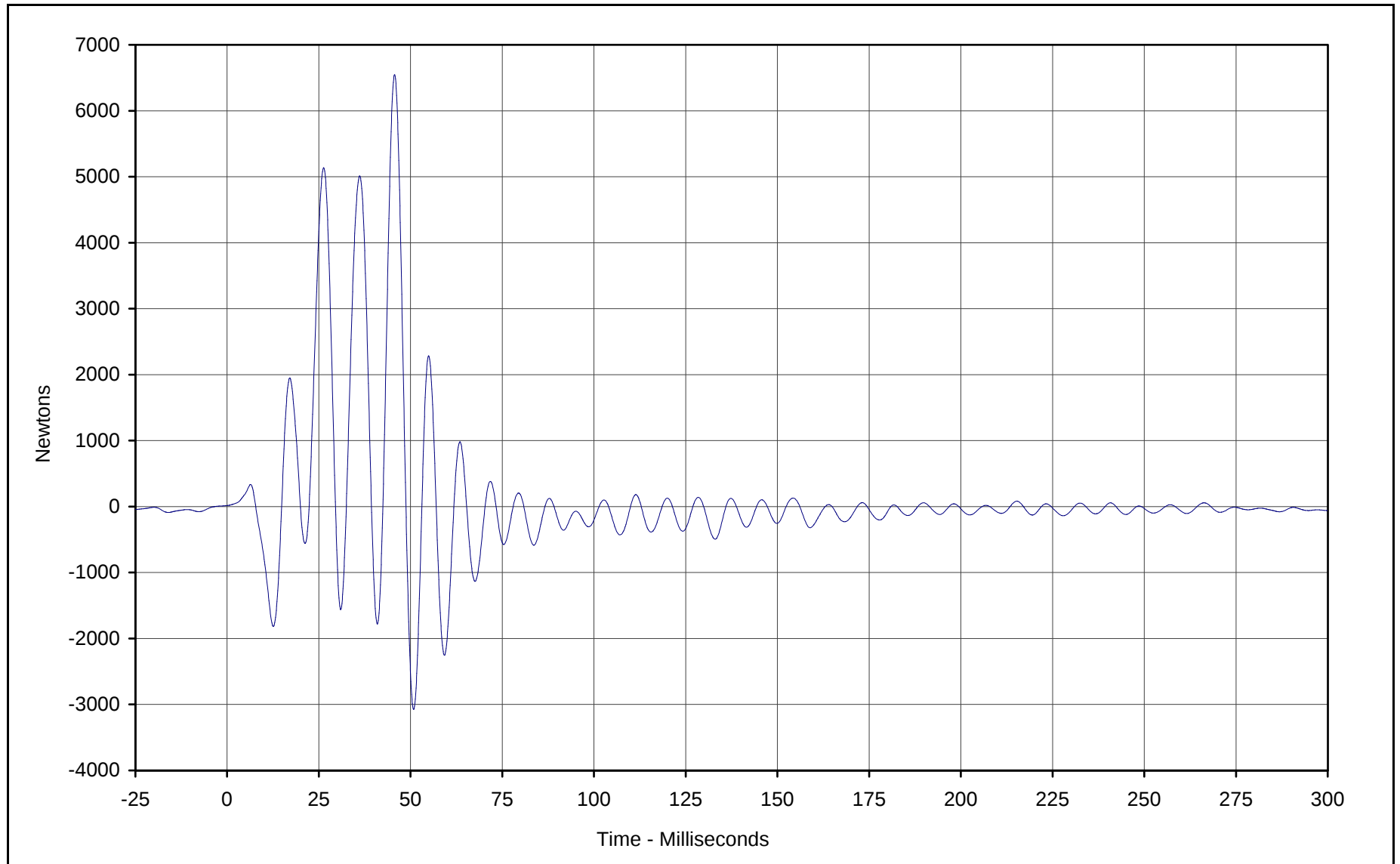
Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



KAR21001-06

C-8



Curve Description: Barrier Force A9

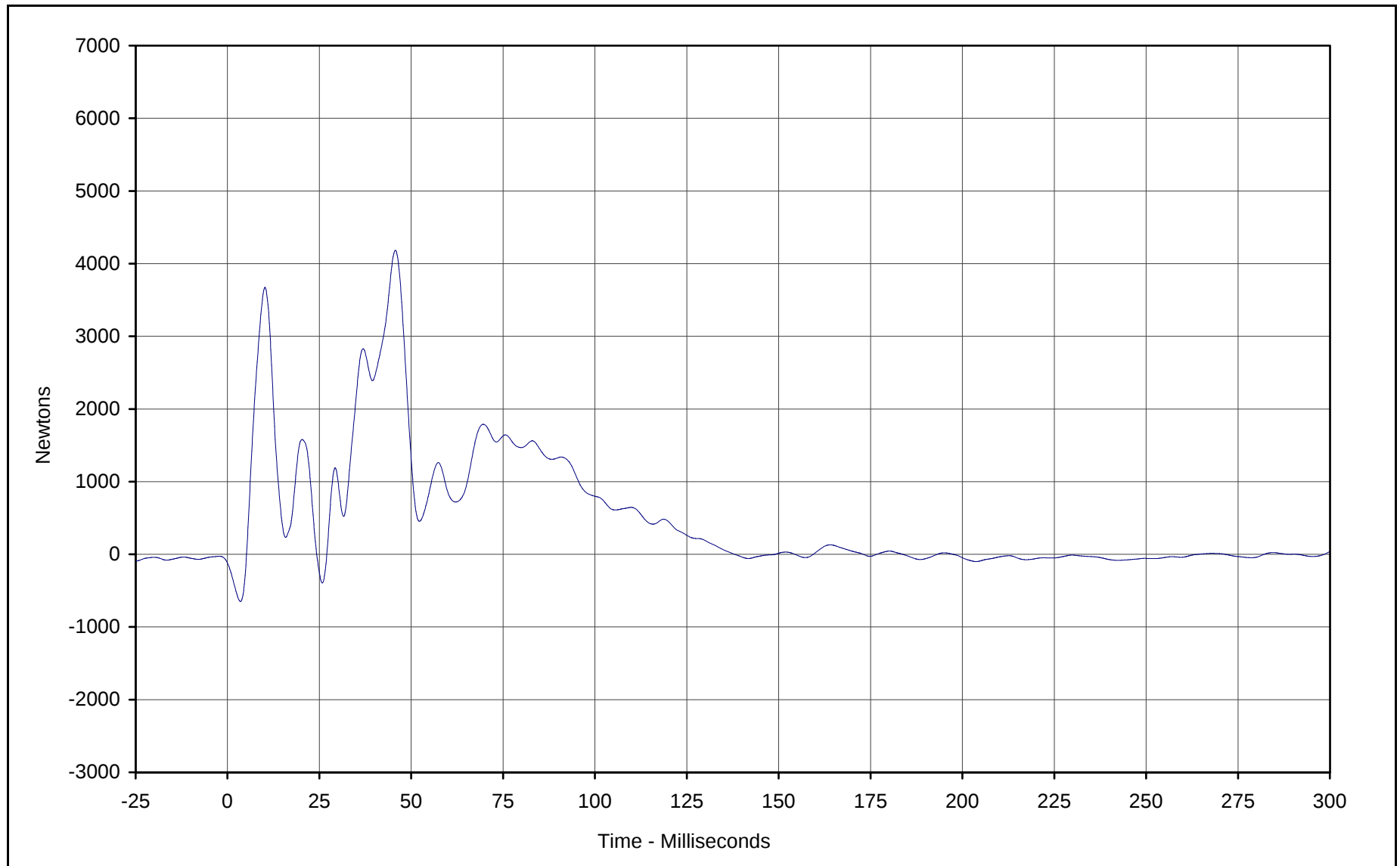
Maximum Value:	<u>6545.6</u>	at	<u>45.6</u>	Milliseconds
Minimum Value:	<u>-3073.6</u>	at	<u>50.8</u>	Milliseconds
SAE Filter Class:	<u>60</u>			
Date of Test:	<u>01/18/01</u>			
Curve Number:	<u>FIL-106</u>			

Test Program:	<u>2001 NHTSA 35mph NCAP No.: M15602</u>
Test Vehicle:	<u>2001 Mitsubishi Montero Sport 4WD SUV</u>



KAR21001-06

C-9



Curve Description: Barrier Force B2

Maximum Value: 4182.3 at 45.7 Milliseconds

Minimum Value: -649.3 at 3.5 Milliseconds

SAE Filter Class: 60

Date of Test: 01/18/01

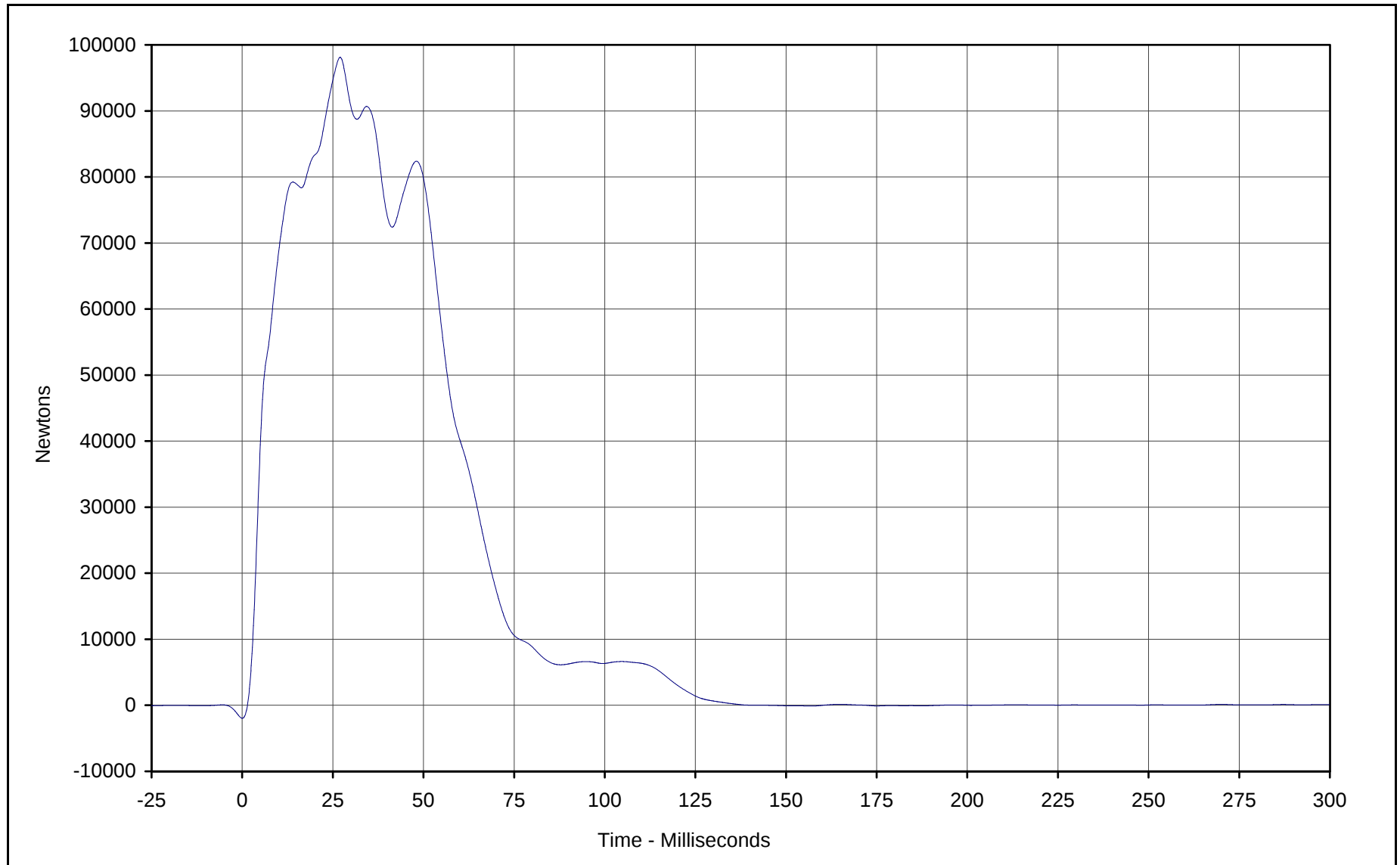
Curve Number: FIL-108

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



KAR21001-06



Curve Description: Barrier Force B3

Maximum Value: 98113.9 at 27.0 Milliseconds

Minimum Value: -1960.8 at 0.0 Milliseconds

SAE Filter Class: 60

Date of Test: 01/18/01

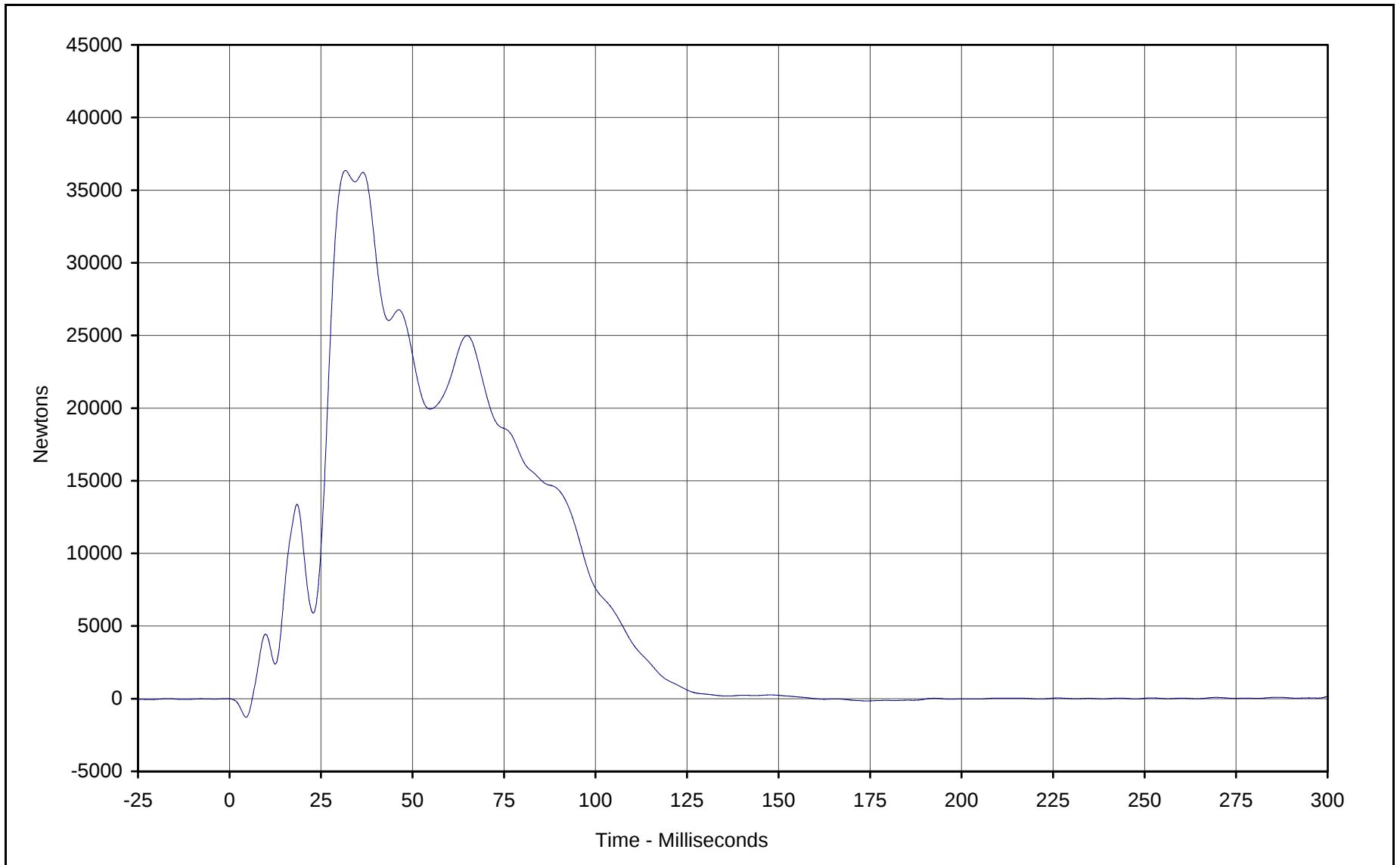
Curve Number: FIL-109

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



C-11



Curve Description: Barrier Force B4

Maximum Value: 36357.0 at 31.7 Milliseconds

Minimum Value: -1281.7 at 4.5 Milliseconds

SAE Filter Class: 60

Date of Test: 01/18/01

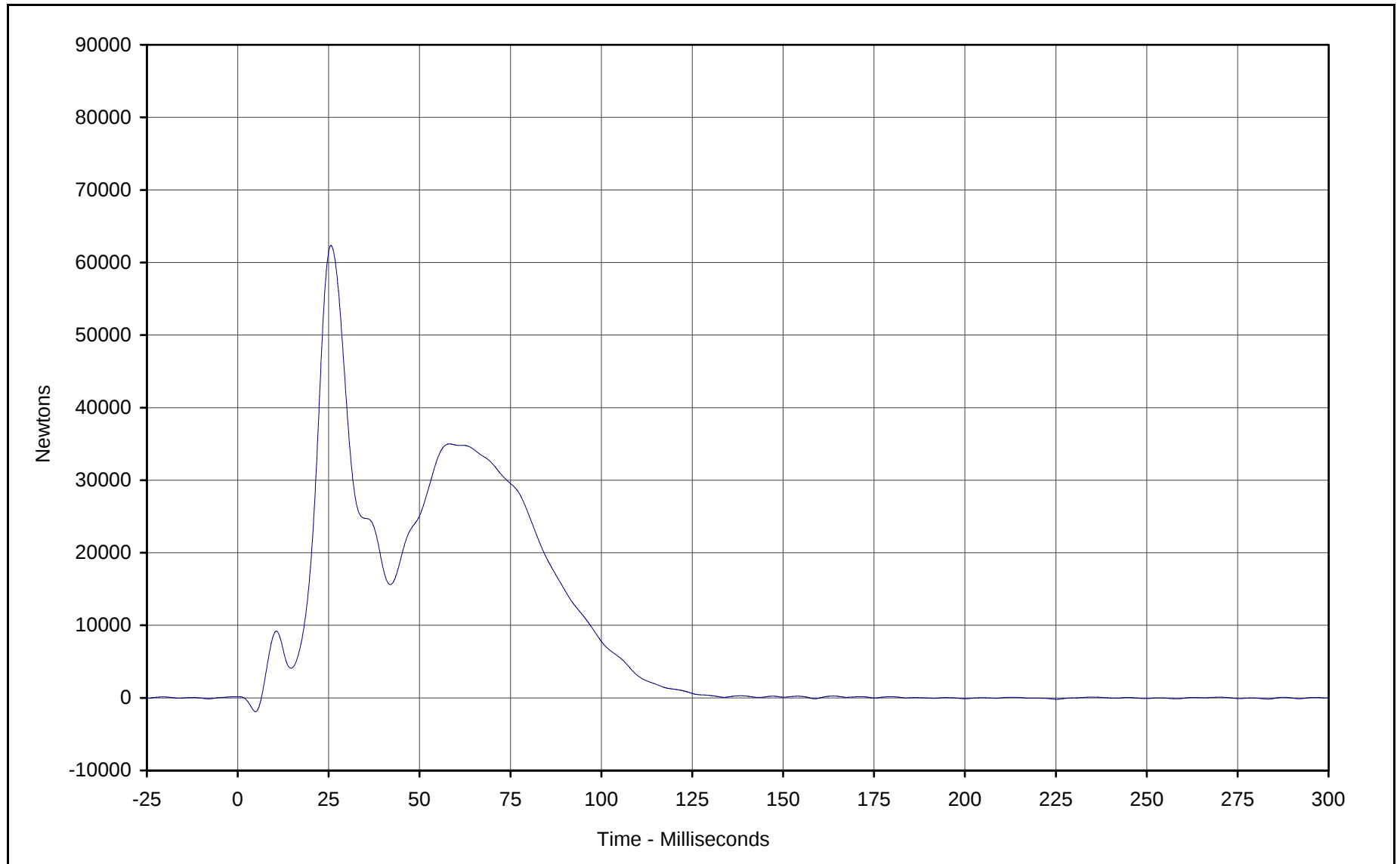
Curve Number: FIL-110

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



KAR21001-06



Curve Description: Barrier Force B5

Maximum Value: 62358.1 at 25.6 Milliseconds

Minimum Value: -1916.6 at 4.9 Milliseconds

SAE Filter Class: 60

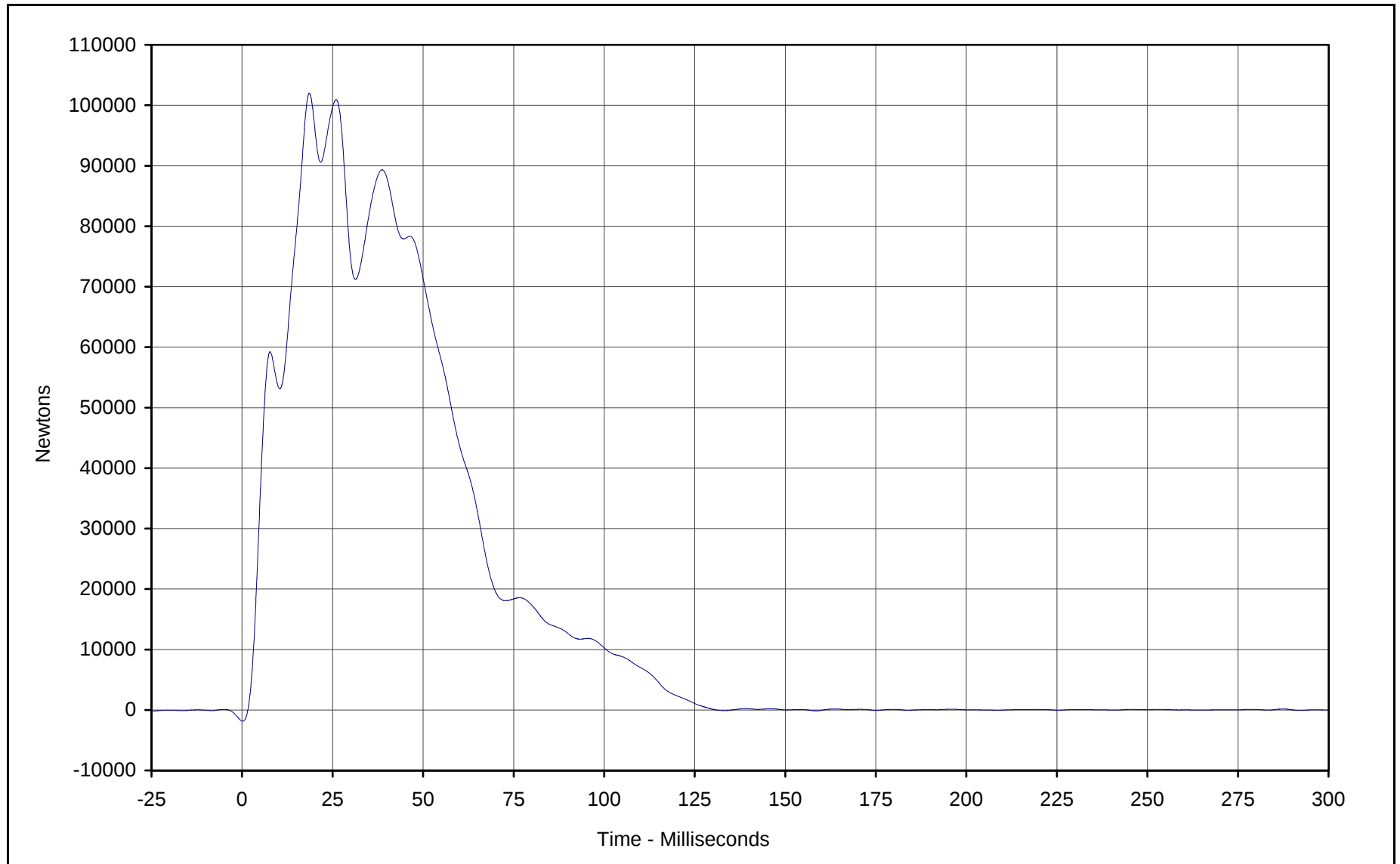
Date of Test: 01/18/01

Curve Number: FIL-111

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Barrier Force B6

Maximum Value: 101988.4 at 18.6 Milliseconds

Minimum Value: -1854.9 at 0.2 Milliseconds

SAE Filter Class: 60

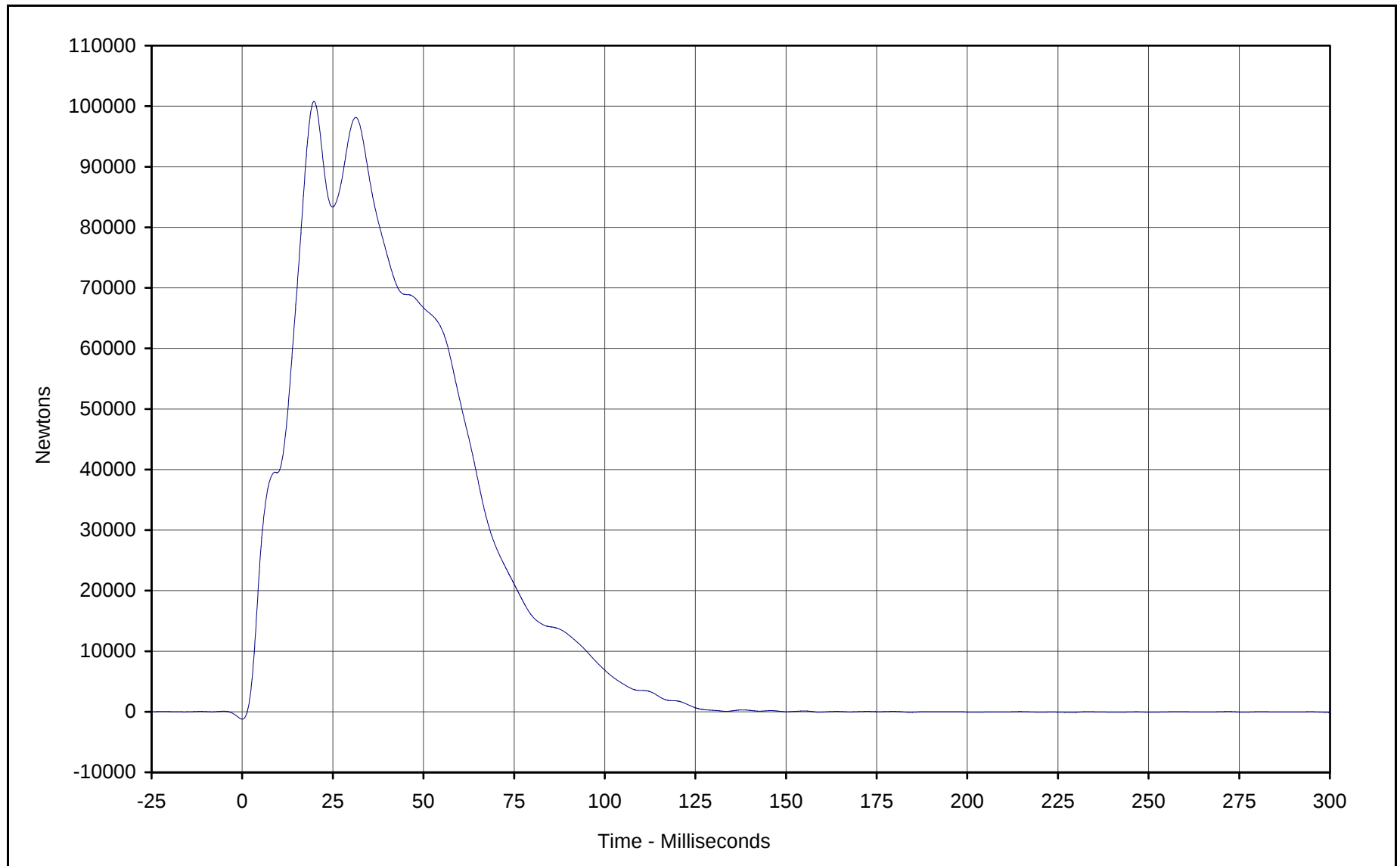
Date of Test: 01/18/01

Curve Number: FIL-112

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Barrier Force B7

Maximum Value: 100805.4 at 19.8 Milliseconds

Minimum Value: -1220.3 at 0.0 Milliseconds

SAE Filter Class: 60

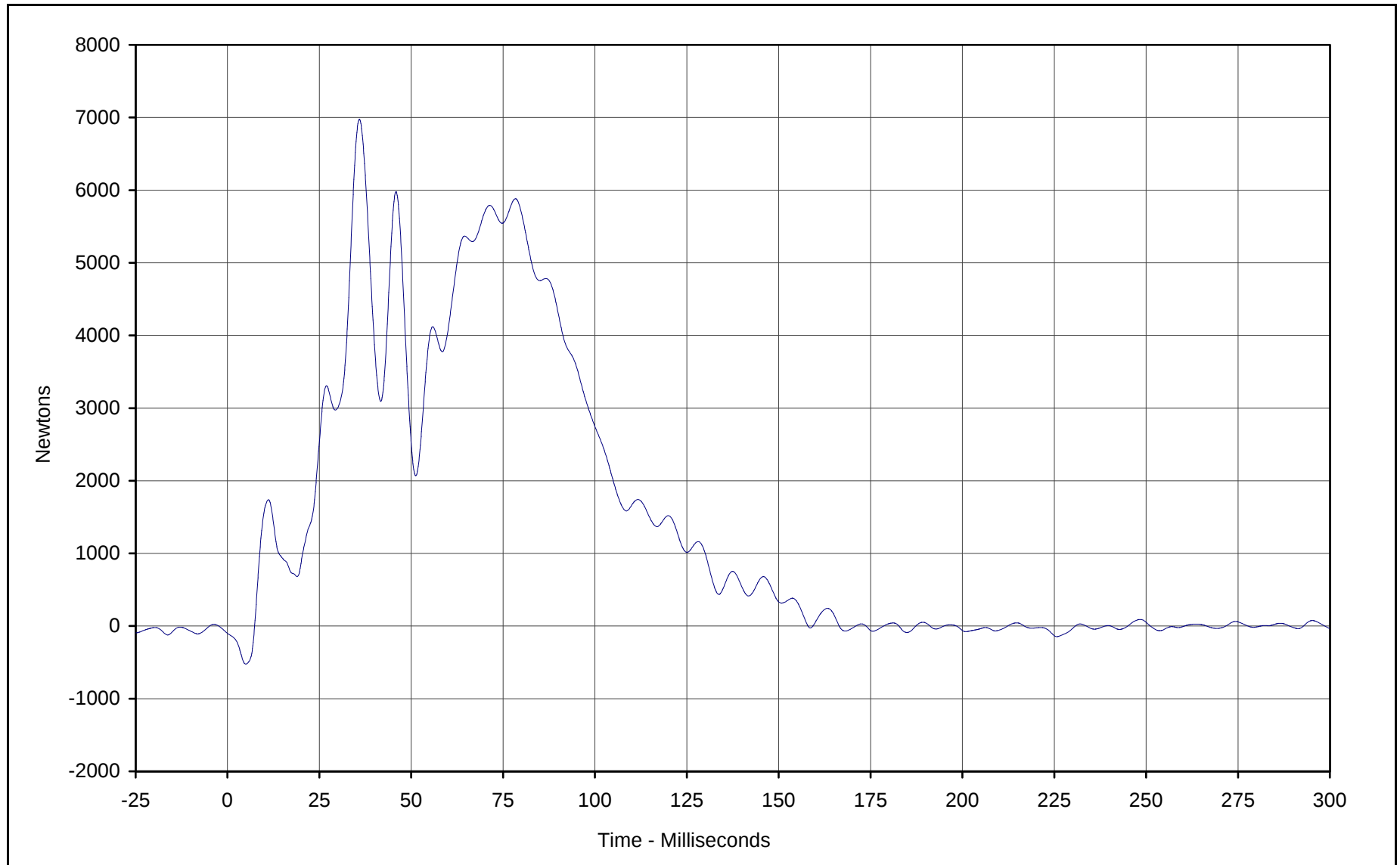
Date of Test: 01/18/01

Curve Number: FIL-113

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Barrier Force B8

Maximum Value: 6977.5 at 35.9 Milliseconds

Minimum Value: -523.4 at 5.0 Milliseconds

SAE Filter Class: 60

Date of Test: 01/18/01

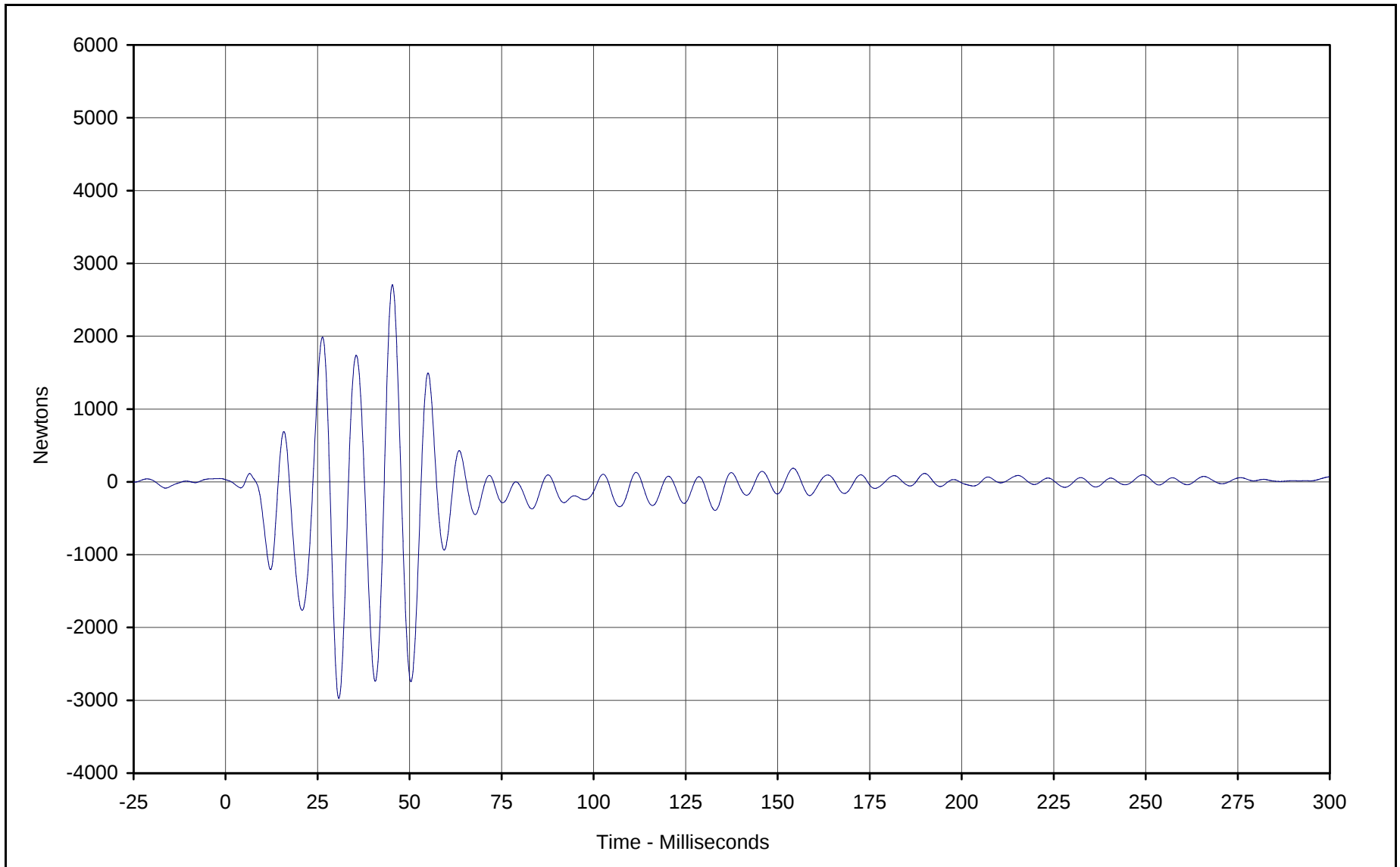
Curve Number: FIL-114

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



C-16



Curve Description: Barrier Force B9

Maximum Value: 2707.2 at 45.3 Milliseconds

Minimum Value: -2975.3 at 30.8 Milliseconds

SAE Filter Class: 60

Date of Test: 01/18/01

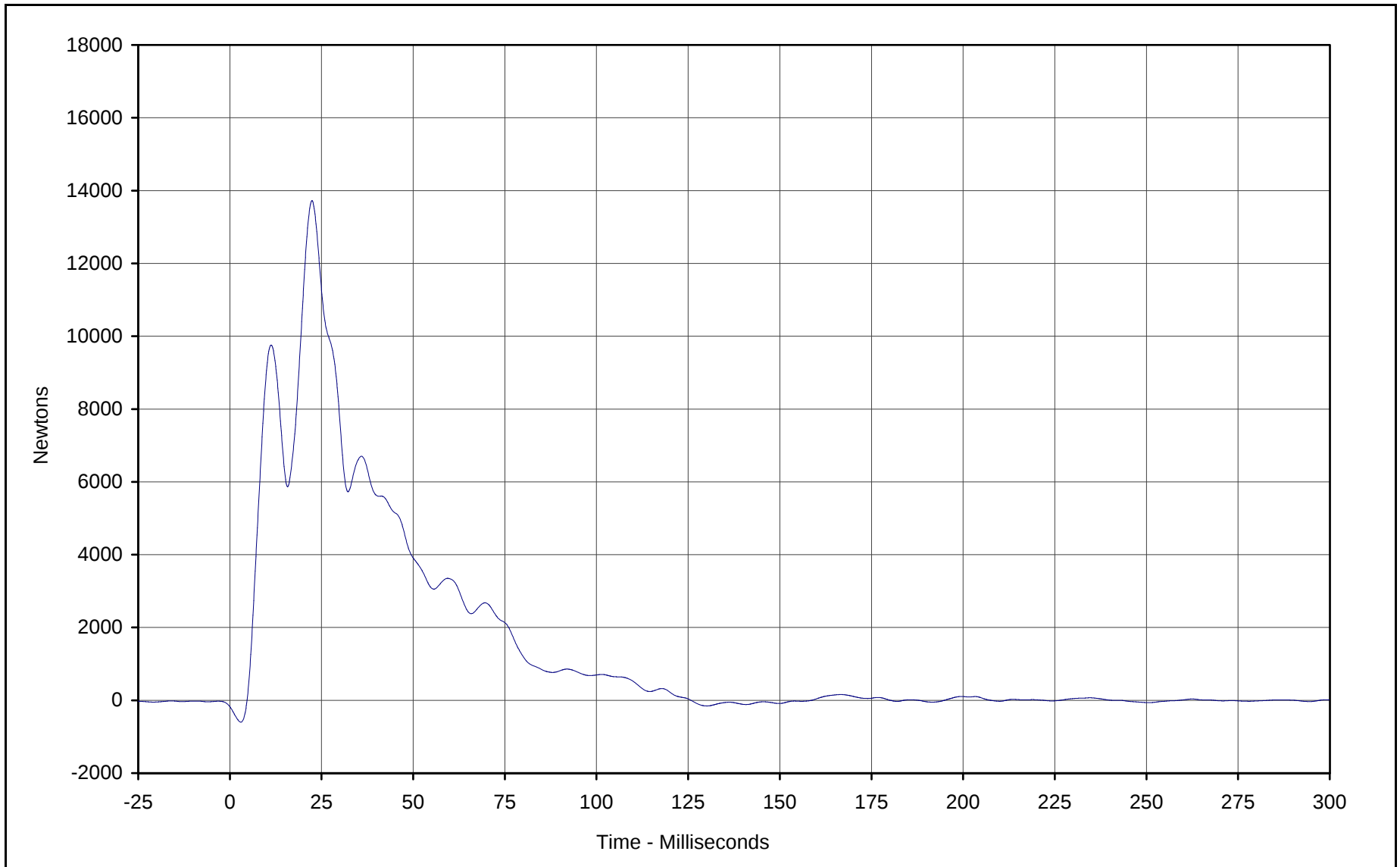
Curve Number: FIL-115

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



KAR21001-06



Curve Description: Barrier Force C2

Maximum Value: 13726.2 at 22.4 Milliseconds

Minimum Value: -600.6 at 3.0 Milliseconds

SAE Filter Class: 60

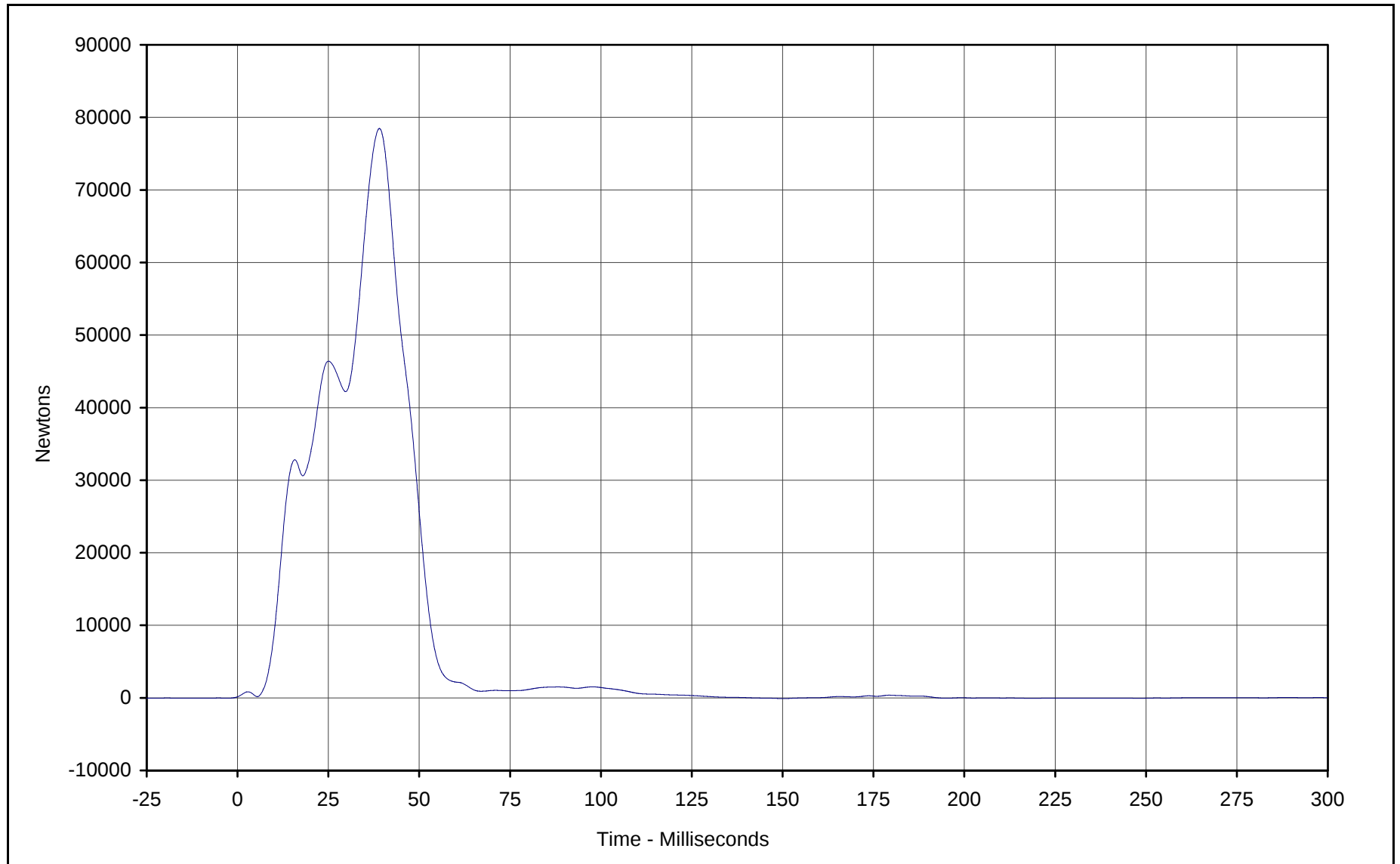
Date of Test: 01/18/01

Curve Number: FIL-117

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Barrier Force C3

Maximum Value: 78470.3 at 39.0 Milliseconds

Minimum Value: -105.1 at 150.3 Milliseconds

SAE Filter Class: 60

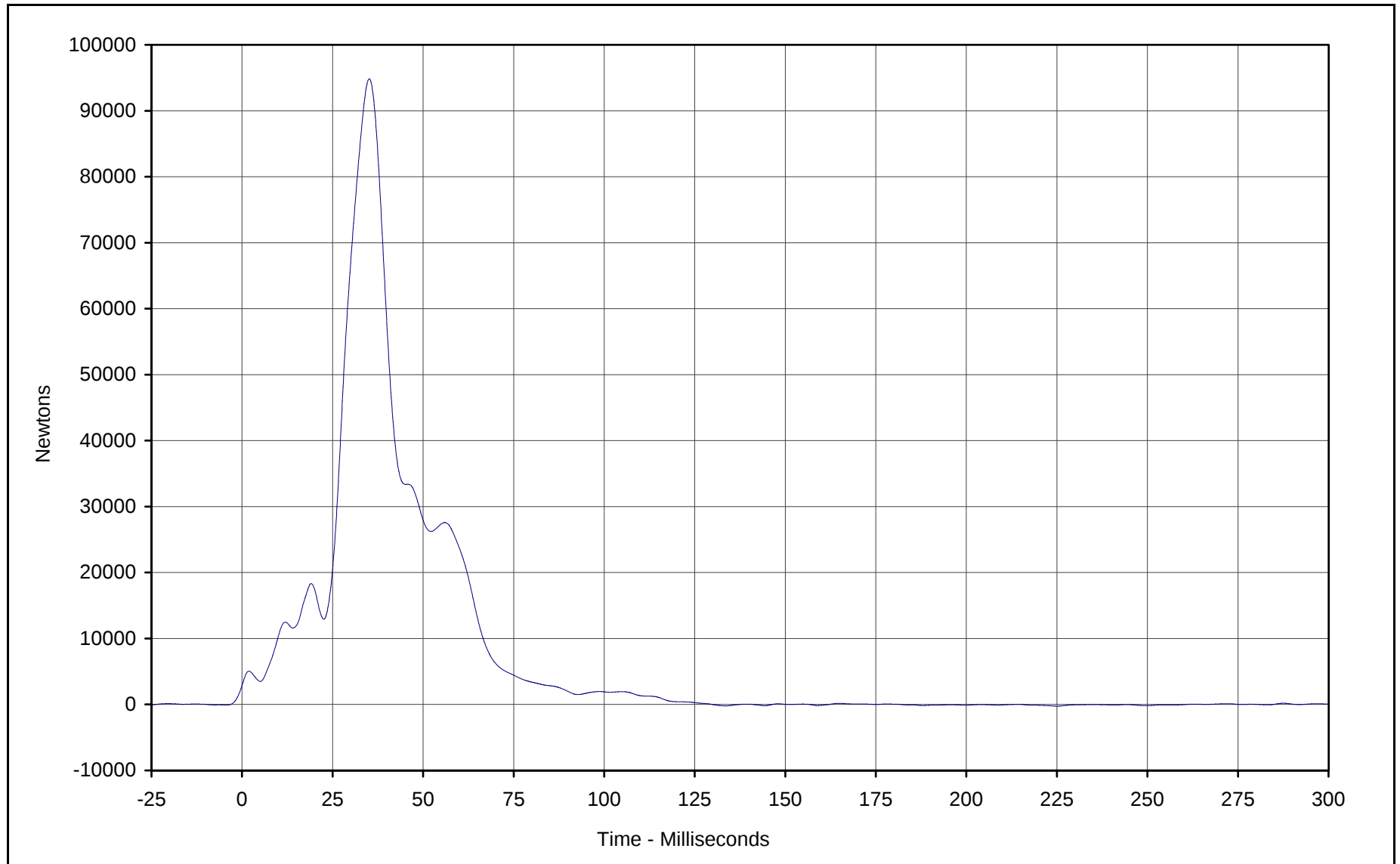
Date of Test: 01/18/01

Curve Number: FIL-118

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Barrier Force C4

Maximum Value: 94851.2 at 35.1 Milliseconds

Minimum Value: -254.7 at 225.1 Milliseconds

SAE Filter Class: 60

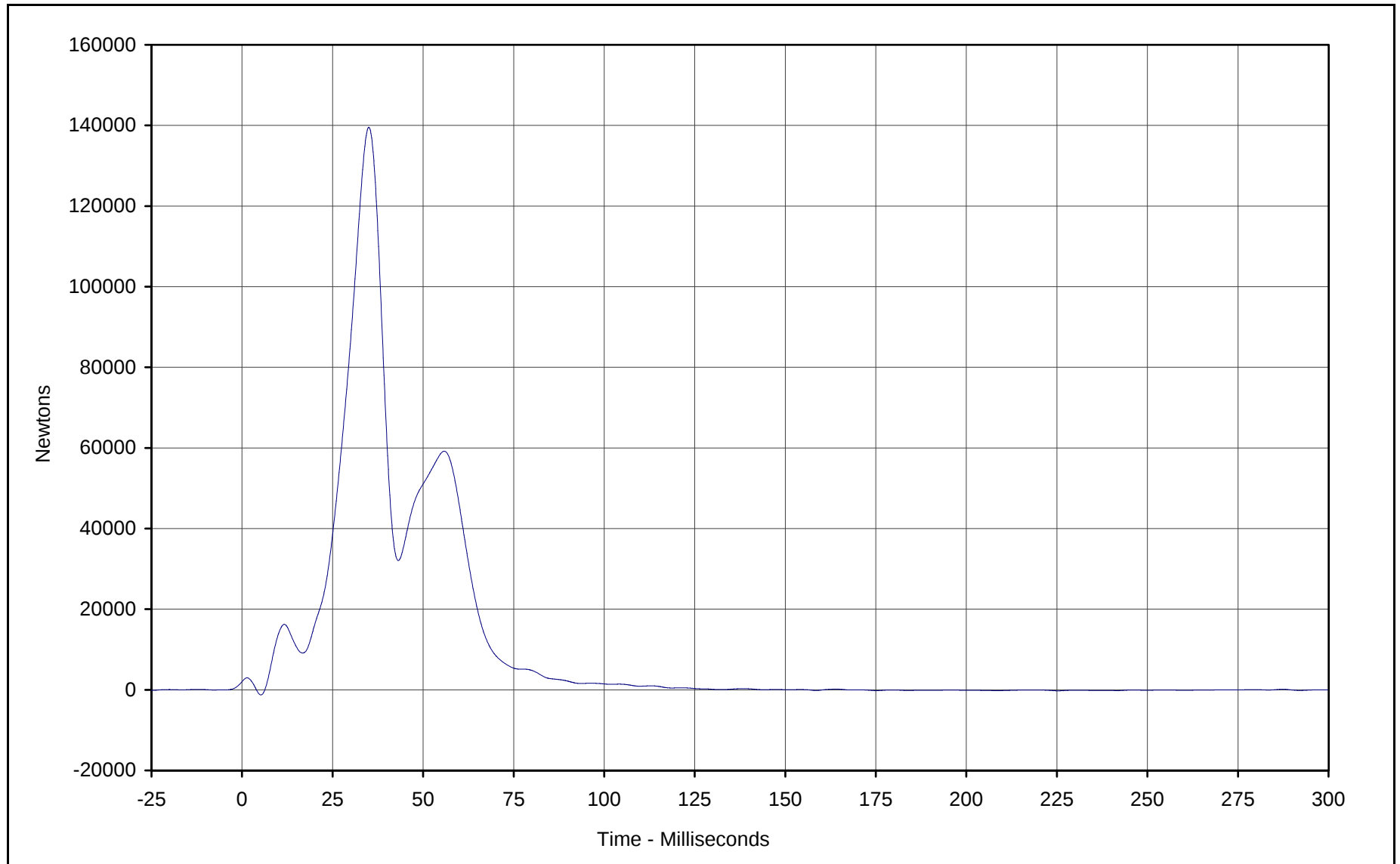
Date of Test: 01/18/01

Curve Number: FIL-119

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Barrier Force C5

Maximum Value: 139540.8 at 35.0 Milliseconds

Minimum Value: -1271.2 at 5.2 Milliseconds

SAE Filter Class: 60

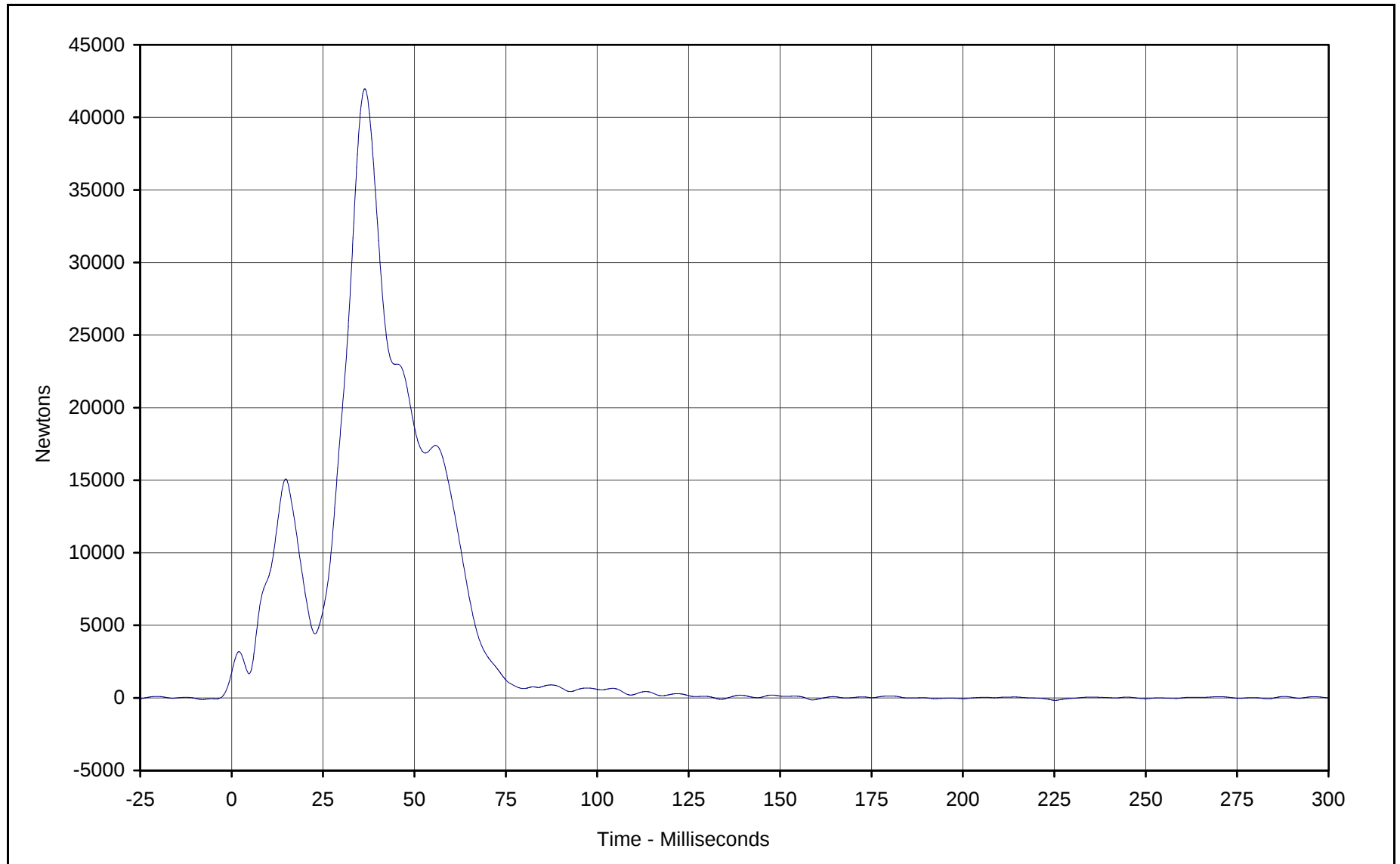
Date of Test: 01/18/01

Curve Number: FIL-120

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Barrier Force C6

Maximum Value: 41960.5 at 36.4 Milliseconds

Minimum Value: -170.0 at 225.3 Milliseconds

SAE Filter Class: 60

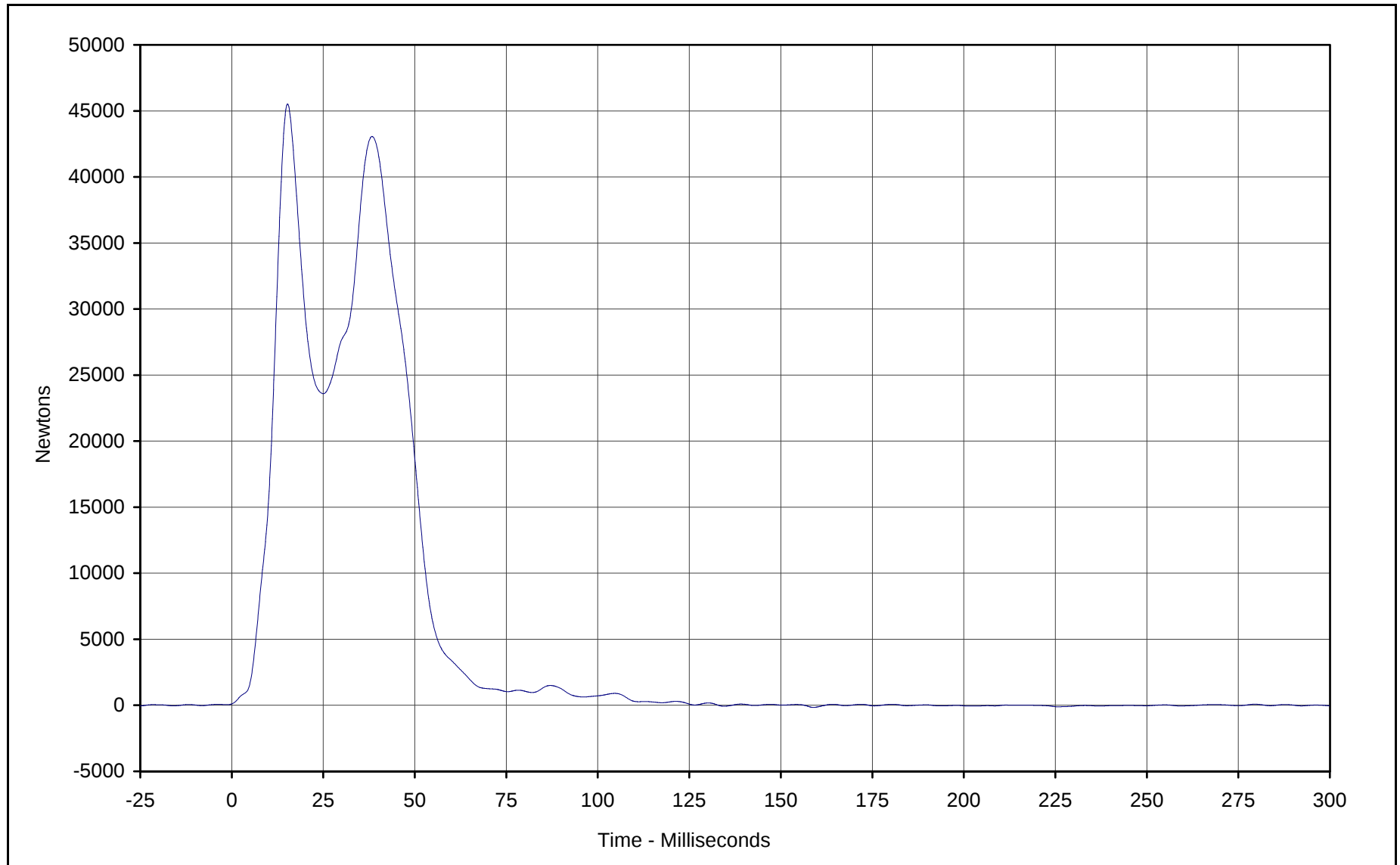
Date of Test: 01/18/01

Curve Number: FIL-121

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Barrier Force C7

Maximum Value: 45534.4 at 15.2 Milliseconds

Minimum Value: -163.2 at 158.9 Milliseconds

SAE Filter Class: 60

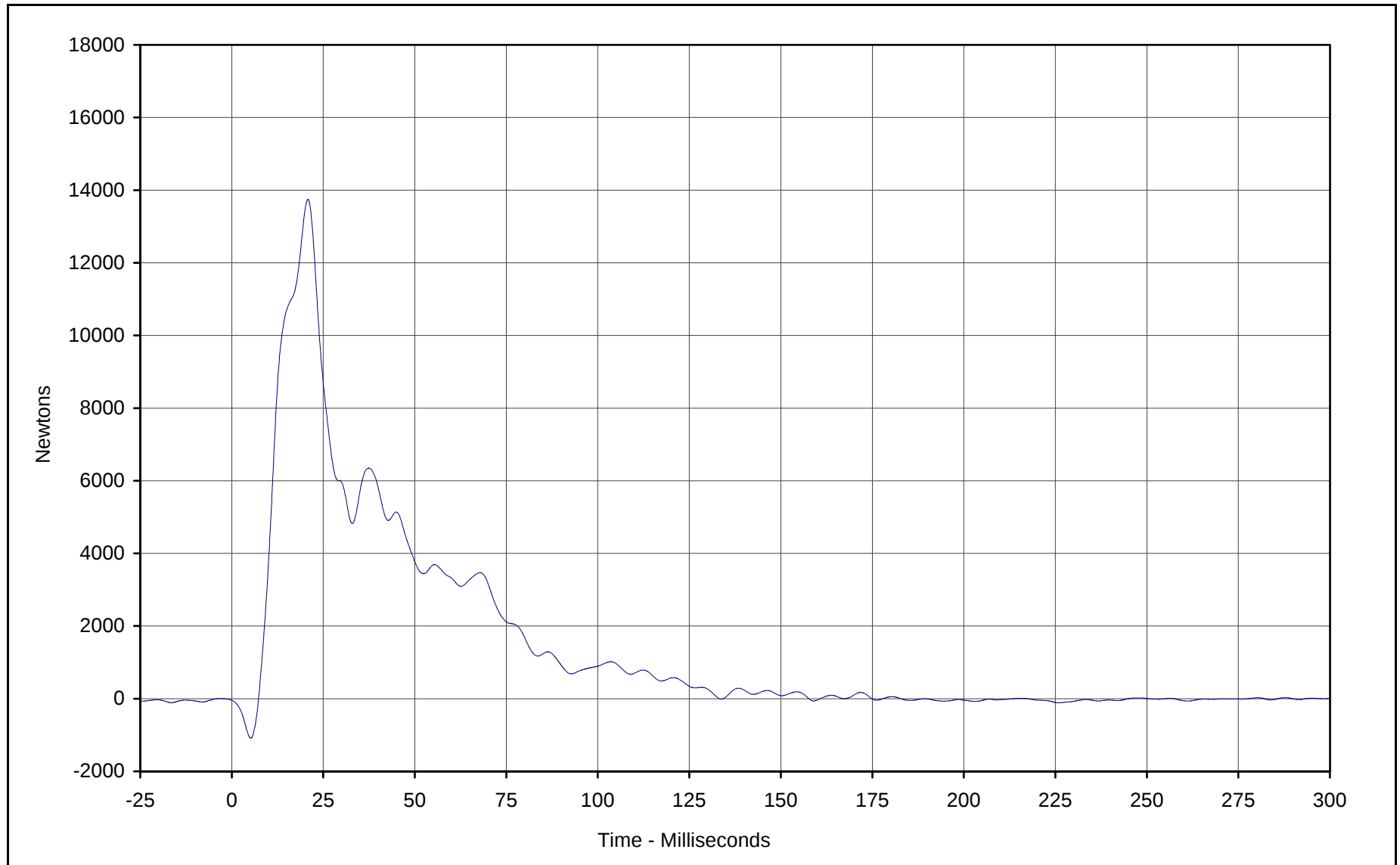
Date of Test: 01/18/01

Curve Number: FIL-122

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Barrier Force C8

Maximum Value: 13747.7 at 20.8 Milliseconds

Minimum Value: -1086.4 at 5.2 Milliseconds

SAE Filter Class: 60

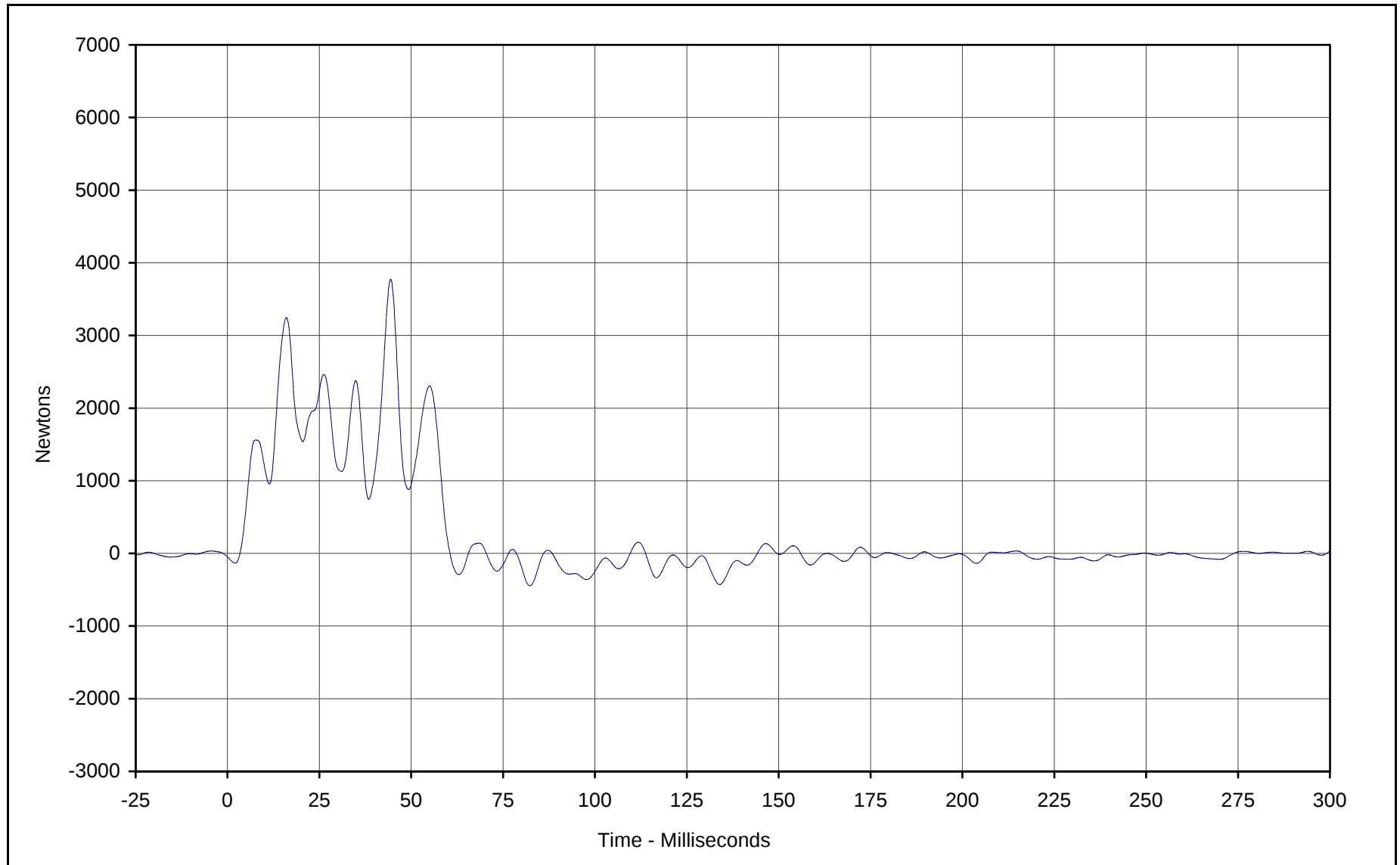
Date of Test: 01/18/01

Curve Number: FIL-123

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Barrier Force C9

Maximum Value: 3773.8 at 44.4 Milliseconds

Minimum Value: -446.3 at 82.3 Milliseconds

SAE Filter Class: 60

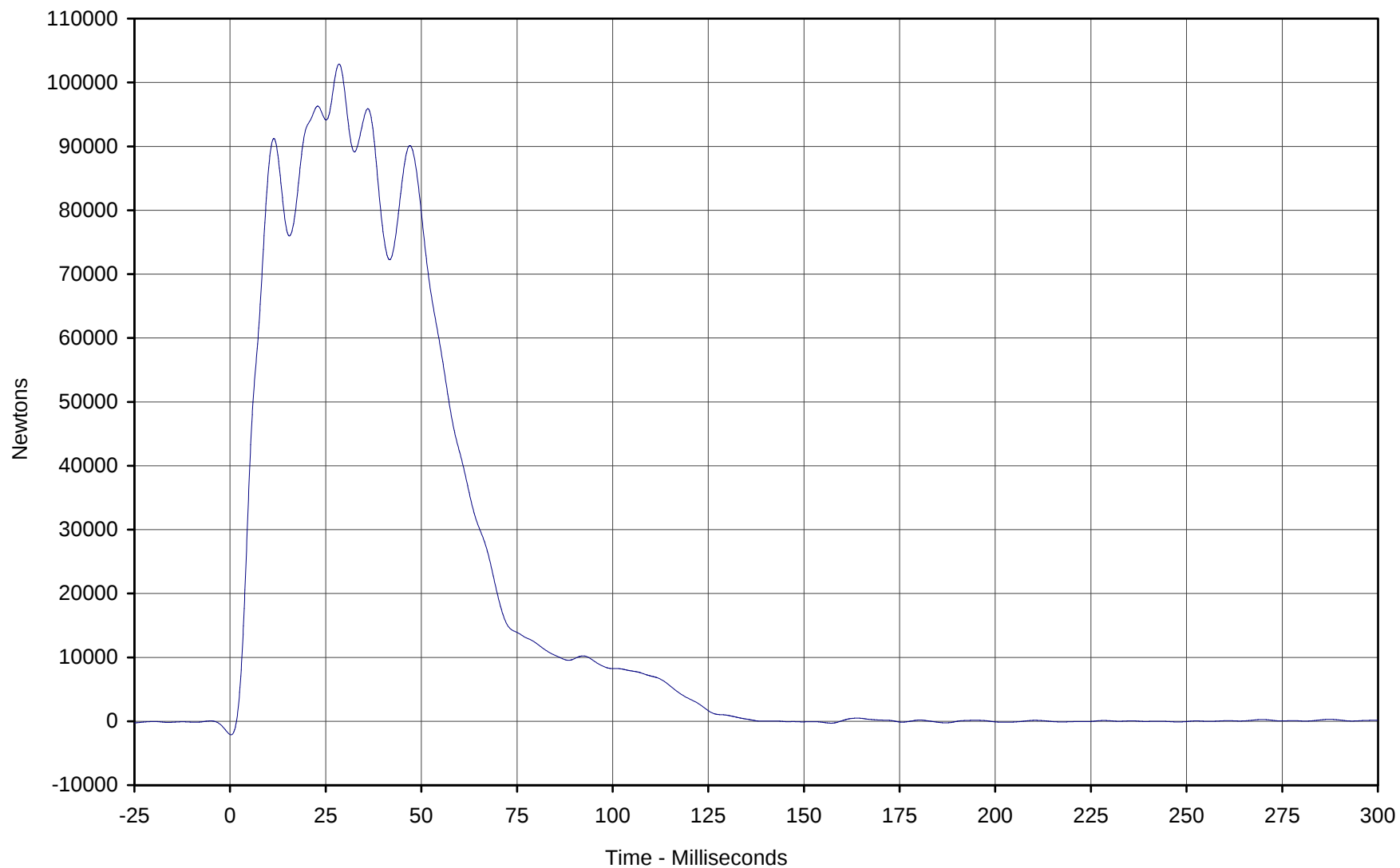
Date of Test: 01/18/01

Curve Number: FIL-124

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

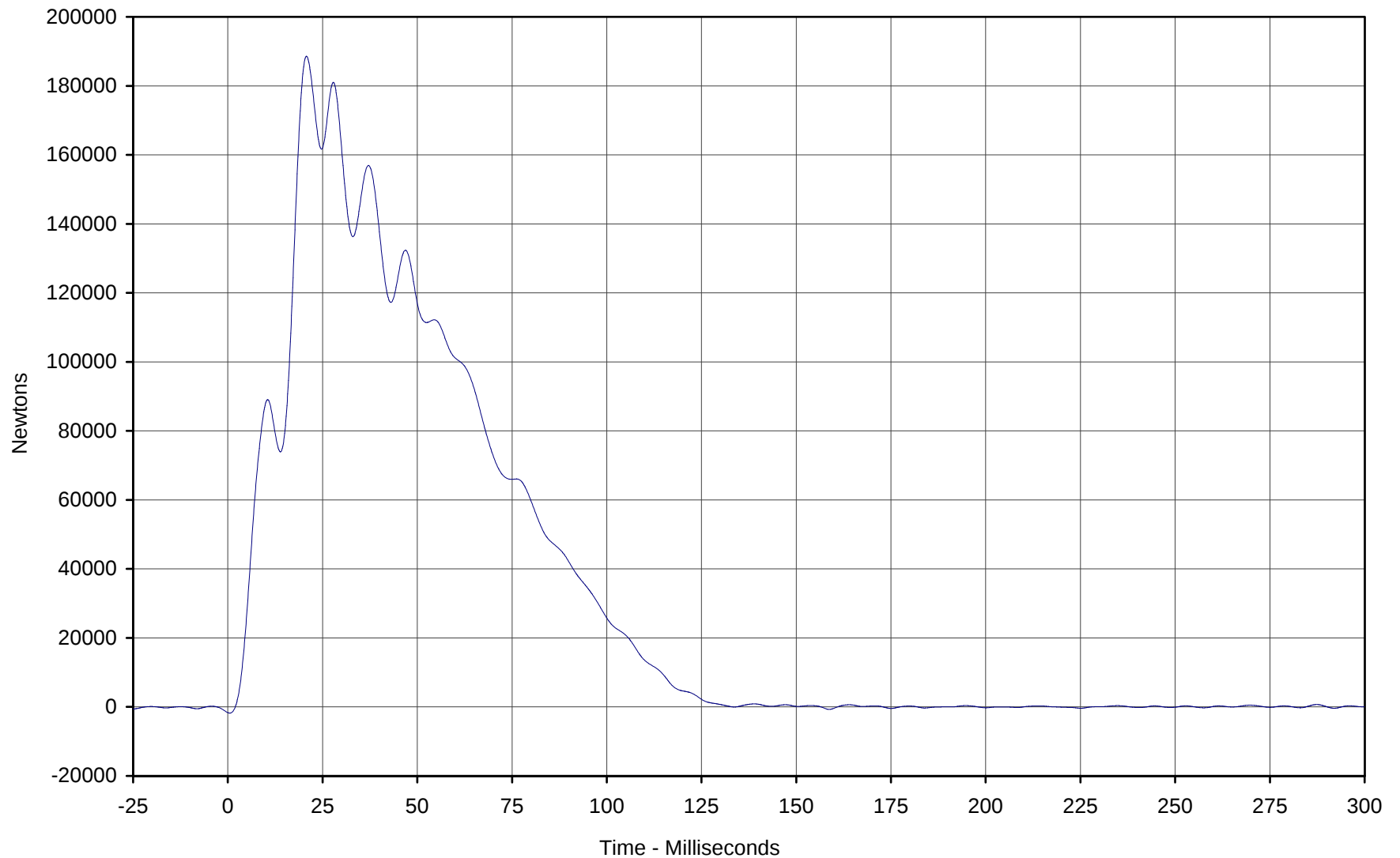




Curve Description: Barrier Force Sum Group 1
Maximum Value: 102891.2 at 28.5 Milliseconds
Minimum Value: -2122.3 at 0.3 Milliseconds
SAE Filter Class: 60
Date of Test: 01/18/01
Curve Number: SUM-001

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

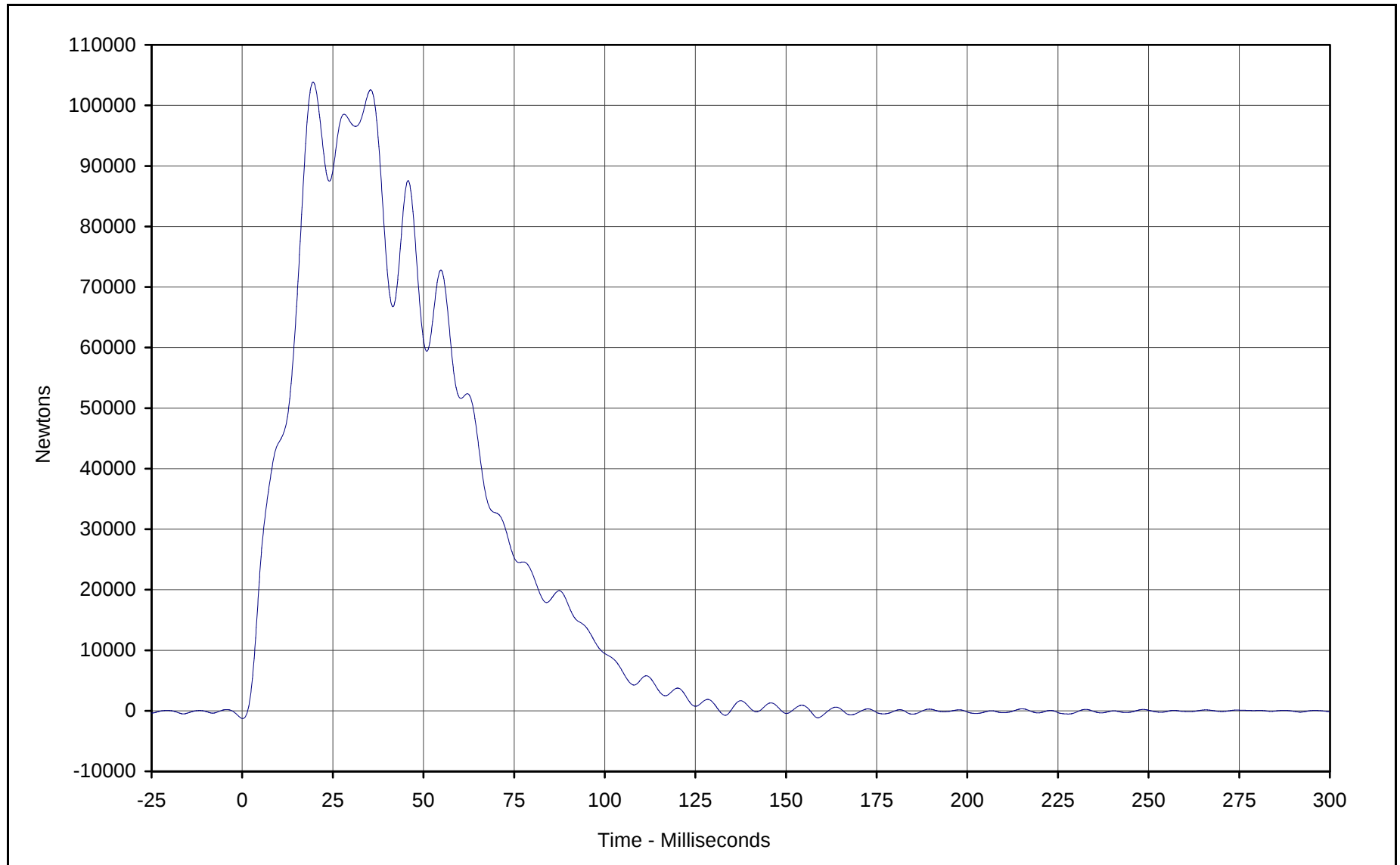




Curve Description: Barrier Force Sum Group 2
Maximum Value: 188584.8 at 20.7 Milliseconds
Minimum Value: -1782.4 at 0.5 Milliseconds
SAE Filter Class: 60
Date of Test: 01/18/01
Curve Number: SUM-002

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

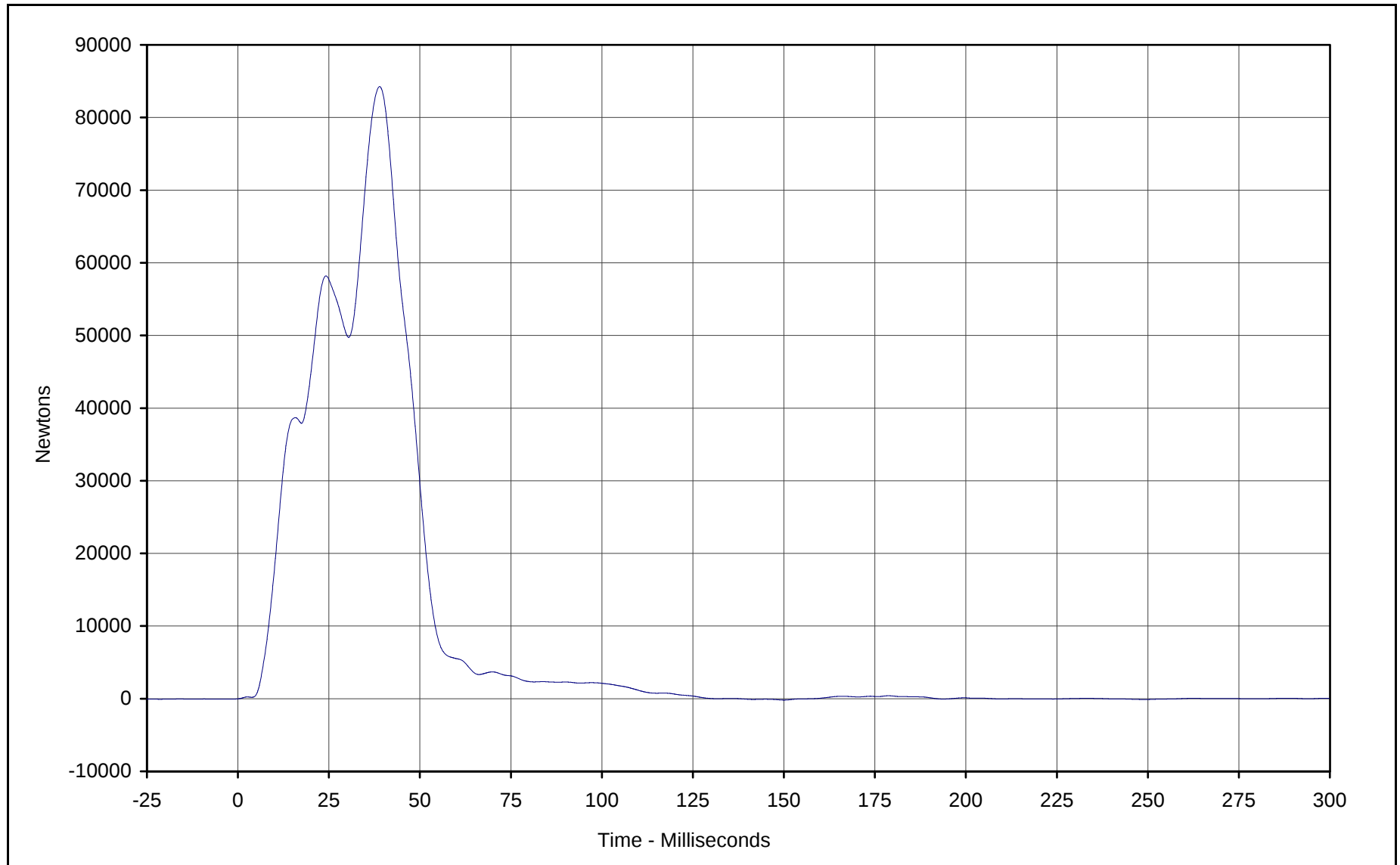




Curve Description: Barrier Force Sum Group 3
Maximum Value: 103841.7 at 19.5 Milliseconds
Minimum Value: -1286.9 at 0.2 Milliseconds
SAE Filter Class: 60
Date of Test: 01/18/01
Curve Number: SUM-003

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

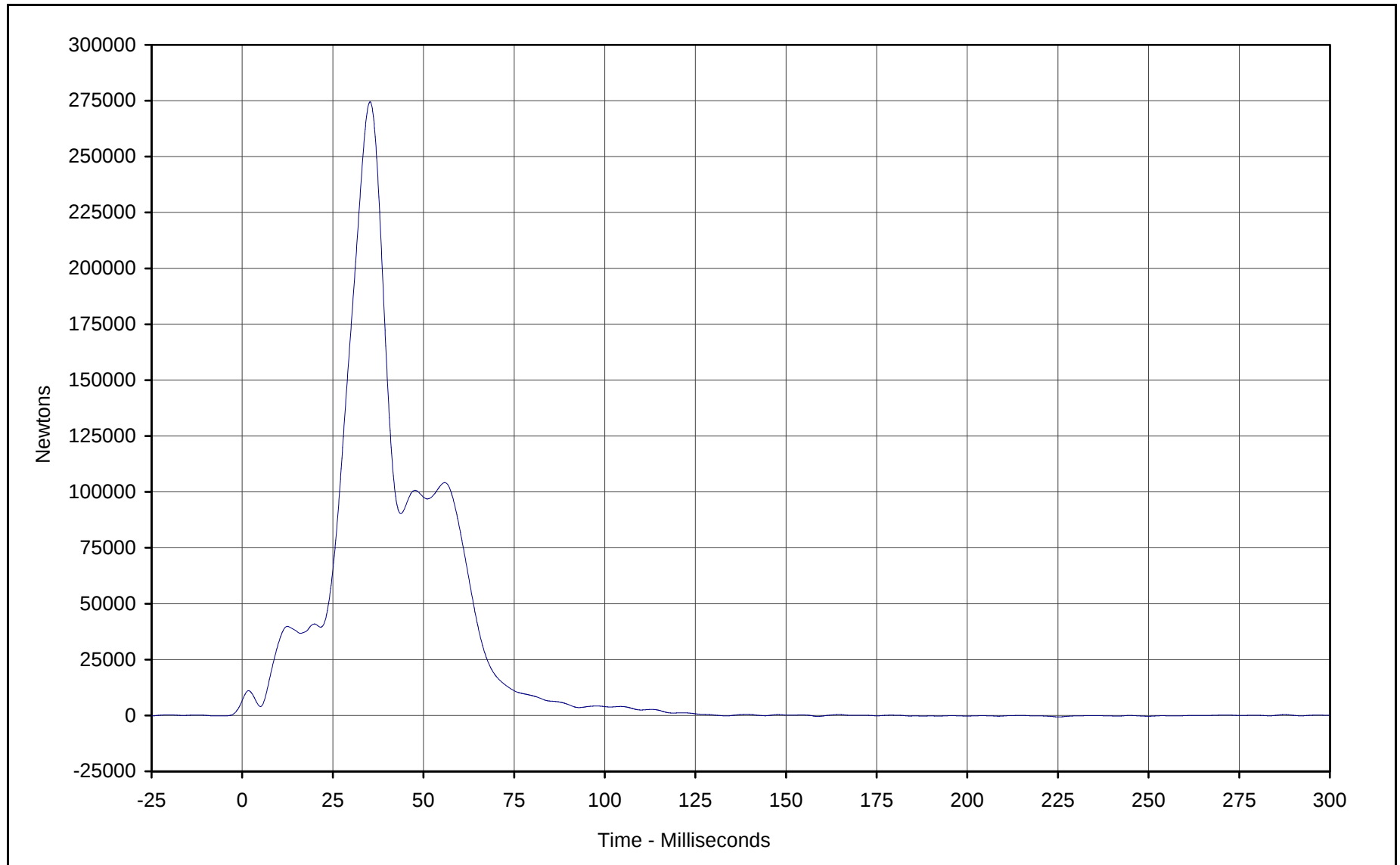




Curve Description: Barrier Force Sum Group 4
Maximum Value: 84252.8 at 38.9 Milliseconds
Minimum Value: -190.8 at 150.1 Milliseconds
SAE Filter Class: 60
Date of Test: 01/18/01
Curve Number: SUM-004

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

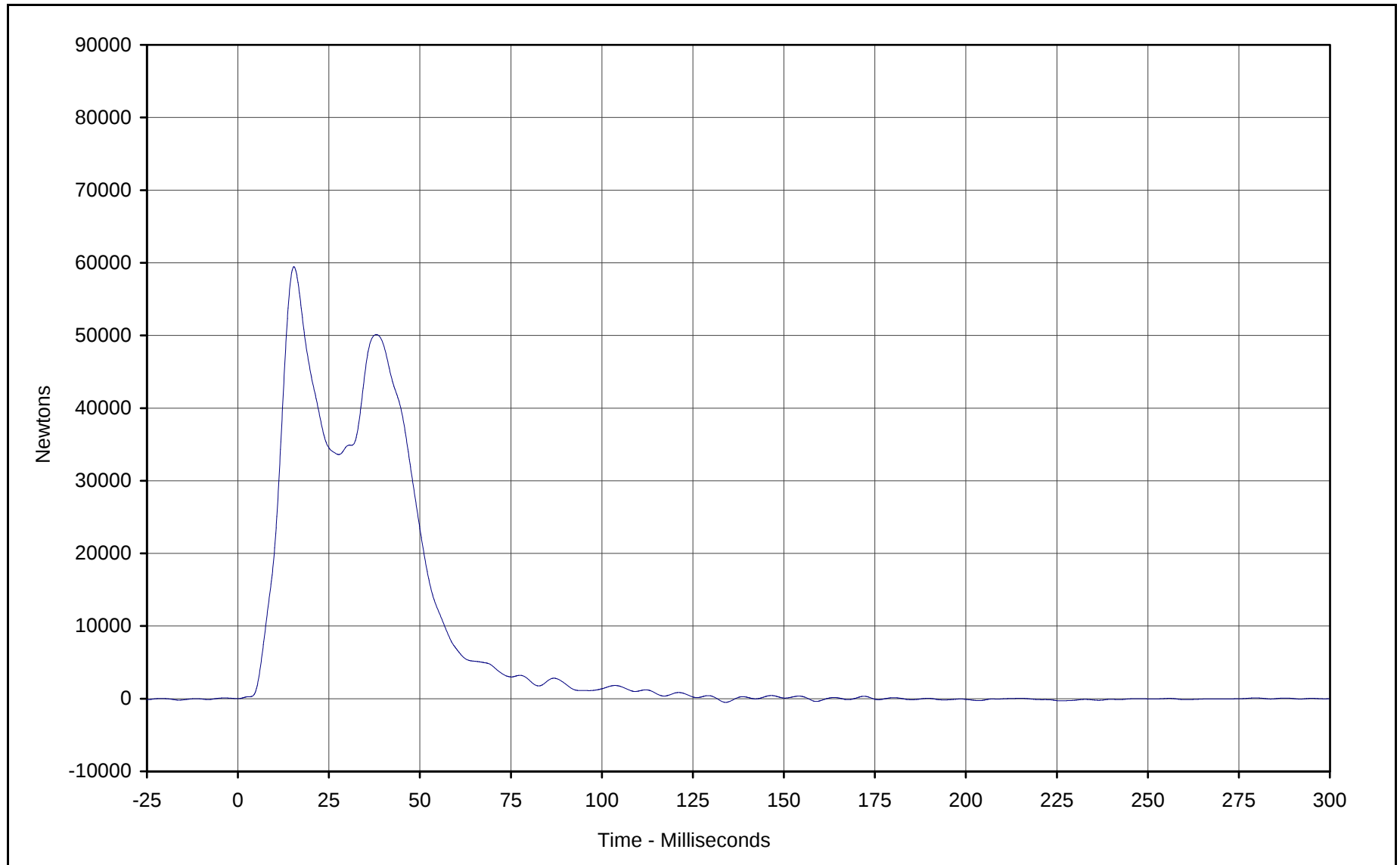




Curve Description: Barrier Force Sum Group 5
Maximum Value: 274489.7 at 35.3 Milliseconds
Minimum Value: -680.9 at 225.2 Milliseconds
SAE Filter Class: 60
Date of Test: 01/18/01
Curve Number: SUM-005

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

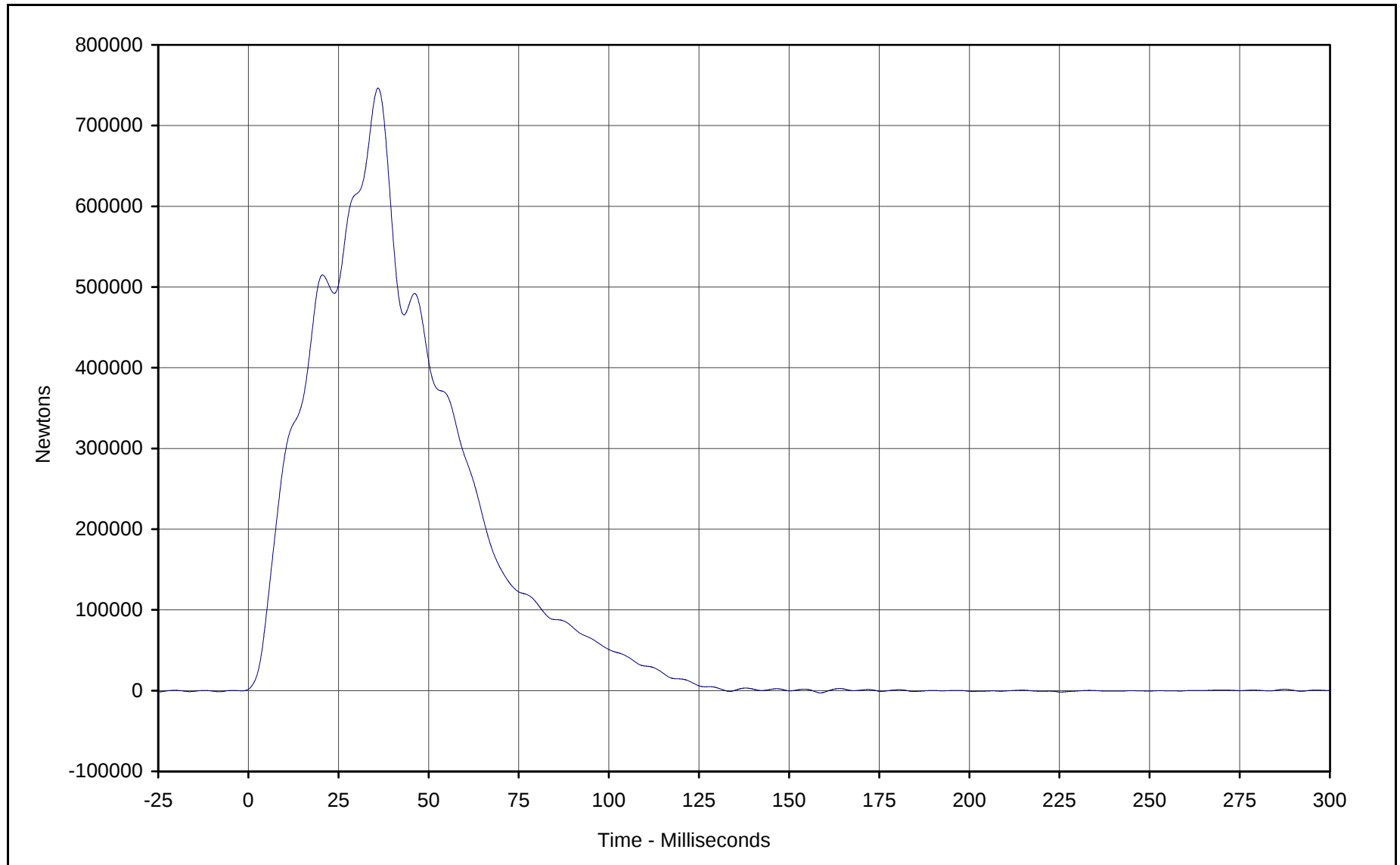




Curve Description: Barrier Force Sum Group 6
Maximum Value: 59456.4 at 15.4 Milliseconds
Minimum Value: -508.7 at 134.0 Milliseconds
SAE Filter Class: 60
Date of Test: 01/18/01
Curve Number: SUM-006

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV

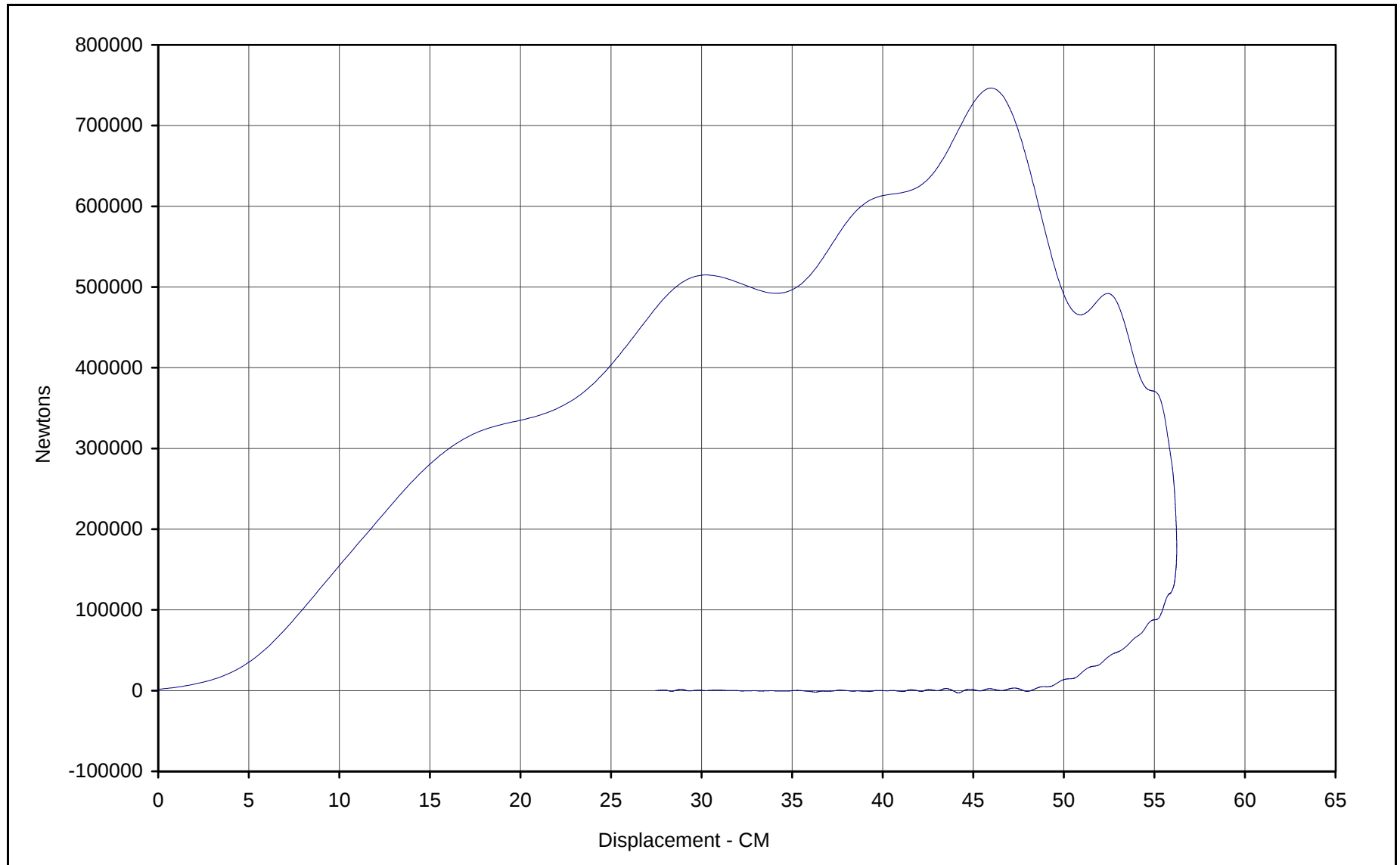




Curve Description: Barrier Force Sum Total
Maximum Value: 746477.2 at 36.0 Milliseconds
Minimum Value: -2903.0 at 158.6 Milliseconds
SAE Filter Class: 60
Date of Test: 01/18/01
Curve Number: SUM-007

Test Program: 2001 NHTSA 35mph NCAP No.: M15602
Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV





Curve Description: Sum Force Total vs. Dynamic Crush

Maximum Displ.: 56.2 at 67.5 Milliseconds

Maximum Force: 746477.2 at 36.0 Milliseconds

Measured Energy: 214,821 joules

Date of Test: 01/18/01

Curve Number: XVY-001

Test Program: 2001 NHTSA 35mph NCAP No.: M15602

Test Vehicle: 2001 Mitsubishi Montero Sport 4WD SUV



BARRIER LOAD CELL SUMMARY DATATest Vehicle: 2001 Mitsubishi Montero Sport 4WD SUVNHTSA No.: M15602Test Program: 2001 NHTSA 35mph NCAPTest Date: 01/18/01**BARRIER LOAD CELL PEAK FORCES**

Location	Units	Max	Time	Min	Time
Barrier Force A2	Newtons	5520.0	11.0	-3157.5	15.8
Barrier Force A3	Newtons	9495.4	10.5	-1521.3	51.4
Barrier Force A4	Newtons	13169.0	20.9	-4009.2	25.5
Barrier Force A5	Newtons	40596.3	20.5	-7099.3	14.8
Barrier Force A6	Newtons	10646.2	21.3	-1359.8	50.8
Barrier Force A7	Newtons	3110.8	10.5	-2684.9	15.3
Barrier Force A8	Newtons	2303.0	46.0	-2688.1	41.3
Barrier Force A9	Newtons	6545.6	45.6	-3073.6	50.8
Barrier Force B2	Newtons	4182.3	45.7	-649.3	3.5
Barrier Force B3	Newtons	98113.9	27.0	-1960.8	0.0
Barrier Force B4	Newtons	36357.0	31.7	-1281.7	4.5
Barrier Force B5	Newtons	62358.1	25.6	-1916.6	4.9
Barrier Force B6	Newtons	101988.4	18.6	-1854.9	0.2
Barrier Force B7	Newtons	100805.4	19.8	-1220.3	0.0
Barrier Force B8	Newtons	6977.5	35.9	-523.4	5.0
Barrier Force B9	Newtons	2707.2	45.3	-2975.3	30.8
Barrier Force C2	Newtons	13726.2	22.4	-600.6	3.0
Barrier Force C3	Newtons	78470.3	39.0	-105.1	150.3
Barrier Force C4	Newtons	94851.2	35.1	-254.7	225.1
Barrier Force C5	Newtons	139540.8	35.0	-1271.2	5.2
Barrier Force C6	Newtons	41960.5	36.4	-170.0	225.3
Barrier Force C7	Newtons	45534.4	15.2	-163.2	158.9
Barrier Force C8	Newtons	13747.7	20.8	-1086.4	5.2
Barrier Force C9	Newtons	3773.8	44.4	-446.3	82.3
Barrier Force Sum Group 1	Newtons	102891.2	28.5	-2122.3	0.3
Barrier Force Sum Group 2	Newtons	188584.8	20.7	-1782.4	0.5
Barrier Force Sum Group 3	Newtons	103841.7	19.5	-1286.9	0.2
Barrier Force Sum Group 4	Newtons	84252.8	38.9	-190.8	150.1
Barrier Force Sum Group 5	Newtons	274489.7	35.3	-680.9	225.2
Barrier Force Sum Group 6	Newtons	59456.4	15.4	-508.7	134.0
Barrier Force Sum Total	Newtons	746477.2	36.0	-2903.0	158.6

Barrier Load cells A1,B1,C1, and D1 through D9 (12 locations) were not recorded.

APPENDIX D

INSTRUMENTATION DATA CHANNEL ASSIGNMENTS

2001 NHTSA 35mph NCAP
Instrumentation Data Channel Assignments
Driver A.T.D. Serial Number 35
01/18/01
2001 Mitsubishi Montero Sport 4WD SUV

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
1	HEAD, PRIMARY	X	KEAC039	Accel.,1/2 bridge	Endevco	7264-2000	G
2	HEAD, PRIMARY	Y	KEAC038	Accel.,1/2 bridge	Endevco	7264-2000	G
3	HEAD, PRIMARY	Z	KEAC027	Accel.,1/2 bridge	Endevco	7264-2000	G
4	HEAD, REDUNDANT	X	KEAC031	Accel.,1/2 bridge	Endevco	7264-2000	G
5	HEAD, REDUNDANT	Y	KEAC032	Accel.,1/2 bridge	Endevco	7264-2000	G
6	HEAD, REDUNDANT	Z	KEAC026	Accel.,1/2 bridge	Endevco	7264-2000	G
7	NECK FORCE	X	GPUN02FX	Load cell, six axis neck	R. A. Denton	1716A	N
8	NECK FORCE	Y	GPUN02FY	Load cell, six axis neck	R. A. Denton	1716A	N
9	NECK FORCE	Z	GPUN02FZ	Load cell, six axis neck	R. A. Denton	1716A	N
10	NECK MOMENT	X	GPUN02MX	Load cell, six axis neck	R. A. Denton	1716A	Nm
11	NECK MOMENT	Y	GPUN02MY	Load cell, six axis neck	R. A. Denton	1716A	Nm
12	NECK MOMENT	Z	GPUN02MZ	Load cell, six axis neck	R. A. Denton	1716A	Nm
13	CHEST , PRIMARY	X	GPAC031	Accel., 1/2 bridge	Endevco	7264-2000	G
14	CHEST , PRIMARY	Y	GPAC024	Accel., 1/2 bridge	Endevco	7264-2000	G
15	CHEST , PRIMARY	Z	GPAC029	Accel., 1/2 bridge	Endevco	7264-2000	G
16	CHEST , REDUNDANT	X	KEAC023	Accel.,1/2 bridge	Endevco	7264-200	G
17	CHEST , REDUNDANT	Y	KEAC022	Accel.,1/2 bridge	Endevco	7264-200	G
18	CHEST , REDUNDANT	Z	KEAC024	Accel.,1/2 bridge	Endevco	7264-200	G
19	CHEST DISPLACEMENT	X	GPCP001	Rotary Pot Chest	Servo	14CBI	MM
20	PELVIS, PRIMARY	X	KEAC019	Accel.,1/2 bridge	Endevco	7264-200	G
21	PELVIS, PRIMARY	Y	KEAC020	Accel.,1/2 bridge	Endevco	7264-200	G
22	PELVIS, PRIMARY	Z	KEAC021	Accel.,1/2 bridge	Endevco	7264-200	G
23	LEFT FEMUR FORCE	Z	KEFF001	Load cell, Femur	R.A. Denton	2121	N
24	RIGHT FEMUR FORCE	Z	KEFF002	Load cell, Femur	R.A. Denton	2121	N

2001 NHTSA 35mph NCAP
Instrumentation Data Channel Assignments
Driver A.T.D. Serial Number 35
01/18/01
2001 Mitsubishi Montero Sport 4WD SUV

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
25	UP. TIBIA LEFT MOM.	X	GPOT09MX	2 ch., Upper tibia gage	R. A. Denton	1583	Nm
26	UP. TIBIA LEFT MOM.	Y	GPOT09MY	2 ch., Upper tibia gage	R. A. Denton	1583	Nm
27	UP. TIBIA RIGHT MOM.	X	GPOT09MX	2 ch., Upper tibia gage	R. A. Denton	1583	Nm
28	UP. TIBIA RIGHT MOM.	Y	GPOT09MY	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	X	KEIC003X	Accel., Foot Triax	I.C. Sensor	3031-500	G
36	FOOT LEFT	Y	KEIC003Y	Accel., Foot Triax	I.C. Sensor	3031-500	G
37	FOOT LEFT	Z	KEIC003Z	Accel., Foot Triax	I.C. Sensor	3031-500	G
38	FOOT RIGHT	X	KEIC004X	Accel., Foot Triax	I.C. Sensor	3031-500	G
39	FOOT RIGHT	Y	KEIC004Y	Accel., Foot Triax	I.C. Sensor	3031-500	G
40	FOOT RIGHT	Z	KEIC004Z	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	CM
44	SHOULDER BELT ELONG.	X	KEEP001	Linear pot., belt stretch	E.T.I.	LCP8-10 10K	MM/CM

2001 NHTSA 35mph NCAP
Instrumentation Data Channel Assignments
Passenger A.T.D. Serial Number 34
01/18/01
2001 Mitsubishi Montero Sport 4WD SUV

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
45	HEAD, PRIMARY	X	GPAC027	Accel., 1/2 bridge	Endevco	7264-2000	G
46	HEAD, PRIMARY	Y	GPAC002	Accel., 1/2 bridge	Endevco	7264-2000	G
47	HEAD, PRIMARY	Z	GPAC003	Accel., 1/2 bridge	Endevco	7264-2000	G
48	HEAD, REDUNDANT	X	GPAC032	Accel., 1/2 bridge	Endevco	7264-2000	G
49	HEAD, REDUNDANT	Y	GPAC021	Accel., 1/2 bridge	Endevco	7264-2000	G
50	HEAD, REDUNDANT	Z	GPAC026	Accel., 1/2 bridge	Endevco	7264-2000	G
51	NECK FORCE	X	GPUN01FX	Load cell, six axis neck	R. A. Denton	1716A	N
52	NECK FORCE	Y	GPUN01FY	Load cell, six axis neck	R. A. Denton	1716A	N
53	NECK FORCE	Z	GPUN01FZ	Load cell, six axis neck	R. A. Denton	1716A	N
54	NECK MOMENT	X	GPUN01MX	Load cell, six axis neck	R. A. Denton	1716A	Nm
55	NECK MOMENT	Y	GPUN01MY	Load cell, six axis neck	R. A. Denton	1716A	Nm
56	NECK MOMENT	Z	GPUN01MZ	Load cell, six axis neck	R. A. Denton	1716A	Nm
57	CHEST , PRIMARY	X	GPAC005	Accel., 1/2 bridge	Endevco	7264-2000	G
58	CHEST , PRIMARY	Y	GPAC011	Accel., 1/2 bridge	Endevco	7264-2000	G
59	CHEST , PRIMARY	Z	GPAC010	Accel., 1/2 bridge	Endevco	7264-2000	G
60	CHEST , REDUNDANT	X	GPAC034	Accel., 1/2 bridge	Endevco	7264-2000	G
61	CHEST , REDUNDANT	Y	GPAC023	Accel., 1/2 bridge	Endevco	7264-2000	G
62	CHEST , REDUNDANT	Z	GPAC020	Accel., 1/2 bridge	Endevco	7264-2000	G
63	CHEST DISPLACEMENT	X	GPCP002	Rotary Pot Chest	Servo	14CBI	MM
64	PELVIS, PRIMARY	X	GPAC025	Accel., 1/2 bridge	Endevco	7264-2000	G
65	PELVIS, PRIMARY	Y	GPAC022	Accel., 1/2 bridge	Endevco	7264-2000	G
66	PELVIS, PRIMARY	Z	GPAC019	Accel., 1/2 bridge	Endevco	7264-2000	G
67	LEFT FEMUR FORCE	Z	KEFF003	Load cell, Femur	R.A. Denton	2121	N
68	RIGHT FEMUR FORCE	Z	KEFF004	Load cell, Femur	R.A. Denton	2121	N

2001 NHTSA 35mph NCAP
Instrumentation Data Channel Assignments
Passenger A.T.D. Serial Number 34
01/18/01
2001 Mitsubishi Montero Sport 4WD SUV

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	X	KEIC002X	Accel., Foot Triax	I.C. Sensor	3031-500	G
80	FOOT LEFT	Y	KEIC002Y	Accel., Foot Triax	I.C. Sensor	3031-500	G
81	FOOT LEFT	Z	KEIC002Z	Accel., Foot Triax	I.C. Sensor	3031-500	G
82	FOOT RIGHT	X	KEIC001X	Accel., Foot Triax	I.C. Sensor	3031-500	G
83	FOOT RIGHT	Y	KEIC001Y	Accel., Foot Triax	I.C. Sensor	3031-500	G
84	FOOT RIGHT	Z	KEIC001Z	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	MM
88	SHOULDER BELT ELONG.	X	KEEP001	Linear pot., belt stretch	E.T.I.	LCP8-10 10K	MM/CM

2001 NHTSA 35mph NCAP
Instrumentation Data Channel Assignments
Vehicle Accelerometers and Reference Channel
01/18/01
2001 Mitsubishi Montero Sport 4WD SUV

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
89	Left Rear Primary	X	KEVA010	Accel., Vehicle block	I.C. Sensor	3031-200	G
90	Right Rear Primary	Y	KEVA006	Accel., Vehicle block	I.C. Sensor	3031-200	G
91	Engine Top	X	KEVA001	Accel., Vehicle block	I.C. Sensor	3031-500	G
92	Engine Bottom	Y	KEVA008	Accel., Vehicle block	I.C. Sensor	3031-500	G
93	Left Brake Caliper	X	KEVA004	Accel., Vehicle block	I.C. Sensor	3031-500	G
94	Right Brake Caliper	Y	KEVA009	Accel., Vehicle block	I.C. Sensor	3031-500	G
95	Instrument Panel	X	KEVA003	Accel., Vehicle block	I.C. Sensor	3031-500	G
96	Left Rear Redundant	Y	KEVA011	Accel., Vehicle block	I.C. Sensor	3031-200	G
97	Zero Reference	N/A	N/A	N/A	N/A	N/A	N/A

2001 NHTSA 35mph NCAP
Instrumentation Data Channel Assignments
Rigid Load Cell Barrier
01/18/01
2001 Mitsubishi Montero Sport 4WD SUV

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
98	BARRIER FORCE A1	X	BARRIER	Not Used	N/A	N/A	N/A
99	BARRIER FORCE A2	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
100	BARRIER FORCE A3	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
101	BARRIER FORCE A4	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
102	BARRIER FORCE A5	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
103	BARRIER FORCE A6	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
104	BARRIER FORCE A7	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
105	BARRIER FORCE A8	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
106	BARRIER FORCE A9	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
107	BARRIER FORCE B1	X	BARRIER	Not Used	N/A	N/A	N/A
108	BARRIER FORCE B2	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
109	BARRIER FORCE B3	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
110	BARRIER FORCE B4	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
111	BARRIER FORCE B5	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
112	BARRIER FORCE B6	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
113	BARRIER FORCE B7	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
114	BARRIER FORCE B8	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
115	BARRIER FORCE B9	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N

2001 NHTSA 35mph NCAP
Instrumentation Data Channel Assignments
Rigid Load Cell Barrier
01/18/01
2001 Mitsubishi Montero Sport 4WD SUV

CH.	LOCATION	AXIS	IDENT. NO.	DESCRIPTION	MFR	MODEL	UNITS
116	BARRIER FORCE C1	X	BARRIER	Not Used	N/A	N/A	N/A
117	BARRIER FORCE C2	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
118	BARRIER FORCE C3	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
119	BARRIER FORCE C4	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
120	BARRIER FORCE C5	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
121	BARRIER FORCE C6	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
122	BARRIER FORCE C7	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
123	BARRIER FORCE C8	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
124	BARRIER FORCE C9	X	BARRIER	Load Cell, LCB	Lebow	1220-FS	N
125	BARRIER FORCE D1	X	BARRIER	Not Used	N/A	N/A	N/A
126	BARRIER FORCE D2	X	BARRIER	Not Used	N/A	N/A	N/A
127	BARRIER FORCE D3	X	BARRIER	Not Used	N/A	N/A	N/A
128	BARRIER FORCE D4	X	BARRIER	Not Used	N/A	N/A	N/A
129	BARRIER FORCE D5	X	BARRIER	Not Used	N/A	N/A	N/A
130	BARRIER FORCE D6	X	BARRIER	Not Used	N/A	N/A	N/A
131	BARRIER FORCE D7	X	BARRIER	Not Used	N/A	N/A	N/A
132	BARRIER FORCE D8	X	BARRIER	Not Used	N/A	N/A	N/A
133	BARRIER FORCE D9	X	BARRIER	Not Used	N/A	N/A	N/A

APPENDIX E
DUMMY CALIBRATION DATA



Hybrid III Calibration Data Sheet

50TH Percentile Male

Left Knee Impact Test

ATD Serial No.: 034

Part Serial No.: N/A

Test I.D.: LK01D

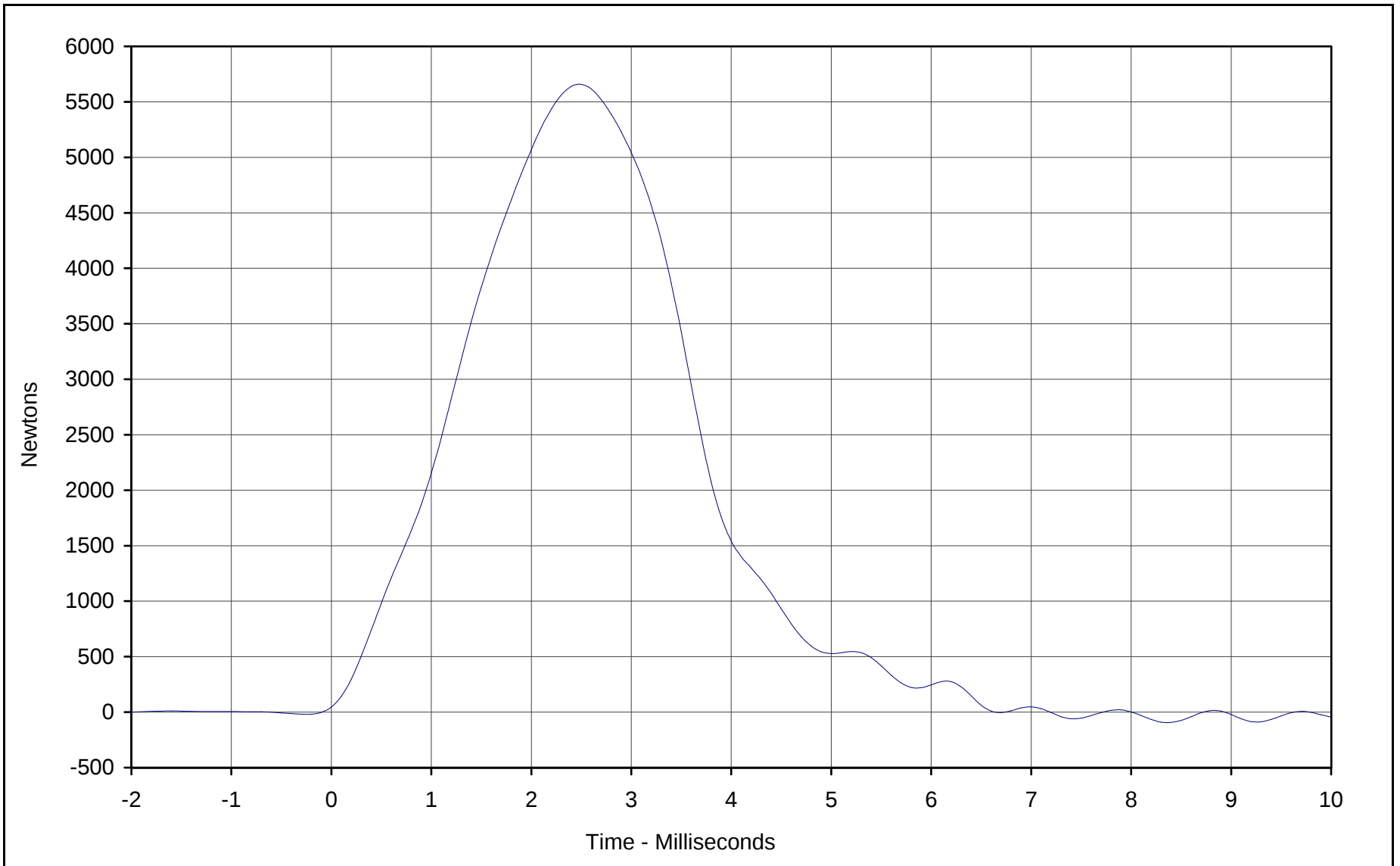
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	2.073 to 2.134	2.100	Pass
Peak Probe Force	Newtons	4715 to 5782	5658.6	Pass
Overall Test Results			Pass	

Laboratory Technician

January 10, 2001
Test Date

Approved By

Date



Curve Description: Probe Force

Maximum Value:	<u>5658.6</u>	at	<u>2.5</u>	Milliseconds
Minimum Value:	<u>-60.4</u>	at	<u>7.4</u>	Milliseconds
SAE Filter Class:	<u>600</u>			
Date of Test:	<u>1/10/01</u>			
ATD Serial No.:	<u>034</u>			

Testing Program: Hybrid III Left Knee Impact Test

Test Information: Part S/N: N/A Test I.D.: LK01D





Hybrid III Calibration Data Sheet

50TH Percentile Male

Right Knee Impact Test

ATD Serial No.: 034

Part Serial No.: N/A

Test I.D.: RK01B

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	2.073 to 2.134	2.113	Pass
Peak Probe Force	Newtons	4715 to 5782	5389.1	Pass
Overall Test Results				Pass

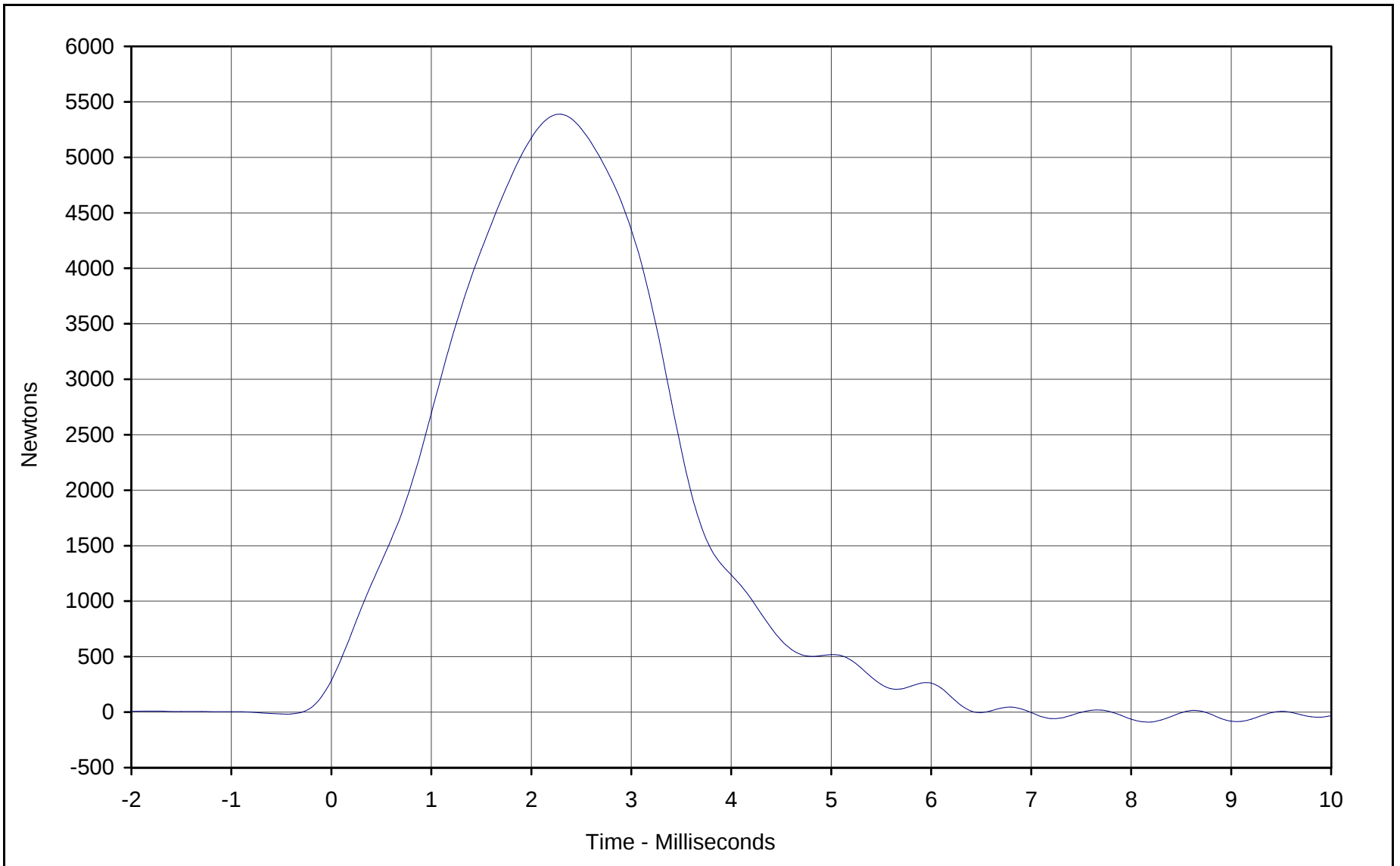
Laboratory Technician

January 10, 2001
Test Date

Approved By

Date

E-4



Curve Description: Probe Force

Maximum Value:	<u>5389.1</u>	at	<u>2.3</u>	Milliseconds
Minimum Value:	<u>-62.9</u>	at	<u>8.0</u>	Milliseconds
SAE Filter Class:	<u>600</u>			
Date of Test:	<u>1/10/01</u>			
ATD Serial No.:	<u>034</u>			

Testing Program: Hybrid III Right Knee Impact Test

Test Information: Part S/N: N/A Test I.D.: RK01B



KAR21001-06



Hybrid III Calibration Data Sheet

50TH Percentile Male

Head Drop Calibration

ATD Serial No.: 034

Part Serial No.: N/A

Test I.D.: HD01D

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	244.9	Pass
Peak Lateral Acceleration	G's	≤15.0	2.2	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass

Laboratory Technician

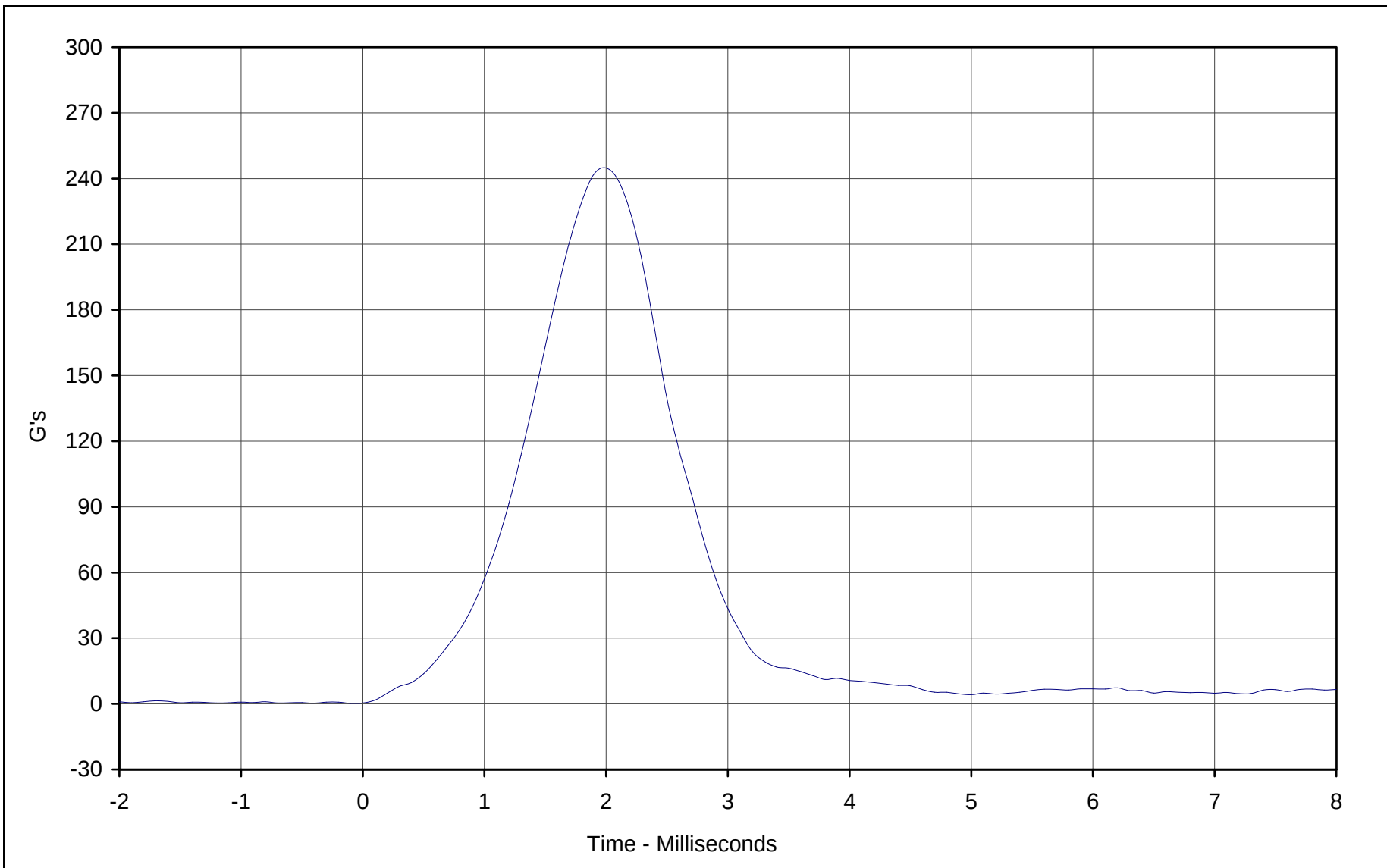
January 10, 2001

Test Date

Approved By

Date

E-6



Curve Description: Head Resultant Acceleration

Maximum Value:	<u>244.9</u>	at	<u>2.0</u>	Milliseconds
Minimum Value:	<u>0.2</u>	at	<u>-0.1</u>	Milliseconds
SAE Filter Class:	<u>1000</u>			
Date of Test:	<u>1/10/01</u>			
ATD Serial No.:	<u>034</u>			

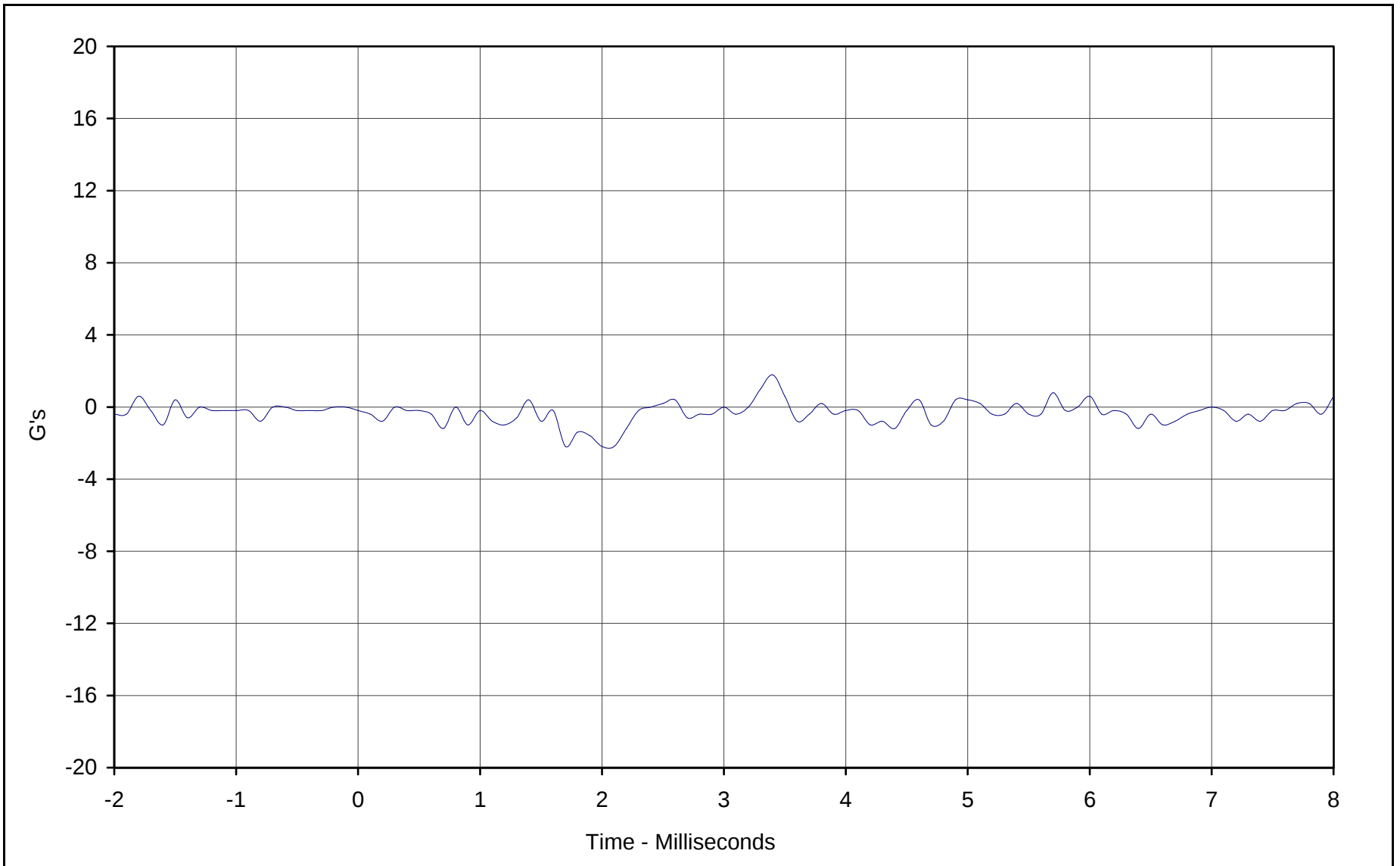
Testing Program: Hybrid III Head Drop Calibration (Male)

Test Information: S/N of Part: N/A Test I.D.: HD01D



KAR21001-06

E-7



Curve Description: Head Acceleration Y Axis

Maximum Value:	1.8	at	3.4	Milliseconds
Minimum Value:	-2.2	at	1.7	Milliseconds
SAE Filter Class:	1000			
Date of Test:	1/10/01			
ATD Serial No.:	034			

Testing Program: Hybrid III Head Drop Calibration (Male)

Test Information: S/N of Part: N/A Test I.D.: HD01D



KAR21001-06



Hybrid III Calibration Data Sheet

50TH Percentile Male

Thorax Impact Test

ATD Serial No.: 034

Part Serial No.: N/A

Test I.D.: CH01E

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.2	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	6.58 to 6.82	6.61	Pass
Peak Probe Force	Newtons	5159 to 5893	5378	Pass
Peak Sternum Displacement	CM	6.35 to 7.26	6.86	Pass
Internal Hysteresis	%	69 to 85	74.2	Pass
Overall Test Results				Pass

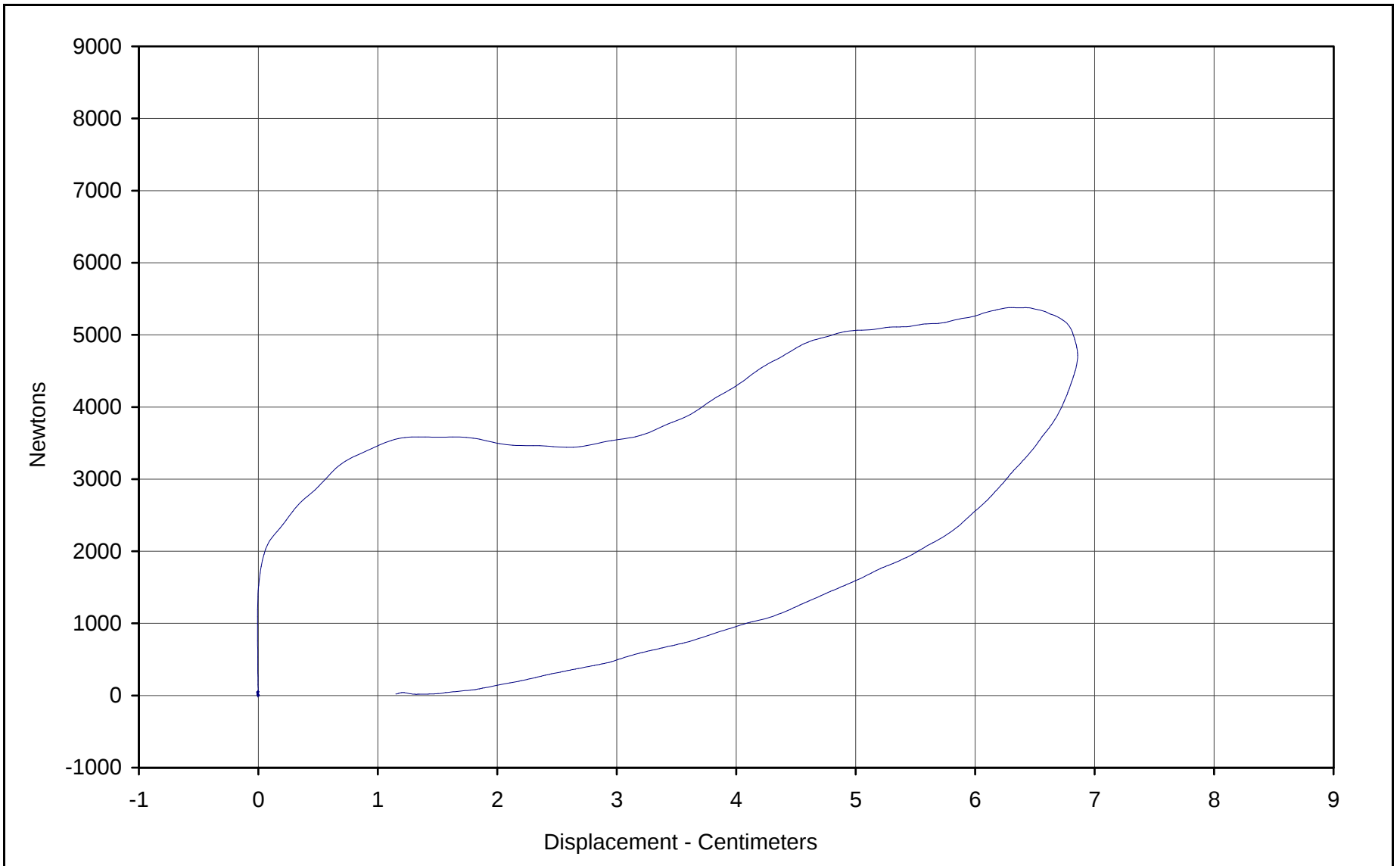
Laboratory Technician

January 10, 2001

Test Date

Approved By

Date



Curve Description: Probe Force vs. Chest Displacement

Probe Force: 5378.1 Newtons

Chest Displ.: 6.86 Centimeters

SAE Filter Class: 180

Date of Test: 1/10/01

ATD Serial No.: 034

Testing Program: Hybrid III Thorax Impact Test

Test Information: S/N of Part: N/A Test I.D.: CH01E





Hybrid III Calibration Data Sheet

50TH Percentile Male

Neck Flexion Test

ATD Serial No.: 034

Part Serial No.: N/A

Test I.D.: NF01C

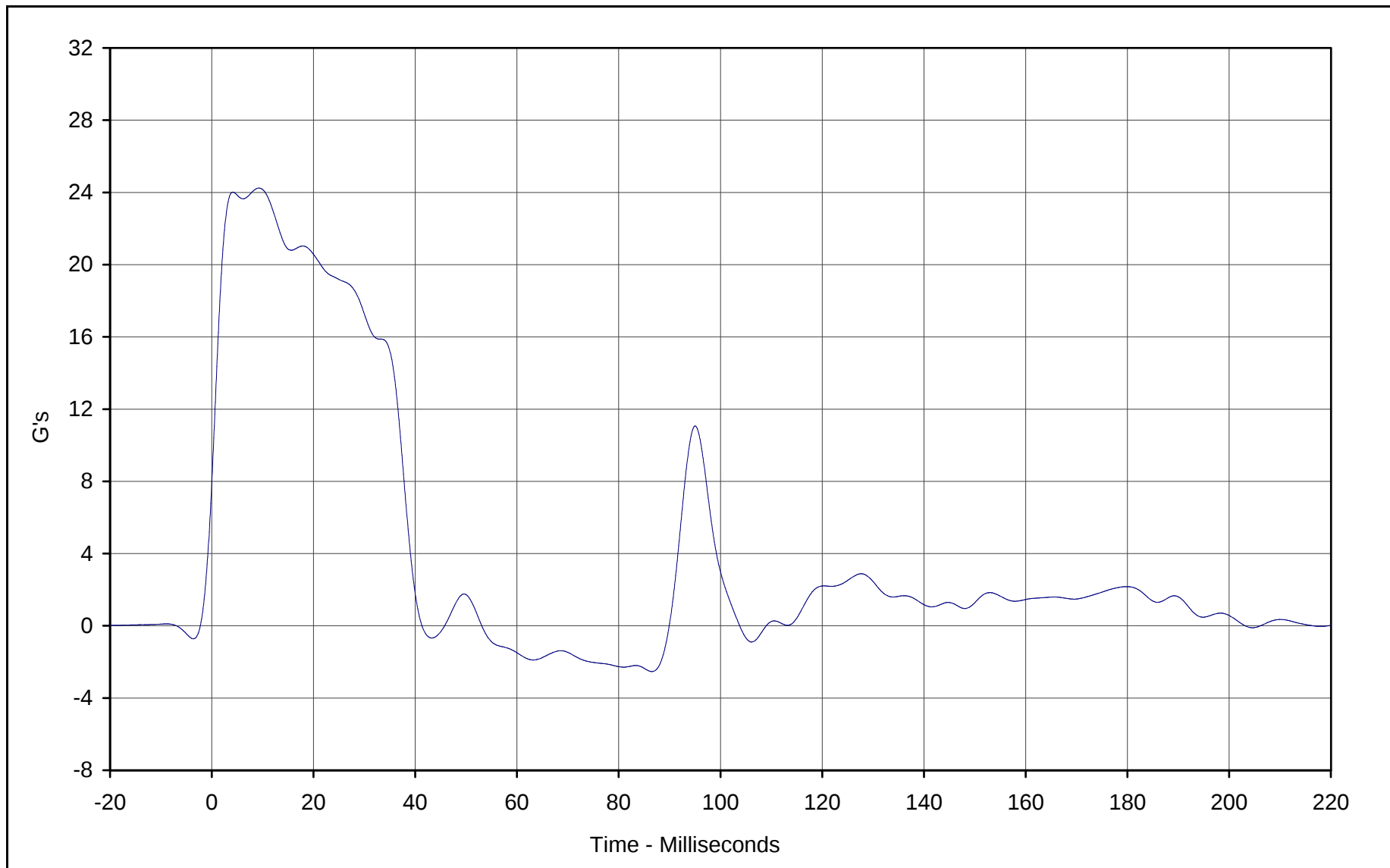
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	6.89 to 7.13	6.89	Pass
Pendulum Deceleration	10 Msec.	G's	22.5 to 27.5	24.2	Pass
	20 Msec.	G's	17.6 to 22.6	20.6	Pass
	30 Msec.	G's	12.5 to 18.5	17.3	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 29.0	17.3	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	34.0 to 42.0	38.8	Pass
Maximum "D" Plane Rotation	Maximum	Degrees	64.0 to 78.0	65.4	Pass
	Time	Msec.	57.0 to 64.0	57.7	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	113.0 to 128.0	116.1	Pass
Moment About Occipital Condyle	Maximum	N·m	84.1 to 108.5	87.8	Pass
	Time	Msec.	47.0 to 58.0	51.0	Pass
Positive Moment Decay, Time To Zero Crossing		Msec.	97.0 to 107.0	97.4	Pass
Overall Test Results					Pass

Laboratory Technician

January 10, 2001
Test Date

Approved By

Date

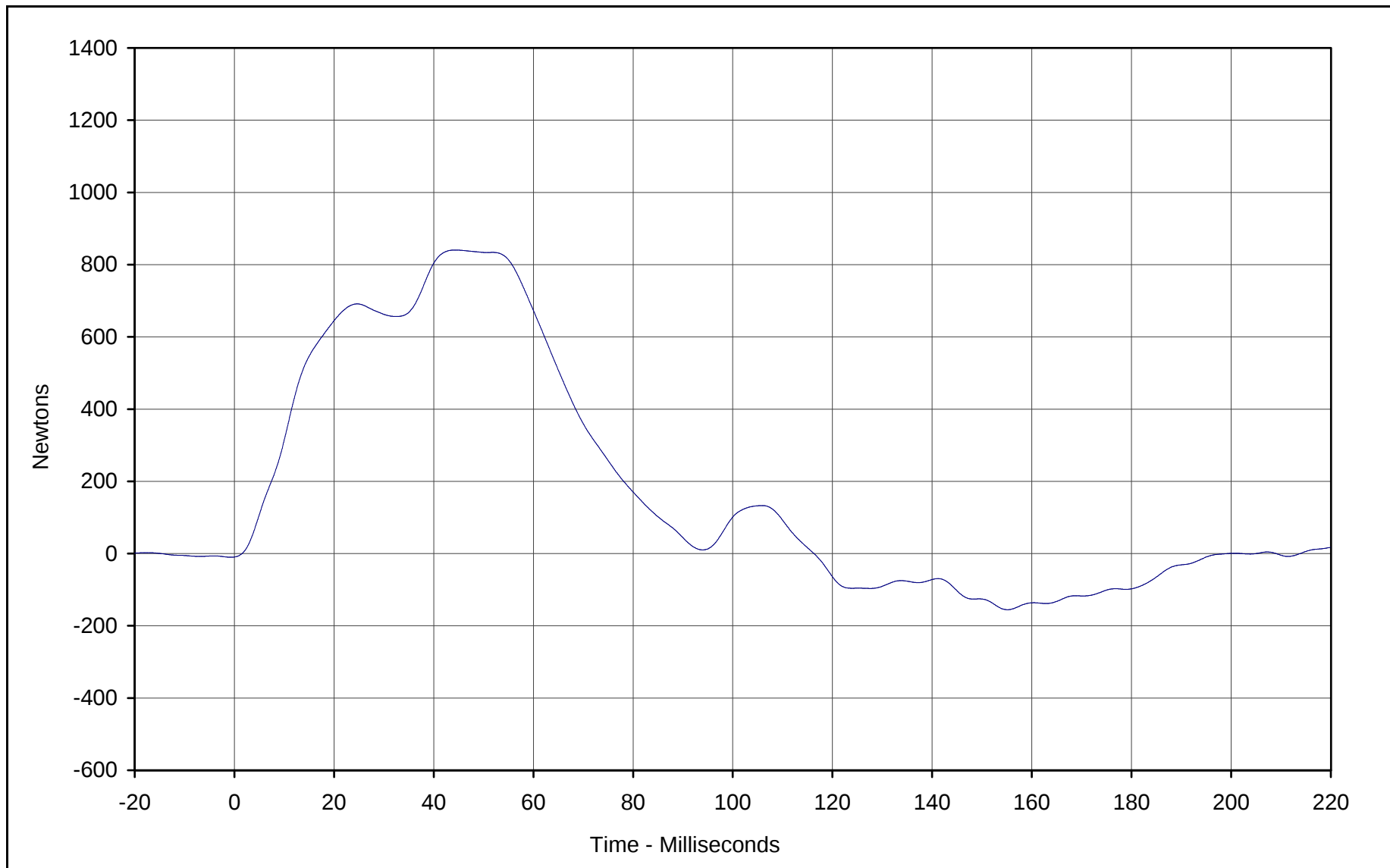


Curve Description:	Pendulum Deceleration		
Maximum Value:	24.2	at	9.3 Milliseconds
Minimum Value:	-2.5	at	86.5 Milliseconds
SAE Filter Class:	60		
Date of Test:	1/10/01		
ATD Serial No.:	034		

Testing Program:	Hybrid III Neck Flexion Test (Male)
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Test Information:	S/N of Part: N/A Test I.D.: NF01C
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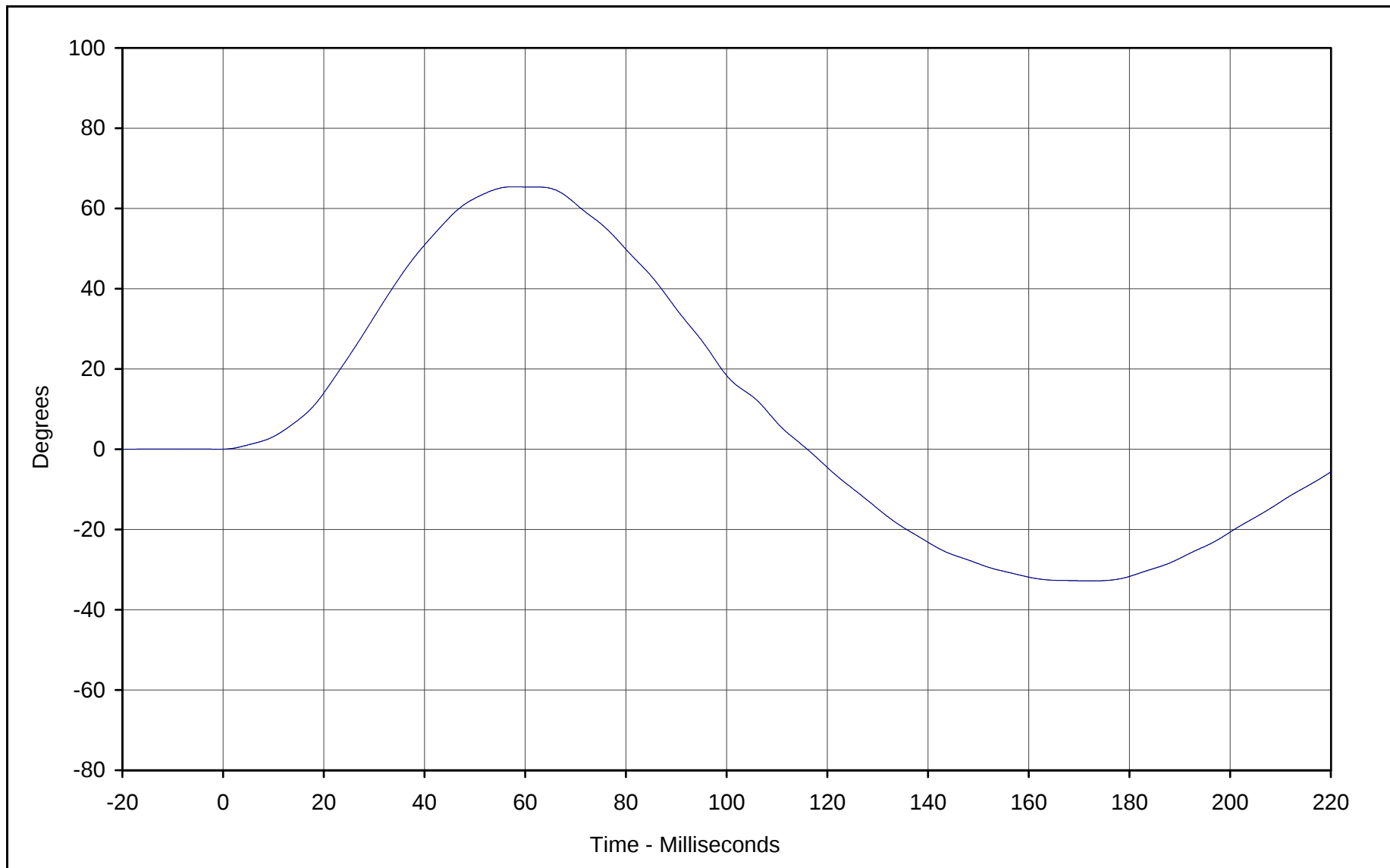
Curve Description: Neck Force X

Maximum Value:	840.4	at	44.3	Milliseconds
Minimum Value:	-155.5	at	155.1	Milliseconds
SAE Filter Class:	60			
Date of Test:	1/10/01			
ATD Serial No.:	034			

Testing Program: Hybrid III Neck Flexion Test (Male)

Test Information: S/N of Part: N/A Test I.D.: NF01C





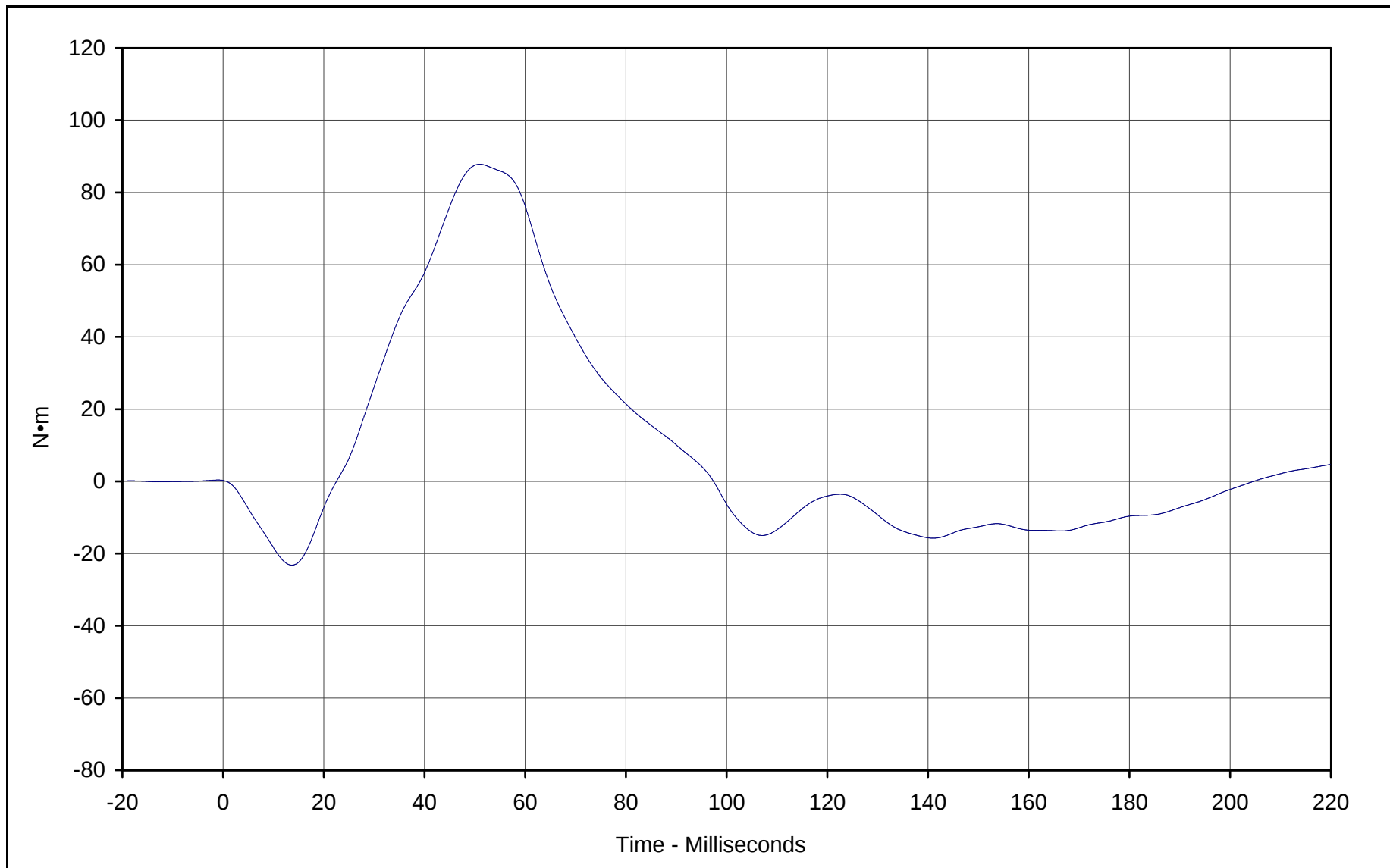
Curve Description: "D" Plane Rotation

Maximum Value:	65.4	at	57.7	Milliseconds
Minimum Value:	-32.8	at	172.4	Milliseconds
SAE Filter Class:	60			
Date of Test:	1/10/01			
ATD Serial No.:	034			

Testing Program: Hybrid III Neck Flexion Test (Male)

Test Information: S/N of Part: N/A Test I.D.: NF01C





Curve Description: Moment About Occipital Condyles

Maximum Value: 87.8 at 51.0 Milliseconds

Minimum Value: -23.2 at 13.7 Milliseconds

SAE Filter Class: 60

Date of Test: 1/10/01

ATD Serial No.: 034

Testing Program: Hybrid III Neck Flexion Test (Male)

Test Information: S/N of Part: N/A Test I.D.: NF01C





Hybrid III Calibration Data Sheet

50TH Percentile Male

Neck Extension Test

ATD Serial No.: 034

Part Serial No.: N/A

Test I.D.: NE01C

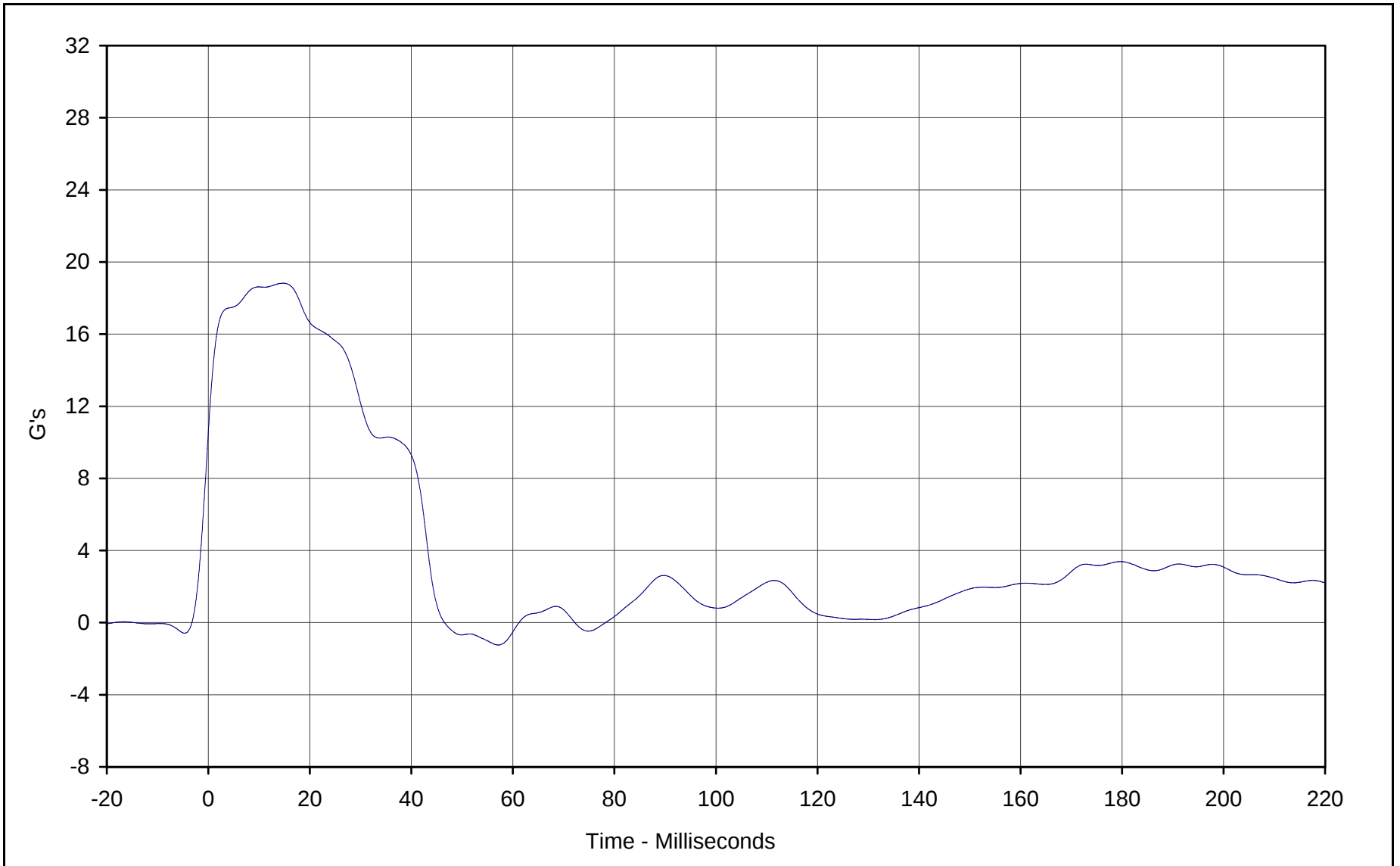
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	5.95 to 6.19	6.10	Pass
Pendulum Deceleration	10 Msec.	G's	17.2 to 21.2	18.6	Pass
	20 Msec.	G's	14.0 to 19.0	16.6	Pass
	30 Msec.	G's	11.0 to 16.0	12.2	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 22.0	12.2	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	38.0 to 46.0	42.9	Pass
Maximum "D" Plane Rotation	Maximum	Degrees	81.0 to 106.0	94.3	Pass
	Time	Msec.	72.0 to 82.0	81.8	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	147.0 to 174.0	156.9	Pass
Moment About Occipital Condyle	Maximum	N·m	-52.9 to- 79.9	-73.0	Pass
	Time	Msec.	65.0 to 79.0	68.5	Pass
Negative Moment Decay, Time To Zero Crossing		Msec.	120.0 to 148.0	136.5	Pass
Overall Test Results					Pass

Laboratory Technician

January 10, 2001
Test Date

Approved By

Date



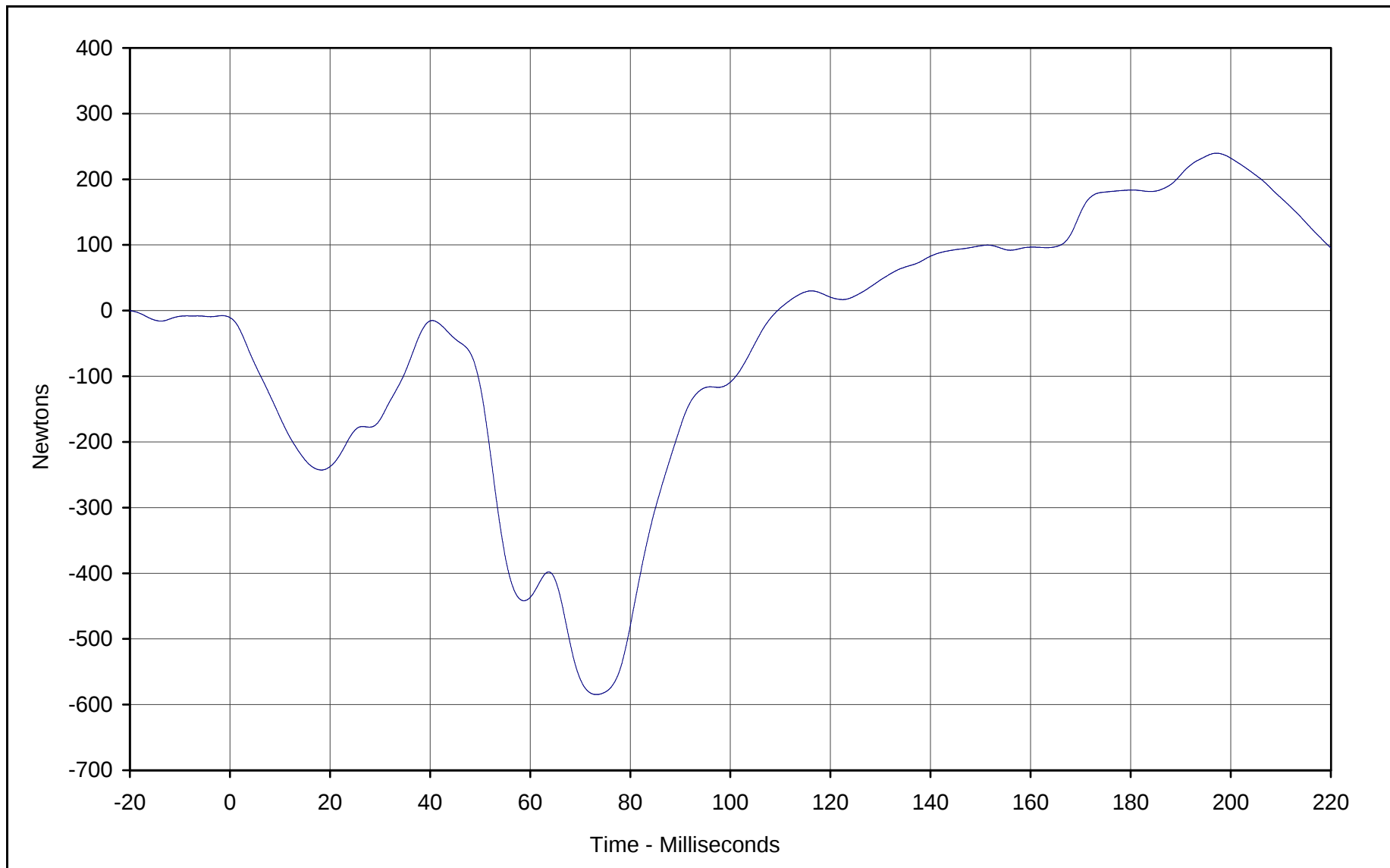
Curve Description: Pendulum Deceleration

Maximum Value:	<u>18.8</u>	at	<u>14.7</u>	Milliseconds
Minimum Value:	<u>-1.2</u>	at	<u>57.1</u>	Milliseconds
SAE Filter Class:	<u>60</u>			
Date of Test:	<u>1/10/01</u>			
ATD Serial No.:	<u>034</u>			

Testing Program: Hybrid III Neck Extension Test (Male)

Test Information: S/N of Part: N/A Test I.D.: NE01C





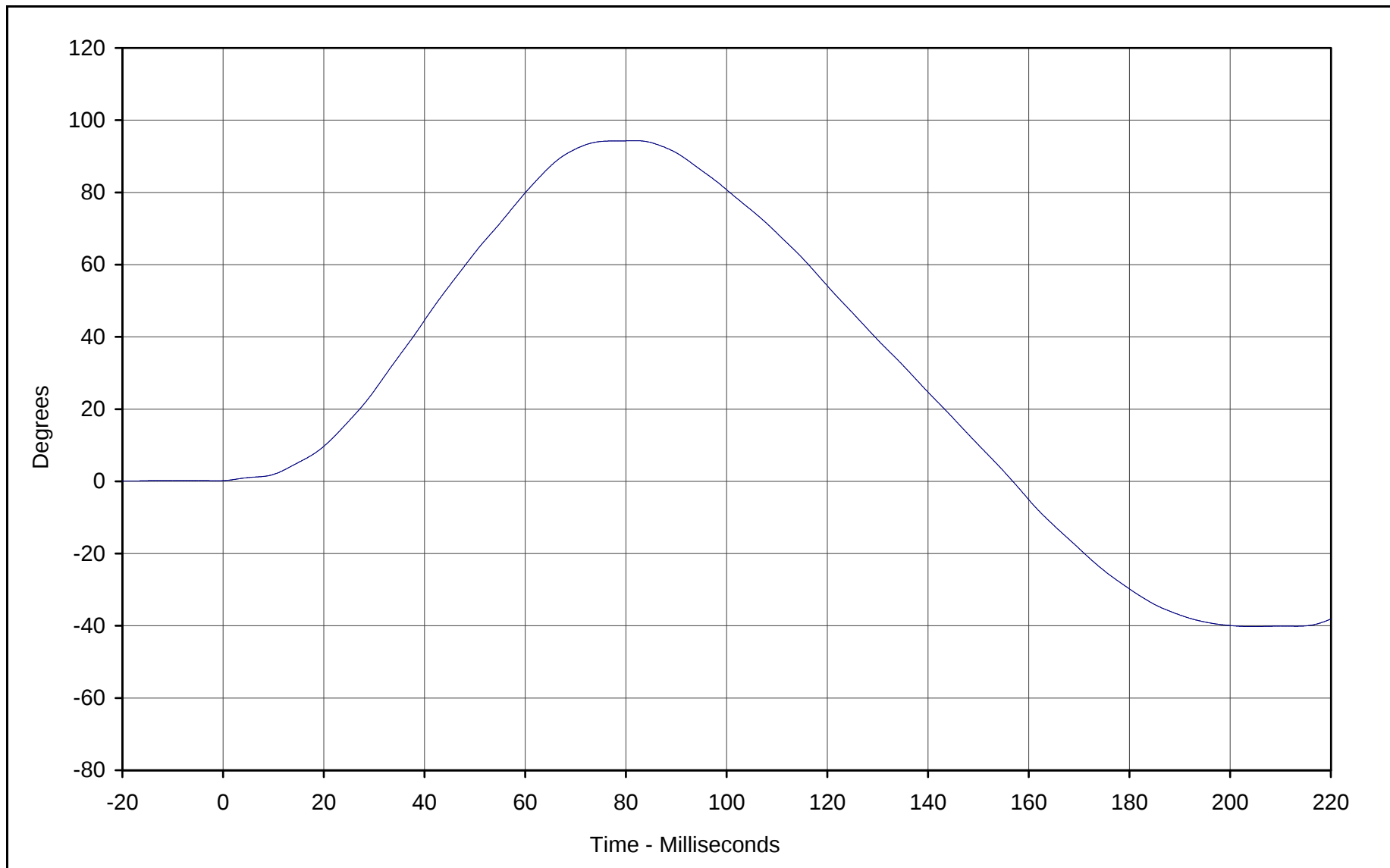
Curve Description: Neck Force X

Maximum Value:	239.7	at	197.1	Milliseconds
Minimum Value:	-584.7	at	73.2	Milliseconds
SAE Filter Class:	60			
Date of Test:	1/10/01			
ATD Serial No.:	034			

Testing Program: Hybrid III Neck Extension Test (Male)

Test Information: S/N of Part: N/A Test I.D.: NE01C





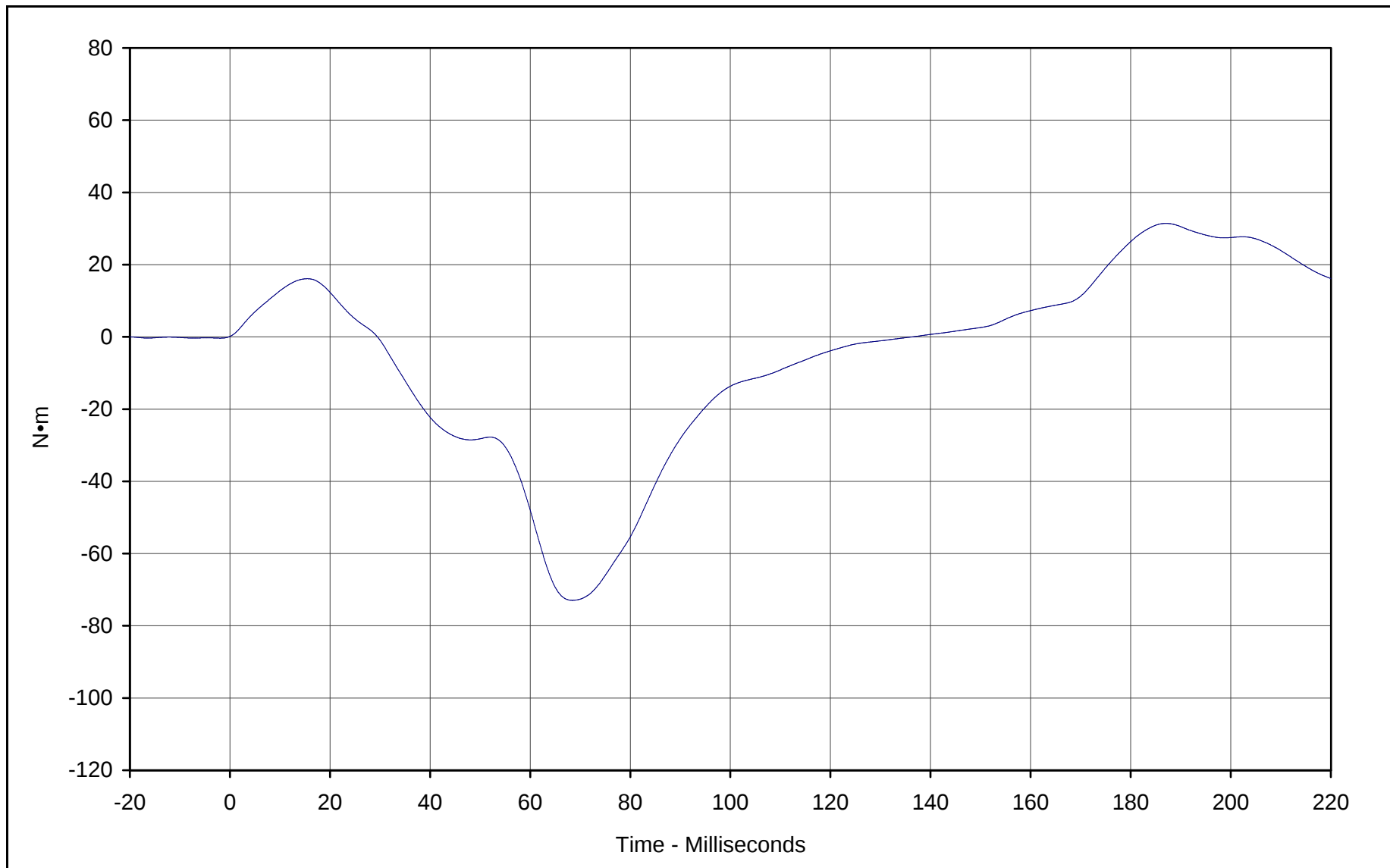
Curve Description: "D" Plane Rotation

Maximum Value:	94.3	at	81.8	Milliseconds
Minimum Value:	-40.2	at	204.5	Milliseconds
SAE Filter Class:	60			
Date of Test:	1/10/01			
ATD Serial No.:	034			

Testing Program: Hybrid III Neck Extension Test (Male)

Test Information: S/N of Part: N/A Test I.D.: NE01C





Curve Description: Moment About Occipital Condyles

Maximum Value: 31.4 at 187.0 Milliseconds

Minimum Value: -73.0 at 68.5 Milliseconds

SAE Filter Class: 60

Date of Test: 1/10/01

ATD Serial No.: 034

Testing Program: Hybrid III Neck Extension Test (Male)

Test Information: S/N of Part: N/A Test I.D.: NE01C





Hybrid III Calibration Data Sheet

50TH Percentile Male

External Measurements

ATD Serial No.: 034

Part Serial No.: N/A

Test I.D.: N/A

External Measurement Data				
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory temperature	°C	20.4 to 22.1	20.9	Pass
Laboratory relative humidity	%	10 to 70	30	Pass
A - Total sitting height	mm	879 to 889	885	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	340	Pass
J - Elbow rest height	mm	190 to 211	195	Pass
K - Buttock to knee length	mm	579 to 604	595	Pass
L - Popliteal length	mm	429 to 455	445	Pass
M - Knee pivot height	mm	485 to 500	495	Pass
N - Buttock popliteal length	mm	452 to 477	475	Pass
O - Chest depth	mm	213 to 229	225	Pass
P - Foot length	mm	251 to 267	255	Pass
V - Shoulder breadth	mm	422 to 437	430	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

January 10, 2001

Test Date

Approved By

Date



Hybrid III Calibration Data Sheet

50TH Percentile Male

Left Knee Impact Test

ATD Serial No.: 035

Part Serial No.: N/A

Test I.D.: LK01G

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	2.073 to 2.134	2.113	Pass
Peak Probe Force	Newtons	4715 to 5782	5296.7	Pass
Overall Test Results				Pass

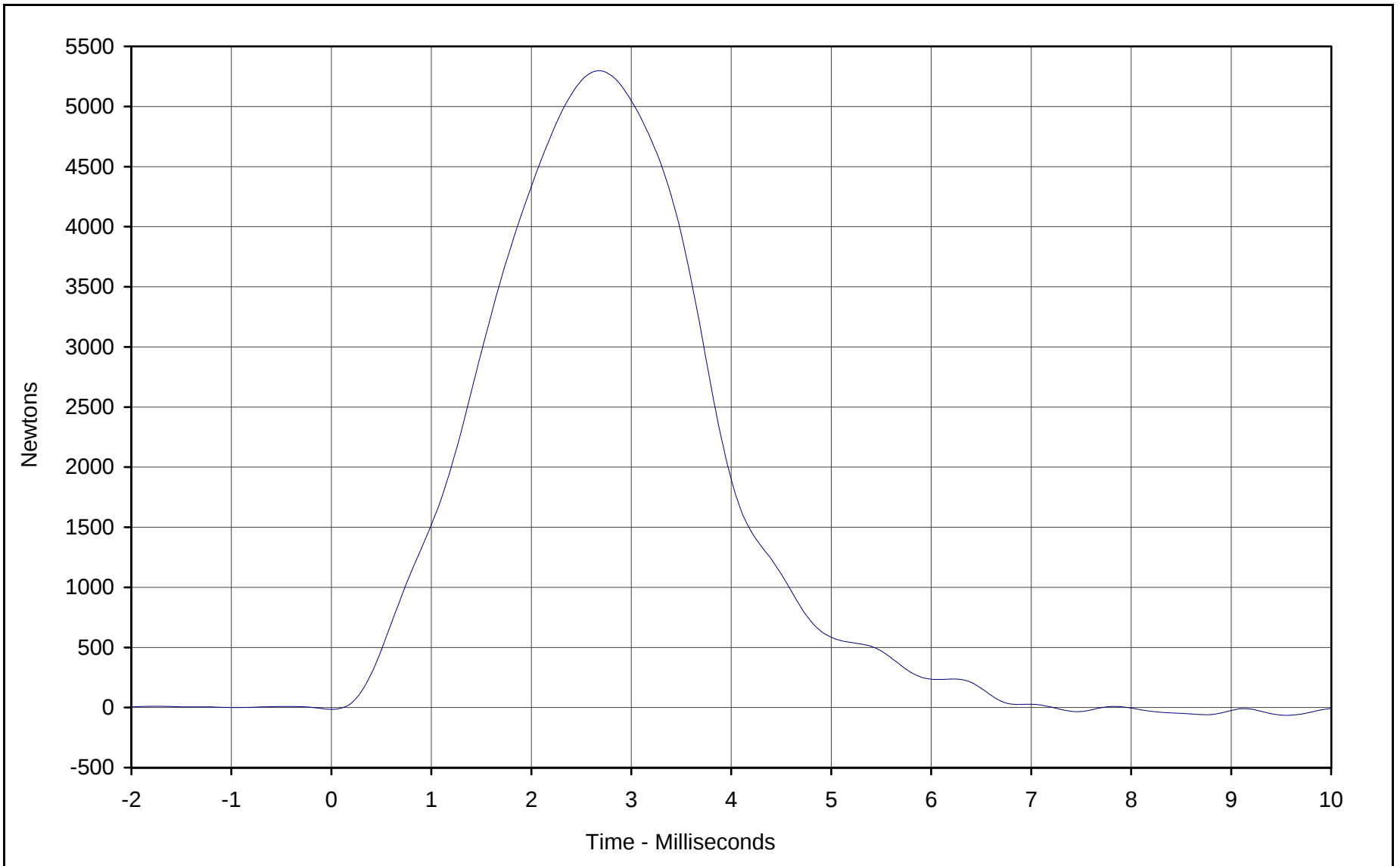
Laboratory Technician

January 10, 2001
Test Date

Approved By

Date

E-22



Curve Description: Probe Force

Maximum Value:	<u>5296.7</u>	at	<u>2.7</u>	Milliseconds
Minimum Value:	<u>-32.5</u>	at	<u>7.5</u>	Milliseconds
SAE Filter Class:	<u>600</u>			
Date of Test:	<u>1/10/01</u>			
ATD Serial No.:	<u>035</u>			

Testing Program: Hybrid III Left Knee Impact Test

Test Information: Part S/N: N/A Test I.D.: LK01G



KAR21001-06



Hybrid III Calibration Data Sheet

50TH Percentile Male

Right Knee Impact Test

ATD Serial No.: 035

Part Serial No.: N/A

Test I.D.: RK01C

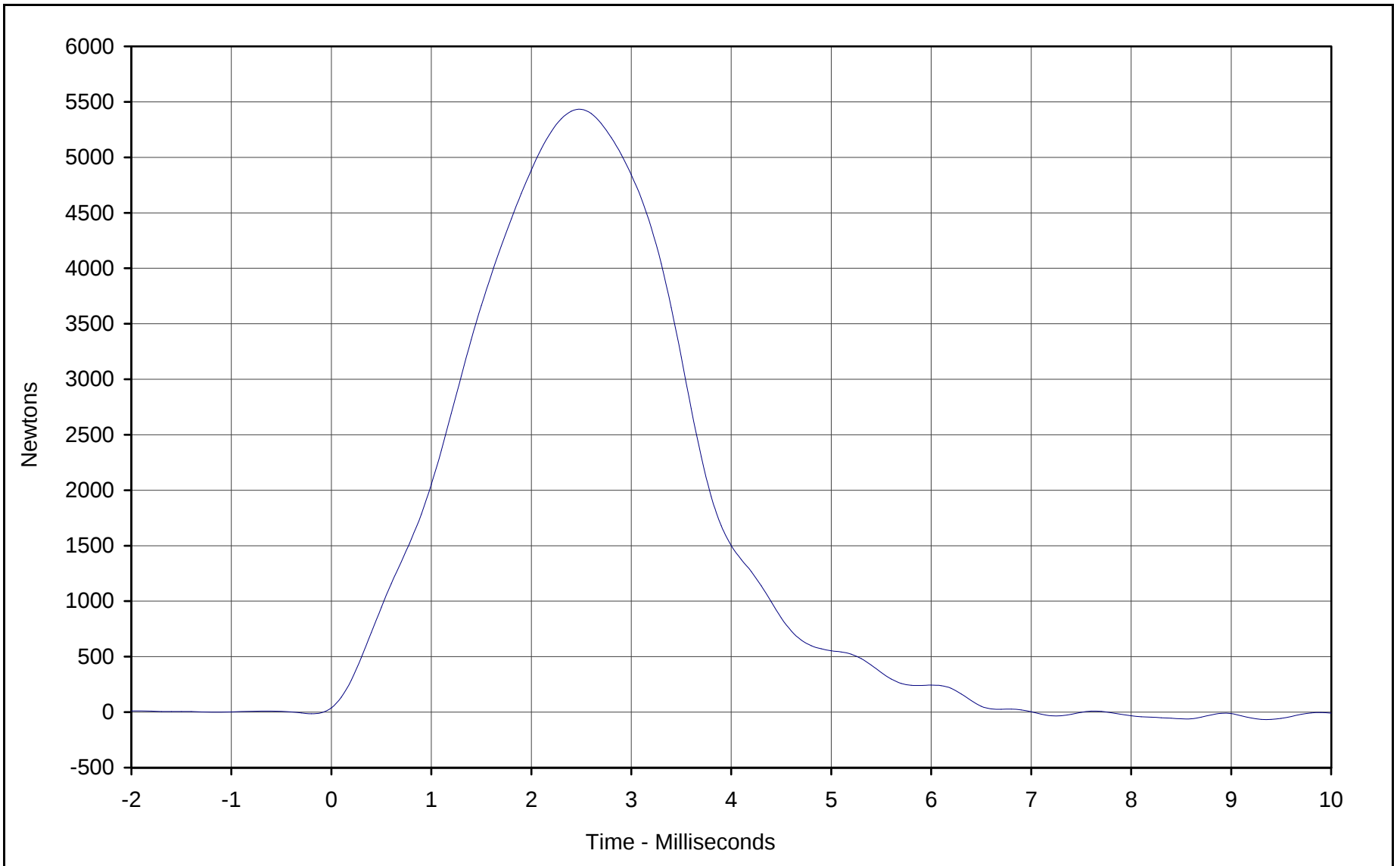
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.1	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	2.073 to 2.134	2.113	Pass
Peak Probe Force	Newtons	4715 to 5782	5432.5	Pass
Overall Test Results				Pass

Laboratory Technician

January 10, 2001
Test Date

Approved By

Date



Curve Description: Probe Force
Maximum Value: 5432.5 at 2.5 Milliseconds
Minimum Value: -33.3 at 7.3 Milliseconds
SAE Filter Class: 600
Date of Test: 1/10/01
ATD Serial No.: 035

Testing Program: Hybrid III Right Knee Impact Test
Test Information: Part S/N: N/A Test I.D.: RK01C





Hybrid III Calibration Data Sheet

50TH Percentile Male

Head Drop Calibration

ATD Serial No.: 035

Part Serial No.: N/A

Test I.D.: HD01E

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	233.5	Pass
Peak Lateral Acceleration	G's	≤15.0	10.5	Pass
Is Acceleration Unimodal?	Yes/No	Yes	Yes	Pass
Overall Test Results				Pass

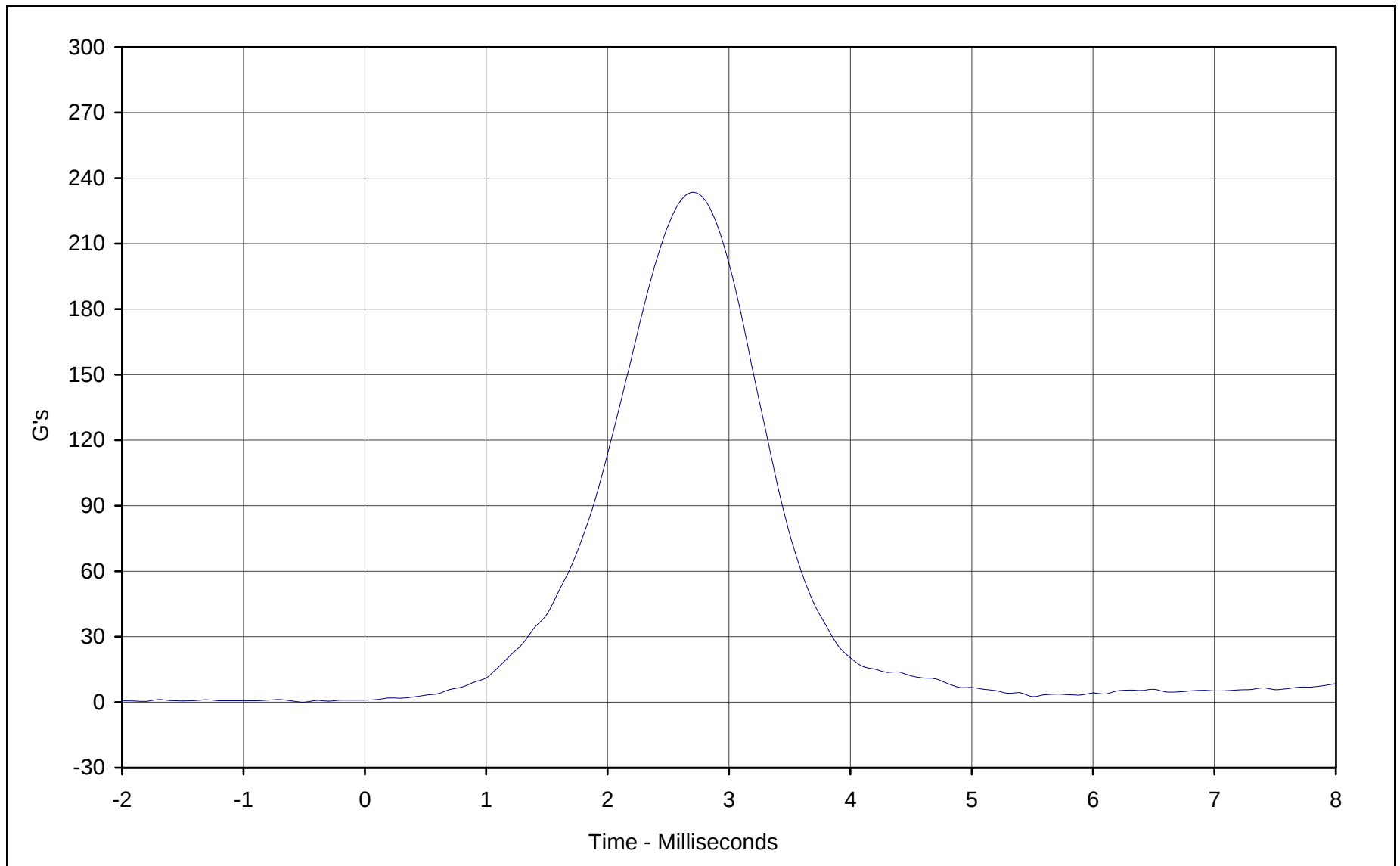
Laboratory Technician

January 10, 2001

Test Date

Approved By

Date



Curve Description: Head Resultant Acceleration

Maximum Value: 233.5 at 2.7 Milliseconds

Minimum Value: 0.0 at -0.5 Milliseconds

SAE Filter Class: 1000

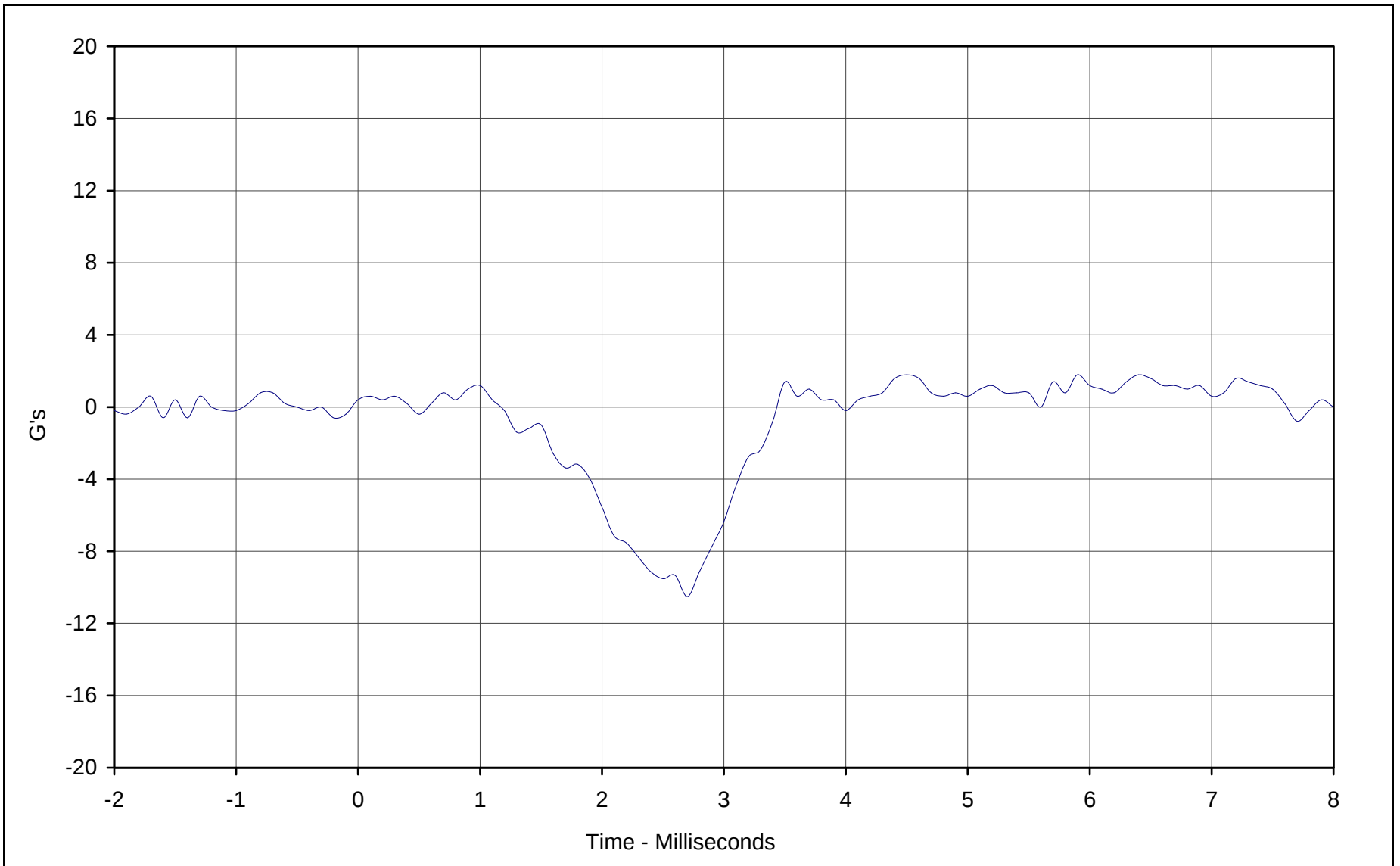
Date of Test: 1/10/01

ATD Serial No.: 035

Testing Program: Hybrid III Head Drop Calibration (Male)

Test Information: S/N of Part: N/A Test I.D.: HD01E





Curve Description: Head Acceleration Y Axis

Maximum Value: 1.8 at 4.5 Milliseconds

Minimum Value: -10.5 at 2.7 Milliseconds

SAE Filter Class: 1000

Date of Test: 1/10/01

ATD Serial No.: 035

Testing Program: Hybrid III Head Drop Calibration (Male)

Test Information: S/N of Part: N/A Test I.D.: HD01E





Hybrid III Calibration Data Sheet

50TH Percentile Male

Thorax Impact Test

ATD Serial No.: 035

Part Serial No.: N/A

Test I.D.: CH01G

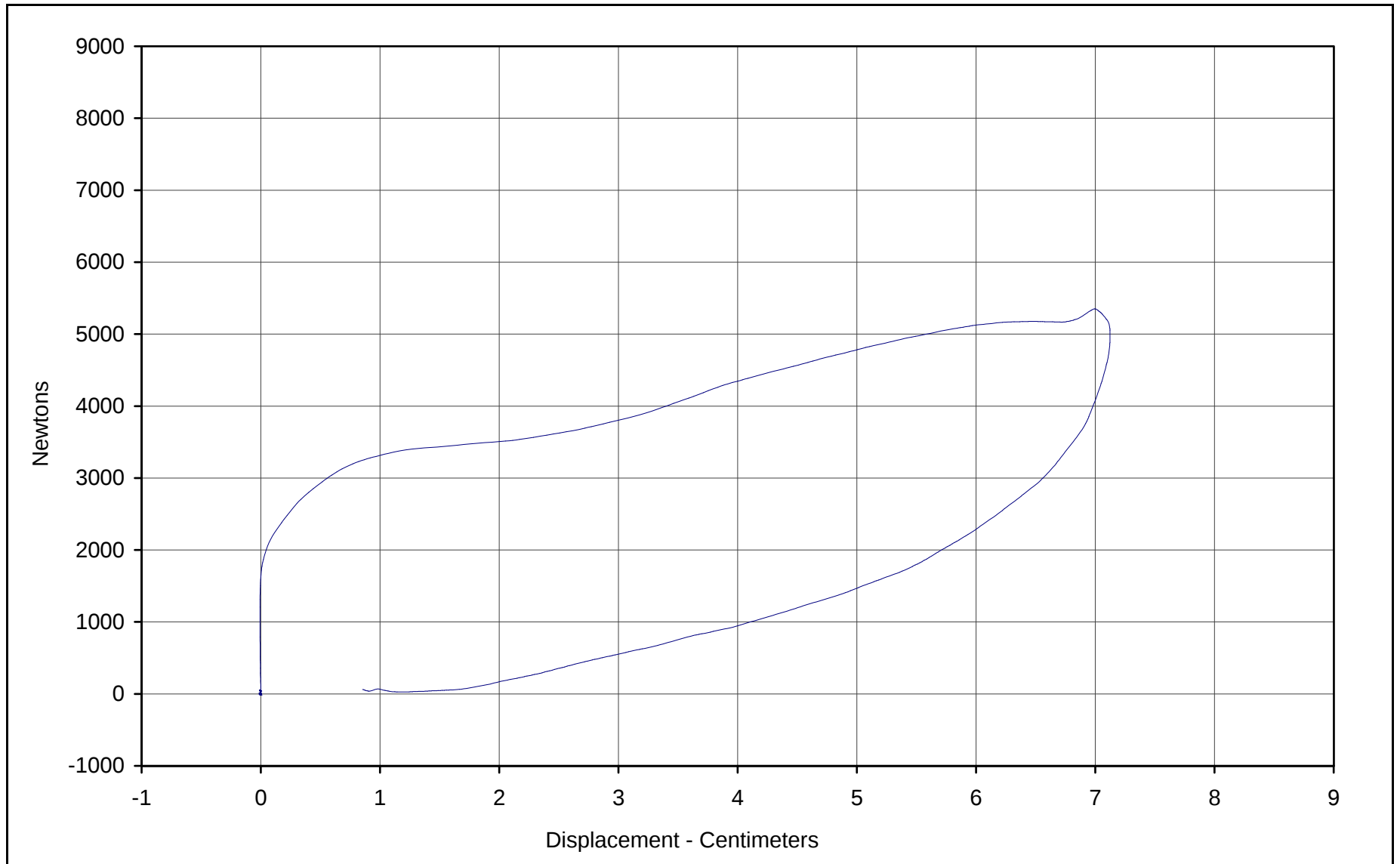
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.2	Pass
Laboratory Relative Humidity	%	10 to 70	30	Pass
Probe Velocity	m/s	6.58 to 6.82	6.61	Pass
Peak Probe Force	Newtons	5159 to 5893	5352	Pass
Peak Sternum Displacement	CM	6.35 to 7.26	7.12	Pass
Internal Hysteresis	%	69 to 85	73.5	Pass
Overall Test Results				Pass

Laboratory Technician

January 10, 2001
Test Date

Approved By

Date



Curve Description: Probe Force vs. Chest Displacement

Probe Force: 5351.7 Newtons

Chest Displ.: 7.12 Centimeters

SAE Filter Class: 180

Date of Test: 1/10/01

ATD Serial No.: 035

Testing Program: Hybrid III Thorax Impact Test

Test Information: S/N of Part: N/A Test I.D.: CH01G





Hybrid III Calibration Data Sheet

50TH Percentile Male

Neck Flexion Test

ATD Serial No.: 035

Part Serial No.: N/A

Test I.D.: NF01D

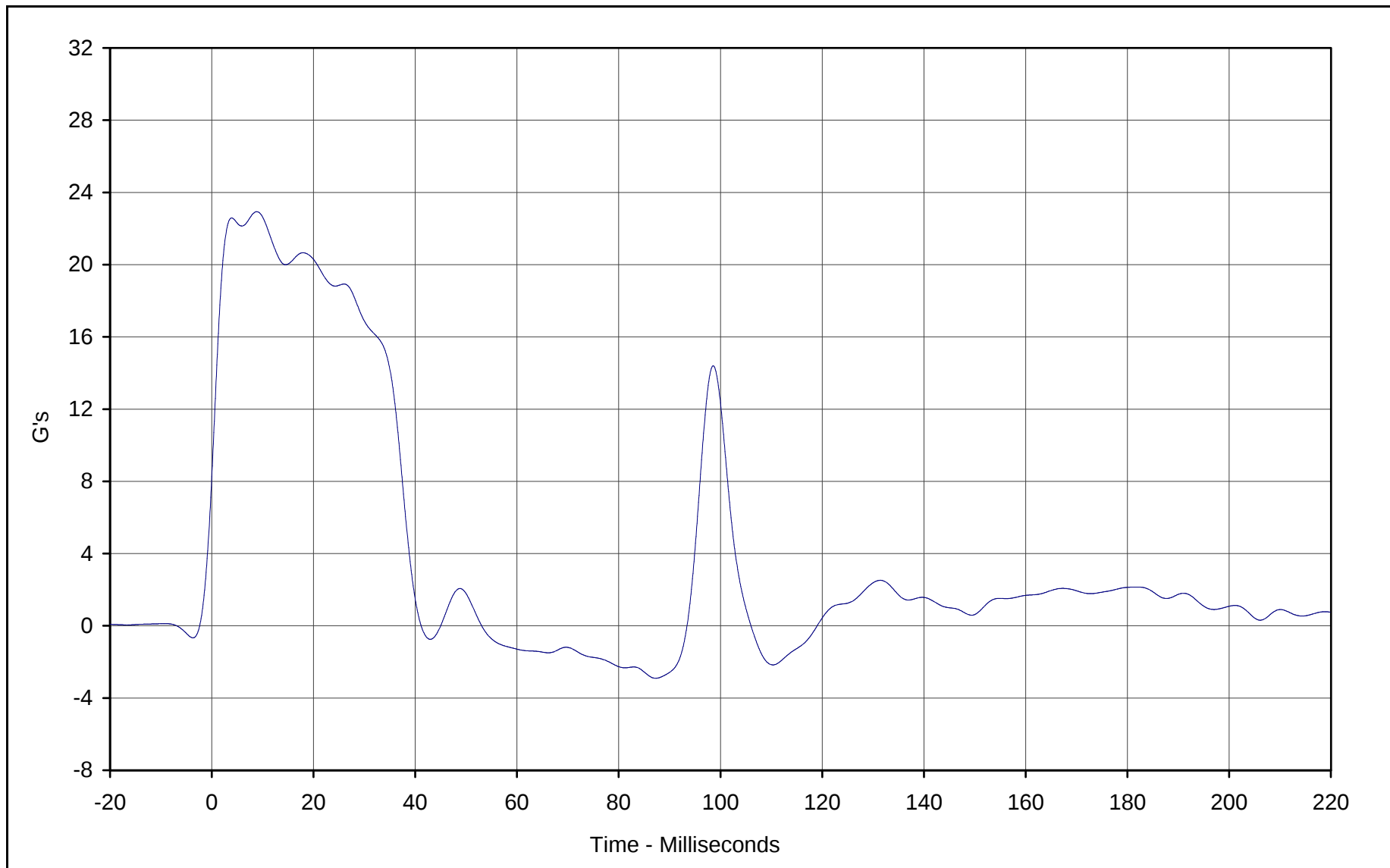
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	6.89 to 7.13	6.89	Pass
Pendulum Deceleration	10 Msec.	G's	22.5 to 27.5	22.6	Pass
	20 Msec.	G's	17.6 to 22.6	20.3	Pass
	30 Msec.	G's	12.5 to 18.5	16.9	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 29.0	16.9	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	34.0 to 42.0	38.5	Pass
Maximum "D" Plane Rotation	Maximum	Degrees	64.0 to 78.0	75.7	Pass
	Time	Msec.	57.0 to 64.0	63.1	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	113.0 to 128.0	122.7	Pass
Moment About Occipital Condyle	Maximum	N·m	84.1 to 108.5	89.4	Pass
	Time	Msec.	47.0 to 58.0	57.3	Pass
Positive Moment Decay, Time To Zero Crossing		Msec.	97.0 to 107.0	102.1	Pass
Overall Test Results					Pass

Laboratory Technician

January 10, 2001
Test Date

Approved By

Date



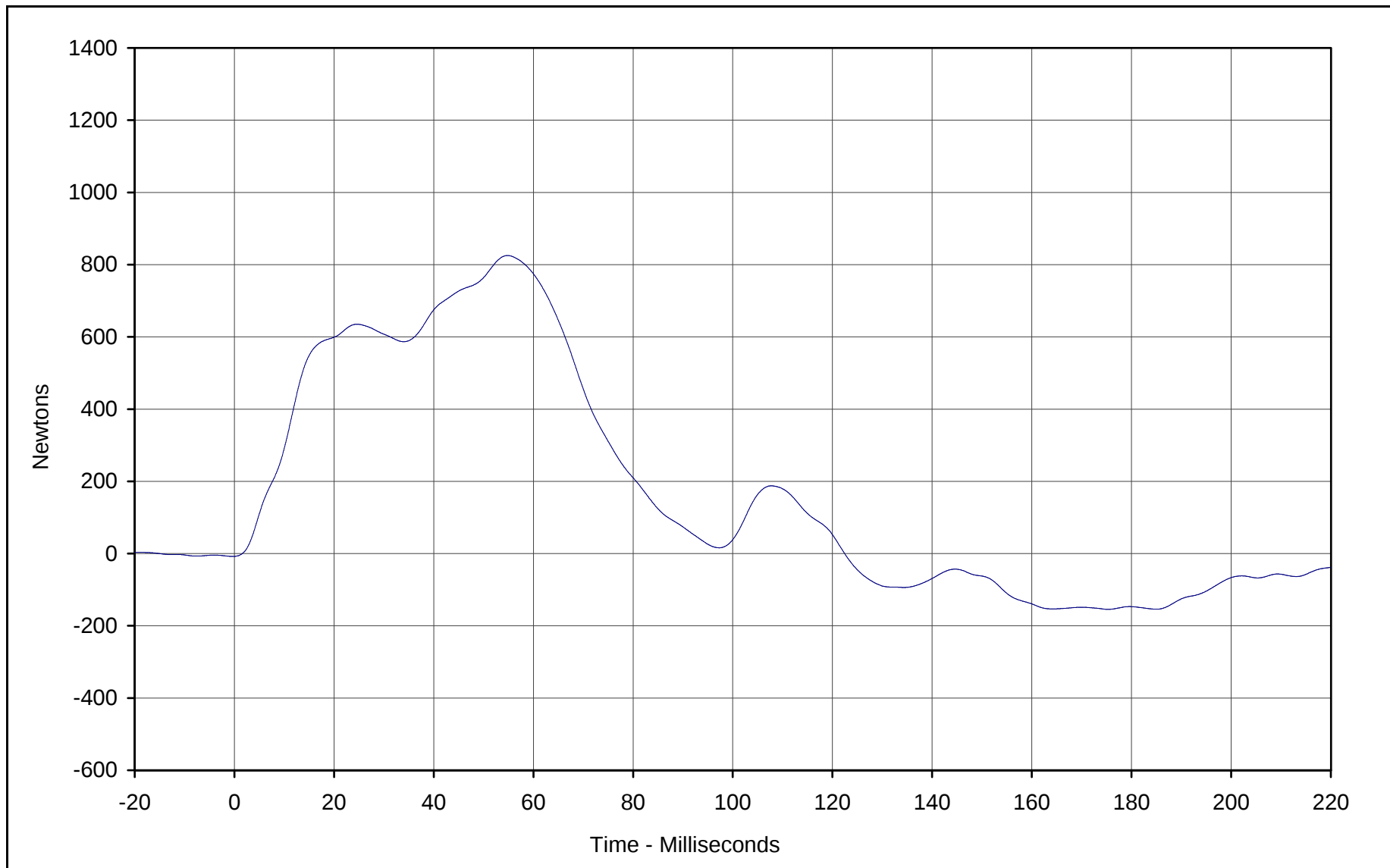
Curve Description: Pendulum Deceleration

Maximum Value:	<u>22.9</u>	at	<u>8.8</u>	Milliseconds
Minimum Value:	<u>-2.9</u>	at	<u>87.3</u>	Milliseconds
SAE Filter Class:	<u>60</u>			
Date of Test:	<u>1/10/01</u>			
ATD Serial No.:	<u>035</u>			

Testing Program: Hybrid III Neck Flexion Test (Male)

Test Information: S/N of Part: N/A Test I.D.: NF01D





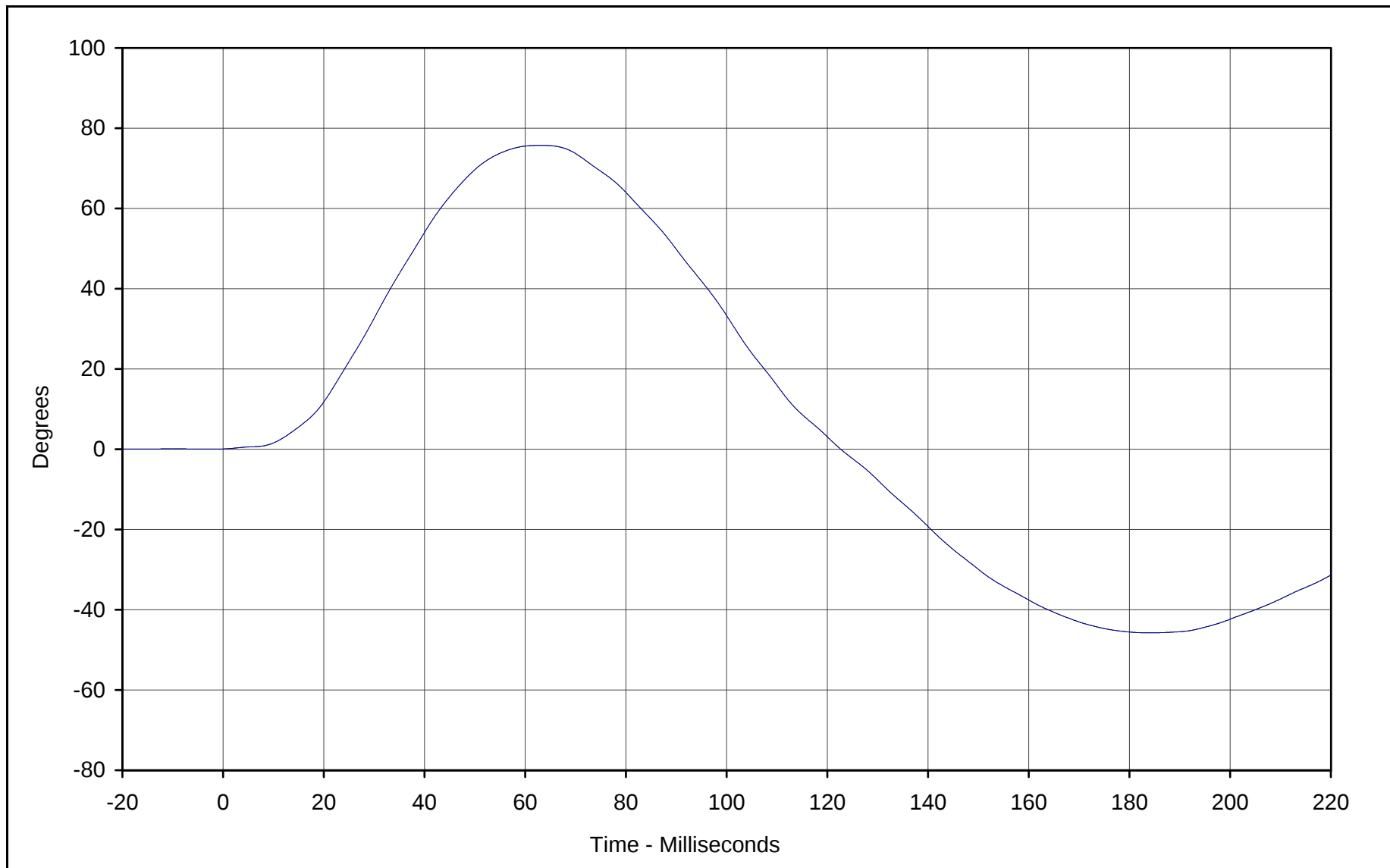
Curve Description: Neck Force X

Maximum Value:	825.3	at	54.8	Milliseconds
Minimum Value:	-154.5	at	175.3	Milliseconds
SAE Filter Class:	60			
Date of Test:	1/10/01			
ATD Serial No.:	035			

Testing Program: Hybrid III Neck Flexion Test (Male)

Test Information: S/N of Part: N/A Test I.D.: NF01D





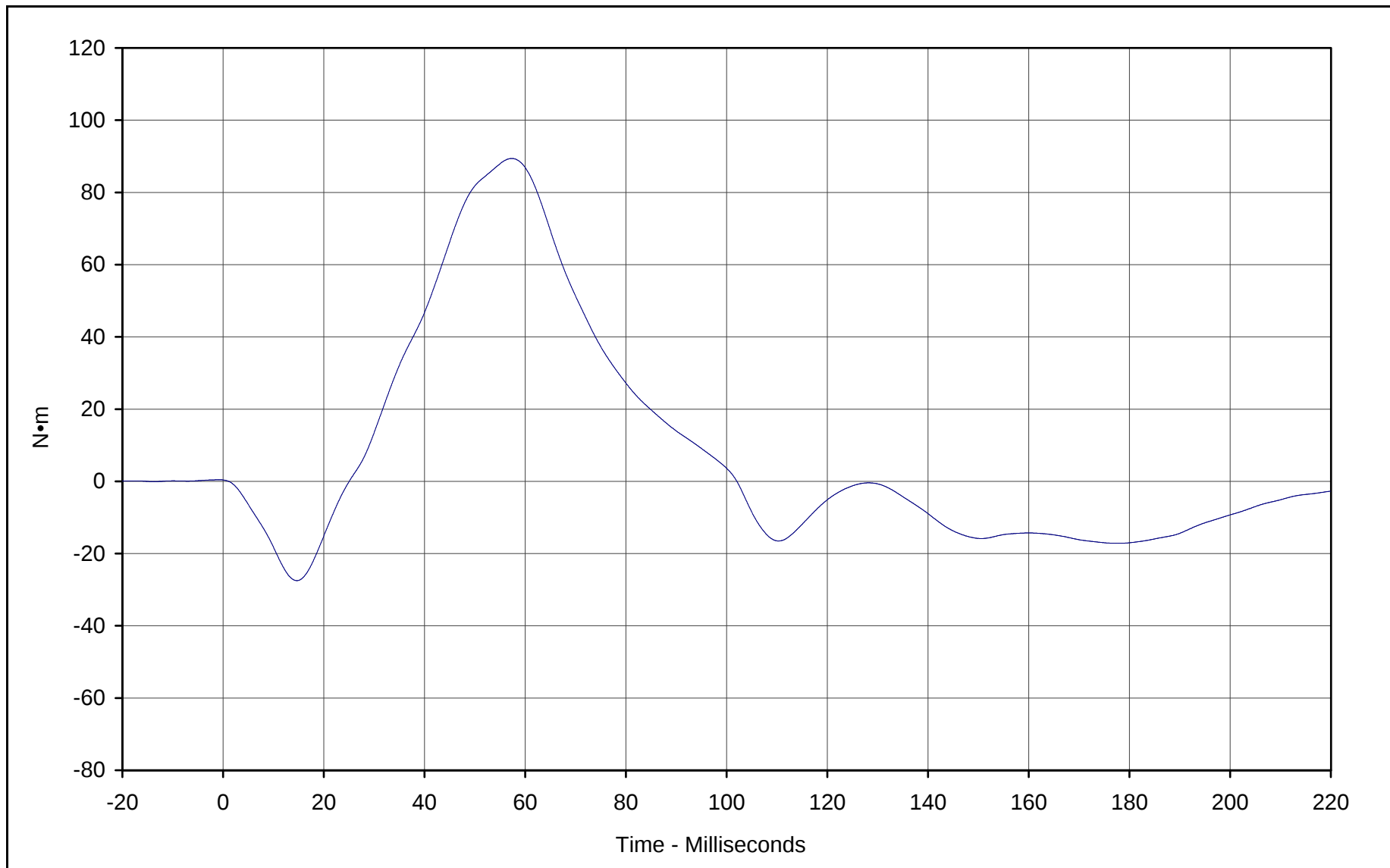
Curve Description: "D" Plane Rotation

Maximum Value:	75.7	at	63.1	Milliseconds
Minimum Value:	-45.8	at	184.1	Milliseconds
SAE Filter Class:	60			
Date of Test:	1/10/01			
ATD Serial No.:	035			

Testing Program: Hybrid III Neck Flexion Test (Male)

Test Information: S/N of Part: N/A Test I.D.: NF01D





Curve Description: Moment About Occipital Condyles

Maximum Value: 89.4 at 57.3 Milliseconds

Minimum Value: -27.5 at 14.6 Milliseconds

SAE Filter Class: 60

Date of Test: 1/10/01

ATD Serial No.: 035

Testing Program: Hybrid III Neck Flexion Test (Male)

Test Information: S/N of Part: N/A Test I.D.: NF01D





Hybrid III Calibration Data Sheet

50TH Percentile Male

Neck Extension Test

ATD Serial No.: 035

Part Serial No.: N/A

Test I.D.: NE01D

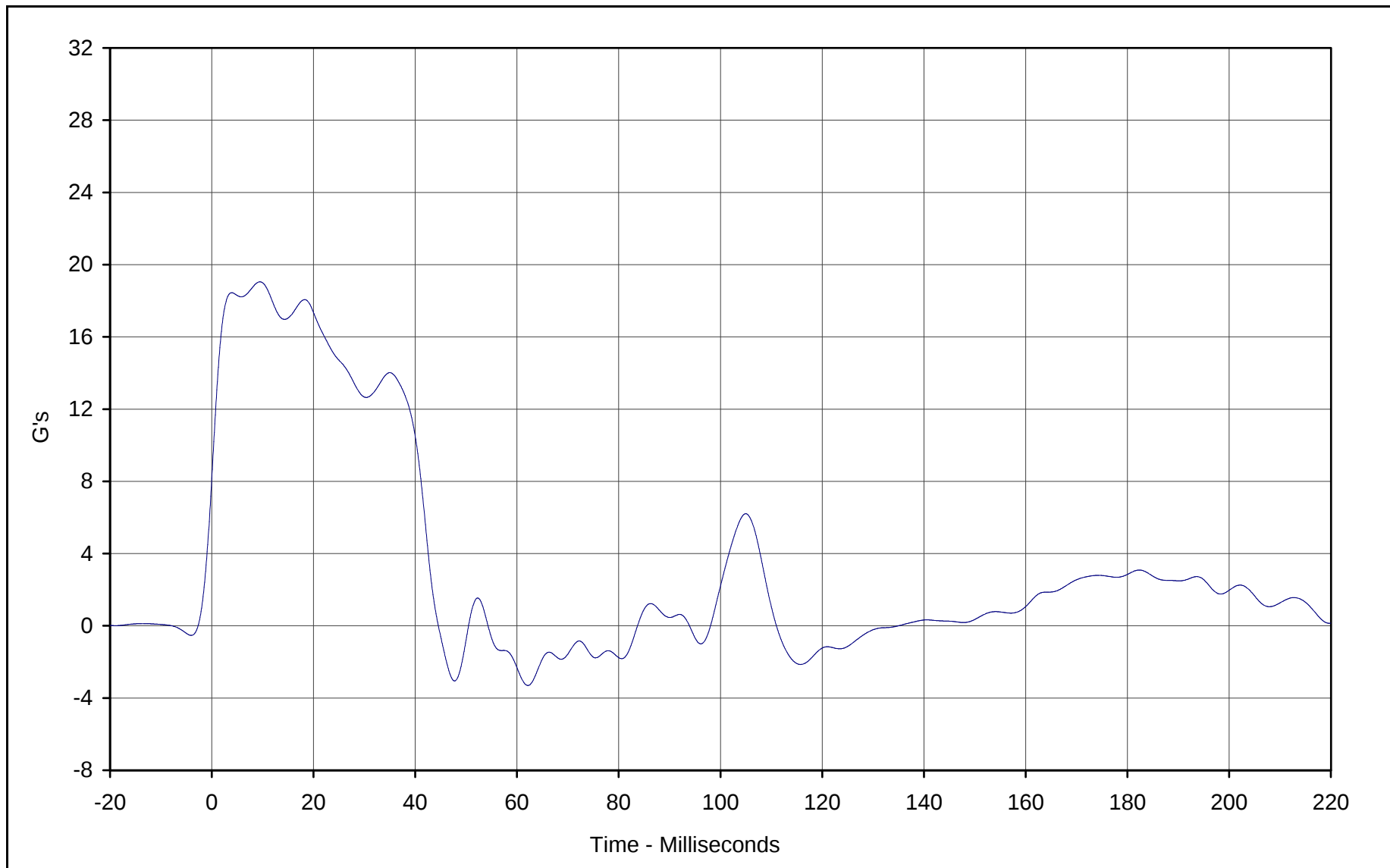
Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.1	Pass
Laboratory Relative Humidity		%	10 to 70	30	Pass
Pendulum Velocity		m/s	5.95 to 6.19	6.10	Pass
Pendulum Deceleration	10 Msec.	G's	17.2 to 21.2	19.0	Pass
	20 Msec.	G's	14.0 to 19.0	17.3	Pass
	30 Msec.	G's	11.0 to 16.0	12.7	Pass
Peak Pendulum Decel. after 30 Msec.		G's	≤ 22.0	14.0	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	38.0 to 46.0	42.3	Pass
Maximum "D" Plane Rotation	Maximum	Degrees	81.0 to 106.0	90.7	Pass
	Time	Msec.	72.0 to 82.0	81.0	Pass
"D" Plane Rotation Decay, Time To Zero Crossing		Msec.	147.0 to 174.0	155.3	Pass
Moment About Occipital Condyle	Maximum	N·m	-52.9 to- 79.9	-61.8	Pass
	Time	Msec.	65.0 to 79.0	73.2	Pass
Negative Moment Decay, Time To Zero Crossing		Msec.	120.0 to 148.0	138.4	Pass
Overall Test Results					Pass

Laboratory Technician

January 10, 2001
Test Date

Approved By

Date



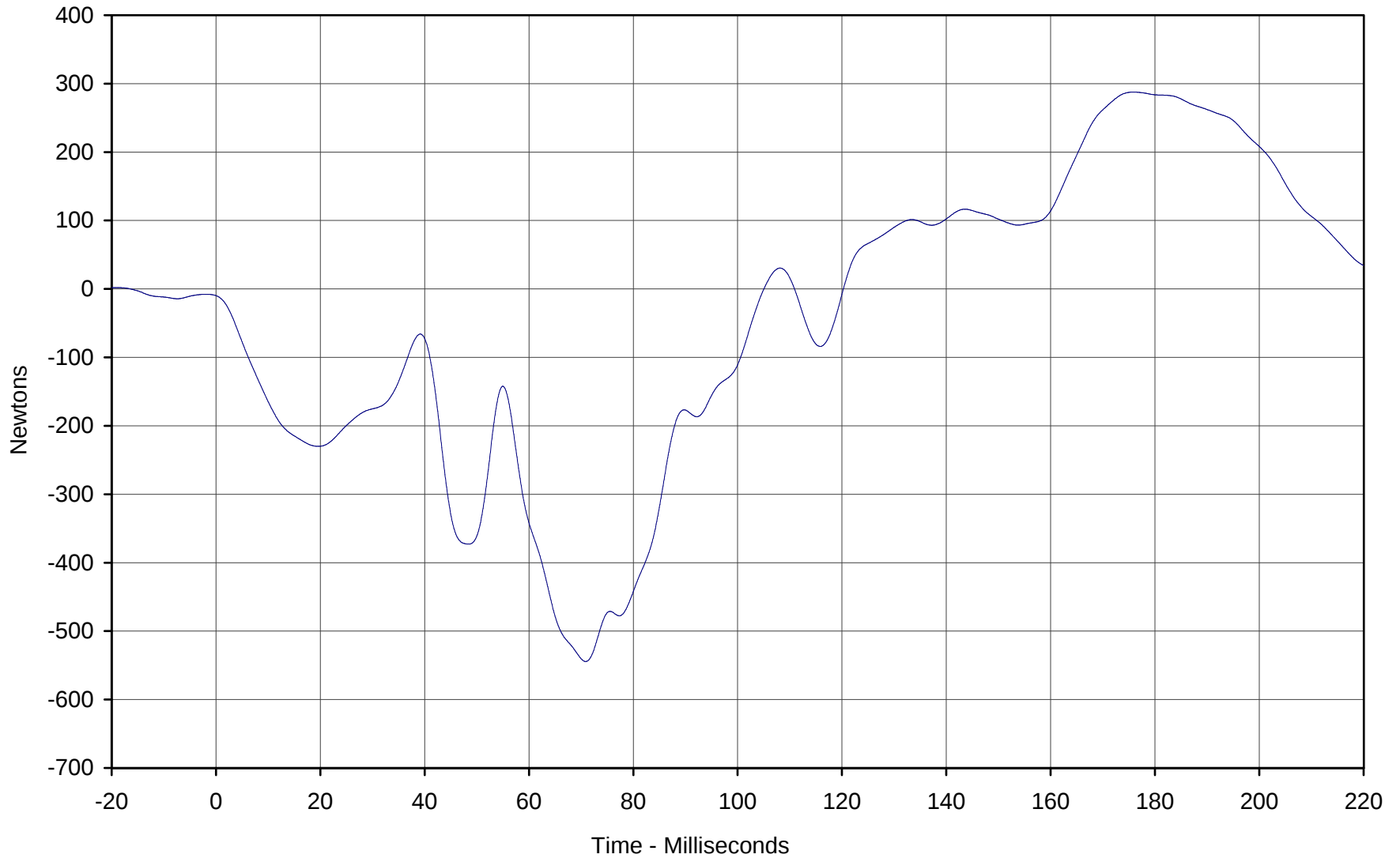
Curve Description: Pendulum Deceleration

Maximum Value:	<u>19.1</u>	at	<u>9.5</u>	Milliseconds
Minimum Value:	<u>-3.3</u>	at	<u>62.1</u>	Milliseconds
SAE Filter Class:	<u>60</u>			
Date of Test:	<u>1/10/01</u>			
ATD Serial No.:	<u>035</u>			

Testing Program: Hybrid III Neck Extension Test (Male)

Test Information: S/N of Part: N/A Test I.D.: NE01D





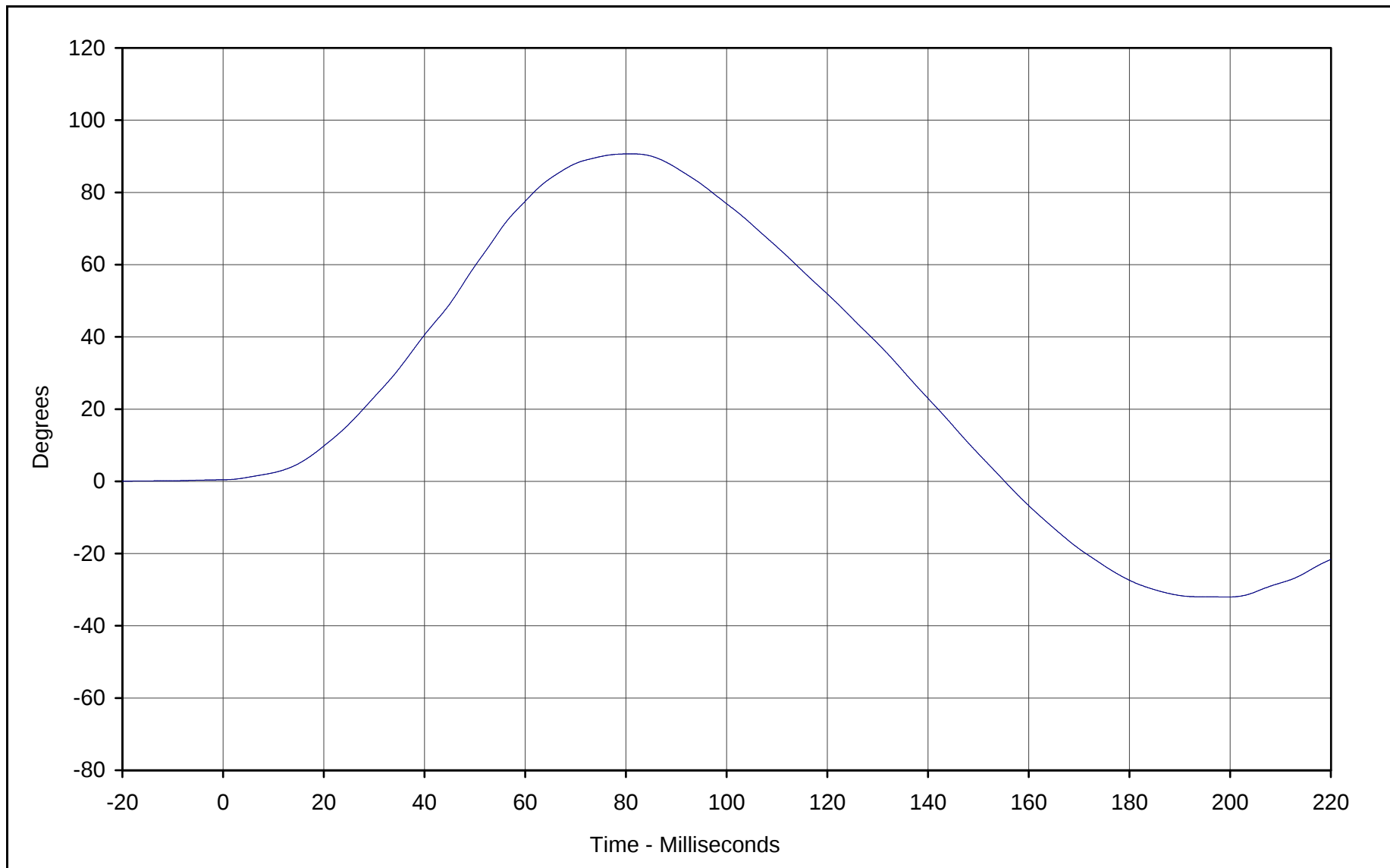
Curve Description: Neck Force X

Maximum Value:	287.7	at	175.9	Milliseconds
Minimum Value:	-544.4	at	70.9	Milliseconds
SAE Filter Class:	60			
Date of Test:	1/10/01			
ATD Serial No.:	035			

Testing Program: Hybrid III Neck Extension Test (Male)

Test Information: S/N of Part: N/A Test I.D.: NE01D





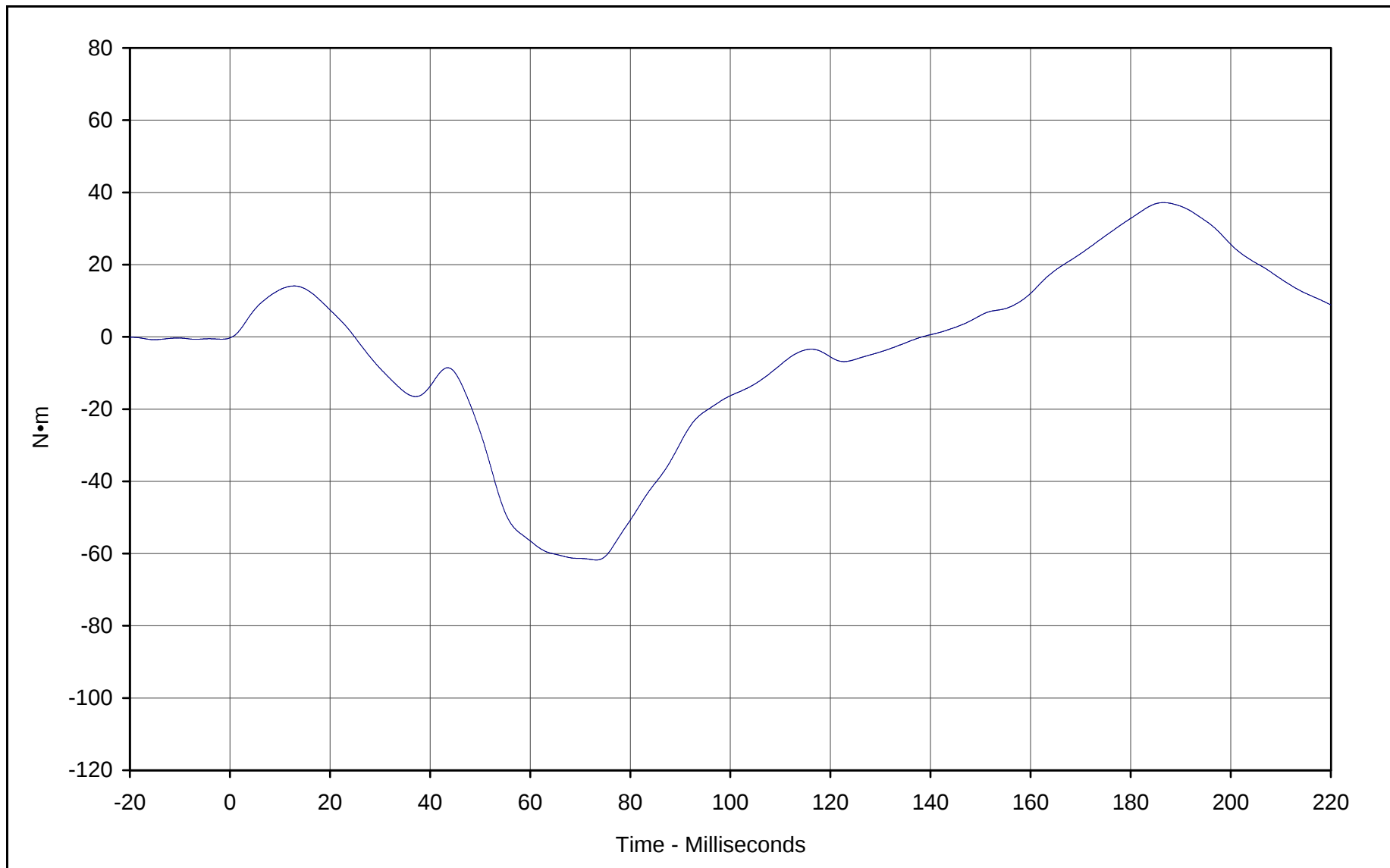
Curve Description: "D" Plane Rotation

Maximum Value:	90.7	at	81.0	Milliseconds
Minimum Value:	-32.0	at	199.4	Milliseconds
SAE Filter Class:	60			
Date of Test:	1/10/01			
ATD Serial No.:	035			

Testing Program: Hybrid III Neck Extension Test (Male)

Test Information: S/N of Part: N/A Test I.D.: NE01D





Curve Description: Moment About Occipital Condyles

Maximum Value: 37.2 at 186.5 Milliseconds

Minimum Value: -61.8 at 73.2 Milliseconds

SAE Filter Class: 60

Date of Test: 1/10/01

ATD Serial No.: 035

Testing Program: Hybrid III Neck Extension Test (Male)

Test Information: S/N of Part: N/A Test I.D.: NE01D





Hybrid III Calibration Data Sheet

50TH Percentile Male

External Measurements

ATD Serial No.: 035

Part Serial No.: N/A

Test I.D.: N/A

External Measurement Data				
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory temperature	°C	20.4 to 22.1	20.9	Pass
Laboratory relative humidity	%	10 to 70	30	Pass
A - Total sitting height	mm	879 to 889	885	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	210	Pass
K - Buttock to knee length	mm	579 to 604	590	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	470	Pass
O - Chest depth	mm	213 to 229	225	Pass
P - Foot length	mm	251 to 267	265	Pass
V - Shoulder breadth	mm	422 to 437	435	Pass
W - Foot breadth	mm	91 to 107	105	Pass
Y - Chest circumference	mm	970 to 1001	990	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

January 10, 2001

Test Date

Approved By

Date

APPENDIX F
VEHICLE OWNER'S MANUAL
OCCUPANT RESTRAINT INSTRUCTIONS

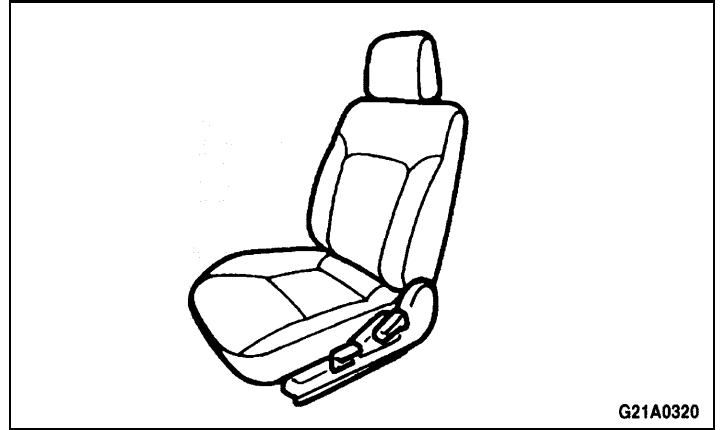
Your vehicle has seat belts and other features that help protect you and your passenger in an accident. Seat belts are the most important safety device. When worn properly, seat belts can reduce the chance of serious injury or death in various types of crashes. For added protection during a severe frontal collision, your vehicle has a Supplemental Restraint System (SRS) with air bags for the driver and front seat passenger.

The seats, head restraints, and door locks also are safety equipment, which must be used correctly.

Always check the following before you drive:

- (1) Everyone in the vehicle is properly wearing their seat belt .
- (2) Infants and small children are properly secured in appropriate child restraints in the rear seat.
- (3) All doors are closed and locked.
- (4) Seat backs are fully upright, with head restraints properly adjusted.

No safety equipment can prevent all injuries or deaths that can occur in severe collisions, but by making sure all your passengers follow the instructions in this manual, you can help reduce the risk of injury.



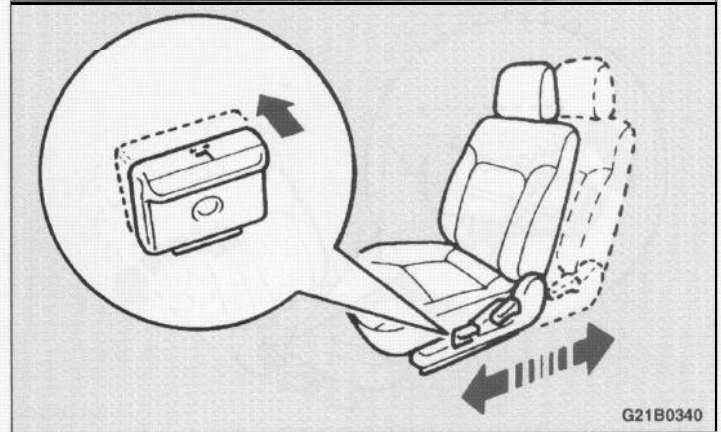
G21A0320

Adjust the driver's seat as far back as possible position to a position that enables you to fully apply the pedals, easily control the steering wheel and safely operate the vehicle, and also gives you with a clear frontal view.

⚠ WARNING

- (1) Do not attempt to adjust the seat while driving. This can be dangerous.
- (2) After adjusting the seat, make sure that the seat is securely locked into position.
- (3) Be **sure** to have the seat adjusted by an adult. If it is adjusted by a child, the seat may not be properly locked into position.
- (4) In order **to** reduce risk of serious or fatal injury in a collision, including from a deploying front passenger air bag, all front seat passengers should move the front passenger seat as far back as possible, all children 12 years old and under should ride restrained in the rear seat, and all children in rear-facing child restraints must ride in the rear seat.
- (5) In order **to** reduce risk of serious or fatal injury in an accident, including from a deploying driver's side air bag, the driver should move the driver's seat as far back as possible, while still maintaining good visibility and good control of the steering wheel, accelerator and brake pedals.

To adjust seat forward or backward ND01B-1



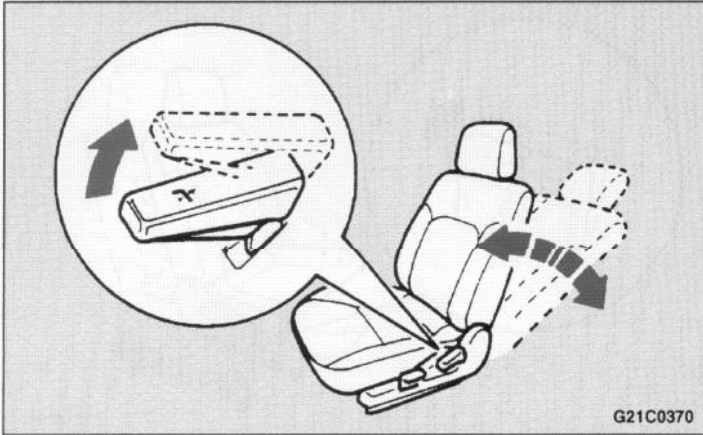
Pull the seat adjusting lever and slide the seat forward or backward to the desired position. Release the adjusting lever to lock the seat in position.

⚠ WARNING

To ensure the seat is locked securely, attempt to move the seat forward or backward without using the adjusting lever.

To recline the seatback

ND01C-Hc



In order to recline the seatback, first lean your body forward slightly and pull the seatback lock lever up, and then lean backward to the desired position and release the lever. The seatback will lock in that position.

⚠ WARNING

To minimize risk of severe or fatal personal injury in the event of a collision or sudden stop, both the driver and all passenger seatbacks should always remain in a nearly upright position while the vehicle is in motion.

The protection provided by the seat belts will be reduced significantly the more the seatback is reclined.

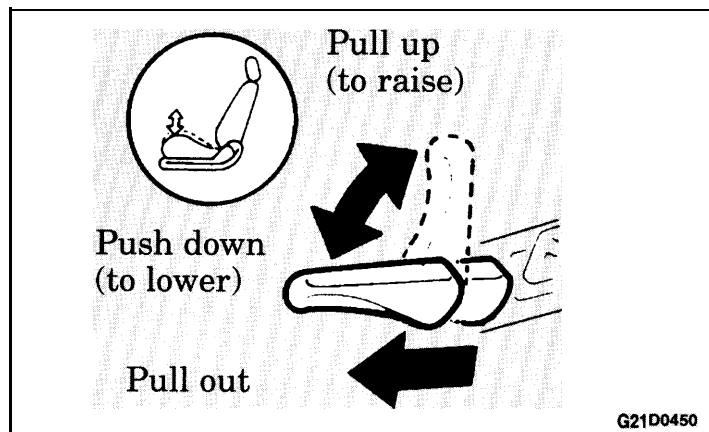
There is greater risk that the seat belts will not be properly positioned on your body and/or you will slide under the belt, resulting in serious injury, in an accident the more the seatback is reclined, resulting in severe or fatal injury.

⚠ CAUTION

Pull the seatback lock lever, and the seatback will return to its original position. When operating the lever, sit close to the seatback or check with your hand on it.

**To adjust seat height
(Driver side only, if so equipped)**

ND01 D-Cd

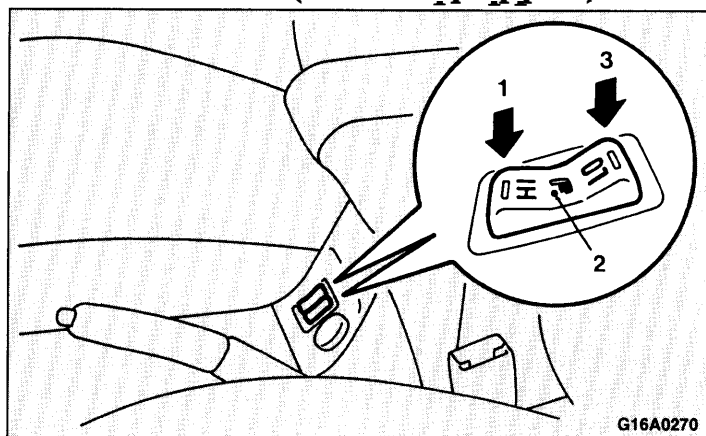


The height of the seat cushion can be adjusted. Pull the lever out and up and the seat cushion will go up. Push the lever down and the seat cushion will go down.

Stop the lever operation and the seat cushion will be held in position.

Heated seats (if so equipped)

ND01O-Ab



The heated seats can be operated when the ignition key is in the "ON" position.

- 1- Heater high (for quick heating)
- 2- Heater off
- 3- Heater low (to keep the seat warm)

⚠ CAUTION

Switch off the seat heaters when not in use. Operate the heaters at high for quick heating. After the seat has become warm, set the heater to low to keep it warm. Slight variations in the seat temperature may be felt while using the heated seats. This is caused by the operation of the heater's internal thermostat and does not indicate a malfunction.

If the following types of persons use the heated seats, they might become too hot or receive minor burns (red skin, heat blisters, etc.):

- (1) Children, elderly persons, ill persons
- (2) Person with sensitive skin
- (3) Excessively fatigued persons
- (4) Persons under the influence of alcohol or sleep-inducing medication (cold medicine, etc.)

⚠ CAUTION

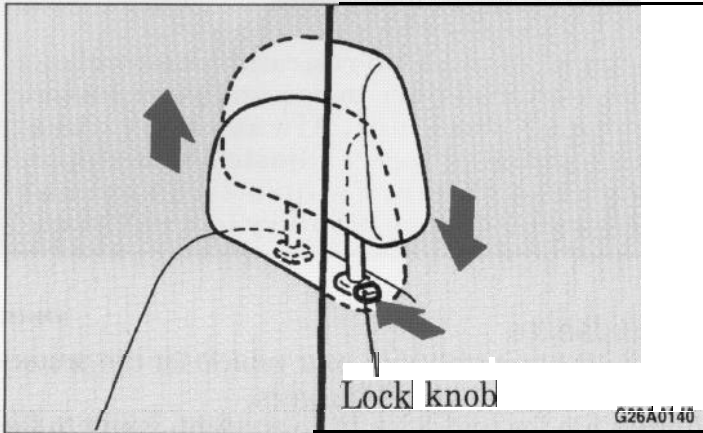
Do not place heavy objects on the seat or stick pins, needles, or other pointed objects into it. Do not use a blanket, cushion, or other material with high heat insulation properties on the seat while using the heater; doing so could cause the heater element to overheat.

When cleaning the seat, do not use benzene, gasoline, alcohol, or other organic solvents; doing so could damage not only the surface of the seat, but also the heater.

If water or any other liquid is spilled on the seat, allow it to dry thoroughly before attempting to use the heater. Turn the heater off immediately if it appears to be malfunctioning during use.

Head restraints

ND05A-Td



Padded head restraints for the seats may reduce the risk of whiplash injury in a rear impact.

Adjustment of the head restraints

To reduce the chance of injury in the event of collision, adjust the head restraint height so that the center of the restraint is as close as possible to your seated eye level.

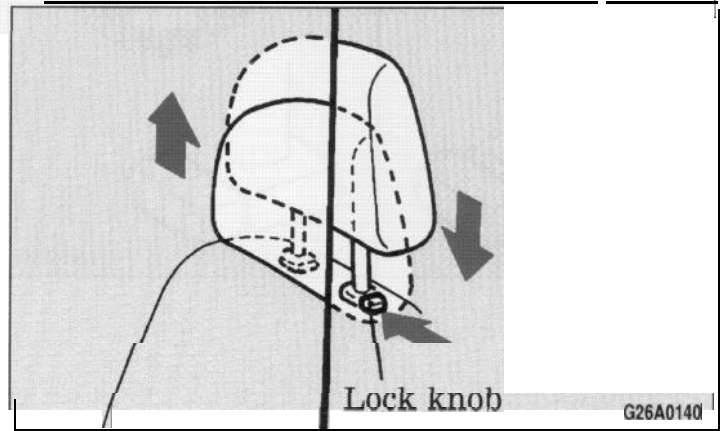
- To raise the restraint, pull it straight up.
- To lower the restraint, push down on it while pressing the lock knob in the direction indicated by the arrow.
- After adjusting the height, push down on the restraint to confirm that it is locked in position.

⚠ WARNING

- (1) Failure to have head restraints properly mounted and adjusted may increase the chance of injury in the event of a collision.
- (2) A cushion or similar device between the driver's or passenger's back and the seat back will not prevent injury in the event of a collision.

Removal of the head restraint

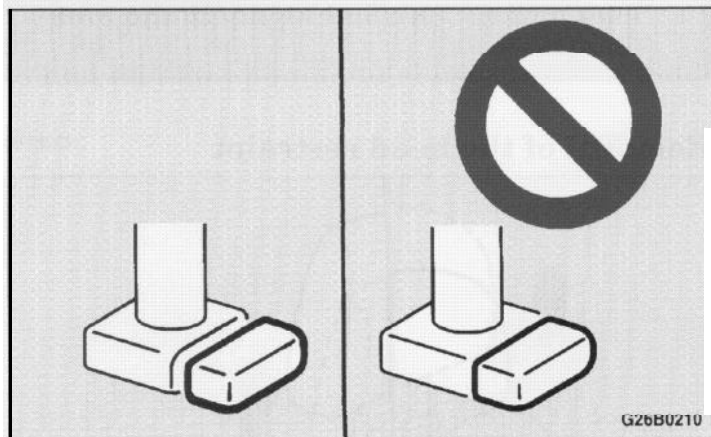
ND05B-Gd



To remove the head restraints press the lock knob in the direction indicated by the arrow and pull the

head restraints up and out of the seatbacks.

To remount the head restraints, first confirm that they are facing in the correct direction as shown in the illustration, and then insert them into the seatback. Push the head restraint down while pressing the lock knob until the restraint lock. Confirm that the lock knobs are extended out as shown in the illustration and pull the head restraints up to confirm that they do not come out of the seatback.



A **WARNING**

Driving with the head restraints removed can lead to serious injury to you and your passengers in an accident. Always have them mounted, and properly adjusted before operating the vehicle. Failure to do so may increase the chance of injury in a collision.

Seat belts

ND06A-BJ

Seat belts are installed in your vehicle for the protection of the driver and passengers.

Always use the seat belts. In an accident, injury to the driver and passengers may be reduced if the seat belts are properly used.

NOTE

Legislation in your state may require seat belt usage; however, even if it is not required, seat belts should always be used.

WARNING

- (1) Lock all doors before driving to reduce the risk of injury or ejection in a collision.
- (2) Seat belts should always be worn by every adult who drives or rides in this vehicle, and by all children who are large enough to wear seat belts properly.
- (3) Never use one seat belt for more than one occupant.
- (4) Never carry more people in the vehicle than there are seat belts.
- (5) Always adjust the belt for a snug fit.
- (6) Always route the shoulder belt over your shoulder and across your chest. Never put it behind you or under your arm.
- (7) Always wear the lap belt as low as possible across your hips, not around your waist.
- (8) To reduce risk of serious or fatal injury in an accident, including from a deploying driver air bag, the driver should maintain at least 10 inches from the center of the air bag cover in the steering wheel to the center of your chest.

WARNING

- (9) To reduce the risk of severe or fatal injury from a deploying passenger air bag, make sure the passenger is also always properly wearing their seat belt, remains sitting well back and upright in their seat and the seat is moved as far back as possible. Refer to "Supplemental Restraint System (SRS) - air bag" on page 2-39.
- (10) Never hold an infant or child in your arms or on your lap when riding in this vehicle even if you are wearing your seat belt. Also never place any part of the seat belt you are wearing around an infant or child. To do so risks severe or fatal injury to your child in a collision or sudden stop.
- (11) All children 12 years old and under should always ride in the rear seat, properly restrained, in order to reduce risk of serious or fatal injury in a collision, including from the deployment of a front passenger air bag. Refer to "Child restraints" on page 2-27.

⚠ WARNING

(12) Any child who is too small to properly wear a seat belt must be properly restrained in an appropriate child restraint system. To reduce the risk of severe or fatal injury in a collision, including from the deployment of a front passenger air bag, children should be seated only in the rear seat. Infants must be in a rear-facing child safety seat and be seated only in the rear seat.

UNIBELT restraint system

ND06B-YA

Front seats and both outboard rear seat positions are equipped with a UNIBELT system which uses a single combined lap-and-shoulder belt with an emergency locking retractor.

This system is designed to provide comfort and safety by permitting full extension and automatic retraction of the belts during normal vehicle operation. A sensing device inside the belt retractor is designed to lock the retractor in the event of an abrupt change in vehicle motion.

NOTE

For instruction on how to install a child restraint system, see "Installing a child restraint system to a UNIBELT" on page 2-34.

UNIBELT instructions

ND06D-BI



1. Get in the vehicle and sit in the normal correct posture. To reduce the risk of severe or fatal injury caused by an inflating air bag, adjust the driver's seat to the rear most position that still allows you to fully apply the pedals, easily control the steering wheel and safely operate the vehicle. The front passenger should also adjust their seat as far back as possible. Refer to "Supplemental Restraint System (SRS) - air bag" on page 2-39. Refer to "To adjust seat forward or backward" on page 2-3.

All vehicle occupant's should then sit and remain seated all the way back in their seat with their back resting straight against the upright seat back.

⚠ WARNING

To minimize the risk of severe or fatal personal injury in the event of a collision or sudden stop, both the driver and **all** passenger seatbacks should always be in a nearly upright position while the vehicle is in motion.

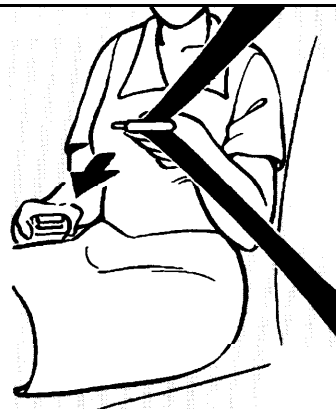
The protection provided by the seat **belts** will be reduced significantly the more the seatback is reclined. There is a greater risk that the seat belts will not be properly positioned on your body and/or you will slide under the belt in an accident the more the **seatback** is reclined resulting in severe or fatal injury.

Seats, seat belts, child restraints and air bags



G28A0220

2. Grasp the metal tongue and slide it up the webbing so that it becomes easy to pull across your body.
After a couple of tries this will become an automatic one-handed motion.



G28A0230

3. Pull the seat belt out slowly while holding the metal tongue. This system will not lock up if you stop or hesitate, so relax and continue to “buckle-up”. Push the metal tongue into the buckle until a “click” is heard. Pull up on the belt to confirm the metal tongue is locked securely in the buckle.

NOTE

When the seat belt locks up and cannot be pulled out pull the belt once with force and allow it to completely retract.
Then, pull the belt out slowly once again.



G28A0240

4. Pull up on the shoulder portion of the belt to remove and ensure that there is no extra slack in the lap belt. The shoulder belt portion will retain the small amount of slack necessary for comfort whenever you return to your normal seating position. If the belt portion is too tight, pull out 6 to 8 inches of webbing by pulling down on the shoulder belt, release the belt, and let it return to your chest.

NOTE

If a person wearing the seat belt moves their upper body or the belt such that the belt completely unwinds, the retractor may switch to its Automatic Locking Retractor (ALR) child restraint installation mode and lock (see page 2-33), thus preventing further movement. If this happens, the person should switch the retractor back to its Emergency Locking Retractor (ELR) mode by unlatching the buckle and letting the belt fully retract. The person should then put the seat belt back on repeating steps 1 through 4.

WARNING

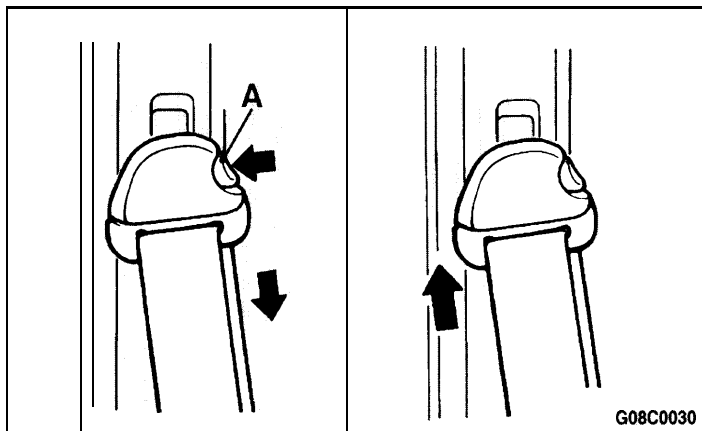
- (1) Be sure the lap belt portion fits snugly and as low as possible across the hips, not around the waist. Failure to do so will increase the risk of severe or fatal injury in a collision.
- (2) Be sure the seat belt webbing is not twisted when worn.



5. The shoulder belt portion will allow regular movement under normal conditions. The belt will lock in the event of an abrupt change in vehicle motion.
6. To release the belt, push the button on the buckle. The belt retracts automatically, so hold the tongue when the belt is released and while it retracts. Should the belt not fully return to its stowed position, pull the shoulder belt down slightly and release quickly.

Adjustable seat belt shoulder anchor (front seats)

ND06E-CI



The seat belt shoulder anchor height can be adjusted for greater comfort.

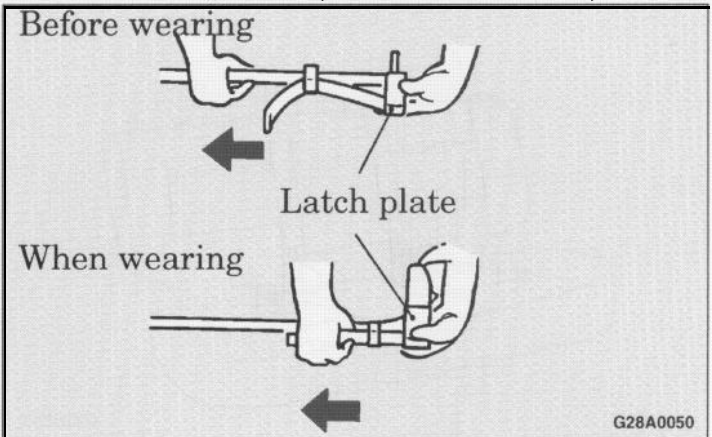
To move the anchor down, depress the lock knob (A). To move the anchor up, simply slide the anchor up to the desired position (there is no need to depress the lock knob).

A WARNING

- (1) Always make sure the shoulder belt is positioned across the center of your **shoulder**. The belt should be kept away from your neck, but not falling off your shoulder. **Failure** to adjust the safety **belt** properly could reduce the effectiveness of the safety belt and increase the risk of injury in a collision.
- (2) Always adjust the anchor when the vehicle is not in motion.
- (3) Make sure the anchor is securely fixed after adjustment.

Rear seat lap belt (center rear seat)

ND06C-04

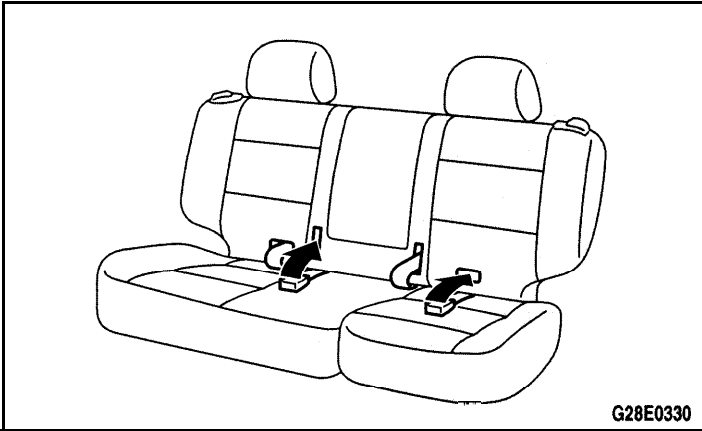


The center rear seat belt can be adjusted before wearing to make it longer by holding the belt and metal tongue at right angles to each other and then pulling the belt as illustrated to a snug fit across the occupant's hips. To wear, insert the metal tongue into the buckle until a "click" is heard. Adjust the belt to make it tighter by pulling the loose end of the belt to a snug fit across the occupant's hips. See illustration above. NEVER USE THE LAP BELT ON MORE THAN ONE PERSON AT A TIME.

To unfasten the belt, press the button on the buckle.

Rear seat belt Docket

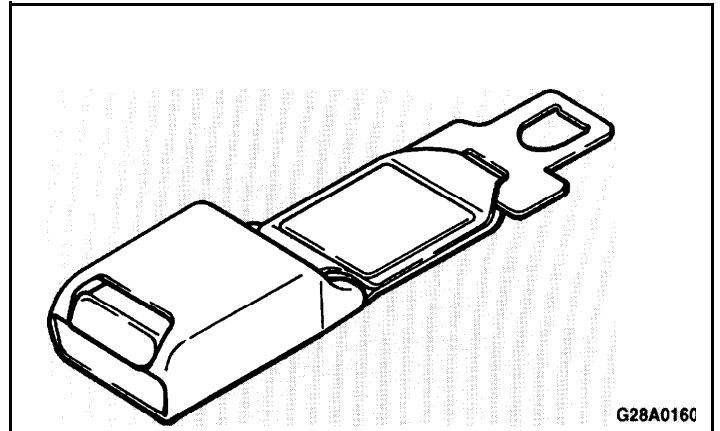
ND06I-G



When the seat belt is not in use, store it in the storage pocket.
For compact storage of the center seat plate, coil it around the plate.

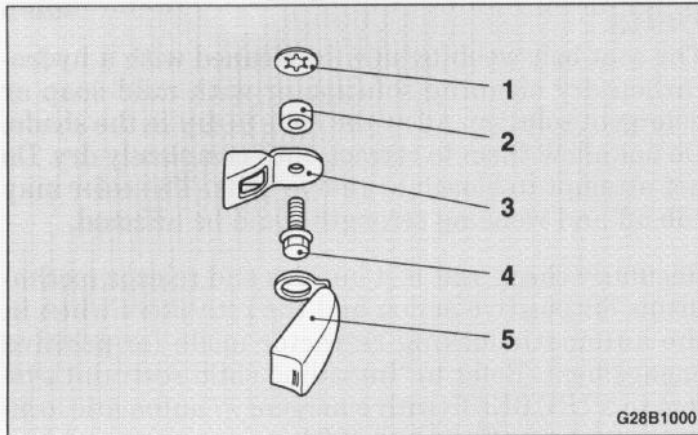
Seat belt extender

ND06J-Ah



If the seat belt is too short, even when fully extended, a seat belt extender is available from your dealer. The extender may be used for either front seating positions.

Tether anchorage parts



1. Fiber washer
2. Spacers 0.4inch (10mm)
3. Tether anchor bracket
4. Anchor bolt 1.2inches (30mm), Washer
5. Cover

A WARNING

Child restraint tether anchorages are designed to withstand only those loads imposed by a correctly fitted child restraint system. Under no circumstances are they to be used for adult seats, or harnesses, or for attaching other items or equipment to the vehicle.

Children who have outgrown child restraint system

Children who have outgrown a child restraint system should be seated in the rear seat and wear the UNIBELT. If the shoulder belt crosses their face or neck, and/or the lap belt crosses their stomach a commercially available booster seat must be used to raise the child so that the shoulder belt crosses their shoulder and the lap belt remains positioned low across their hips. The booster seat should fit the vehicle seat and should have a label certifying compliance with Federal Motor Vehicle Safety Standards.



WARNING

- (1) Children who are not buckled up, with the doors all locked, can be thrown out of the vehicle or otherwise seriously or fatally injured in the event of a collision.
- (2) A child should never be left unattended in or unsupervised around the vehicle. When you leave the vehicle, always take the child out as well.
- (3) Children can die from heat stroke if trapped inside, especially on hot days.
- (4) Keep vehicles locked and trunks closed when not in use. Keep vehicle keys away from children.

Pregnant women restraint

ND06G-Gd

WARNING

Seat belts work for everyone, including pregnant women. Pregnant women should use the available seat belts. This will reduce the likelihood of injury to both the woman and the unborn child. The seat belt should be worn as snug and as low as possible across the hips, not across the waist.

Consult your doctor if you have any questions or concerns.

Maintenance and inspection of seat belts

ND06H-Gf

The seat belt webbing may be cleaned with a hydro-carbon dry cleaning solution or with mild soap or detergent solution. Allow the belts to dry in the shade. Do not allow them to retract until completely dry. Do not attempt to bleach or re-dye belts. The color may rub off and webbing strength could be affected.

Regularly check seat belt buckles and release mechanisms for positive action and the retractors when in the automatic locking retractor mode for positive engagement. Refer to "Installing child restraint system to a UNIBELT (with emergency / automatic locking mechanism)" on page 2-34.

Check that the anchor mounting bolts are tight. If the seat belt webbing shows obvious cuts, tears, protruding broken fibers that cause a local increase in webbing thickness, or severe fading which indicates weakening by exposure to sunlight, the entire seat belt assembly should be replaced.

Supplemental Restraint System (SRS) - air bag

ND10A-Hb

This vehicle is equipped with a Supplemental Restraint System (SRS), which includes air bags for the driver and front passenger and pre-tensioner seat belt for the driver. The SRS is designed to supplement the primary protection of the driver and front passenger side seat belt systems by providing those occupants with protection against head and chest injuries in certain moderate to severe frontal collisions.

The SRS is NOT a substitute for the seat belts; for maximum protection in all types of crashes and accidents, seat belts should ALWAYS be worn by everyone who drives or rides in this vehicle (With infants and small children in child restraints in the rear seat, and older children buckled in the rear seat. Refer to "Child restraints" on page Z-27.).

WARNING

IT IS VERY IMPORTANT TO ALWAYS WEAR YOUR SEAT BELT PROPERLY EVEN WITH AN AIR BAG:

(1) Seat belts help keep the driver and front passenger properly positioned, which reduces injury risk in all collisions, and reduces the risk of serious or fatal injuries when the air bags inflate.

During sudden braking just before a collision, an unrestrained or improperly restrained driver or front passenger can move forward into direct contact with or within close proximity to the inflating air bag.

The initial stage of air bag inflation is the most forceful, which could cause serious or fatal injuries if the occupant comes in contact with it at this stage.

(2) Seat belts reduce the risk of injury in roll-overs, side or rear impact collisions, and in lower-speed frontal collisions, because the air bags are not designed to inflate in those situations.

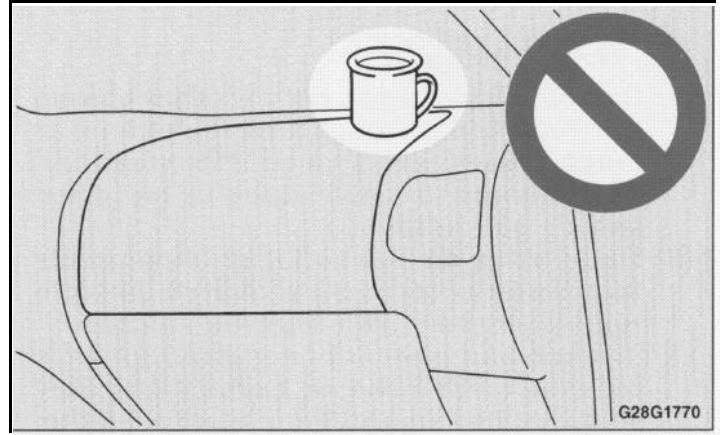
(3) Seat belts reduce the risk of being thrown from your vehicle in a collision or roll-over.

When the impact sensors detect an impact of sufficient frontal force, their switches close a circuit which ignites materials in the inflator to generate gas and inflate the air bags.

Deployment of the air bags produces a sudden, fairly loud noise, and releases some smoke and powder, but these conditions are not injurious, and do not indicate a fire in the vehicle. People with respiratory problems may feel some temporary irritation from chemicals used to produce the deployment; open the windows after air bags deployment, if safe to do so. After deployment, the air bags deflate very rapidly, so there is little danger of obscured vision. The time required from the sensors detecting an impact to deflation of the air bags after deployment is shorter than a blink of an eye.

WARNING

- (1) DO **not** attach anything to the steering wheel padded cover, such as trim material, badges, etc. It might strike and injure an occupant if the air bag inflates.



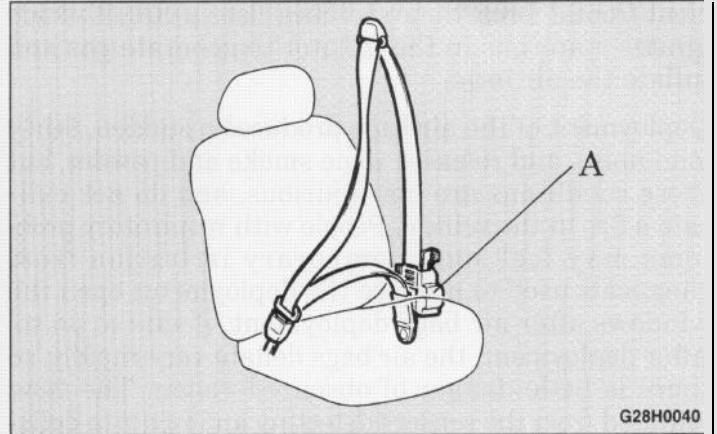
WARNING

- (2) Do not set anything on, or attach anything to, the instrument panel above the glove compartment. It might strike and injure an occupant if the air bag inflates.
- (3) Do not attach accessories to, or put them in front of, the windshield. They could restrict air bag inflation, or strike and injure an occupant if the air bag inflates.

A WARNING

- (4) Do not put packages, pets or other objects between the air bags and the driver or front passenger. It could affect air bag performance, or could cause injury when the air bag inflates.
- (5) Right after air bag inflation, several air bag system components will be hot. Do not touch them; you could be burned.
- (6) The air bag system is designed to work only once. After the air bags deploy, they will not work again. They must promptly be replaced and the entire air bag system inspected by an authorized Mitsubishi dealer.

Pre-tensioner seat belt system



The driver's seat is provided with a pre-tensioner seat belt system which actuates simultaneously with the air bag in a moderate-to-severe frontal collision.

In certain moderate-to-severe frontal collisions, the seat belt pre-tensioner retracts the seat belt **instantaneously** to hold the occupant tightly in the seat, making the seat belt and the air bag work more effectively.

The pre-tensioner (A) is encased with the seat belt's retractor. These belts are fastened the same way as conventional belts.

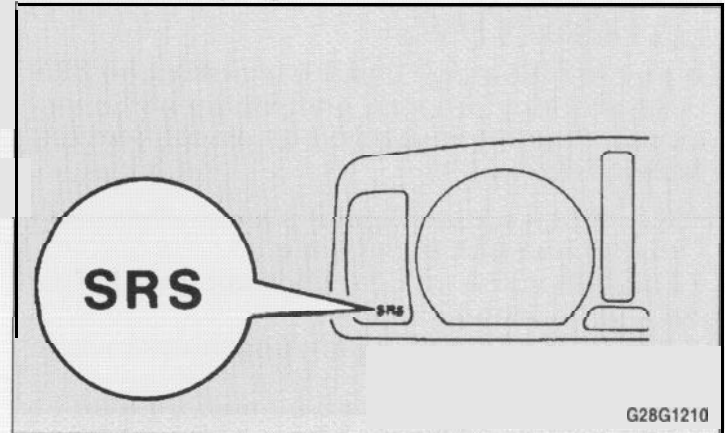
When the pre-tensioner seat belt activates, smoke is released and a loud noise will be heard. The smoke is not harmful, but care should be taken not to intentionally inhale it, as it may cause irritation and **choking**.

The pre-tensioner activates whenever a strong impact is applied at the front of the vehicle, even if the seat belt is not worn. The pre-tensioner seat belts may not activate in certain frontal collisions, even though the vehicle may be severely damaged. Such non-activation does not mean that something is wrong with the SRS system, but rather that the collision forces were not severe enough to activate it.

⚠ WARNING

- (1) After the pre-tensioner seat belt activation, several pre-tensioner seat belt system components will be hot. Do not touch them after activation.
- (2) The pre-tensioner seat belt system is designed to work only once. After the pre-tensioner seat belts have been activated, they will not work again. They must promptly be replaced, and the entire pre-tensioner seat belt system inspected by an authorized Mitsubishi dealer.
- (3) If the vehicle is involved in a frontal collision but the pre-tensioner seat belts are not activated, be sure to have the pre-tensioner seat belt system checked and, if necessary, replaced by an authorized Mitsubishi dealer.

SRS warning light



There is a Supplemental Restraint System ("SRS") warning light on the instrument panel. The system checks itself each time the ignition is turned on and the light indicates if there is a problem.

When the ignition key is turned to the "ON" or "START" position, the warning light should illuminate for about 7 seconds and then should go out. This means the system is functioning properly. The SRS warning lamp is shared by the driver's air bag, the passenger's air bag and the pre-tensioner seat belt.

The air bags will operate only when the ignition switch is in the "ON" or "START" position.