REPORT NUMBER: NCAP-MGA-2001-016

NEW CAR ASSESSMENT PROGRAM
FRONTAL BARRIER IMPACT TEST

Ford Motor Company
2001 Ford Escape 4WD
NHTSA NUMBER: M10213

PREPARED BY:
MGA RESEARCH CORPORATION
5000 WARREN ROAD
BURLINGTON, WI 53105

March 16, 2001

FINAL REPORT

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

This final test report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, in response to Contract Number DTNH22-01-D-12005.

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FINAL REPORT ACCEPTED BY:

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Manager, New Car Assessment Program

_____
Date of Acceptance

_____
COTR, NCAP Frontal Impact Program

_____
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16. Abstract

A 35 mph (56.3 km/h) frontal barrier impact was conducted on a 2001 Ford Escape 4WD at MGA Research Corporation on March 16, 2001. This test was conducted to obtain data indicant of FMVSS 208, 212, 219 (partial), 301, and footwell intrusion performance. The impact velocity was 56.3 km/h. The ambient temperature at the barrier face at the time of impact was 21 degrees Celsius. The vehicle's maximum post test static crush is 469 mm located to the left of the vehicle centerline. The test vehicle is equipped with a 3-point continuous belt system and an airbag in both front outboard seating positions. With respect to FMVSS 208 "Occupant Crash Protection", the occupant injury criteria summary is as follows:

Measurement Description	Units	Threshold	Driver ATD	Pass. ATD
Head Injury Criteria (HIC)	N/A	1000	417	597
Max. Thorax Accel. (3msec Clip)	G's	60	42.0	44.1
Left Femur force	Newtons	10009	5017	5306
Right Femur force	Newtons	10009	3693	3693

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SECTION 1

PURPOSE AND TEST PROCEDURE

1.1 PURPOSE

This 35 mph (56.3 km/h) frontal barrier impact test is part of the FY' 01 New Car Assessment Program (NCAP) frontal barrier crashworthiness evaluation program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract Number DTNH22-01-D-12005. The purpose of this test is to obtain vehicle crashworthiness, occupant restraint system performance, lower leg data, and child seat research 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 Test Procedure, dated December 1999 and the corresponding MGA Research Corporation Test Procedure NHTSA3, dated January 5, 2001. 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, and reporting of test results are described in the test procedures and are not repeated in this report.

The test was conducted at MGA Research Corporation on March 16, 2001 at a speed of 56.3 km/h. The test vehicle was instrumented with nine (9) accelerometers to measure longitudinal axis accelerations. The driver's and passenger's restraint systems were instrumented with two (2) 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 sixteen (16) 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 four anthropomorphic test devices (ATDs). Two (2) part 572E 50th percentile adult male ATDs and two (2) part 572P 3 year old ATDs. Both adult 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 adult ATDs were positioned in the front outboard seating positions according to the dummy placement procedures specified in the Laboratory Indicant Test Procedure. Both child ATDs were instrumented with head, chest, and pelvic tri-axial accelerometers, and upper and lower neck load cells. The child ATDs were positioned according to the child seat manufacturer’s instructions. One hundred forty-three (143) channels of data were recorded with an EME on-board data acquisition system. The data was digitally sampled at 10,000 samples per second and processed per section IP11 of the Laboratory Test Procedure.

The driver (Serial No. 142) and the right-front passenger (Serial No. 192) were calibrated two tests prior to this test. FMVSS 208 "Occupant Crash Protection" injury criteria were not exceeded by either ATD during these frontal barrier impact tests.

1.3 SUMMARY OF FRONTAL IMPACT TEST

A rigid load cell barrier was impacted by a 2001 Ford Escape 4WD at a velocity of 56.3km/h. The test vehicle weight was 1769.0 kilograms with two (2) part 572E 50th percentile adult male ATDs and two (2) part 572P 3 year old ATDs. Six (6) load cell barrier data channels were obtained in conducting the NCAP Test. The test vehicle is equipped with a transverse mounted 3.0 liter, 6 cylinder engine and an automatic transmission.

The driver Head Injury Criteria (HIC) was 417. The maximum resultant chest deceleration over three (3) milliseconds was 42.0 g's. The left and right femur loads were 5017 and 3693 Newtons, respectively. Chest defection for the driver ATD peaked at 31 mm. The driver ATD head contacted the airbag and grab handle, its chest contacted the airbag , the abdomen contacted the steering wheel, and the left and right knees contacted the instrument panel.

The right front passenger's HIC was 597. The maximum resultant chest deceleration over three (3) milliseconds was 44.1 g's. The left and right femur loads were 5306 and 3693 Newtons, respectively. Chest defection for the passenger ATD peaked at 23 mm. The passenger ATD head contacted the airbag and grab handle, the chest and abdomen contacted the airbag, and the left and right knees contacted the glovebox.

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 469 mm located to the left of the vehicle centerline. Both the driver and passenger side doors opened without the aid of tools.

1.4 GENERAL COMMENTS

The 2001 Ford Escape 4WD 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 the dummy calibration data. Appendix D contains the instrumentation calibration data and Appendix E contains the owner's manual instructions for the occupant seating and restraint systems and Appendix F contains the child data and photos.

SECTION 2

OCCUPANT AND VEHICLE INFORMATION / DATA SHEETS

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

CONVERSION FACTORS USED IN THIS REPORT*

Quantity	Typical Application	Old 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 Pressure	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/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

PRIMARY IMPACT DATA

Measured Parameter	Units	Value
Velocity at Impact	km/h	56.3
Test Weight	kg	1769.0
Impact Angle	degrees	90
Average Rebound	mm	620
Maximum Static Crush	mm	469

DOOR OPENING AND SEAT TRACK INFORMATION

Description	Driver	Passenger
Front Door Opening	yes	yes
Rear Door Opening	yes	yes
Seat Track Shift (mm)	0	0
Seat Back Failure	none	none

TEST DUMMY INFORMATION

Description	Driver	Passenger
Dummy Type / Serial No.	HIII/142	HIII/192
Head Contact	airbag, grab handle	airbag, grab handle
Chest Contact	airbag	airbag
Abdomen Contact	steering wheel	airbag
Left Knee Contact	instrument panel	glovebox
Right Knee Contact	instrument panel	glovebox

16mm MOVIE COVERAGE

High Speed	1
Real Time	16
Total	17

Driver ATD Sensors	44
Passenger ATD Sensors	44
Belt Assessment Sensors	2
Vehicle Structure Accelerometers	9
Rigid Barrier Load Cells	6
Total	105

DATA SHEET NO. 2
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

TEST VEHICLE INFORMATION

Manufacturer	Ford Motor Company
Model	Escape
Body Style	4WD
NHTSA No.	M10213
VIN	1FMYU04181KA78540
Color	Tan
Delivery Date	March 2, 2001
Odometer Reading (mile)	11
Dealer	n/a
Transmission	Automatic
Final Drive	4WD
Number of Cylinders	6
Engine Displacement (L)	3.0
Engine Placement	Transverse

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	no
Anti-lock Brakes	yes
AM/FM/Cassette	yes
Anti-theft System	no
Cruise Control	yes

DATA FROM CERTIFICATION LABEL

Manufactured By	Ford Motor Company
Date of Manufacture	02/01

GVWR (kg)	2053
GAWR Front (kg)	1087
GAWR Rear (kg)	1051

DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	207	207
Cold Pressure (kPa)	207	207
Recommended Tire Size	P235/70R16	P235/70R16
Tire Size on Vehicle	P235/70R16	P235/70R16
Tire Manufacturer	Firestone	Firestone

Measured Parameter	Front	Rear	Third	Total
Type of Seats	bucket	bench		
Number of Occupants	2	3		5
Capacity Wt. (VCW) (kg)				407.8
Cargo Weight (RCLW) (kg)				67.6

DATA SHEET NO. 2...(continued)

GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)		
		Front Axle	Rear Axle	Total	Front Axle	Rear Axle	Total
Left	kg	477.2	309.5		516.7	368.3	
Right	kg	452.7	312.5		507.1	376.9	
Ratio	%	59.9	40.1		57.9	42.1	
Totals	kg	929.9	622.0	1551.9	1023.8	745.2	1769.0

TARGET TEST WEIGHT CALCULATION

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1551.9
Weight of 2 P572E ATDs	kg	156.0
Rated Cargo/Luggage Weight (RCLW)	kg	67.6
Calculated Vehicle Target Weight (TVTW)	kg	1775.5

TEST VEHICLE ATTITUDES AND CG

	Units	LF	RF	LR	RR	CG (aft of front axle)
As Delivered	mm	825	832	857	861	1048
As Tested	mm	811	815	834	841	1102
Post Test	mm	763	796	833	835	

Vehicle Wheelbase (mm): 2616

Weight of Ballast secured in cargo area (kg): 0

Vehicle Components Removed: Spare tire, rear bumper, exhaust system, taillights, rear wiper motor, and rear bumper cover

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

FUEL SYSTEM DATA

Fuel System Capacity From Owner's Manual (L): 61

Usable Capacity Figure Furnished by COTR (L): 61

Actual Test Volume (L): 16.7

Test Fluid Type: Stoddard Solvent ; Specific Gravity: 0.77

Is Vehicle Fuel Pump Electric or Mechanical?: electric

If electric, does pump operate with ignition switch "ON" & engine "OFF"?: no

Fuel System Particulars: The fuel pump operates when the starter or engine is activated.

DATA SHEET NO. 3

POST IMPACT DATA

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	55.5 - 57.1	56.3
Trap No. 1 Entry Distance	mm	<1524	1300
Trap No. 1 Exit Distance	mm	<1524	300
Trap No. 2 Velocity (Redundant)	km/h	55.5 - 57.1	56.3
Trap No. 2 Entry Distance	mm	<1524	1425
Trap No. 2 Exit Distance	mm	<1524	425

VEHICLE STATIC CRUSH

Measured Parameter	Units	Pre-Test	Post-Test	Difference
Left Side	mm	4139	3781	358
Center	mm	4245	3793	452
Right Side	mm	4141	3814	327

VEHICLE REBOUND FROM BARRIER

Measured Parameter	Units	Value
Left Side	mm	620
Center	mm	618
Right Side	mm	622
Average	mm	620

DATA SHEET NO. 4

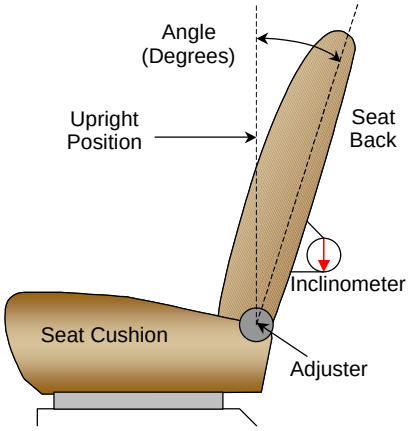
TEST VEHICLE INFORMATION

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

NORMAL DESIGN RIDING POSITION

The driver and passenger seat back is positioned to the manufacturer's designated angle. The procedure is as follows: Locate the point 370 mm above the seat back pivot point measured along the seat back. Cut the seat back surface by not more than 150 mm along the seat frame at this point. Measure the angle at this point by the inclinometer. Set the seat back angle to 17.5 degrees. Adjust the seat back to the 5th latch from the first detent as "'0".



FRONT SEAT ASSEMBLY

Driver seat back angle: 5th latch, 1st as 0, 17.3 deg.

Passenger seat back angle: 5th latch, 1st as 0, 17.2 deg.

SEAT FORE/AFT POSITIONS

The driver seat is power operated and the passenger seat is manually operated. The total travel on the driver is 240 mm and the passenger is 25 seat positions. The fore/aft position is set at the middle position for both driver and passenger.

Driver seat fore/aft total travel: 240 mm

Passenger seat fore/aft total travel: 25 positions

Driver seat fore/aft position: 120 mm of 240 mm total

Passenger seat fore/aft position: 13 detent of 25 total, 1st as 1

SEAT BELT UPPER ANCHORAGE

The test vehicle is equipped with adjustable anchorages for both the driver and passenger seat positions. There are 4 positions or detents. The anchorages are placed in the full up position.

DATA SHEET NO. 4...(continued)

TEST VEHICLE INFORMATION

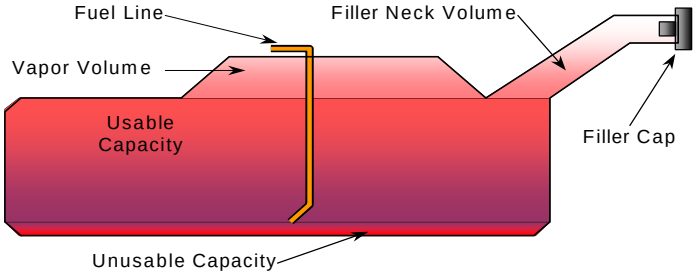
Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

FUEL TANK CAPACITY DATA

The "Usable Capacity" of the standard equipment fuel tank is:	61	liters
The "Usable Capacity" of any optional equipment fuel tank is:	N/A	liters
The "Usable Capacity" used for certification to FMVSS 301 requirements:	61	liters
Actual amount of Stoddard solvent added to vehicle for certification test:	16.7	liters

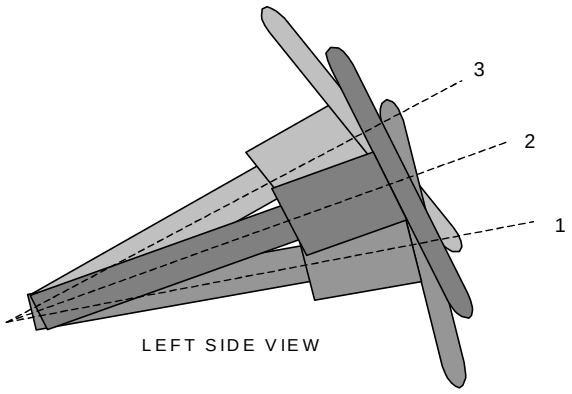
The test vehicle is equipped with an electric fuel pump. The fuel pump operates only when the starter or engine is activated. The fuel filler door is located on the left rear fender.



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. A metal plate is placed across the rim of the steering wheel, and inclinometer is placed onto the plate and the angle is measured.



STEERING COLUMN ASSEMBLY

Lowermost, position 1:	24.8°
Geometric center, position 2:	27.2°
Uppermost, position 3:	29.6°

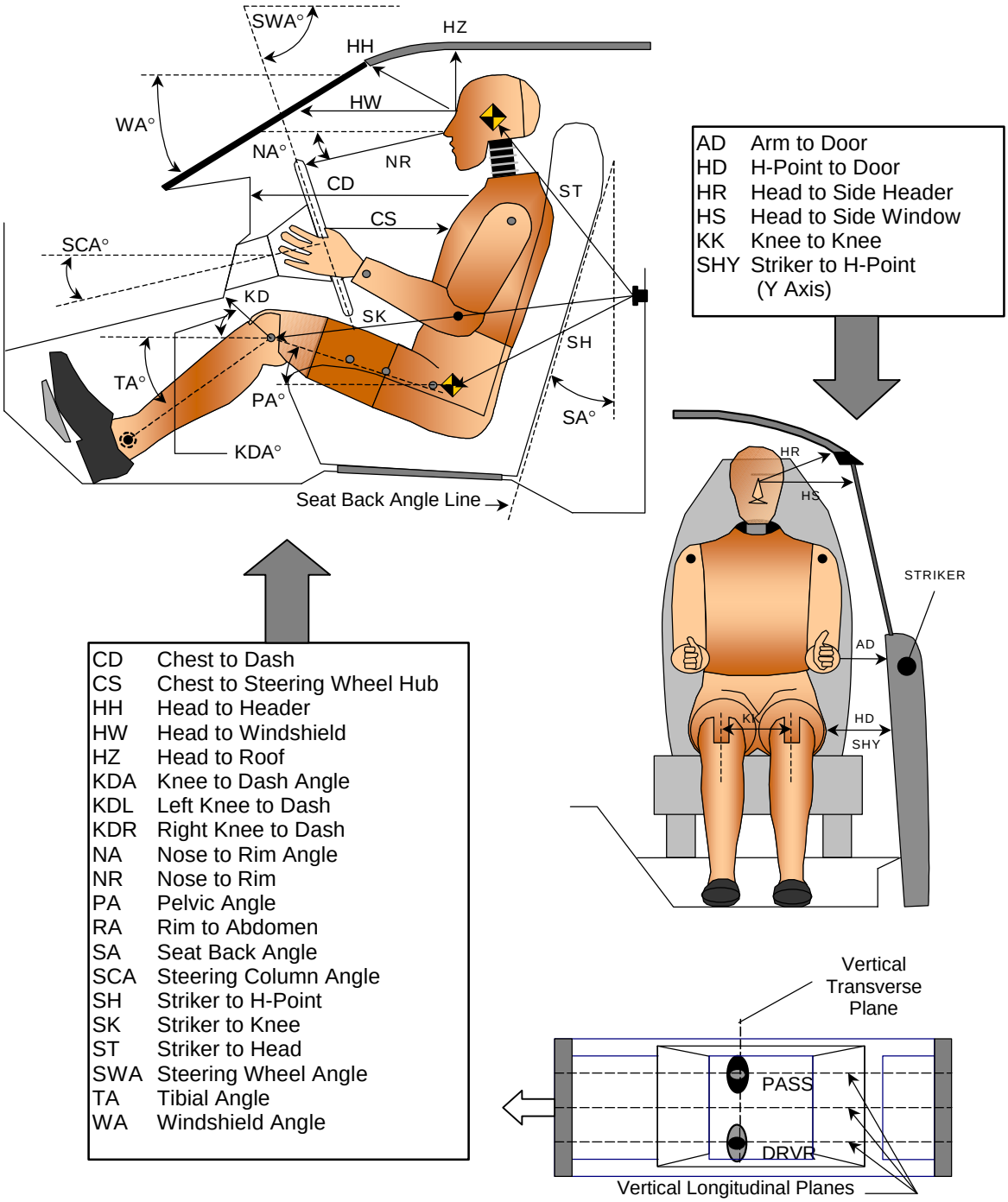
DATA SHEET NO. 5

DUMMY POSITIONING IN VEHICLE

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

DUMMY MEASUREMENTS FOR FRONT SEAT OCCUPANTS



DATA SHEET NO. 5...(continued)

DUMMY POSITIONING IN VEHICLE

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

TEST DUMMY POSITION MEASUREMENTS

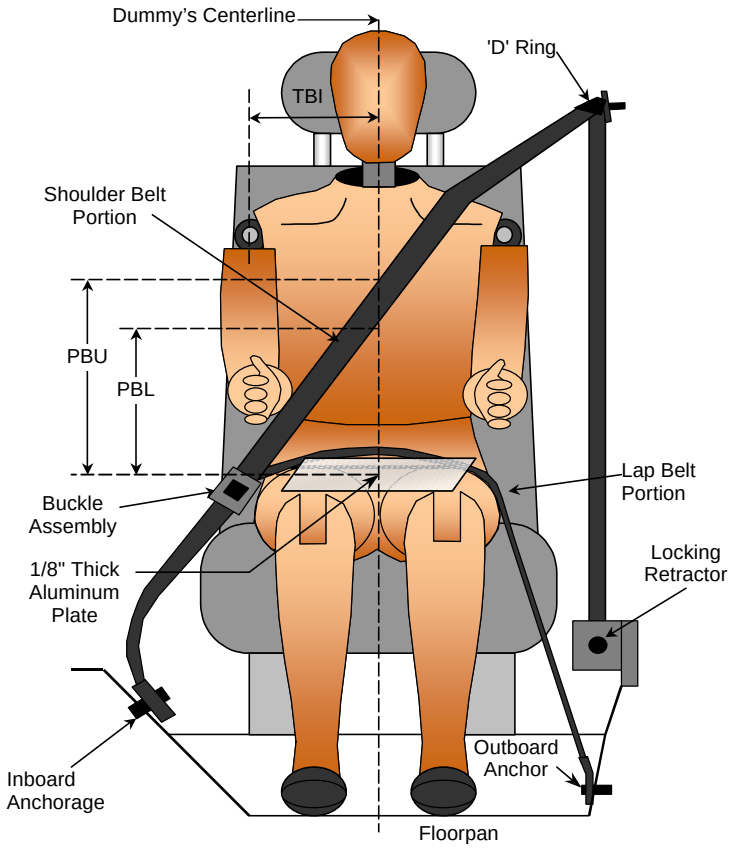
Code	Measurement Description	Driver		Passenger	
		Length (mm)	Angle (°)	Length (mm)	Angle (°)
WA	Windshield Angle		36.6		
SWA	Steering Wheel Angle		62.7		
SCA	Steering Column Angle		26.9		
SA	Seat Back Angle		17.3		17.2
HZ	Head to Roof (Z)	237	90.0	238	90.0
HH	Head to Header	368	26.3	358	27.3
HW	Head to Windshield	596	0.0	589	0.0
HR	Head to Side Header (Y)	245		242	
NR	Nose to Rim	409	16.5		
CD	Chest to Dash	533		543	
CS	Chest to Steering Hub	320	14.3		
RA	Rim to Abdomen	168	0.0		
KDL	Left Knee to Dash	107	0.0	91	
KDR	Right Knee to Dash	83		101	0.0
PA	Pelvic Angle		23.9		24.0
TA	Tibia Angle		50.1		55.6
KK	Knee to Knee (Y)	365		235	
SK	Striker to Knee	594	88.8	582	87.1
ST	Striker to Head	558	11.6	538	9.4
SH	Striker to H-Point	232	106.2	218	115.8
SHY	Striker to H-Point (Y)	202		226	
HS	Head to Side Window	295		308	
HD	H-Point to Door (Y)	151		141	
AD	Arm to Door (Y)	88		105	
AA	Ankle to Ankle	307		205	

DATA SHEET NO. 6

SEAT BELT POSITIONING DATA

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001



SEAT BELT POSITIONING MEASUREMENTS

Measurement Description	Units	Driver	Passenger
TBI - Dummy centerline to shoulder bolt	mm	184	182
PBU - Top surface of reference to belt upper edge	mm	327	325
PBL - To surface of reference to belt lower edge	mm	244	240

DATA SHEET NO. 7

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

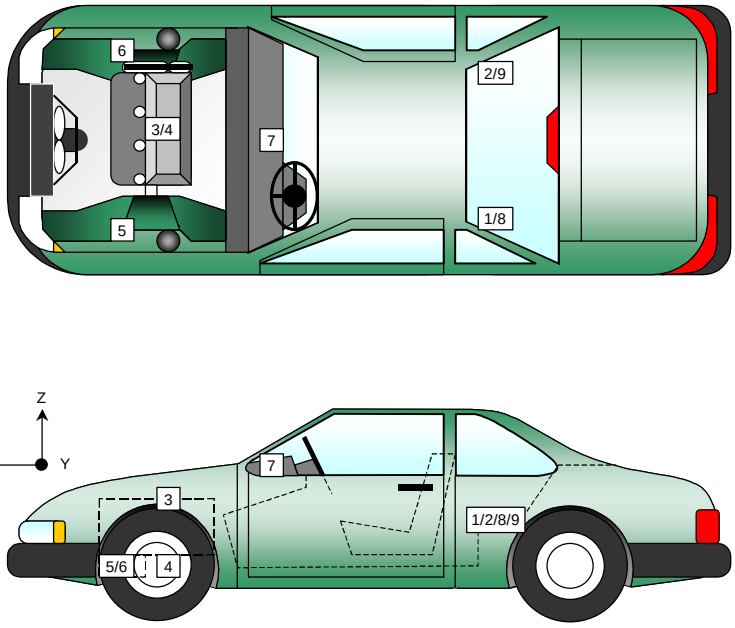
VEHICLE X-AXIS ACCELEROMETER PEAK DATA AND PRE-TEST LOCATIONS

No.	Accelerometer Location	Measurements (mm)			Peak Values				
		X	Y	Z	Units	Max	Time	Min	Time
1	Left Rear X-Member (Primary) **	1547	-498	582	G's	0.4	1	44.4	30
2	Right Rear X-Member (Primary)	1547	498	582	G's	2.2	100	51.5	31
3	Engine Top	3679	0	925	G's	72.7	33	169.0	24
4	Engine Bottom	3532	126	262	G's	13.0	33	172.3	26
5	Left Brake Caliper	3488	-688	308	G's	32.2	62	97.8	35
6	Right Brake Caliper	3532	688	308	G's	34.0	59	104.9	39
7	Instrument Panel	2726	0	1218	G's	16.5	76	77.3	47
8	Left Rear X-Member (Redundant)	1547	-498	582	G's	1.4	116	43.6	30
9	Right Rear X-Member (Redundant)	1547	498	582	G's	1.7	100	47.2	31

Reference Points: X - From Rear Surface of Vehicle (+ forward) ** No valid data after 70 msec

Y - Vehicle Centerline (+ to right)

Z - Ground Plane (+ up)



DATA SHEET NO. 8

HYBRID III ATD INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

HEAD PRIMARY PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	1.8	189	44.9	77	2.6	34	50.3	73
Head CG	Y	G's	3.0	37	18.9	81	4.7	32	11.0	50
Head CG	Z	G's	29.4	59	2.5	96	38.5	73	2.1	25
Head CG Resultant	N/A	G's	49.3	76			63.3	73		

CHEST PRIMARY PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Chest CG	X	G's	1.7	164	40.0	60	1.1	159	45.4	67
Chest CG	Y	G's	3.2	98	6.8	49	4.8	47	3.8	66
Chest CG	Z	G's	14.6	60	13.4	97	15.8	57	10.4	113
Chest CG Resultant	N/A	G's	42.7	60			45.7	67		

FEMUR PEAK FORCES

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Left Femur	Z	Newtons	261	131	5017	38	254	112	5306	46
Right Femur	Z	Newtons	206*	27	3693*	36	346	95	3693	54

***** No valid data after 60 msec.

SEAT BELT SENSOR PEAK VALUES

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Lap Belt Force	N/A	Newtons	8061	57			7790	51		
Shoulder Belt Force	N/A	Newtons	**	**			**	**		

** Not recorded at vehicle manufacturers request

HEAD INJURY CRITERIA (HIC)

Location	Driver				Passenger			
	HIC	Avg G's	T^1	T^2	HIC	Avg G's	T^1	T^2
Head CG Primary	417	42.2	51.9	87.9	597	48.7	58.4	94.4

CHEST CLIP (3MSEC)

Location	Driver			Passenger		
	CLIP	T^1	T^2	CLIP	T^1	T^2
Chest CG Primary	42.0	58.1	61.2	44.1	65.4	68.5

DATA SHEET NO. 8...(continued)

HYBRID III ATD INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

PELVIC PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Pelvis	X	G's	4.3	110	88.9	38	4.3	110	80.7	46
Pelvis	Y	G's	8.4	93	11.6	48	8.7	46	7.4	86
Pelvis	Z	G's	3.8	180	18.4	38	1.4	199	19.8	63

UPPER NECK PEAK FORCES AND MOMENTS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Neck Force	X	Newtons	21	200	598	78	487	66	477	121
Neck Force	Y	Newtons	155	63	238	117	249	73	95	132
Neck Force	Z	Newtons	2708	66	130	138	1605	61	429	104
Neck Moment	X	N•m	5.9	152	26.3	111	4.2	81	10.8	88
Neck Moment	Y	N•m	45.4	139	54.6	79	36.8	90	15.3	49
Neck Moment	Z	N•m	18.1	95	12.4	146	15.4	86	6.4	131

FOOT PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Left Foot Aft	X	G's	25.1	76	57.8	41	55.6	79	183.2	44
Left Foot Aft	Z	G's	6.1	44	36.3	39	35.1	72	65.5	47
Left Foot Fore	Z	G's	83.5	45	129.9	38	140.6	72	121.5	40
Right Foot Aft	X	G's	24.2	81	180.1	46	80.5	83	138.9	36
Right Foot Aft	Z	G's	23.5	61	184.9	46	18.5	73	99.9	49
Right Foot Fore	Z	G's	48.8	54	263.1	45	145.7	42	316.4	35

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	17.2	41	119.3	52	22.5	70	27.0	48
Left Lower Moment	Y	N•m	71.6	76	89.8	45	138.5	74	21.5	112
Left Lower Force	Z	Newtons	4198	48	306	35	2065	81	658	53
Left Upper Moment	X	N•m	36.7	62	40.8	42	17.9	186	53.3	49
Left Upper Moment	Y	N•m	59.3	35	206.5	48	122.6	51	5.9	64
Left Upper Force	Z	Newtons	2963	48	219	41	2750	47	241	113
Right Lower Moment	X	N•m	75.8	46	16.1	27	29.1	84	10.0	68
Right Lower Moment	Y	N•m	60.3	73	27.2	40	242.8	83	74.1	36
Right Lower Force	Z	Newtons	2790	75	142	39	3767	84	211	39
Right Upper Moment	X	N•m	20.8	108	61.6	62	77.9	53	36.9	79
Right Upper Moment	Y	N•m	72.9	36	110.3	45	61.6	32	11.7	95
Right Upper Force	Z	Newtons	2267	76	524	39	2788	84	170	156

DATA SHEET NO. 8...(continued)

HYBRID III ATD INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

CHEST PEAK DISPLACEMENTS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Chest CG	X	mm			31.1	73			23.4	77

HEAD REDUNDANT PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	1.9	189	45.3	74	4.3	34	51.0	72
Head CG	Y	G's	3.6	35	17.9	95	4.2	30	7.7	80
Head CG	Z	G's	29.3	60	2.8	140	38.1	73	2.1	122
Head CG Resultant	N/A	G's	49.0	74			63.6	73		

CHEST REDUNDANT PEAK ACCELERATIONS

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Chest CG	X	G's	1.6	163	39.5	60	1.1	159	45.0	67
Chest CG	Y	G's	3.0	98	6.0	50	5.5	45	3.4	66
Chest CG	Z	G's	13.1	60	13.3	97	15.0	58	10.5	113
Chest CG Resultant	N/A	G's	41.8	60			45.2	67		

REDUNDANT HEAD INJURY CRITERIA (HIC)

Location	Driver				Passenger			
	HIC	Avg G's	T^1	T^2	HIC	Avg G's	T^1	T^2
Head CG Primary Redundant	408	41.9	51.8	87.8	602	48.9	58.8	94.8

REDUNDANT CHEST CLIP (3MSEC)

Location	Driver			Passenger		
	CLIP	T^1	T^2	CLIP	T^1	T^2
Chest CG Primary Redundant	40.5	58.3	61.4	43.8	65.4	68.5

DATA SHEET NO. 9

SEAT BELT PERFORMANCE ASSESSMENT TEST DATA

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

SEAT BELT PLACEMENT MEASUREMENTS

Measurement Description	Units	Driver	Passenger
TBI - Dummy centerline to shoulder bolt	mm	184	182
PBU - Top surface of reference to belt upper edge	mm	327	325
PBL - Top surface of reference to belt lower edge	mm	244	240

BELT LENGTH DATA

Measurement Description	Units	Driver	Passenger
Retractor reel to "D" ring	mm	227	232
Shoulder belt length as measured on ATD	mm	863	853
Lap belt length as measured on ATD	mm	825	823
Total belt length for continuous webbing systems	mm	1915	1908

SHOULDER BELT SPOOL-OUT DATA

Measurement Description	Units	Driver	Passenger
As determined mechanically	mm	**	**
As determined electronically	mm	**	**

** Not recorded at vehicle manufacturer's request

DATA SHEET NO. 10

SUMMARY OF FMVSS 212 DATA

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

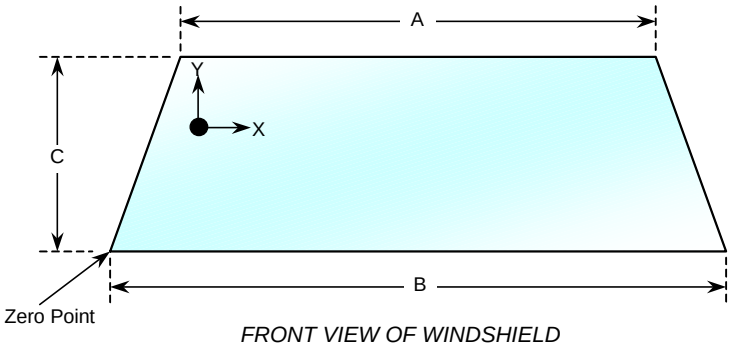
Windshield Mounting Details:
Windshield glass is secured to the vehicle frame with a rubber trim and glue.

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 °C

WINDSHIELD PERIPHERY MEASUREMENTS

Measurement	Pre-Test (mm)	Post-Test (mm)	% of Retention
Left Side	2032	2032	100
Right Side	2032	2032	100
Total	4064	4064	100



FRONT VIEW OF WINDSHIELD

WINDSHIELD DIMENSIONS

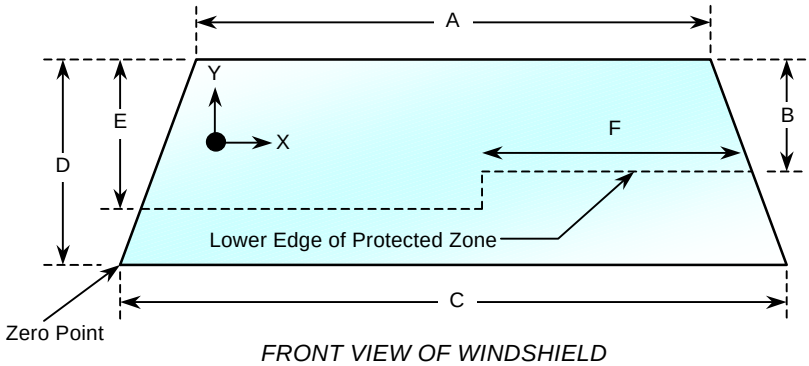
Item	Units	Segment Length	Molding Width
A	mm	1184	16
B	mm	1468	n/a
C	mm	706	16

DATA SHEET NO. 11

WINDSHIELD ZONE INTRUSION FMVSS 219 (Partial) DATA

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001



FRONT VIEW OF WINDSHIELD

Item	Units	Value
A	mm	1184
B	mm	462
C	mm	1468
D	mm	706
E	mm	491
F	mm	527

AREA OF PROTECTED ZONE FAILURES - NONE

A. Provide coordinates of the area that the protected zone was penetrated more than 0.25 inches by a vehicle component other than one that is normally in contact with the windshield. **None**

X	Y

B. Provide coordinates of the area beneath the protected zone that the inner surface of the windshield was penetrated by a vehicle component. **None**

X	Y

DATA SHEET NO. 12

FMVSS 301 FUEL SYSTEM INTEGRITY POST IMPACT DATA

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

Test Time: 11:35 p.m. Temperature at Time of Impact: 21°C

Stoddard Solvent Spillage Measurements

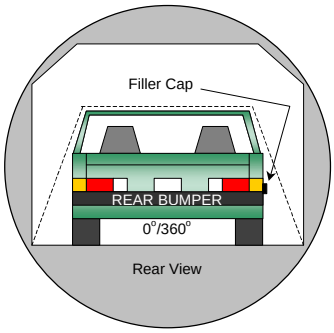
A.	From impact until vehicle motion ceases: (Maximum Allowable = 1 ounce)	0 oz.
B.	For the 5 minute period after motion ceases: (Maximum Allowable = 5 ounces)	0 oz.
C.	For the following 25 minutes: (Maximum Allowable = 1 oz./minute)	0 oz.
D.	Spillage Details:	None

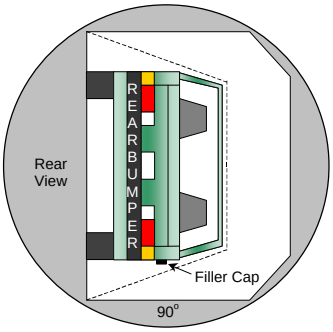
DATA SHEET NO. 13

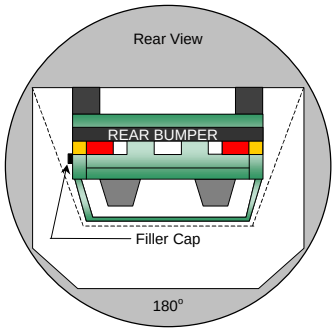
FMVSS 301 STATIC ROLLOVER DATA

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

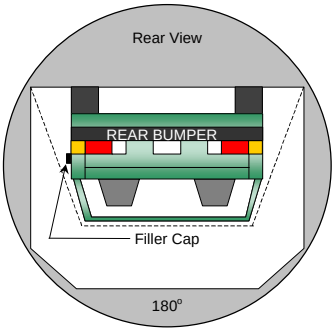
Test Program: NCAP Test Date: March 16, 2001

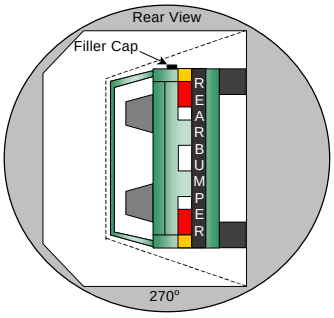


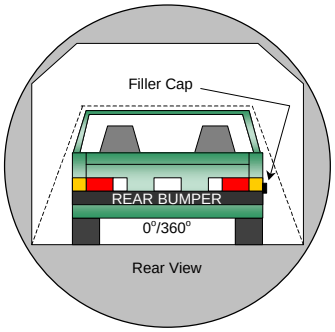




0° TO 90° 90° TO 180°







180° TO 270° 270° TO 360°

1. The specified fixture rollover rate for each 90° of rotation is 60 to 180 seconds.
2. The position hold time at each position is 300 seconds (minimum).
3. Details of Stoddard Solvent spillage locations: **None**

Test Phase	Rotation Time (sec.)	Hold Time (sec.)	Spillage (oz.)
0° TO 90°	168	300	0
90° TO 180°	150	300	0
180° TO 270°	137	300	0
270° TO 360°	159	300	0

DATA SHEET NO. 14

VEHICLE MEASUREMENTS

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

No.	Measurement Description	Units	Pre-Test	Post-Test	Difference
1	Total length of vehicle at centerline	mm	4245	3793	452
2	RSOV to front of engine	mm	3889	3519	370
3	RSOV to firewall centerline	mm	3274	3200	74
4	RSOV to leading edge of right door	mm	2889	2886	3
5	RSOV to leading edge of left door	mm	2872	2872	0
6	RSOV to lower leading edge of right door	mm	2835	2826	9
7	RSOV to lower leading edge of left door	mm	2824	2824	0
8	RSOV to upper leading edge of right door	mm	1844	1826	18
9	RSOV to upper leading edge of left door	mm	1851	1829	22
10	RSOV to lower trailing edge of right door	mm	1854	1844	10
11	RSOV to lower trailing edge of left door	mm	1849	1838	11
12	RSOV to bottom of right 'A' pillar	mm	2811	2810	1
13	RSOV to bottom of left 'A' pillar	mm	2800	2800	0
14	RSOV to firewall on right side	mm	3306	3217	89
15	RSOV to firewall on left side	mm	3316	3257	59
16	RSOV to steering column	mm	2429	2413	16
17	Center of steering column to left 'A' pillar	mm	413	444	-31
18	Center of steering column to headlining	mm	475	528	-53
19	RSOV to right side of front bumper	mm	4141	3814	327
20	RSOV to left side of front bumper	mm	4139	3781	358
21	Length of engine block	mm	495	495	0
RD	RSOV to right side of dash panel	mm	2615	2614	1
CD	RSOV to center of dash panel	mm	2669	2641	28
LD	RSOV to left side of dash panel	mm	2618	2603	15

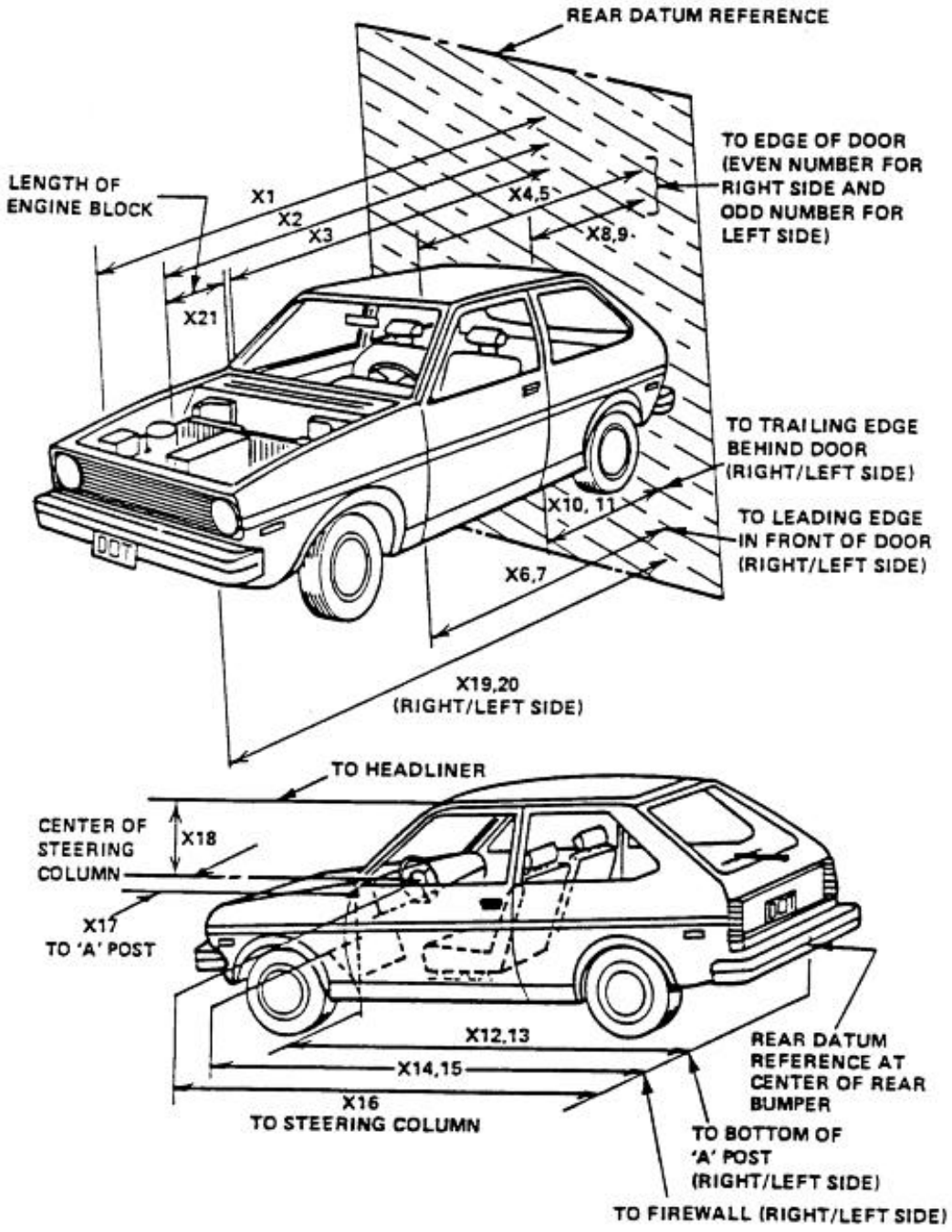
RSOV = Rear Surface of Vehicle

DATA SHEET NO. 14...(cont'd)

VEHICLE MEASUREMENTS

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001



DATA SHEET NO. 15

CAMERA LOCATIONS

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

No.	Camera View	Location (mm) *			Lens (mm)	Speed (fps)
		X	Y	Z		
1	Real-Time Left Side View				13-75	32
2	Left Front View	1000	-1400	1560	25	1005
3	Steering Column Top	2000	-8280	1560	25	1036
4	Steering Column Bottom	2000	-8280	1030	25	840
5	Driver Close-up	1400	-10260	1470	75	957
6	Driver Angle	5000	-5180	2030	50	1130
7	Onboard Driver				8	513
8	Onboard Passenger				7.5	512
9	Right Overall	2000	6770	1610	13	1064
10	Right Passenger Half	1000	7520	1570	25	870
11	Right Close-up	1450	8100	1550	50	1015
12	Right Angle	5000	5680	2130	50	1117
13	Windshield	-450	0	2310	13	1015
14	Top Driver	70	-440	1780	13	1005
15	Top Passenger	80	400	1780	13	**
16	Pit Front	920	0	-3200	13	1005
17	Pit Rear	2240	0	-3200	12	1005

*COORDINATES:

+X = film plane rearward of barrier

+Y = film plane to right of monorail centerline

+Z = film plane to above ground level

ORIGIN: For X and Y it is the Impact Point. For Z it is the Floor.

** No timing marks.

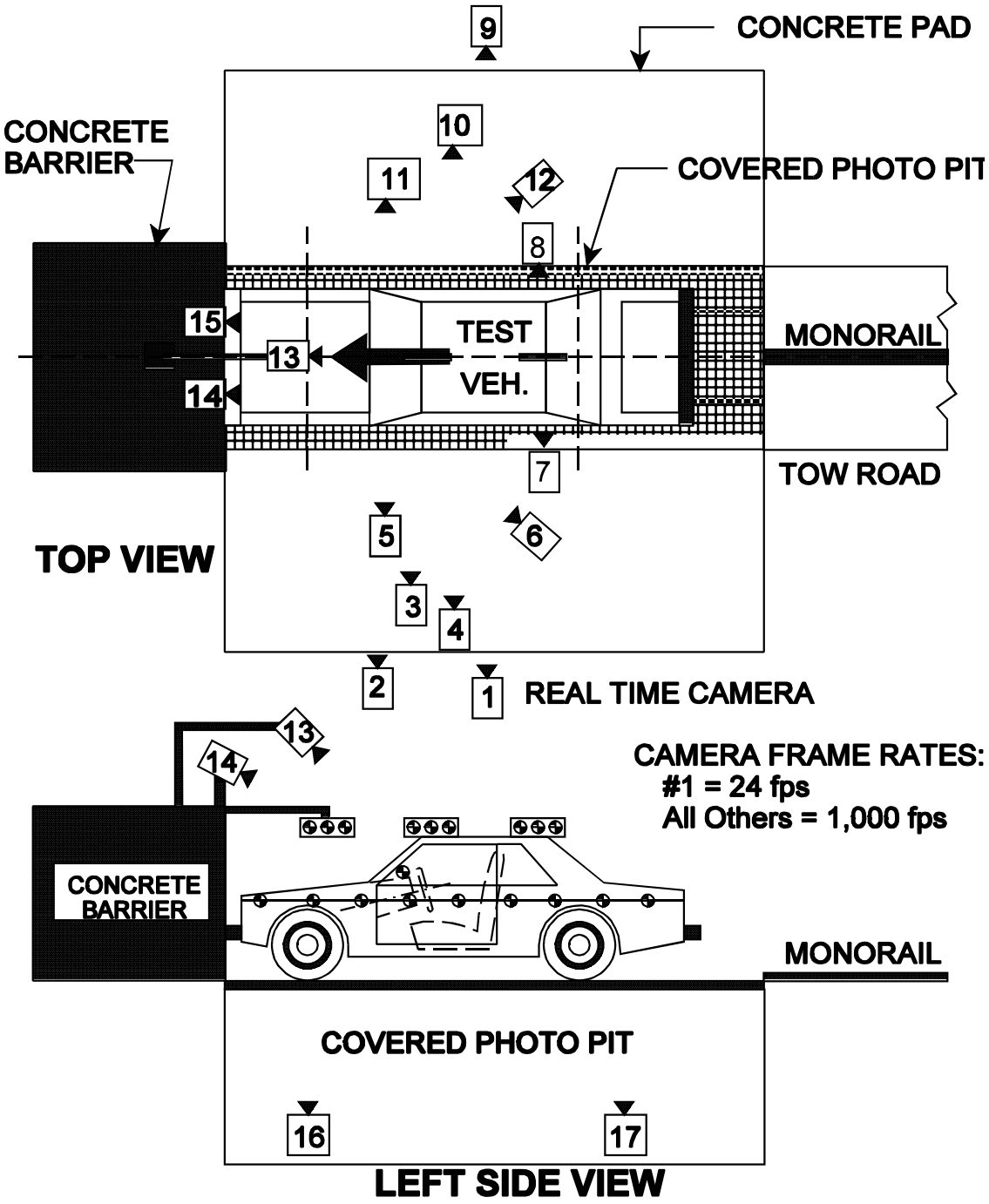
DATA SHEET NO. 15...(continued)

CAMERA LOCATIONS

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

CAMERA POSITIONS FOR FRONTAL IMPACTS



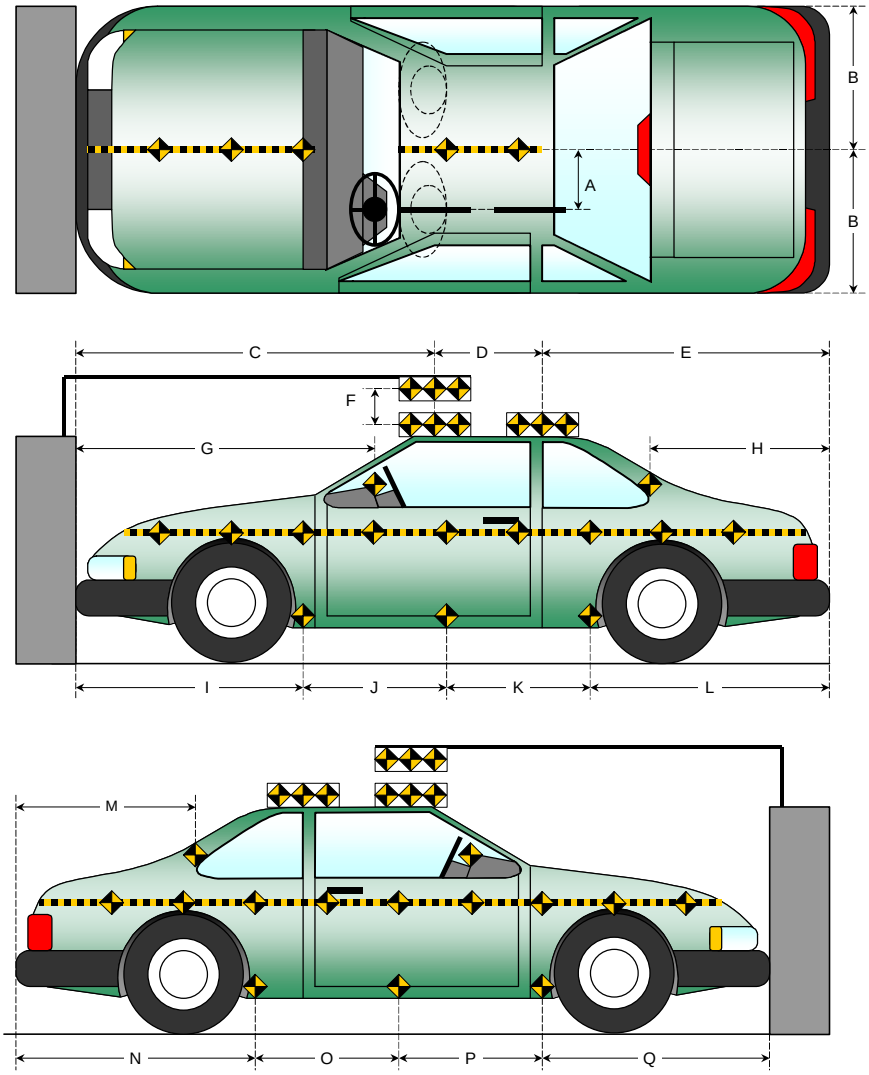
DATA SHEET NO. 16

PHOTOGRAPHIC REFERENCE TARGET LOCATIONS

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

Item	Value
A	389
B	868
C	2053
D	609
E	1583
F	305
G	1589
H	810
I	1327
J	840
K	840
L	1238
M	818
N	1323
O	845
P	845
Q	1232



DATA SHEET NO. 17

VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

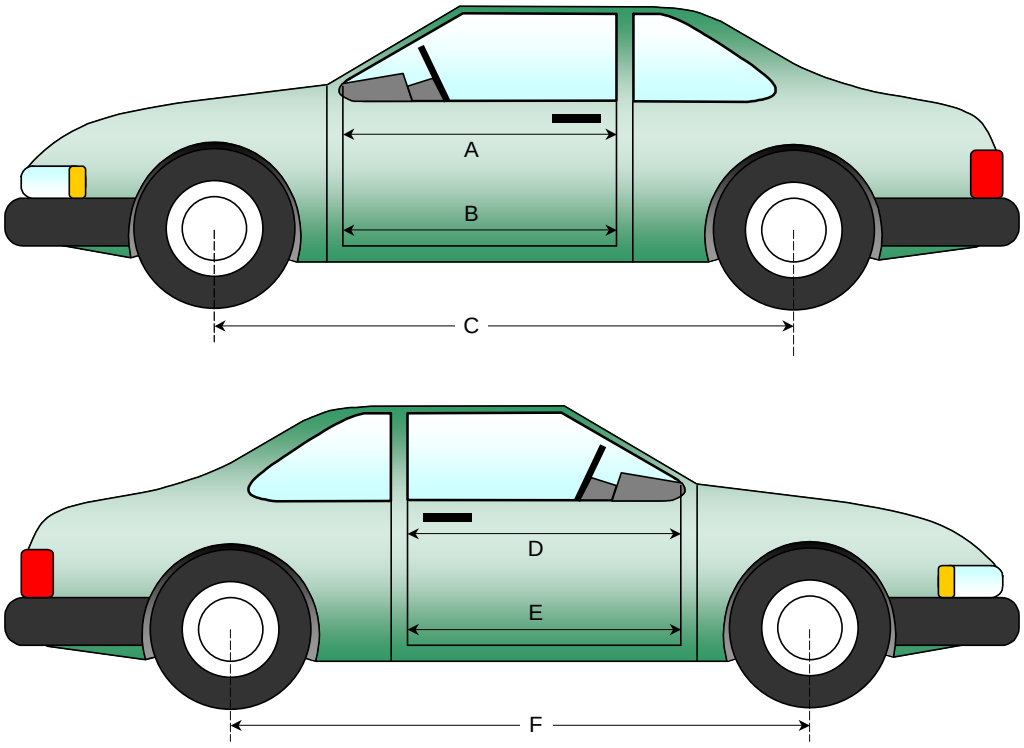
Test Program: NCAP Test Date: March 16, 2001

DOOR OPENING WIDTH

Item	Description	Units	Pre-Test	Post-Test	Difference
A	Left Side Upper	mm	947	943	4
B	Left Side Lower	mm	887	884	3
D	Right Side Upper	mm	913	907	6
E	Right Side Lower	mm	893	876	17

WHEELBASE MEASUREMENTS

Item	Description	Units	Pre-Test	Post-Test	Difference
C	Left Side Wheelbase	mm	2616	2584	32
F	Right Side Wheelbase	mm	2616	2589	27



DATA SHEET NO. 17...(continued)

VEHICLE INTRUSION MEASUREMENTS

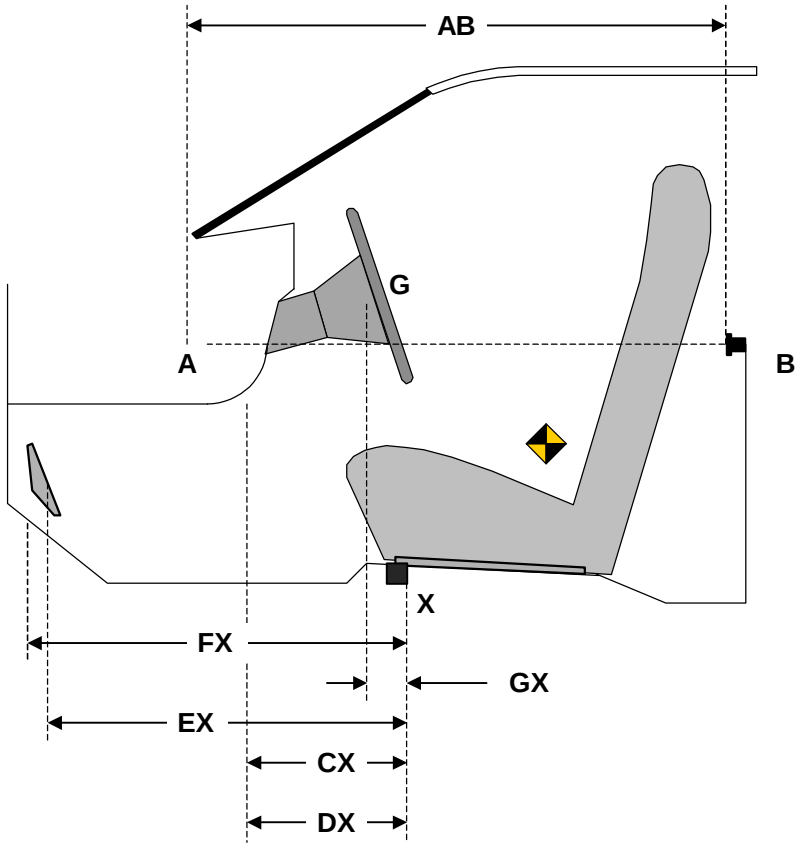
Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

DRIVER COMPARTMENT INTRUSION

Item	Description	Units	Pre-Test	Post-Test	Difference
AB	Door Opening (Inside window jam)	mm	947	943	4
CX	Left Knee Bolster to X	mm	288	250	38
DX	Right Knee Bolster to X	mm	291	274	17
EX	Brake Pedal to X	mm	545	440	105
FX	Foot Rest to X	mm	560	522	38
GX	Center of Steering Column Wheel Hub to X	mm	81	72	9

X = Left Front Seat Front Outboard Anchor Bolt Head



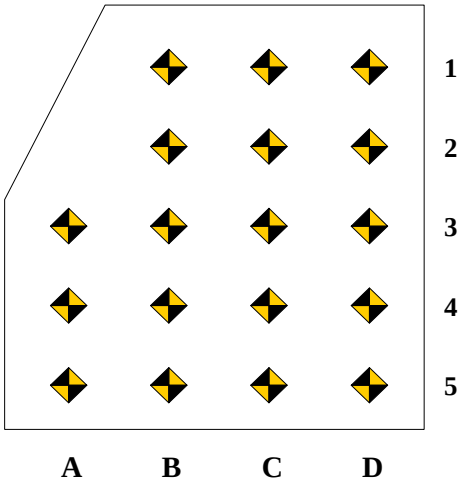
DRIVER COMPARTMENT

DATA SHEET NO. 17...(continued)

VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001



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		715	725	735		570	610	645		145	115	90
2		653	653	653		566	574	607		87	79	46
3	560	560	560	560	560	551	558	574	0	9	2	-14
4	460	460	460	460	462	464	450	465	-2	-4	10	-5
5	360	360	360		363	361	350		-3	-1	10	

DRIVER FLOOR PAN Z-AXIS

	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1		-52	-50	-45		130	130	100		182	180	145
2		10	18	20		30	30	10		20	12	-10
3	48	48	45	50	51	65	72	56	3	17	27	6
4	45	50	45	42	52	52	59	49	7	2	14	7
5	30	44	40		42	42	49		12	-2	9	

DATA SHEET NO. 17...(continued)

VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

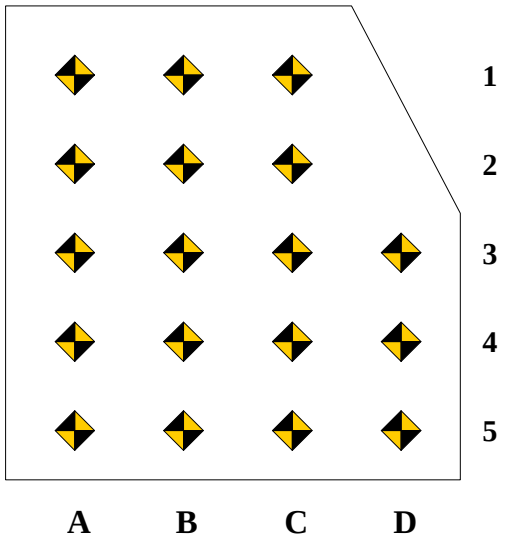
Test Program: NCAP Test Date: March 16, 2001

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	730	723	716		662	642	591		68	81	125	
2	653	653	653		616	590	587		37	63	66	
3	560	560	560	560	560	560	556	560	0	0	4	0
4	460	460	460	460	464	465	460	460	-4	-5	0	0
5		360	360	360		360	360	360		0	0	0

PASSENGER FLOOR PAN Z-AXIS

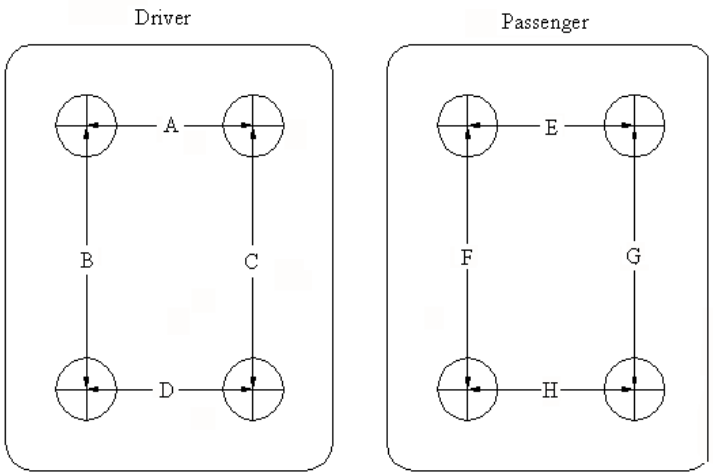
	Pre-Test				Post-Test				Difference			
	A	B	C	D	A	B	C	D	A	B	C	D
1	-62	-54	-63		117	120	139		179	174	202	
2	3	3	3		60	64	49		57	61	46	
3	40	40	38	38	-36	-60	-53	-37	-76	-100	-91	-75
4	40	38	36	36	-32	-51	-43	-28	-72	-88	-79	-64
5		35	40	40		-40	-31	-27		-75	-71	-67

DATA SHEET NO. 17...(continued)

VEHICLE INTRUSION MEASUREMENTS

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001



UNDERBODY FLOORBOARD DEFORMATION

MEASUREMENT	PRE TEST	POST TEST	DIFFERENCE
A	244	243	1
B	322	321	1
C	228	227	1
D	243	256	-13
E	191	190	1
F	222	224	2
G	248	230	18
H	222	225	-3

DATA SHEET NO. 18

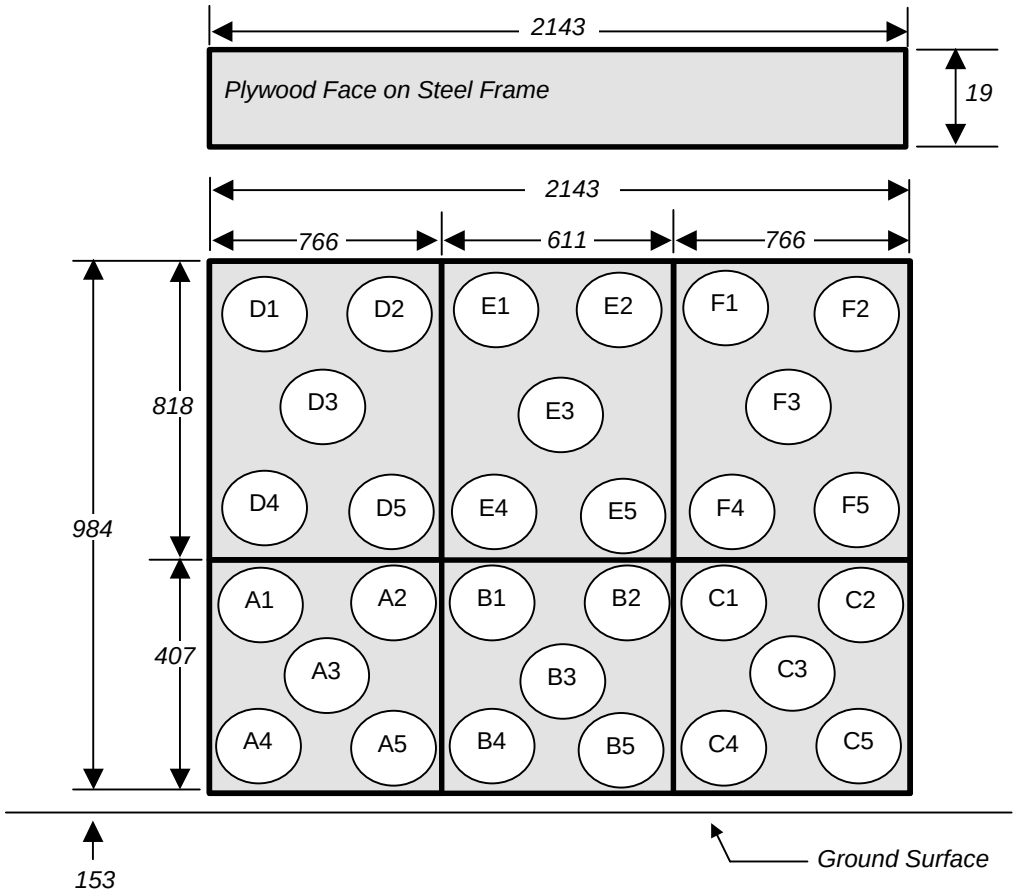
LOAD CELL LOCATIONS ON FIXED BARRIER

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

30 Load Cell Rigid Barrier

Load Cell Locations on Fixed Barrier



Group 4 D1-D5	Group 5 E1-E5	Group 6 F1-F5
Group 1 A1-A5	Group 2 B1-B5	Group 3 C1-C5

6 Groups of 5 Load Cells Each

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

1. Data from 30 individual load cells
2. Sum data from 6 groupings shown above (5 cells/group)
3. Total or sum of all 30 individual load cells

DATA SHEET NO. 19

ACCIDENT INVESTIGATION DIVISION DATA

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

VEHICLE INFORMATION

VIN: 1FMYU04181KA78540 Wheelbase (mm): 2616

Vehicle Size Category: SUV Test Weight (kg): 1769.0

ACCELEROMETER DATA

Accelerometer Locations: As per measurements on page 13

Cal. Procedure/Interval: MGA procedure / 6 month

Integration Algorithm: Trapezoidal Linearity: >99.9%

Impact Velocity (km/h): 56.3

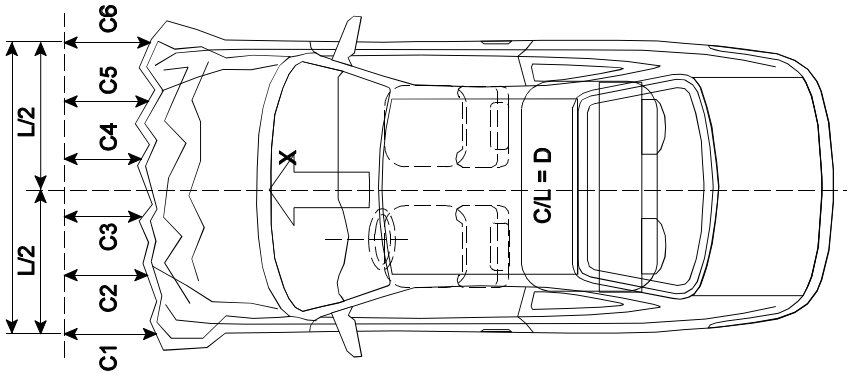
Velocity Change (km/h): 62.6 Time of Separation (msec): 107

CRUSH PROFILE

Collision Deformation Classification: Frontal Midpoint of Damage: Centerline

Damage Region Length (mm): 1517 Impact Mode: Frontal

No.	Measurement Description	Units	Pre-Test	Post-Test	Difference
C1	Crush zone 1 at left side	mm	4139	3781	358
C2	Crush zone 2 at left side	mm	4228	3759	469
C3	Crush zone 3 at left side	mm	4239	3775	464
C4	Crush zone 4 at right side	mm	4241	3803	438
C5	Crush zone 5 at right side	mm	4232	3774	458
C6	Crush zone 6 at right side	mm	4141	3814	327

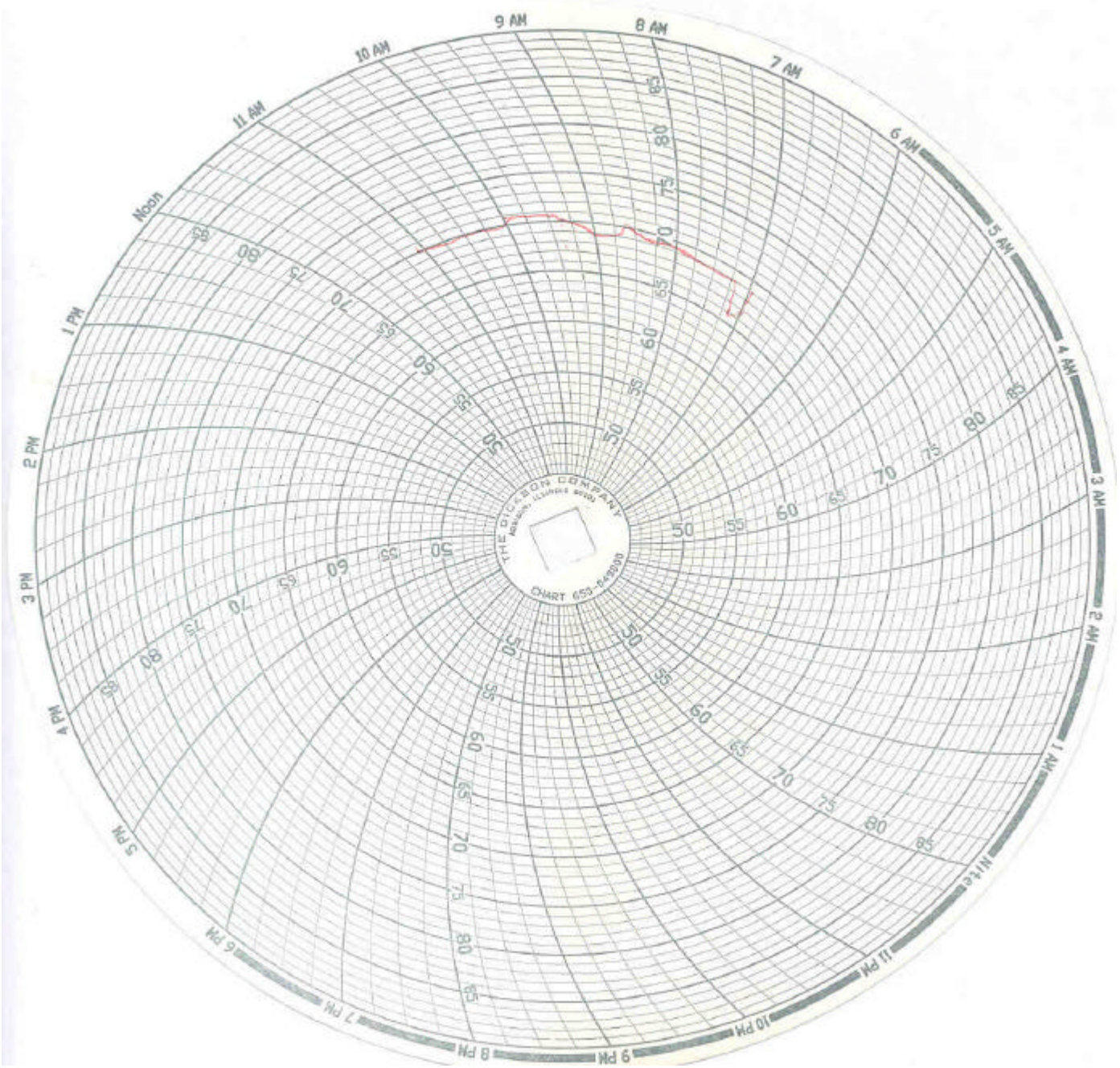


DATA SHEET NO. 20

DUMMY / VEHICLE TEMPERATURE STABILIZATION CHART

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001



A = Dummies installed in vehicle at 7:00 a.m.

B = Test conducted at 11:35 p.m.

APPENDIX A

PHOTOGRAPHS

TABLE OF PHOTOGRAPHS

TABLE OF PHOTOGRAPHS (Cont'd)

Photo No. A-1 - Pre-Test Front View of Test Vehicle

Photo No. A-2 - Post-Test Front View of Test Vehicle

Photo No. A-3 - Pre-Test Rear View of Test Vehicle

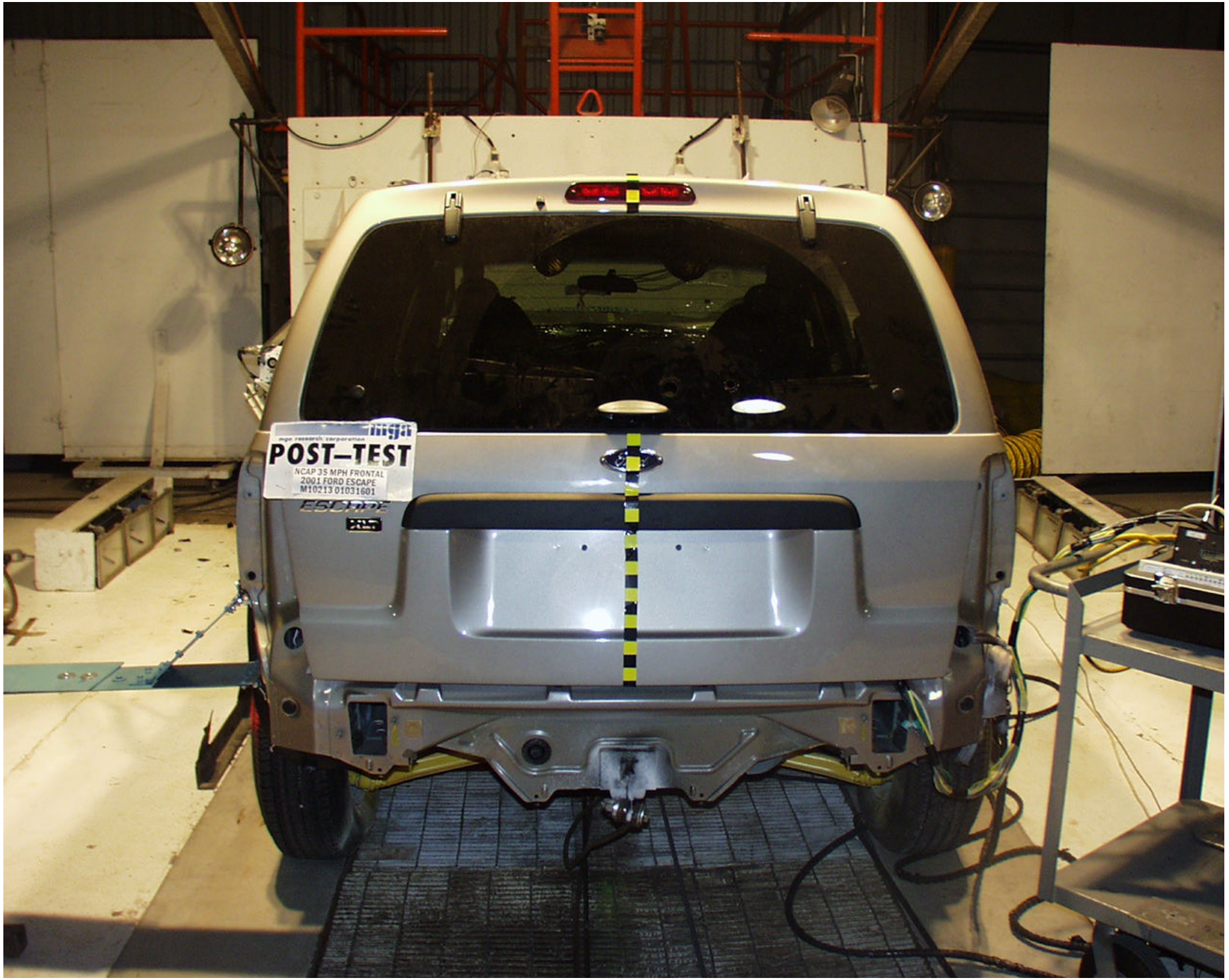


Photo No. A-4 - Post-Test Rear View of Test Vehicle

Photo No. A-5 - Pre-Test Left Side View of Test Vehicle

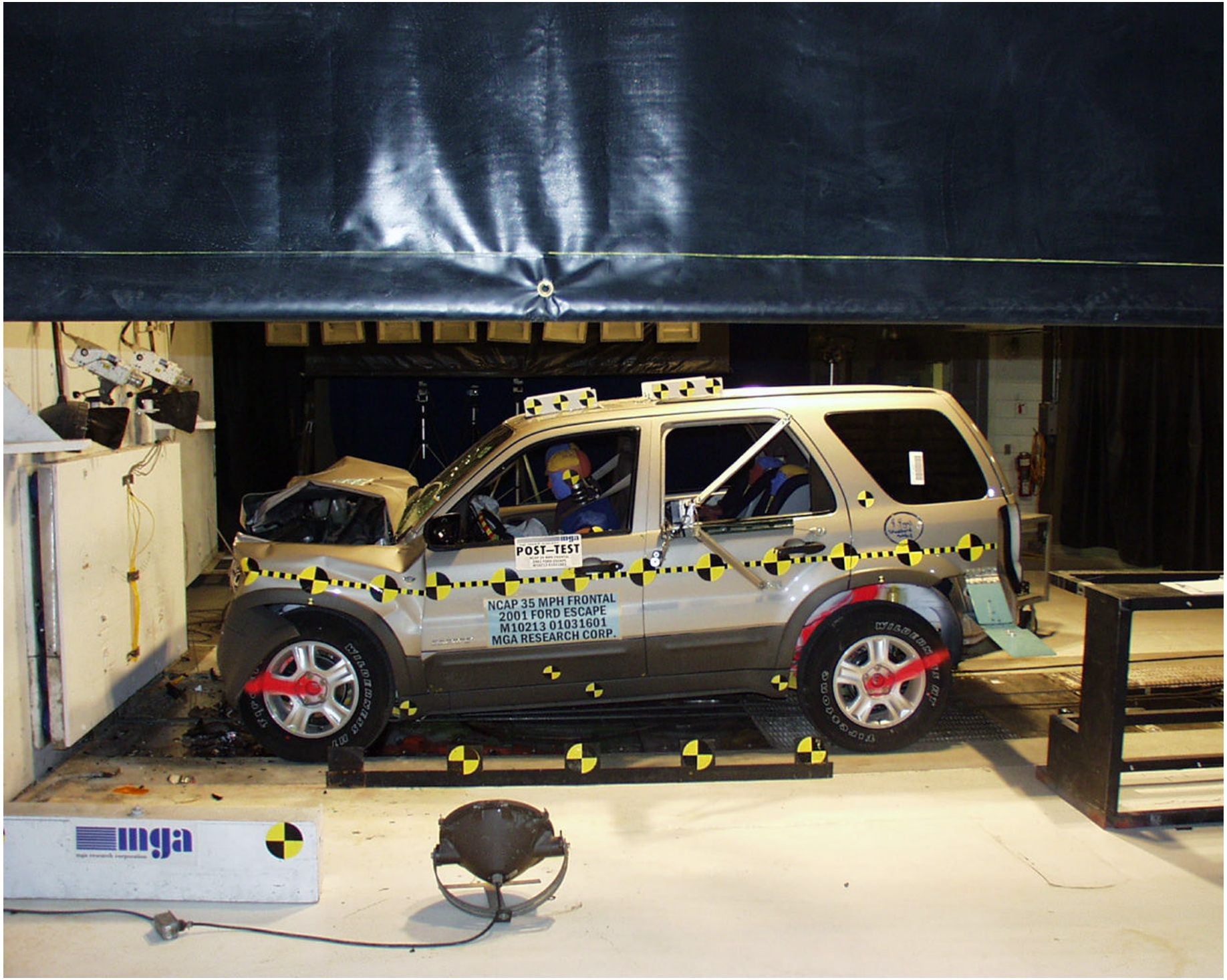


Photo No. A-6 - Post-Test Left Side View of Test Vehicle

Photo No. A-7 - Pre-Test Left Rear Three-Quarter View of Test Vehicle

Photo No. A-8 - Post-Test Left Rear Three-Quarter View of Test Vehicle

Photo No. A-9 - Pre-Test Right Side View of Test Vehicle

Photo No. A-10 - Post-Test Right Side View of Test Vehicle

Photo No. A-11 - Pre-Test Right Front Three-Quarter View of Test Vehicle

Photo No. A-12 - Post-Test Right Front Three-Quarter View of Test Vehicle

Photo No. A-13 - Pre-Test Fuel Filler Cap View

Photo No. A-14 - Pre-Test Engine Compartment View

Photo No. A-15 - Post-Test Engine Compartment View

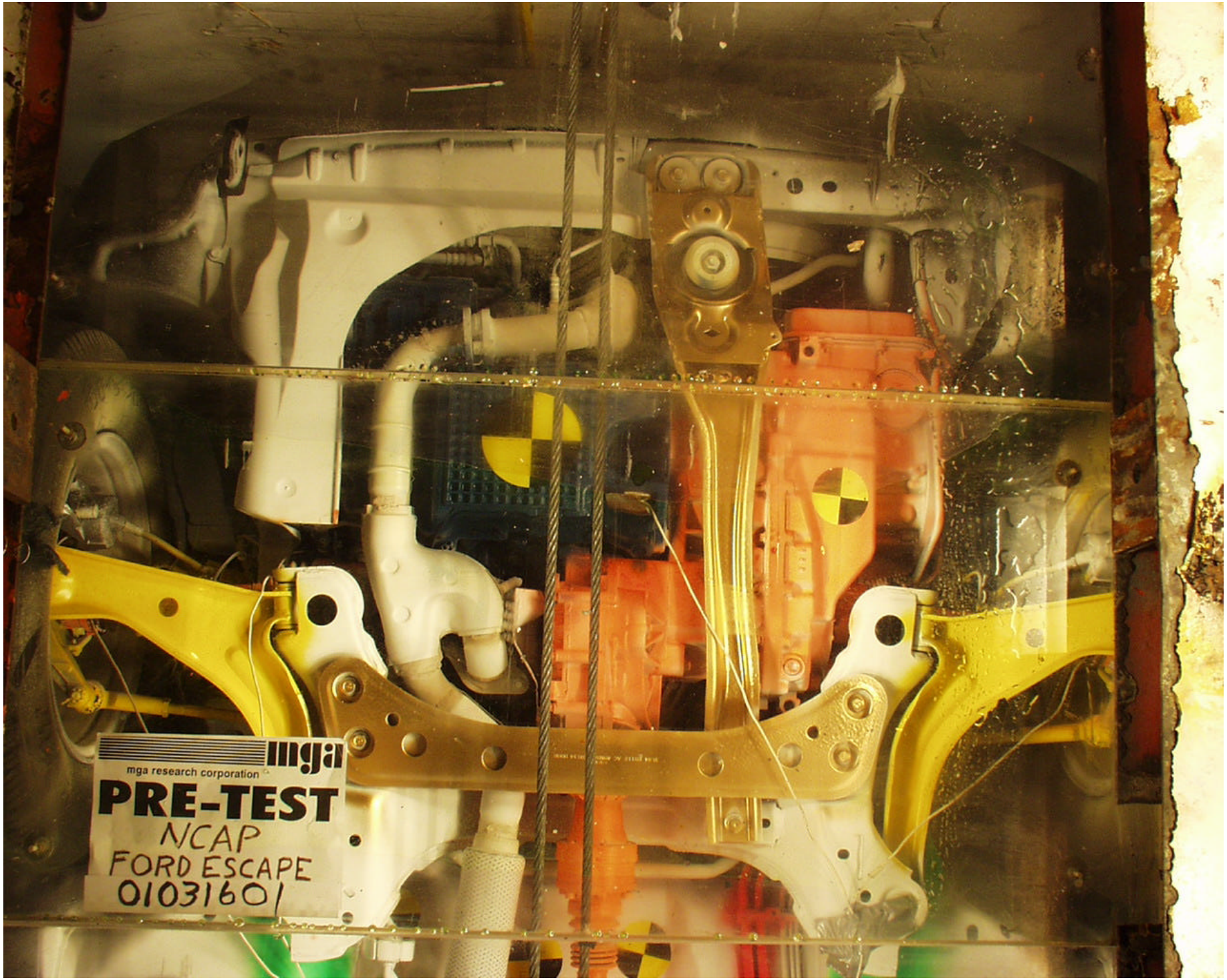


Photo No. A-16 - Pre-Test Front Underbody View

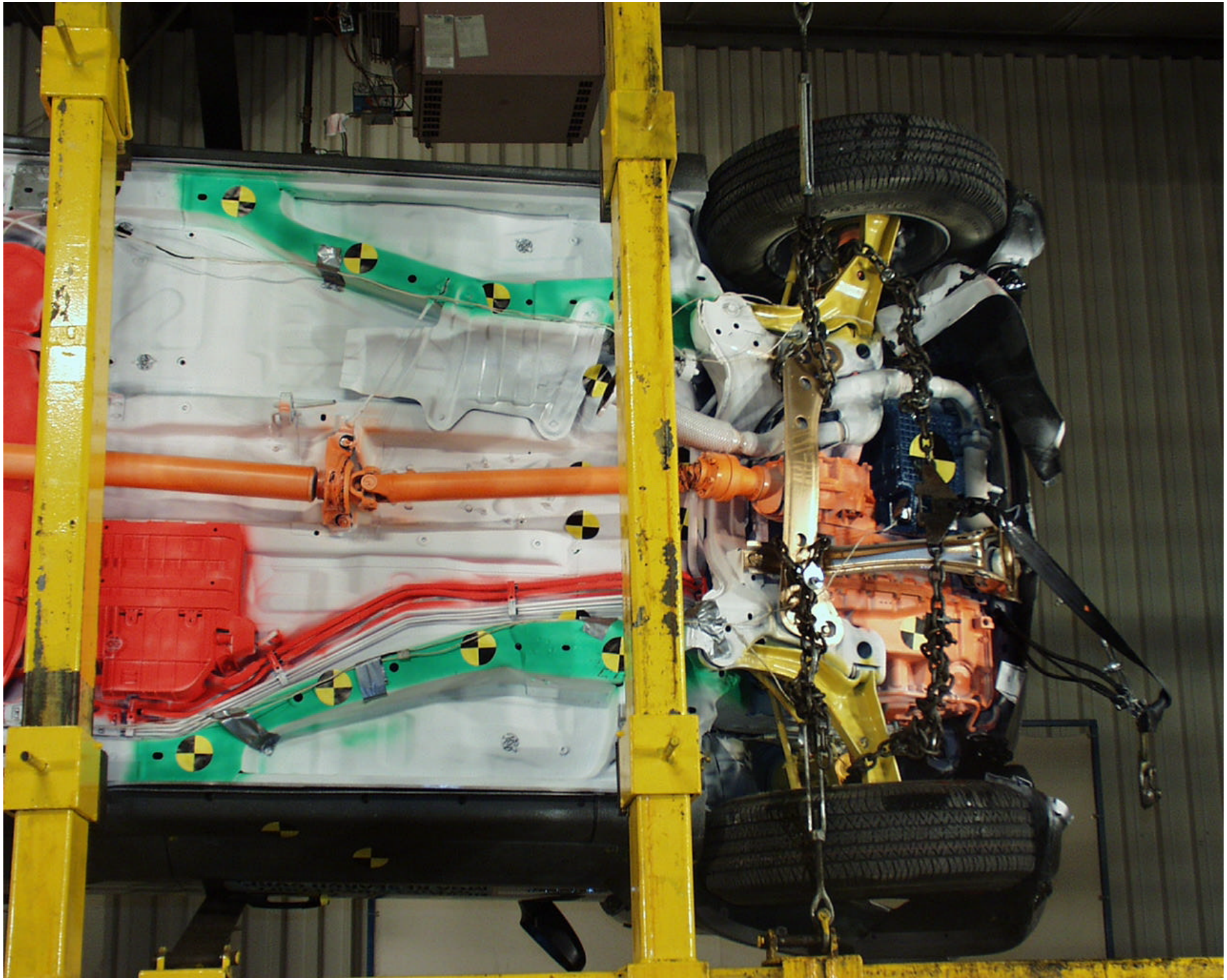


Photo No. A-17 - Post-Test Front Underbody View

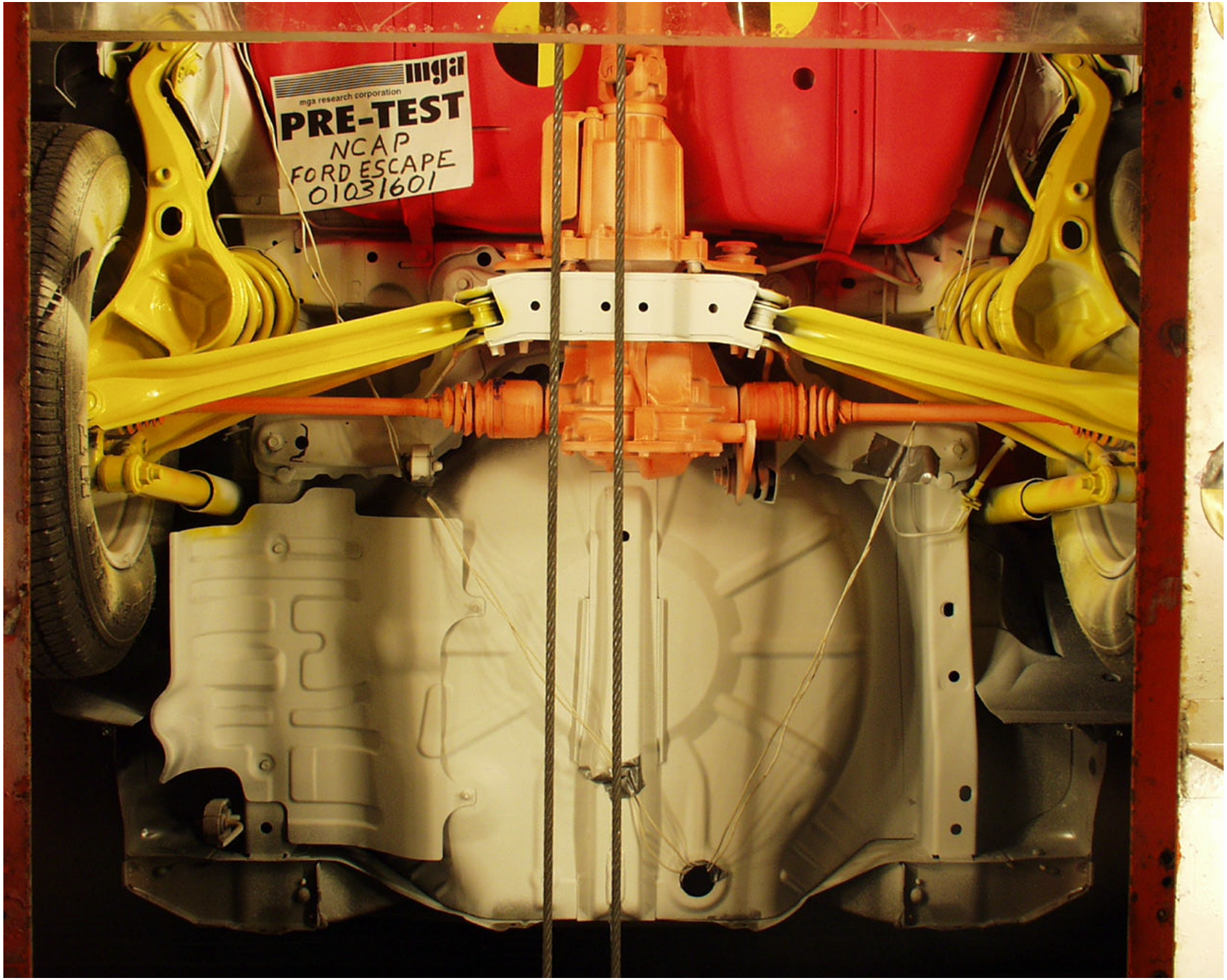


Photo No. A-18 - Pre-Test Rear Underbody View

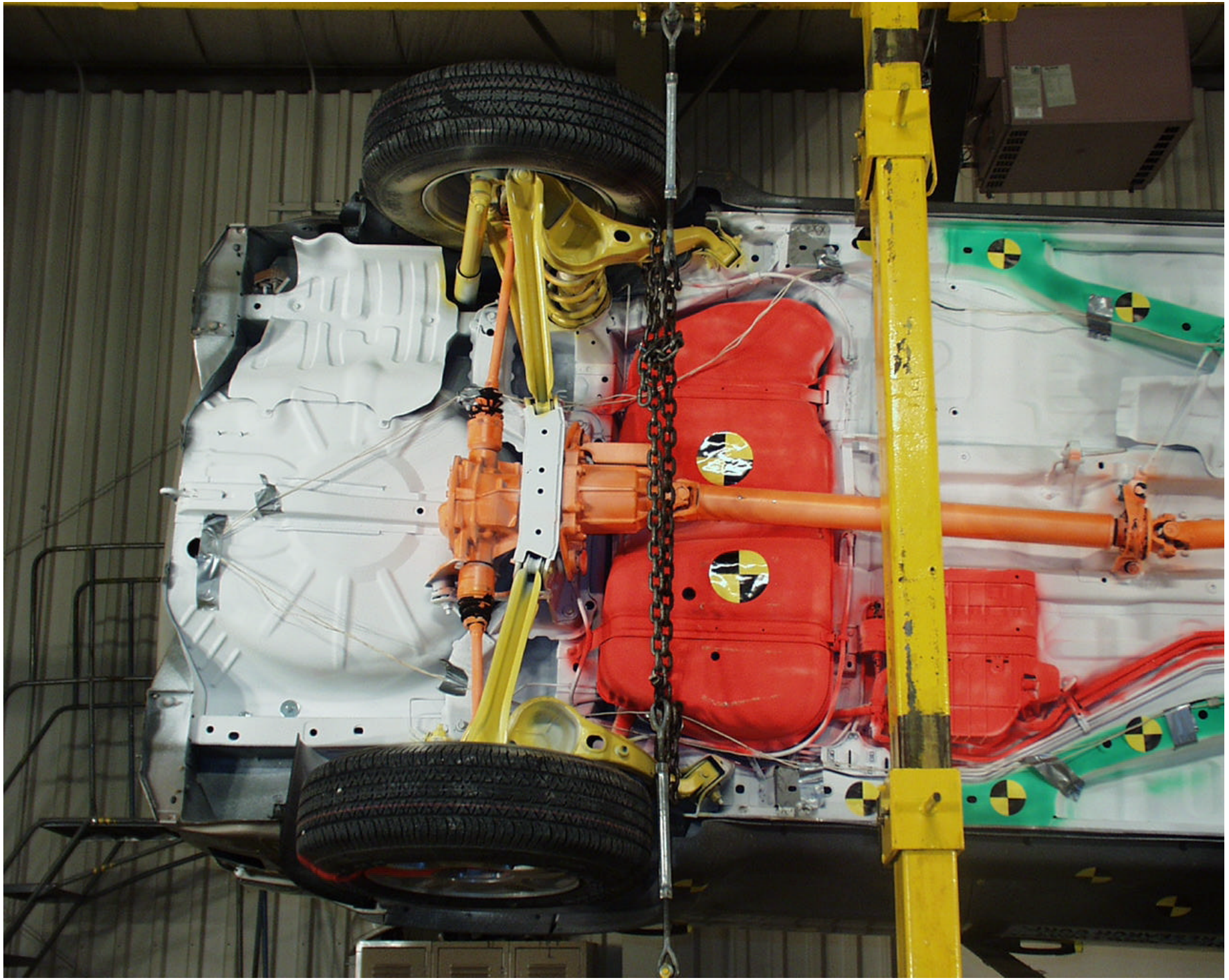


Photo No. A-19 - Post-Test Rear Underbody View

Photo No. A-20 - Pre-Test Windshield View

Photo No. A-21 - Post-Test Windshield View

Photo No. A-22 - Pre-Test Driver Dummy Position Left Side View

Photo No. A-23 - Post-Test Driver Dummy Position Left Side View

Photo No. A-24 - Pre-Test Driver Dummy Position Left Side View (Door Open)

Photo No. A-25 - Post-Test Driver Dummy Position Left Side View (Door Open)

Photo No. A-26 - Pre-Test Driver Seat Position View

Photo No. A-27 - Post-Test Driver Seat Position View

Photo No. A-28 - Pre-Test Driver Dummy Knee Position

Photo No. A-29 - Post-Test Driver Dummy Knee Position

Photo No. A-30 - Post-Test Driver Airbag Contact

Photo No. A-31 - Post-Test Driver Knee Contact View

Photo No. A-32 - Post-Test Driver Head Contact View

Photo No. A-33 - Pre-Test Driver Windshield View

Photo No. A-34 - Post-Test Driver Windshield View

Photo No. A-35 - Pre-Test Passenger Dummy Position Right Side View

Photo No. A-36 - Post-Test Passenger Dummy Position Right Side View

Photo No. A-37 - Pre-Test Passenger Dummy Position Right Side View (Door Open)

Photo No. A-38 - Post-Test Passenger Dummy Position Right Side View (Door Open)

Photo No. A-39 - Pre-Test Passenger Seat Position View

Photo No. A-40 - Post-Test Passenger Seat Position View

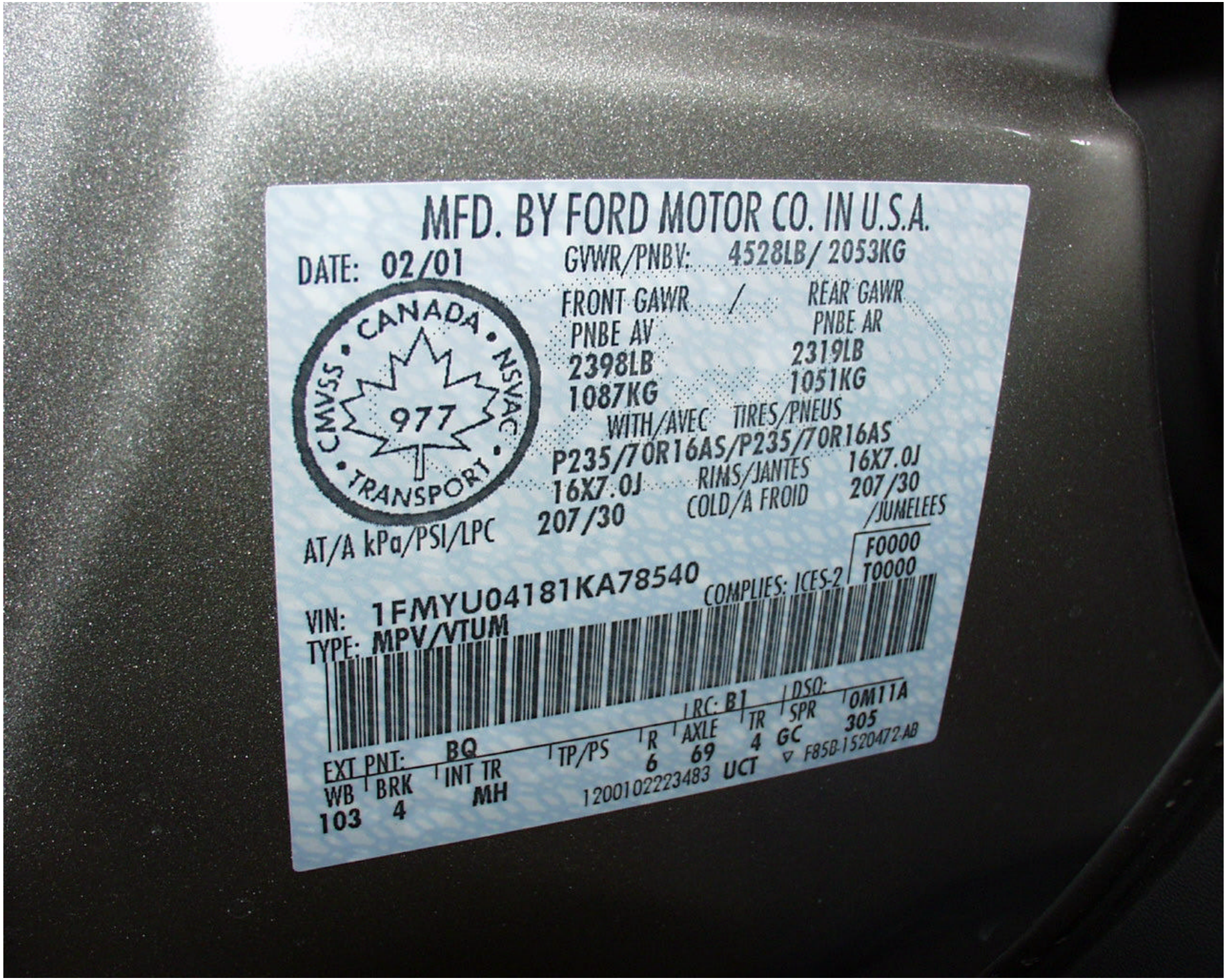
Photo No. A-41 - Pre-Test Passenger Dummy Knee Position

Photo No. A-42 - Post-Test Passenger Dummy Knee Position

Photo No. A-43 - Post-Test Passenger Airbag Contact

Photo No. A-44 - Pre-Test Passenger Windshield View

Photo No. A-45 - Post-Test Passenger Windshield View



A-46

Photo No. A-46 - Vehicle Certification Label and Tire Placard

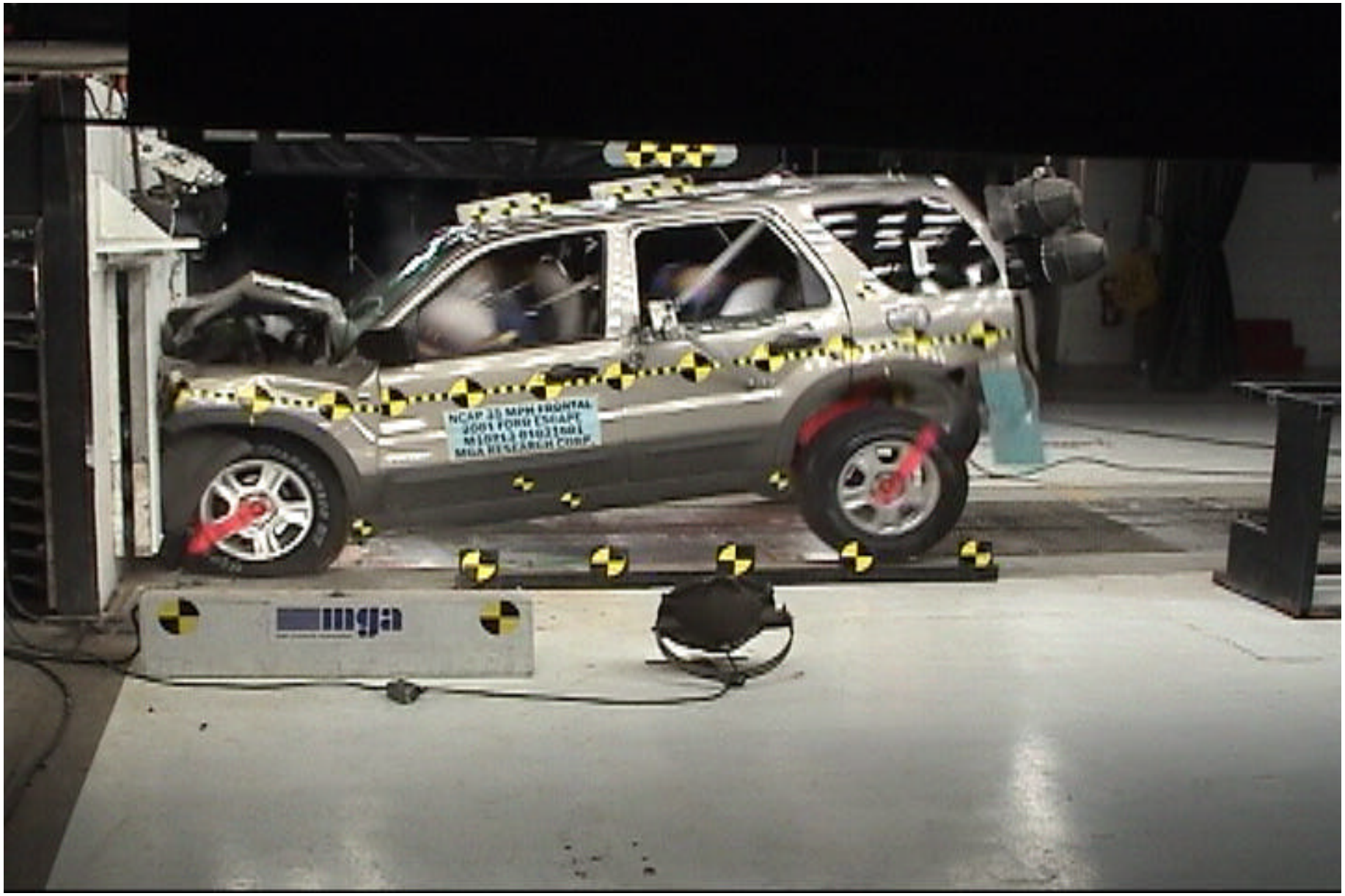


Photo No. A-47 - Vehicle Impact

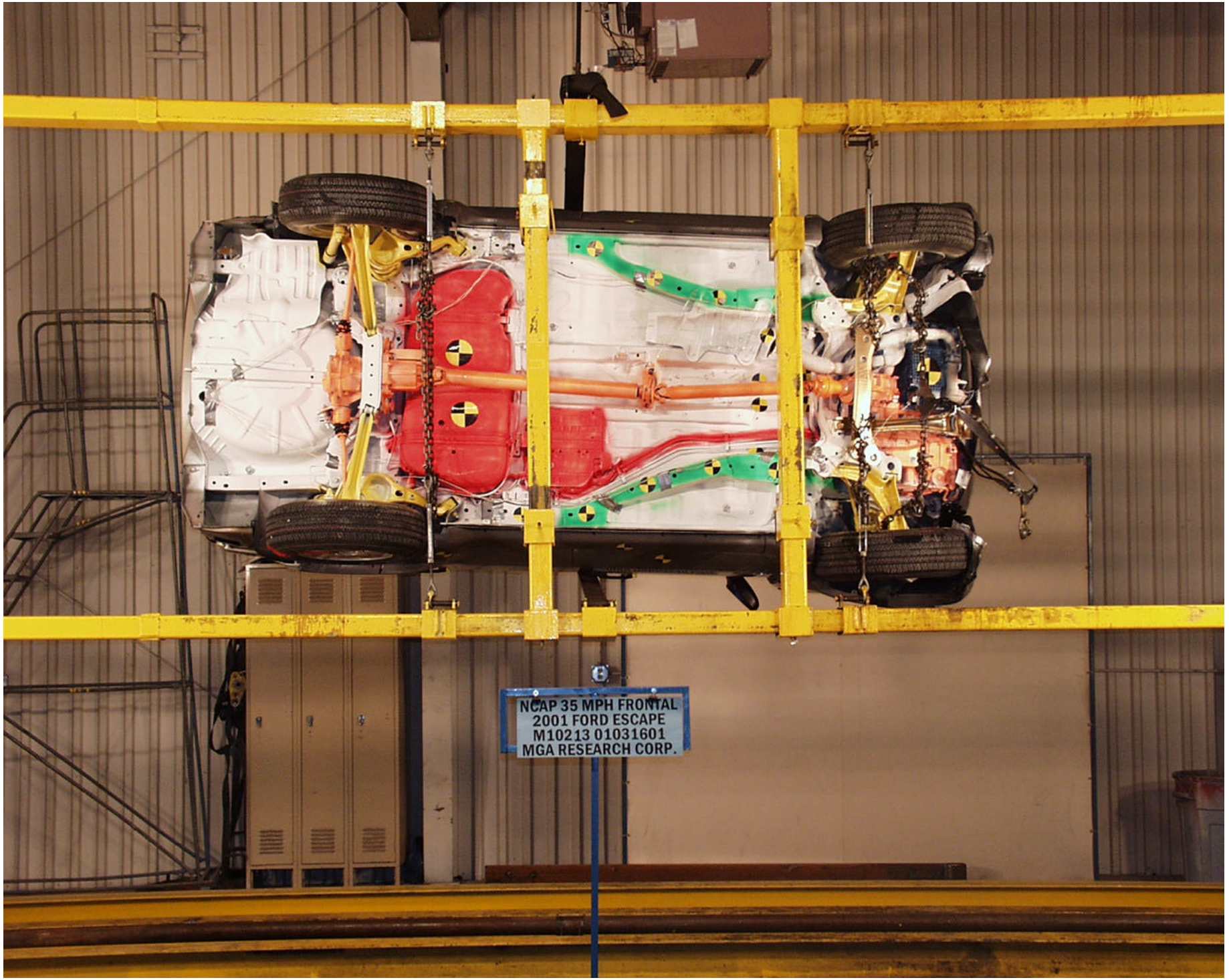


Photo No. A-48 - Rollover 90E

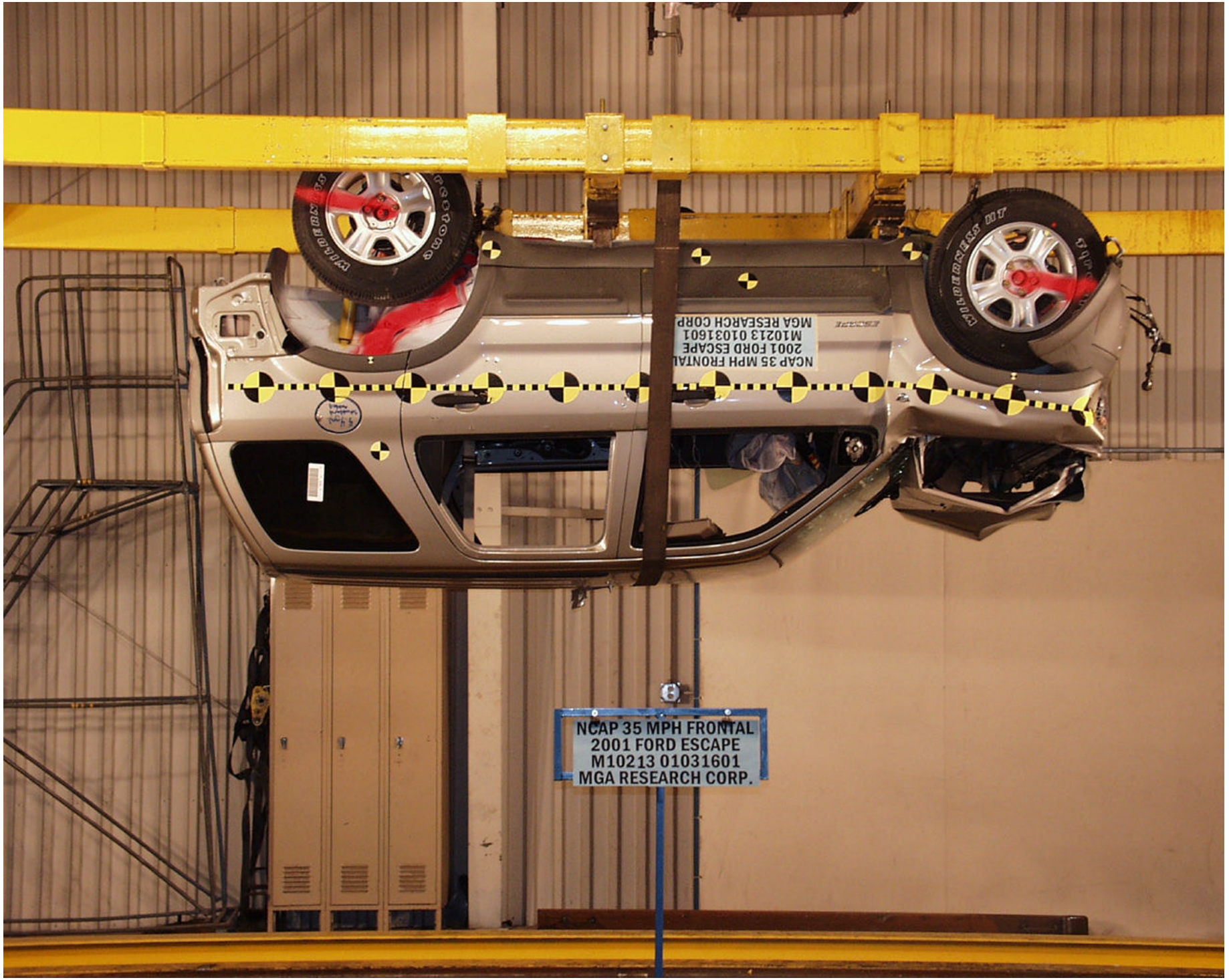


Photo No. A-49 - Rollover 180E

Photo No. A-50 - Rollover 270E

Photo No. A-51 - Rollover 360E

APPENDIX B

DUMMY AND VEHICLE RESPONSE DATA TRACES

TABLE OF DATA PLOTS

VEHICLE DATA FILTER CHANNEL CLASS

Head Accelerations 1000 (1650 Hz)

Chest Accelerations 180 (300 Hz)

Vehicle Accelerations 60 (100 Hz)

Barrier Load Cells 60 (100 Hz)

Femur Load Cells 600 (1000 Hz)

Lap and Torso Belts 60 (100 Hz)

Tibia Load Cells 600 (1000Hz)

Foot Accelerations 180 (300Hz)

TABLE OF DATA PLOTS

* No valid data collected after 60 msec.

TABLE OF DATA PLOTS

TABLE OF DATA PLOTS

* No valid data collected after 70 msec.

TABLE OF DATA PLOTS

* No valid data collected after 40 msec.

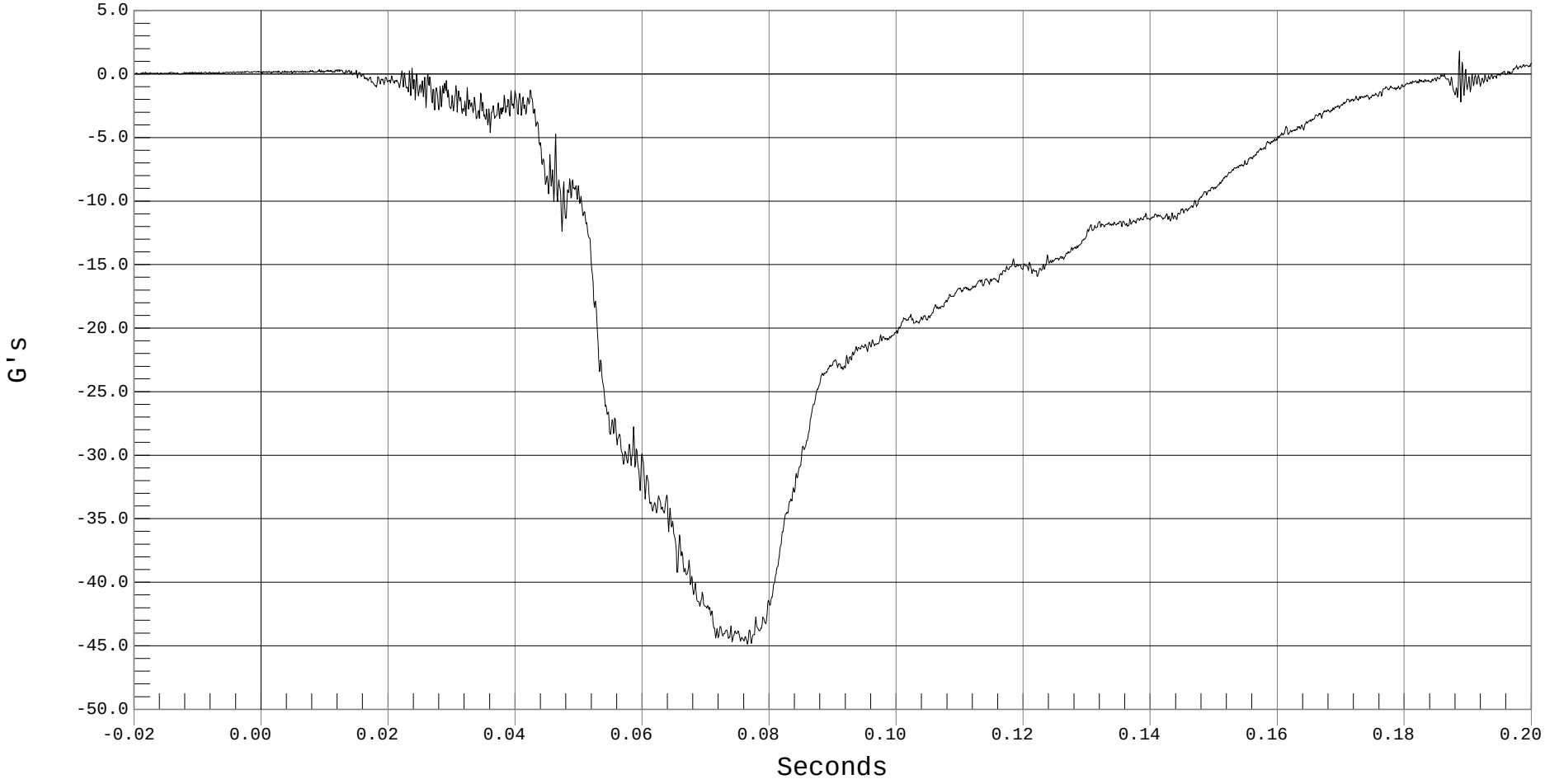
DRIVER HEAD X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 DRIVER HEAD X, B01031AT.A01

Ymin = -44.89 G's @ 0.0765 Seconds, Ymax = 1.8 G's @ 0.1886 Seconds



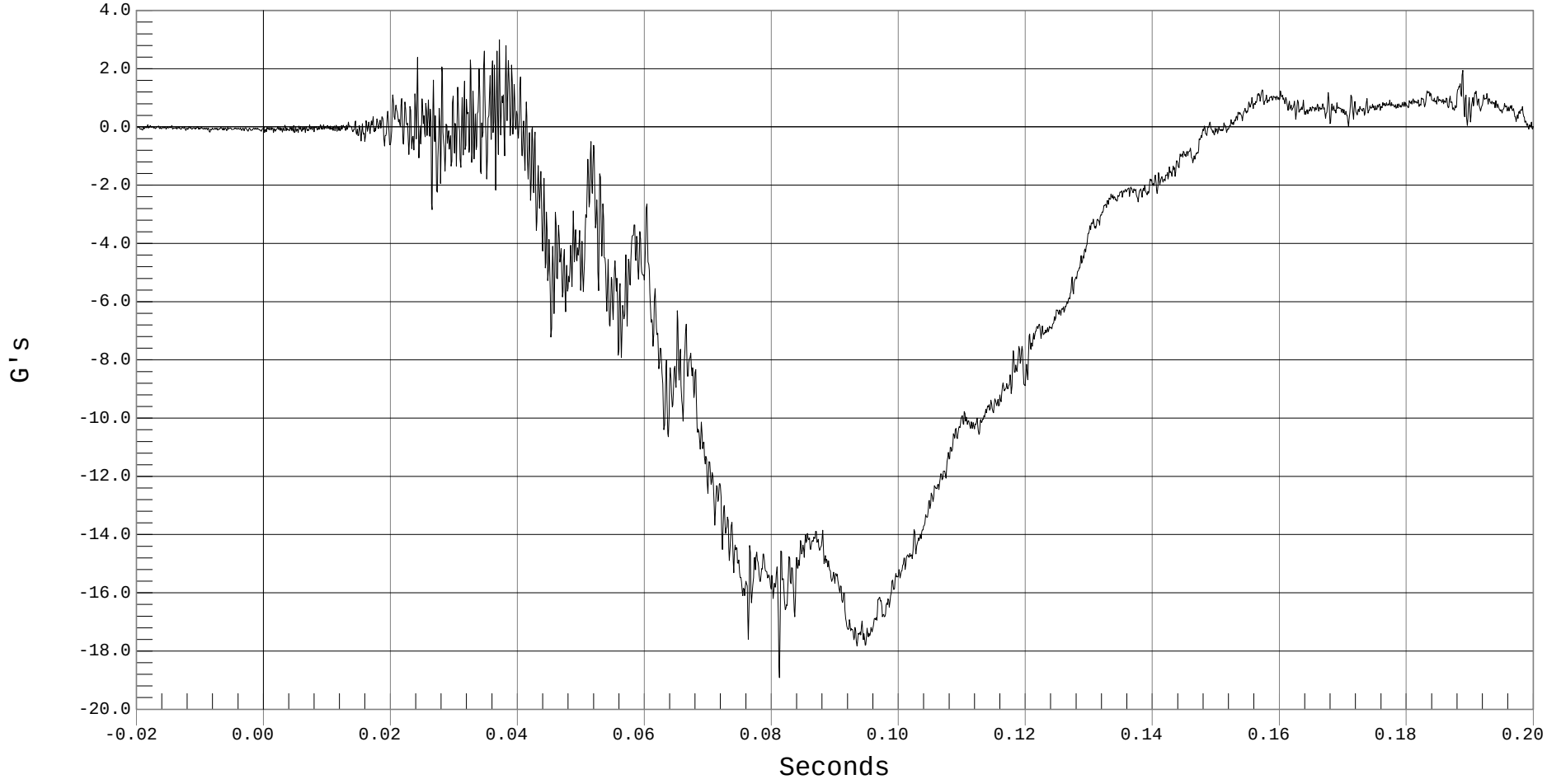
DRIVER HEAD Y ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 DRIVER HEAD Y, B01031AT.A02

Ymin = -18.91 G's @ 0.0812 Seconds, Ymax = 3 G's @ 0.0371 Seconds



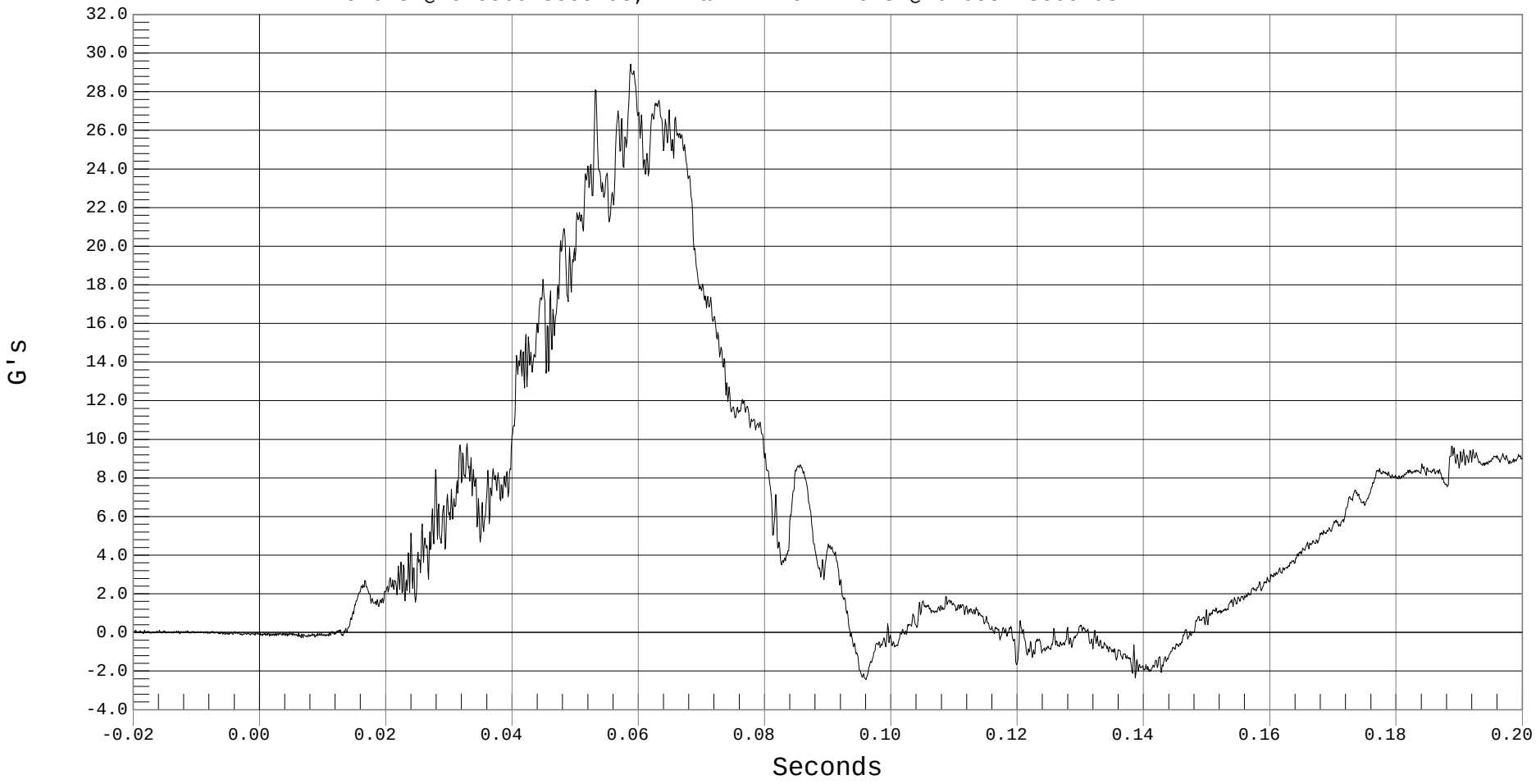
DRIVER HEAD Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 DRIVER HEAD Z, B01031AT.A03

Ymin = -2.45 G's @ 0.0960 Seconds, Ymax = 29.44 G's @ 0.0587 Seconds



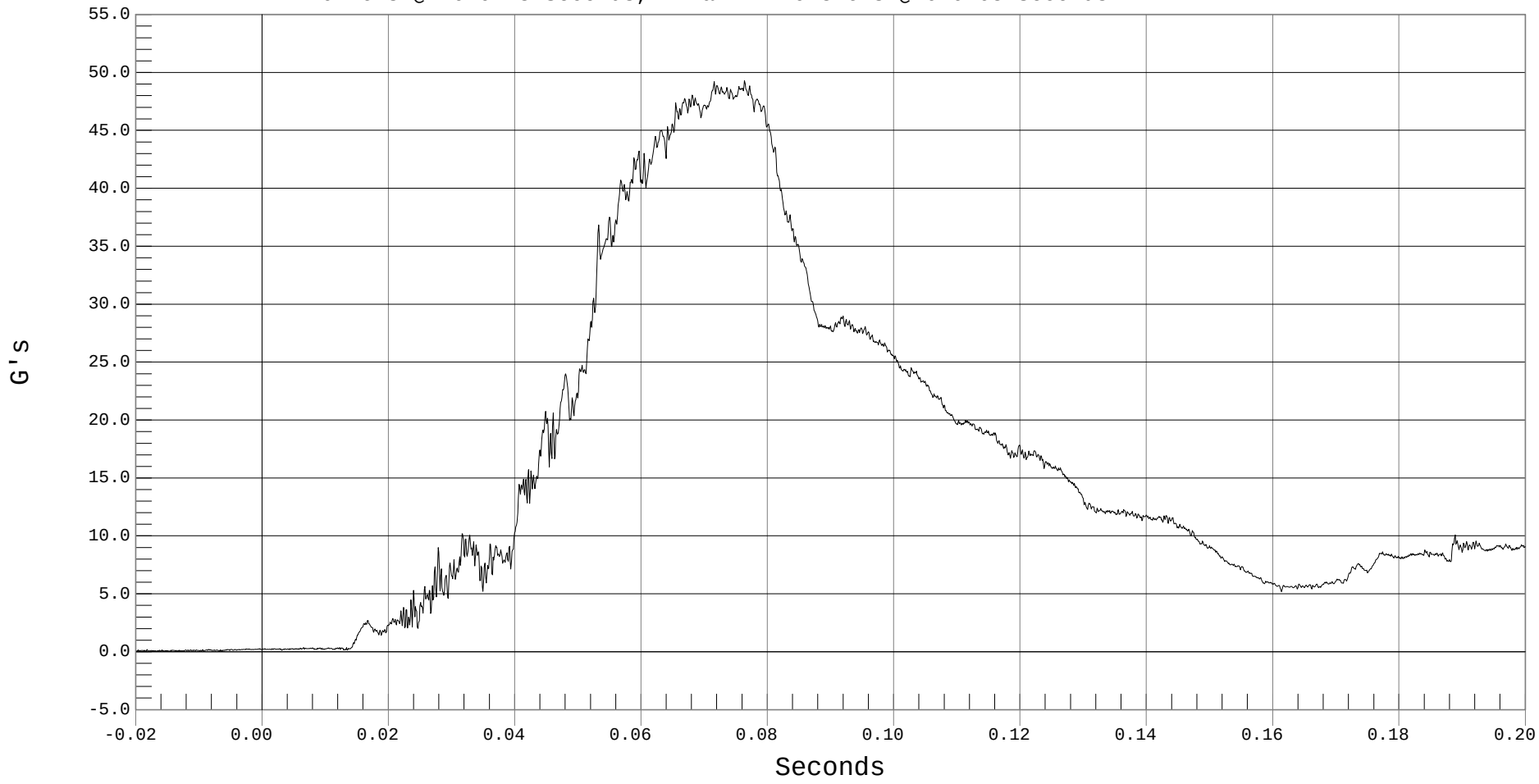
DRIVER HEAD RESULTANT ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 DRIVER HEAD RESULTANT ACCELERATION, B01031AV.A01

Ymin = .02 G's @ -0.0128 Seconds, Ymax = 49.3 G's @ 0.0763 Seconds



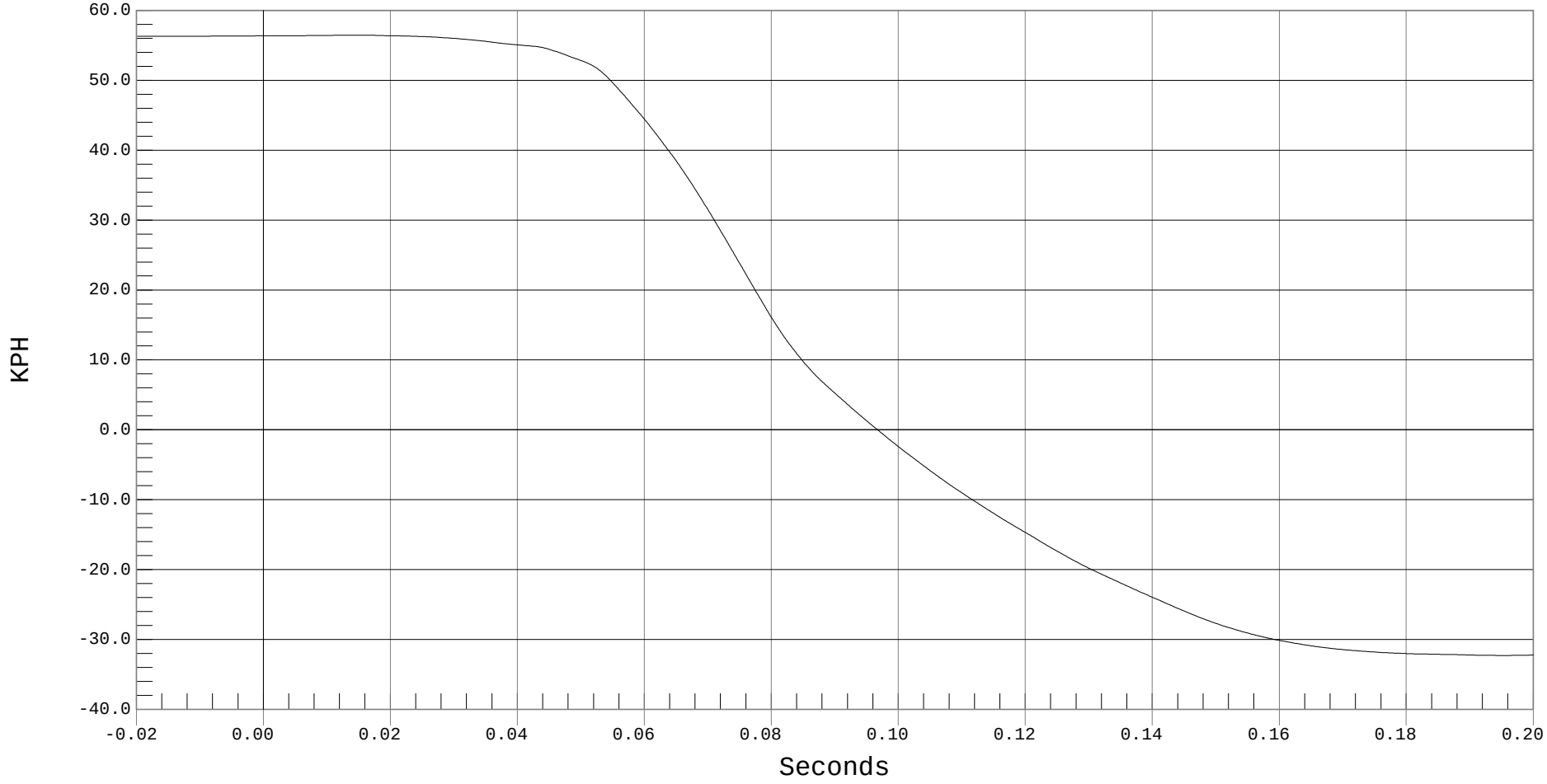
DRIVER HEAD X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER HEAD X VELOCITY, B01031AI.V01

Ymin = -32.3 KPH @ 0.1951 Seconds, Ymax = 56.46 KPH @ 0.0152 Seconds



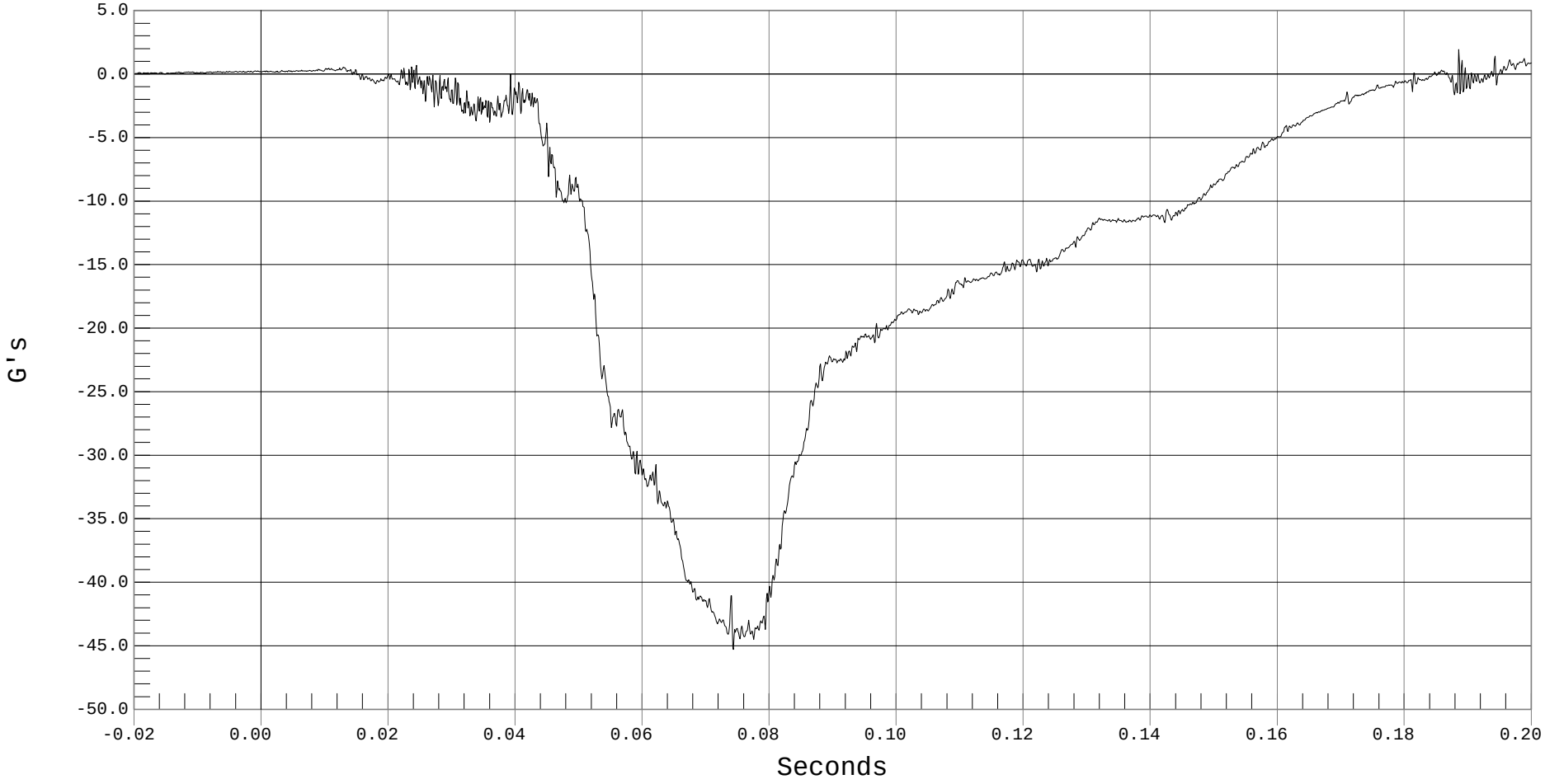
DRIVER HEAD REDUNDANT X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 DRIVER HEAD Xr, B01031AT.A33

Ymin = -45.29 G's @ 0.0743 Seconds, Ymax = 1.94 G's @ 0.1885 Seconds



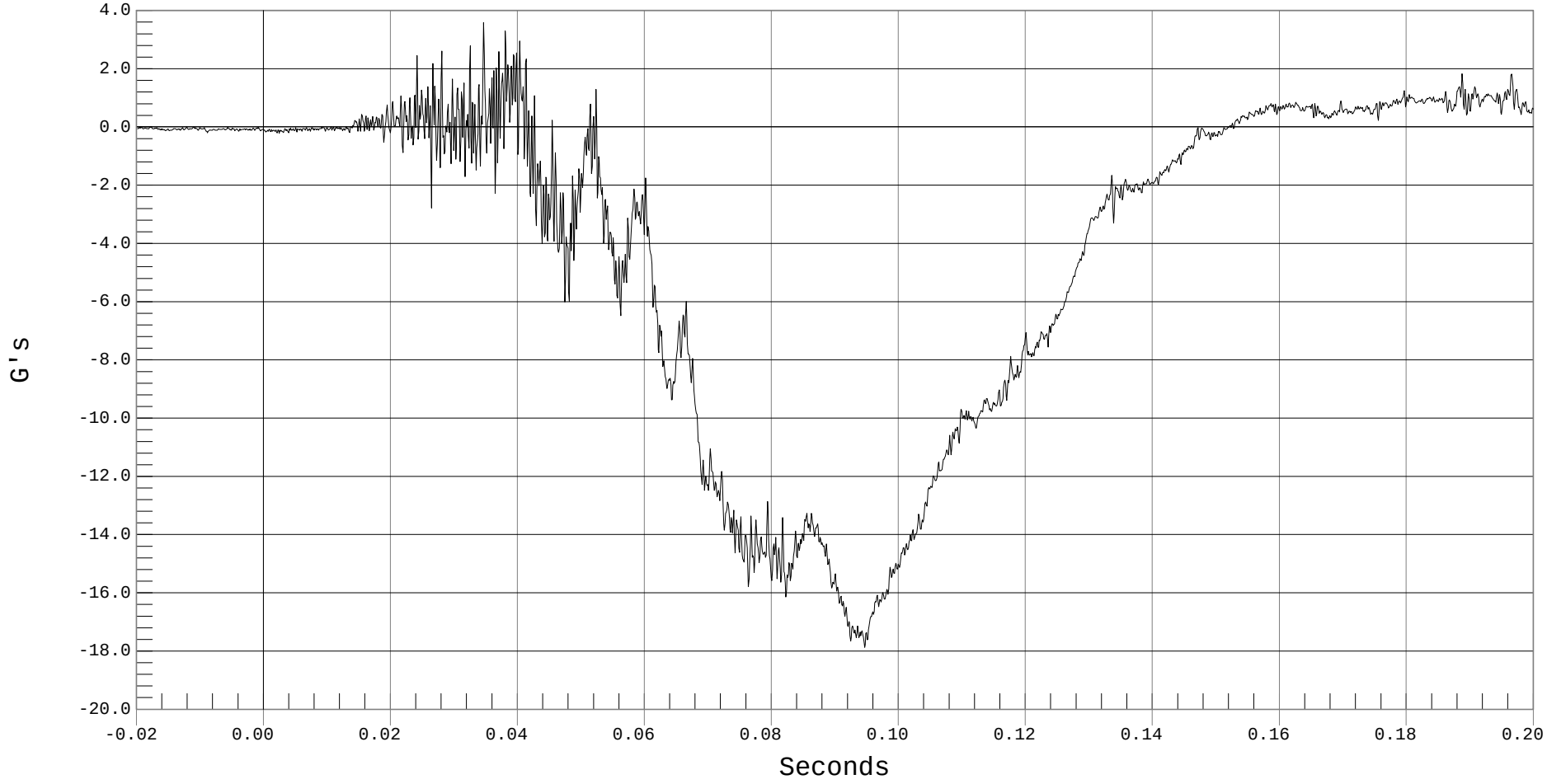
DRIVER HEAD REDUNDANT Y ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 DRIVER HEAD Yr, B01031AT.A34

Ymin = -17.87 G's @ 0.0946 Seconds, Ymax = 3.59 G's @ 0.0346 Seconds



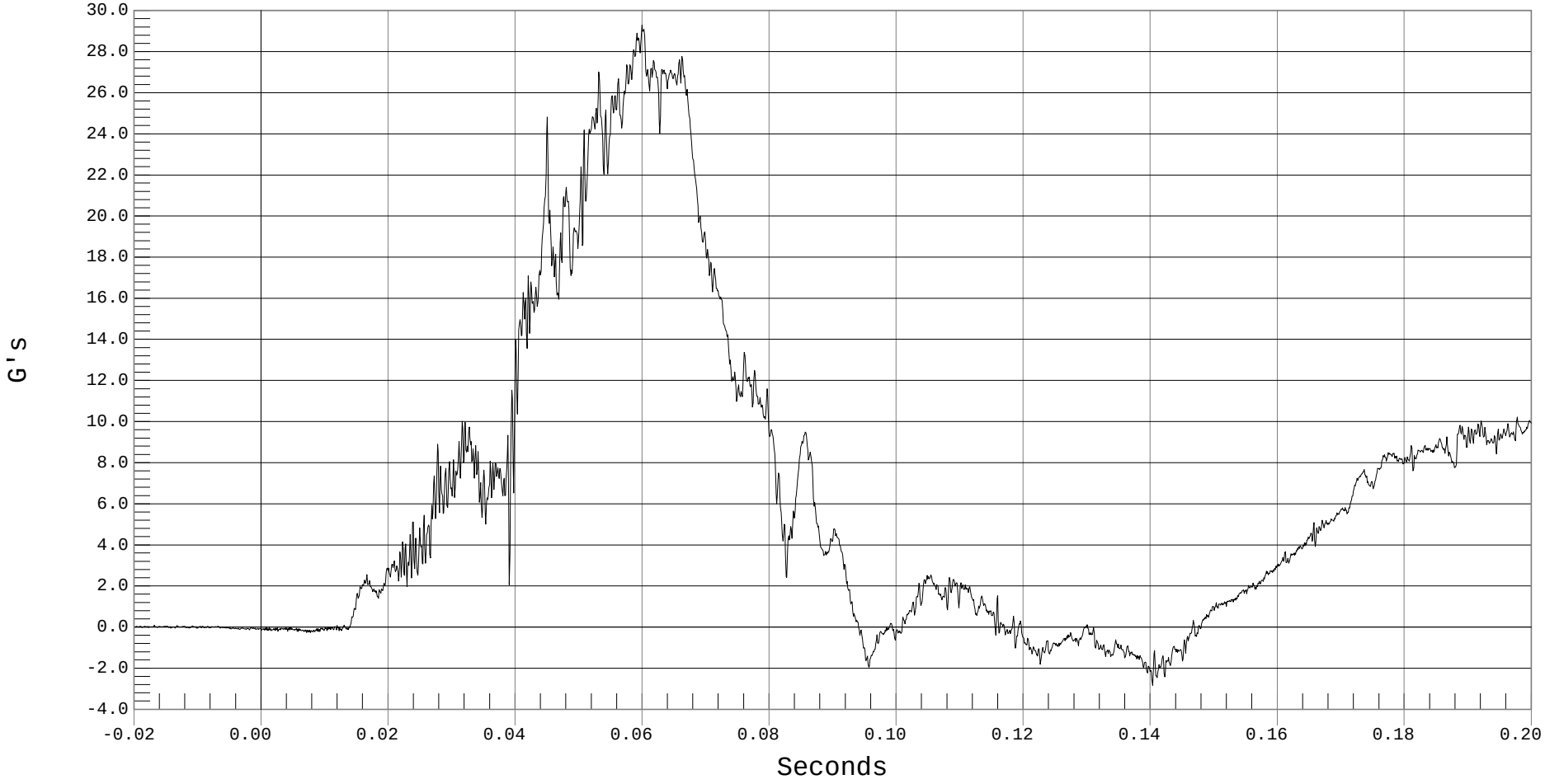
DRIVER HEAD REDUNDANT Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 DRIVER HEAD Zr, B01031AT.A35

Ymin = -2.84 G's @ 0.1403 Seconds, Ymax = 29.28 G's @ 0.0599 Seconds



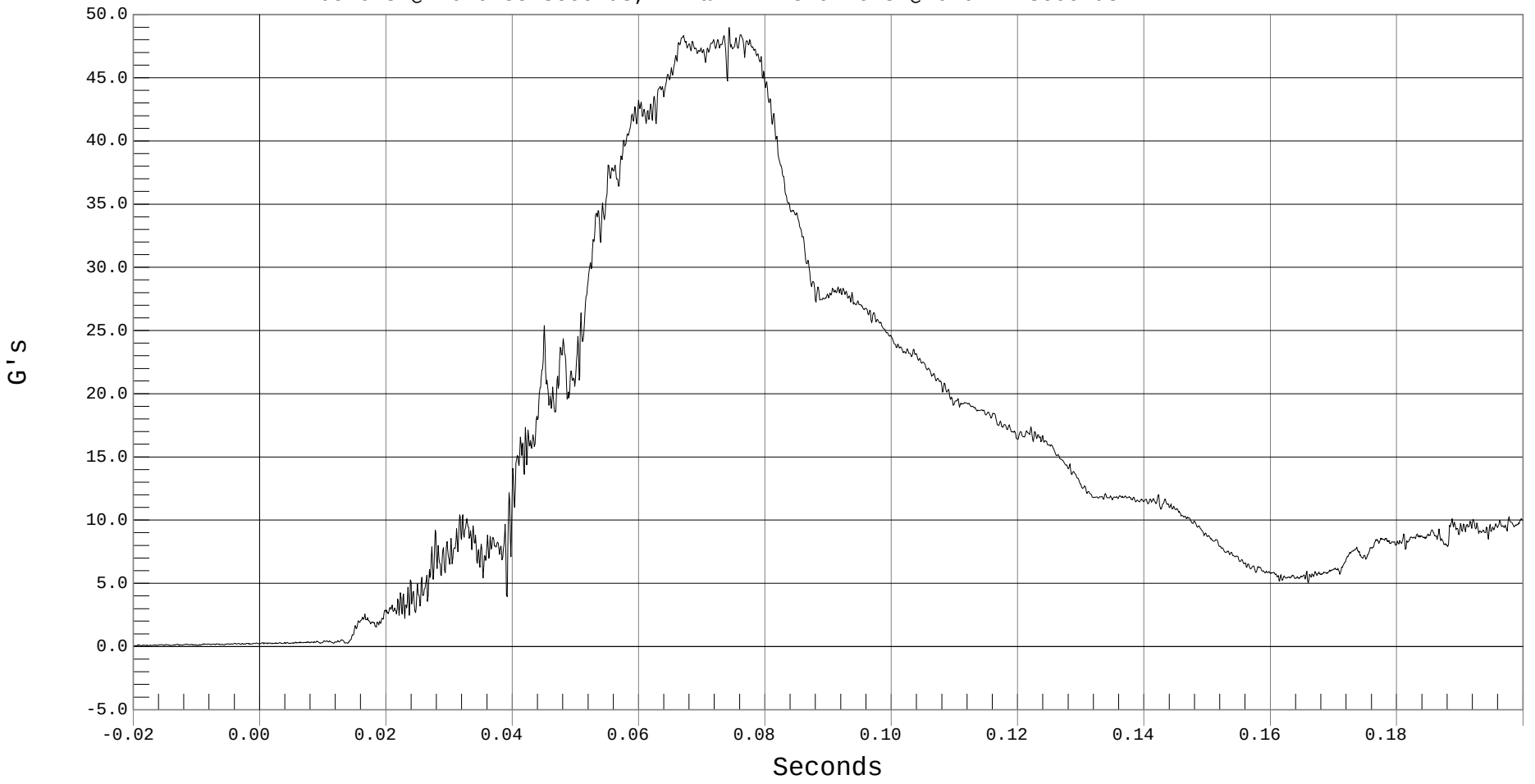
DRIVER HEAD REDUNDANT RESULTANT ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 DRIVER HEAD REDUNDANT RESULTANT ACCELERATION, B01031AV.A33

Ymin = .05 G's @ -0.0188 Seconds, Ymax = 48.97 G's @ 0.0742 Seconds



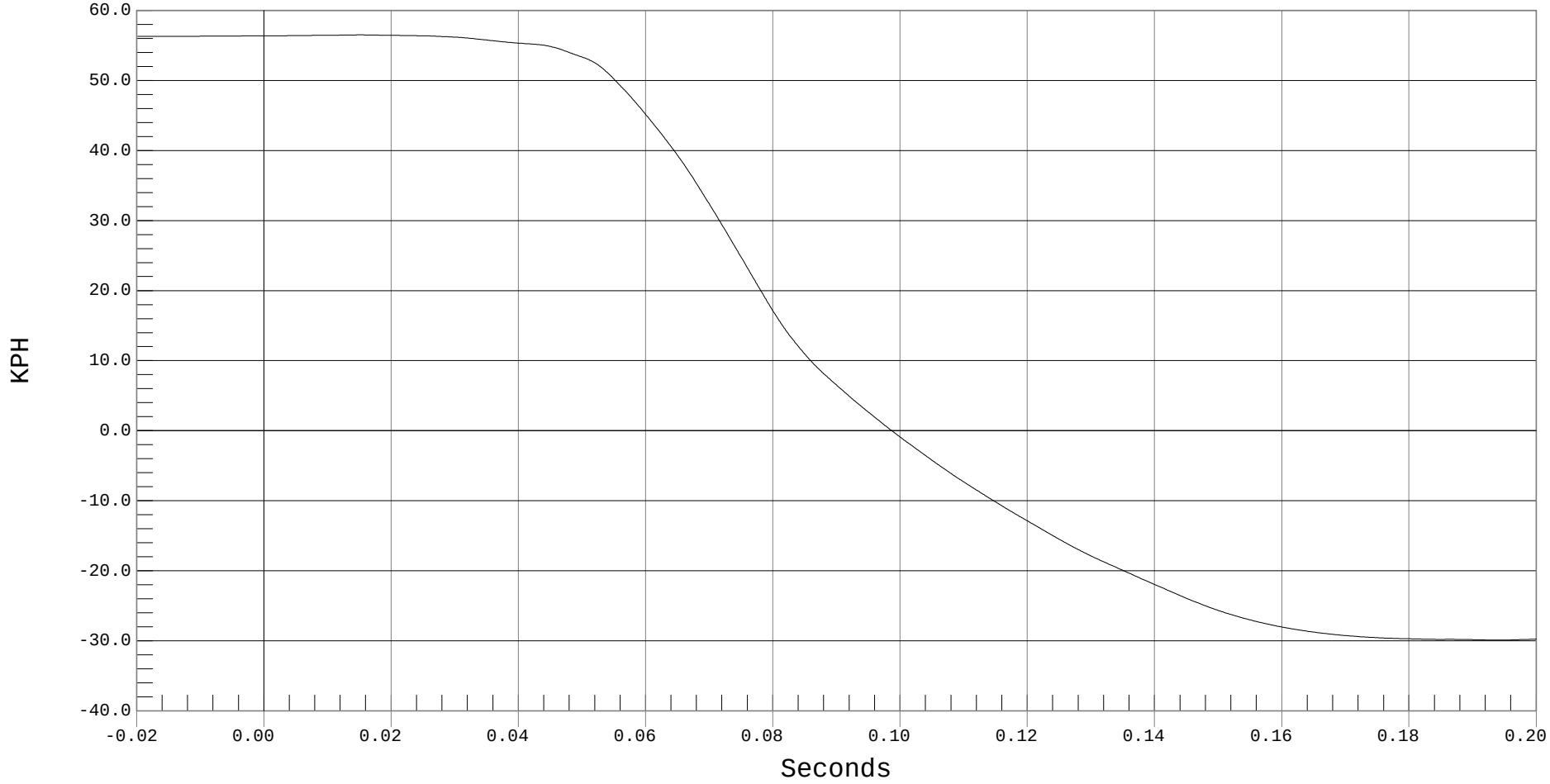
DRIVER HEAD REDUNDANT X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER HEAD REDUNDANT X VELOCITY, B01031AI.V33

Ymin = -29.89 KPH @ 0.1936 Seconds, Ymax = 56.52 KPH @ 0.0151 Seconds



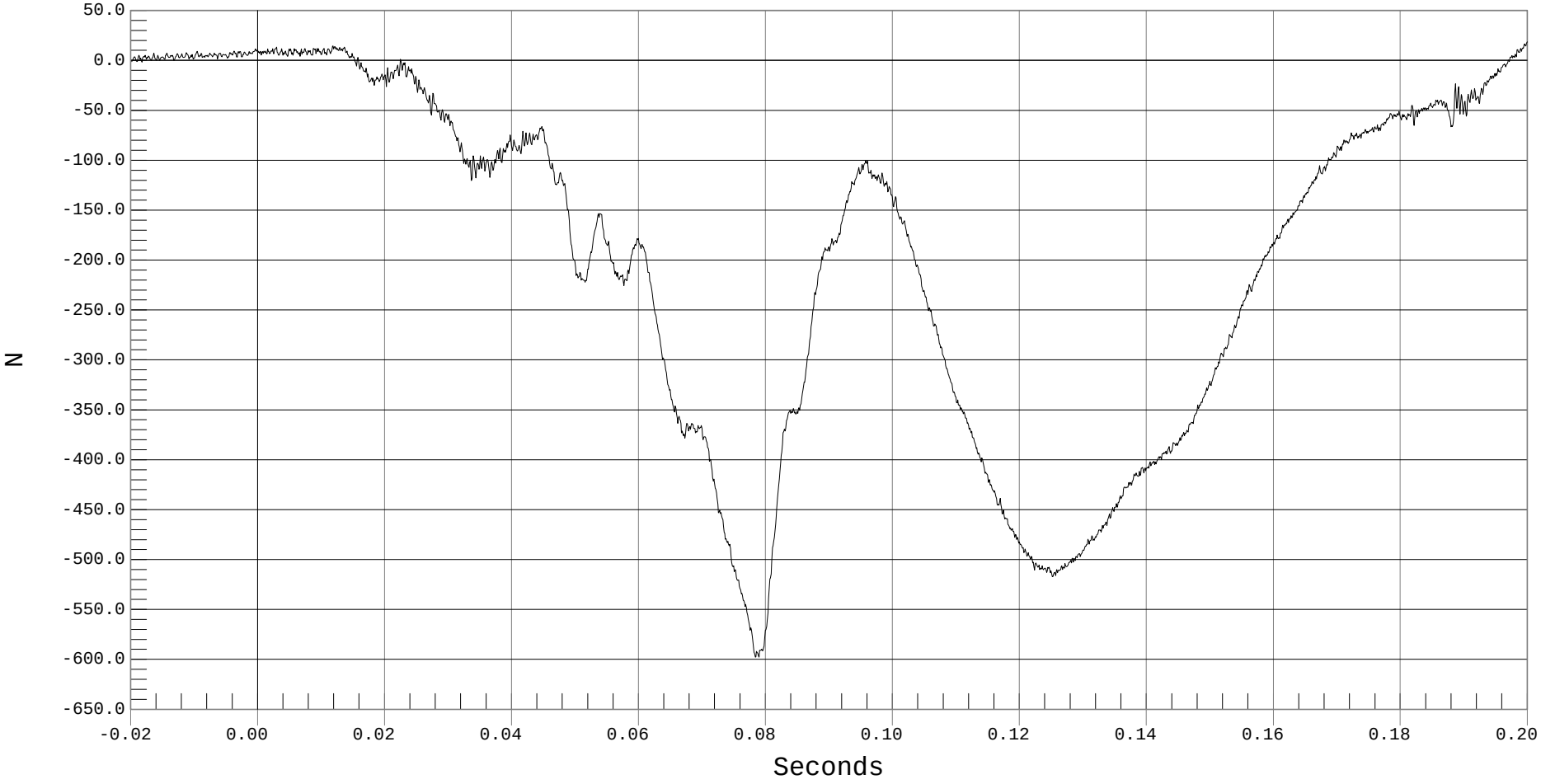
DRIVER NECK FORCE X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 DRIVER NECK FX, B01031FT.F04

Ymin = -597.76 N @ 0.0783 Seconds, Ymax = 20.87 N @ 0.2000 Seconds



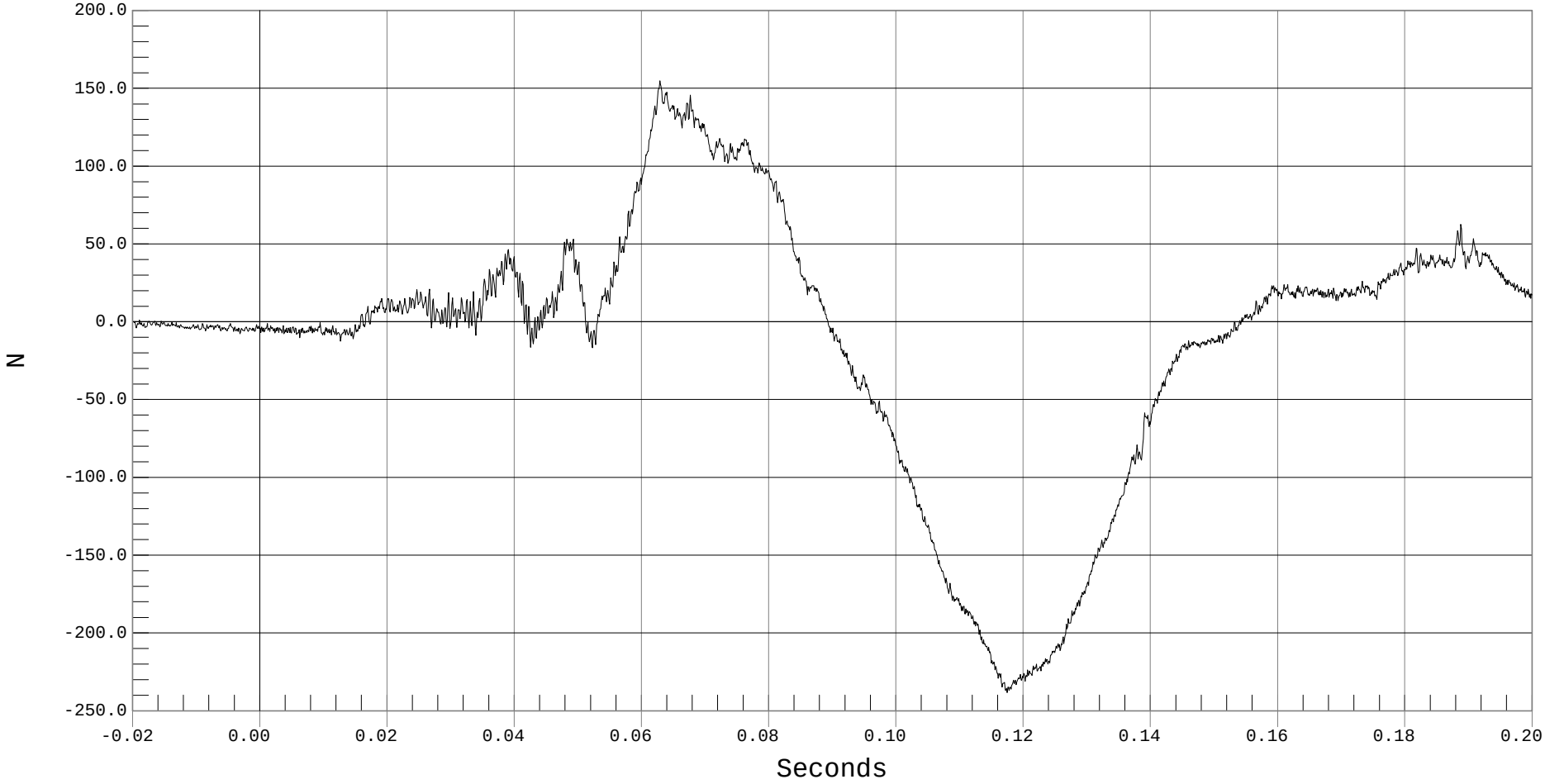
DRIVER NECK FORCE Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 DRIVER NECK FY, B01031FT.F05

Ymin = -238.35 N @ 0.1174 Seconds, Ymax = 154.87 N @ 0.0628 Seconds



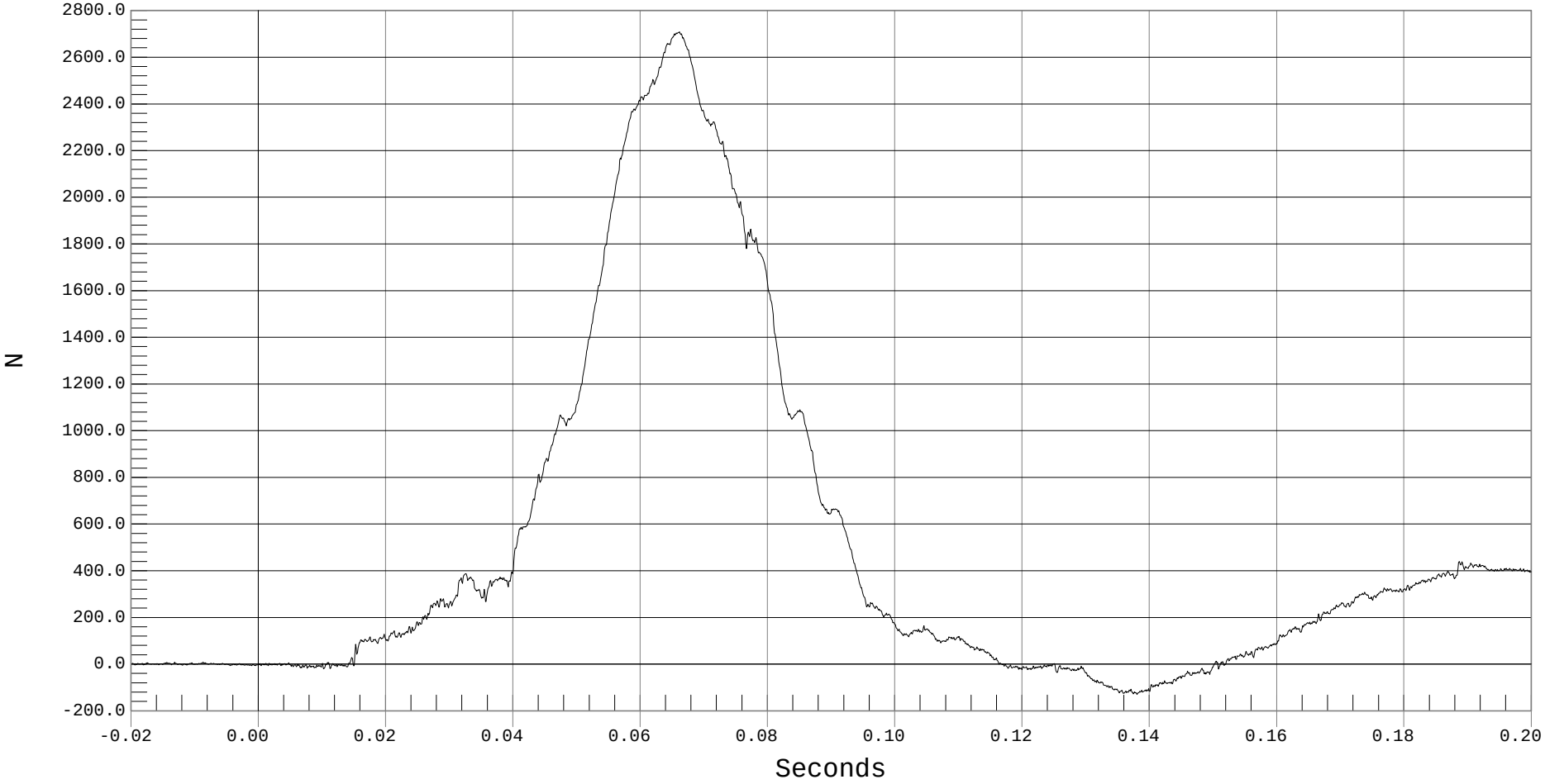
DRIVER NECK FORCE Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 DRIVER NECK FZ, B01031FT.F06

Ymin = -130.27 N @ 0.1380 Seconds, Ymax = 2708.2 N @ 0.0661 Seconds



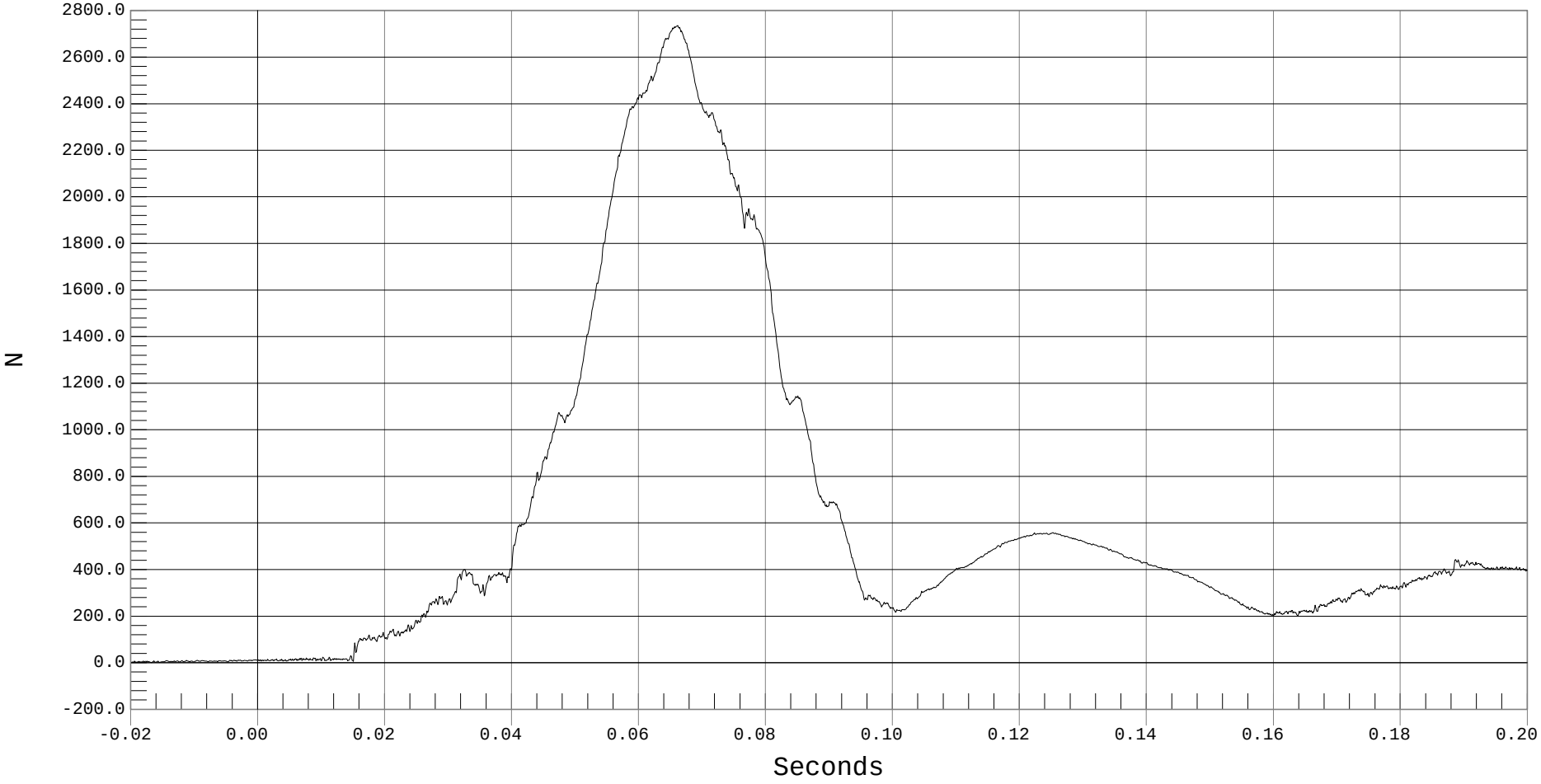
DRIVER NECK FORCE RESULTANT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 DRIVER NECK FORCE RESULTANT, B01031FV.F04

Ymin = .38 N @ -0.0168 Seconds, Ymax = 2735.65 N @ 0.0661 Seconds



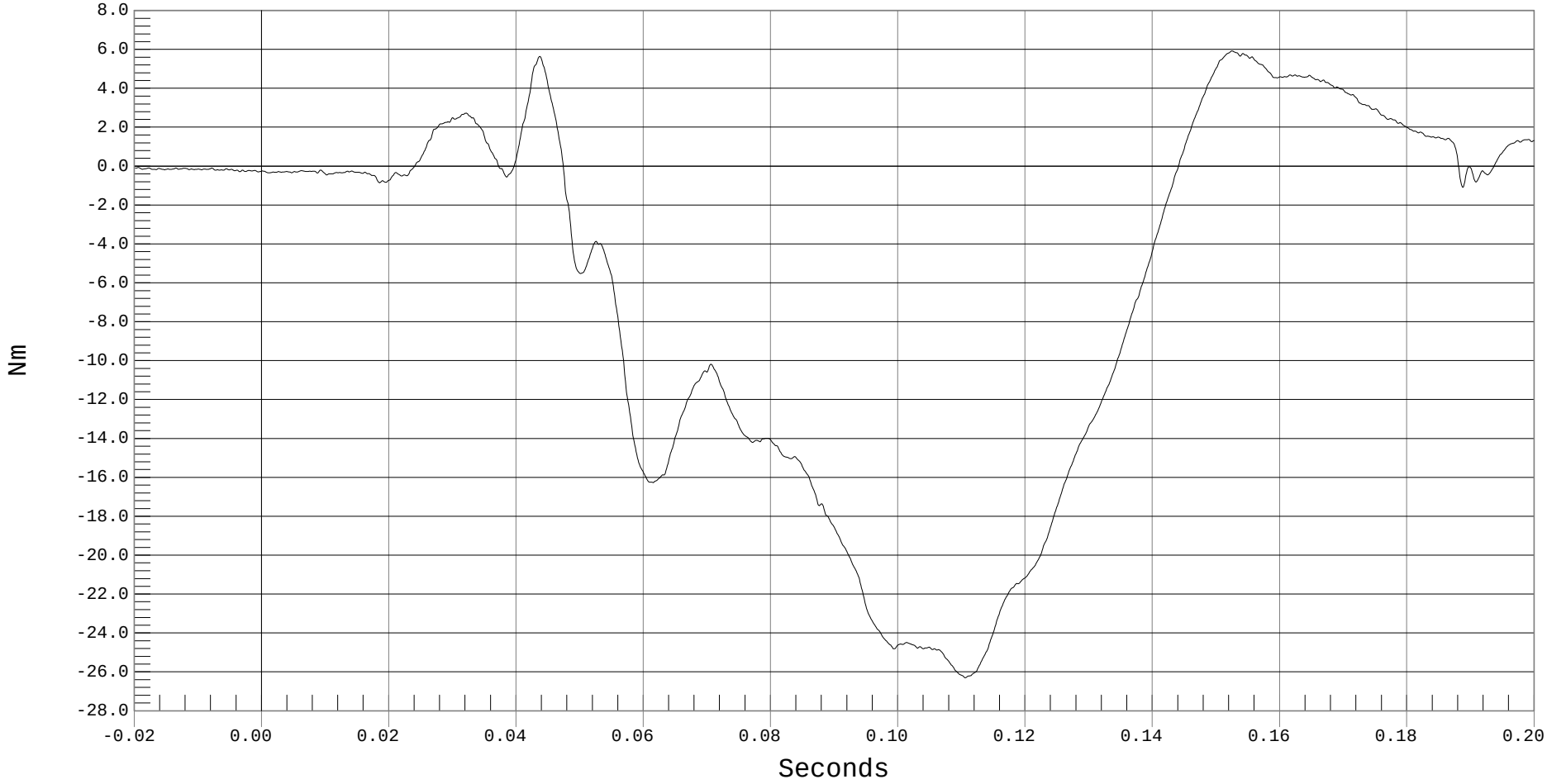
DRIVER NECK MOMENT X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER NECK MX, B01031MF.M07

Ymin = -26.3 Nm @ 0.1105 Seconds, Ymax = 5.92 Nm @ 0.1524 Seconds



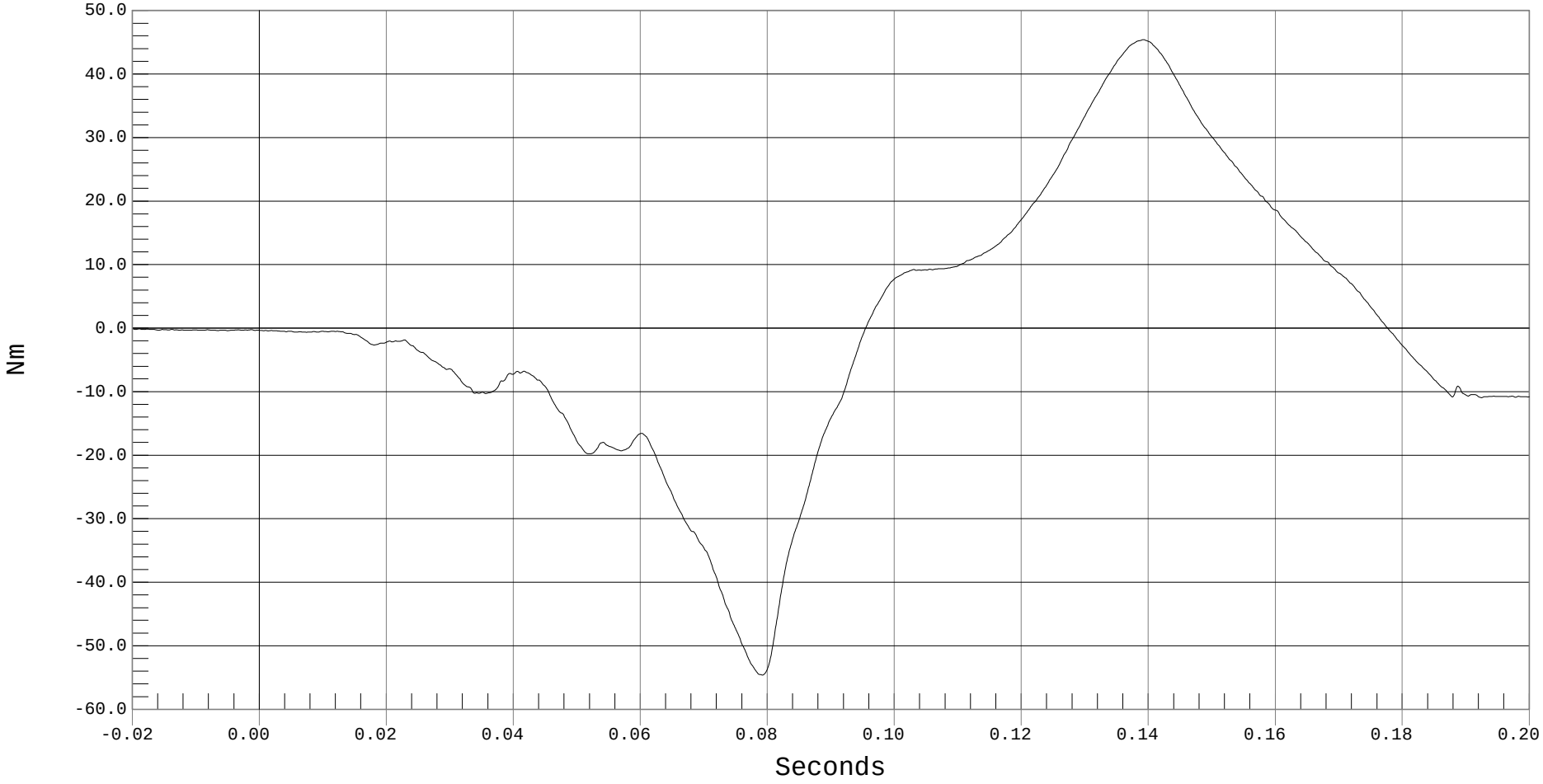
DRIVER NECK MOMENT Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER NECK MY, B01031MF.M08

Ymin = -54.61 Nm @ 0.0792 Seconds, Ymax = 45.4 Nm @ 0.1392 Seconds



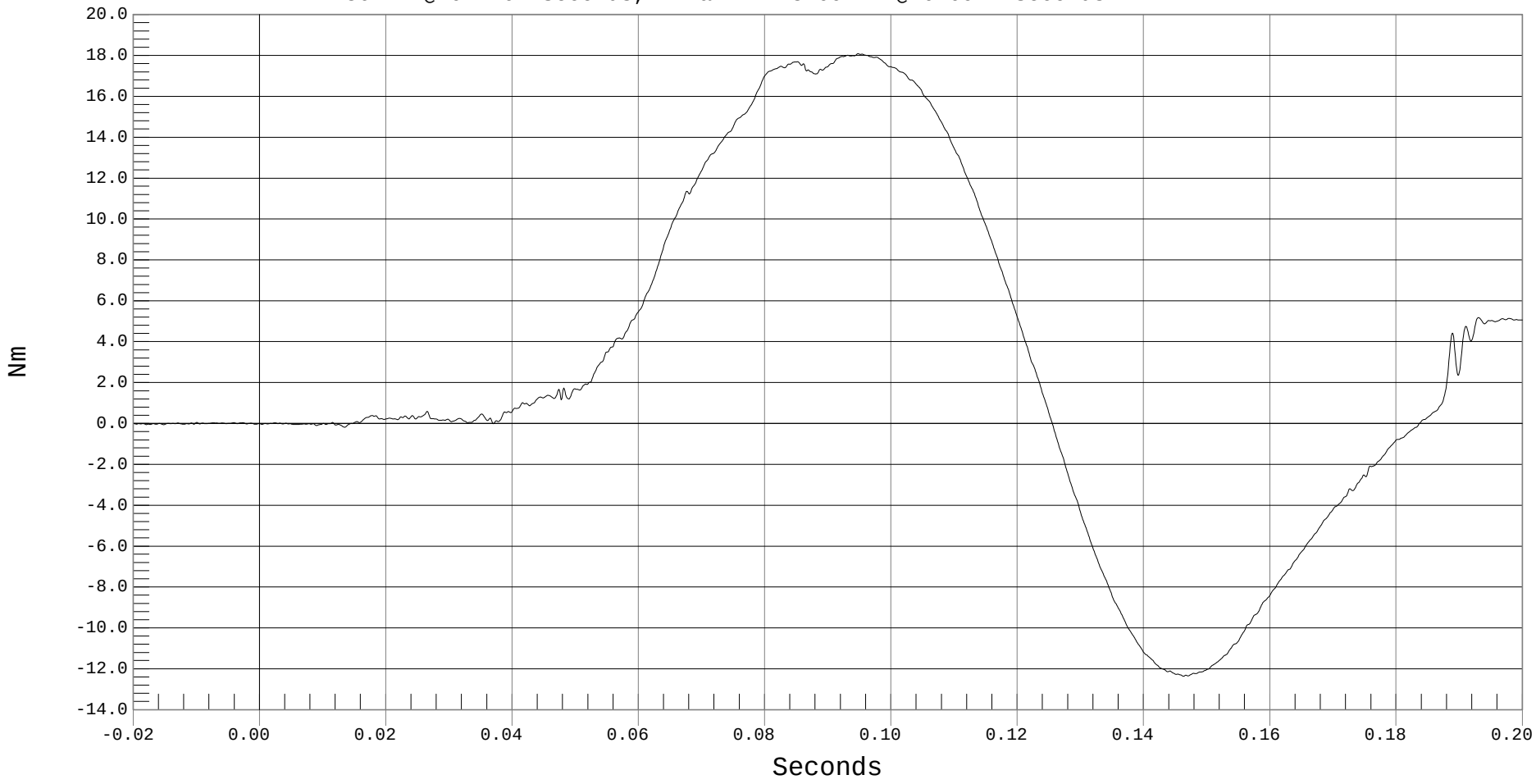
DRIVER NECK MOMENT Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER NECK MZ, B01031MF.M09

Ymin = -12.36 Nm @ 0.1462 Seconds, Ymax = 18.09 Nm @ 0.0947 Seconds



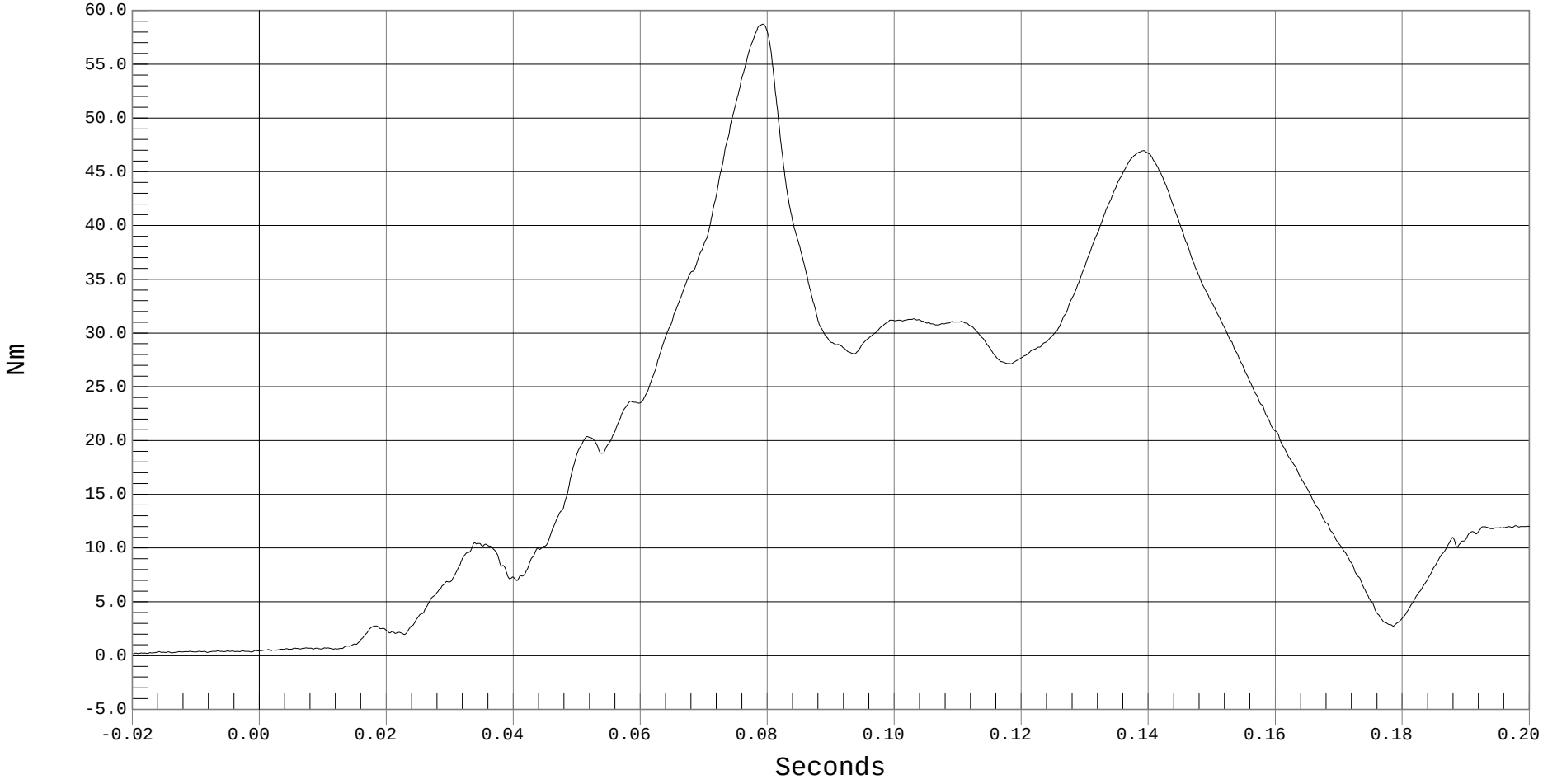
DRIVER NECK MOMENT RESULTANT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER NECK MOMENT RESULTANT, B01031MV.M07

Ymin = .18 Nm @ -0.0191 Seconds, Ymax = 58.73 Nm @ 0.0792 Seconds



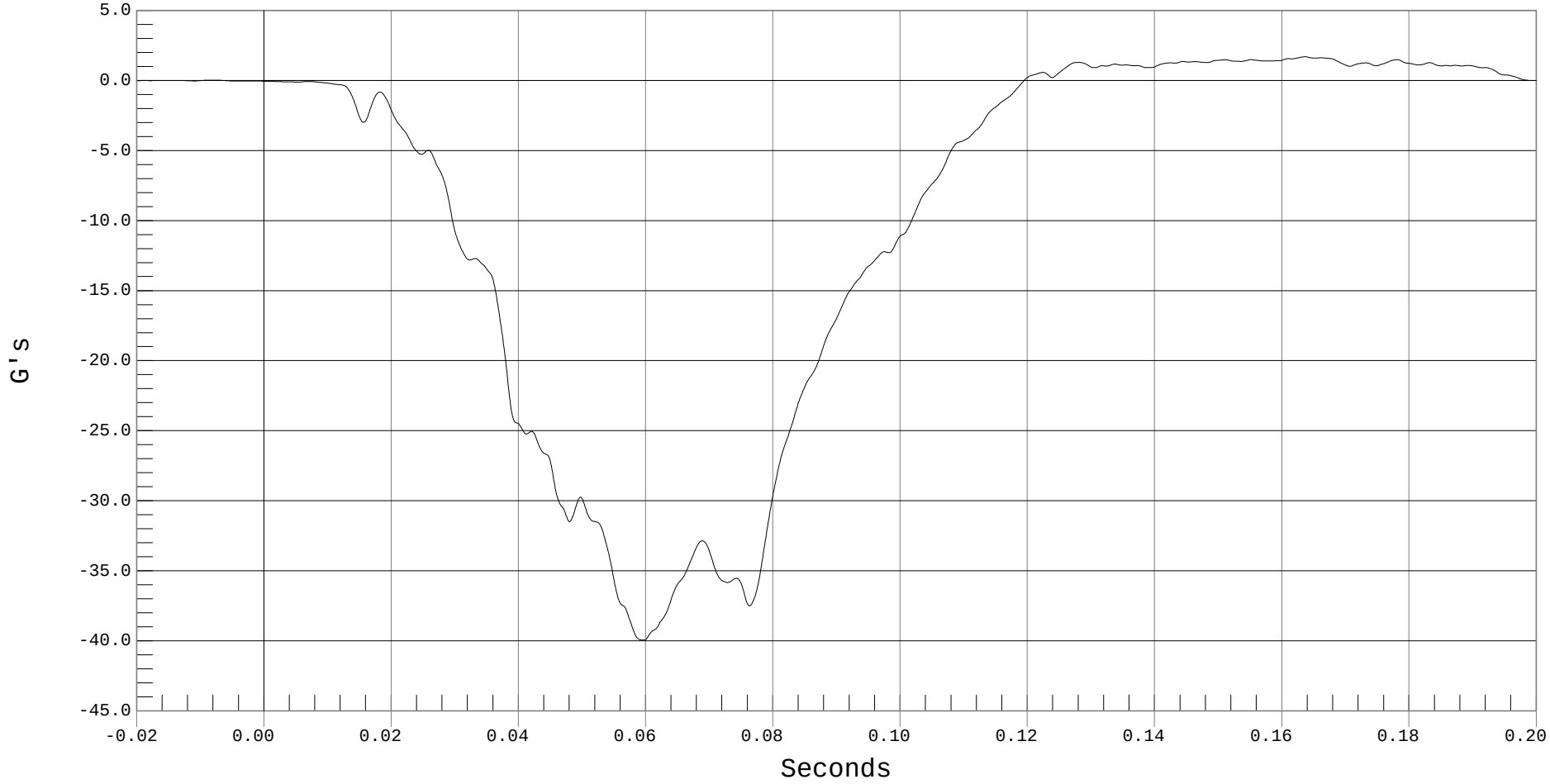
DRIVER CHEST X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER CHEST X, B01031AF.A10

Ymin = -39.96 G's @ 0.0596 Seconds, Ymax = 1.7 G's @ 0.1635 Seconds



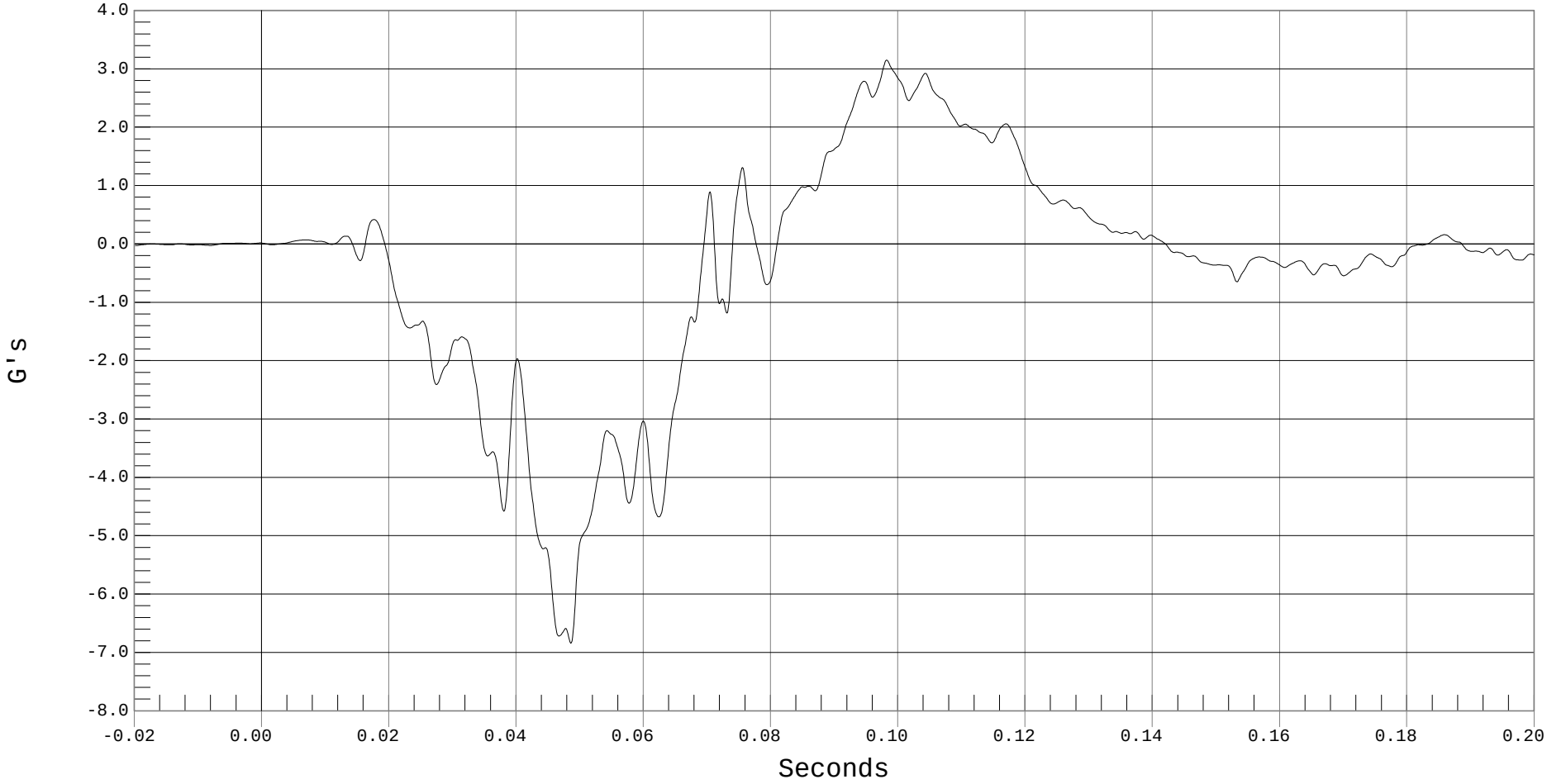
DRIVER CHEST Y ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER CHEST Y, B01031AF.A11

Ymin = -6.84 G's @ 0.0485 Seconds, Ymax = 3.15 G's @ 0.0982 Seconds



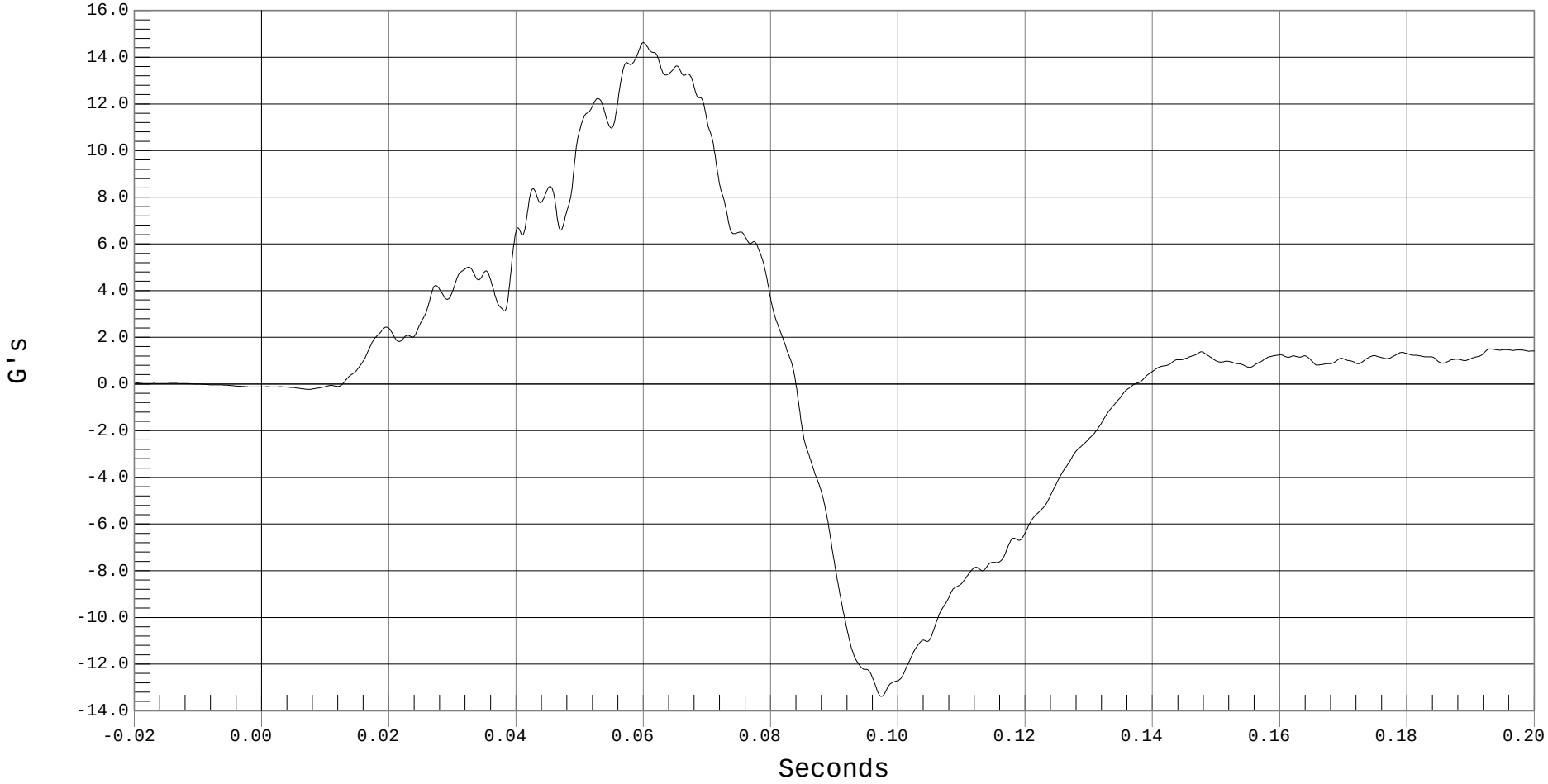
DRIVER CHEST Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER CHEST Z, B01031AF.A12

Ymin = -13.39 G's @ 0.0973 Seconds, Ymax = 14.63 G's @ 0.0599 Seconds



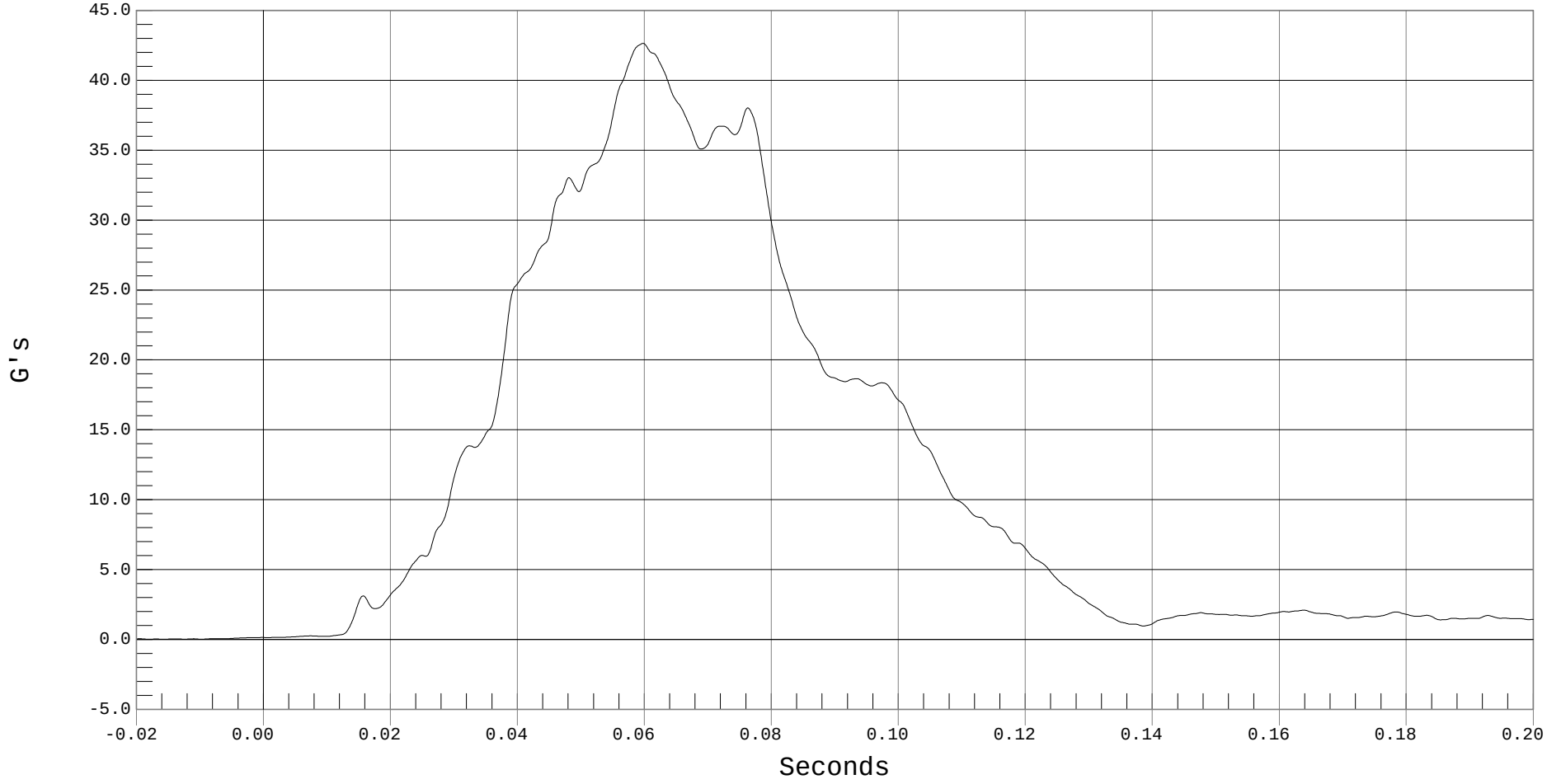
DRIVER CHEST RESULTANT ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER CHEST RESULTANT ACCELERATION, B01031AV.A10

Ymin = .01 G's @ -0.0099 Seconds, Ymax = 42.65 G's @ 0.0597 Seconds



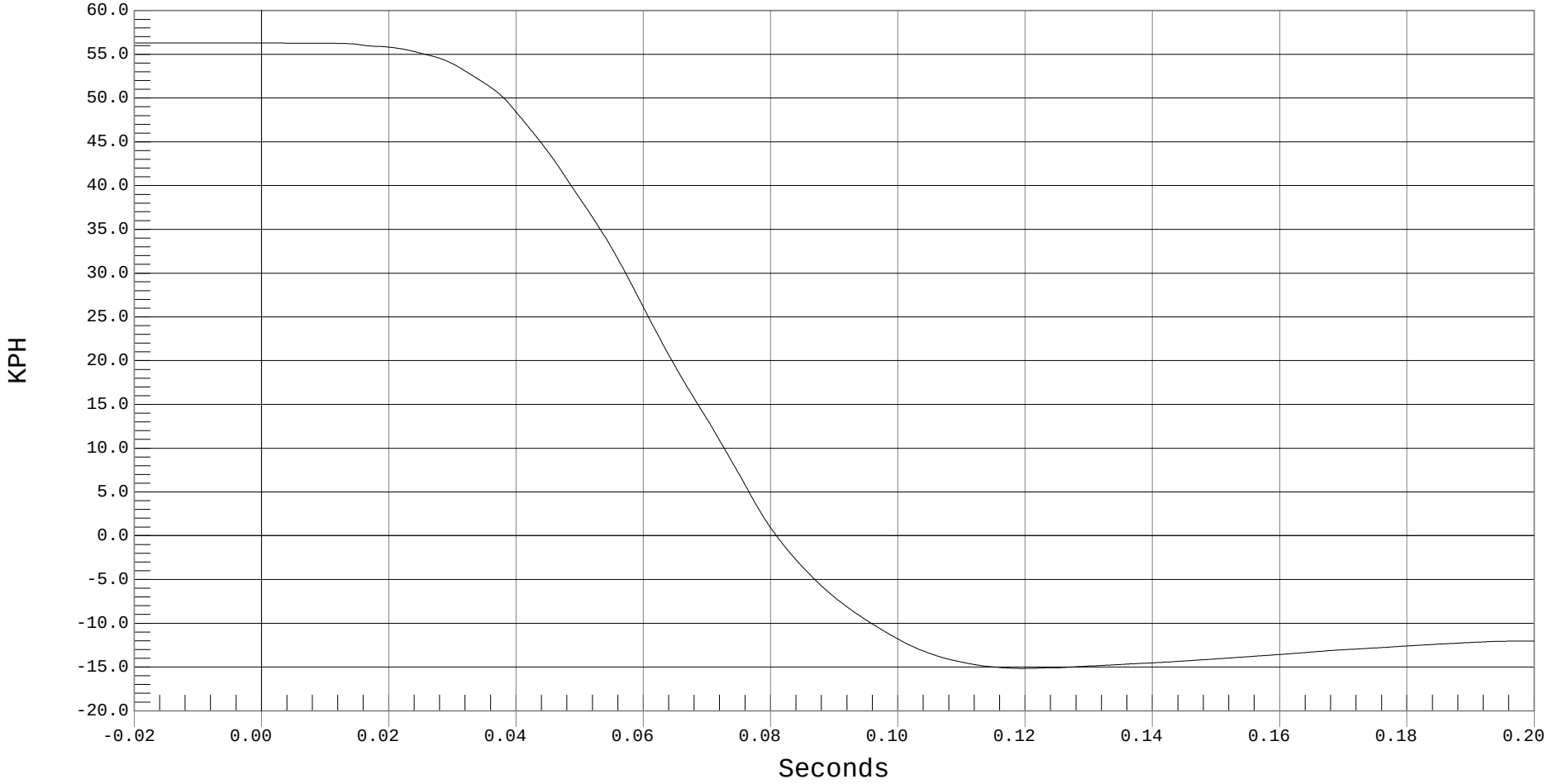
DRIVER CHEST X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER CHEST X VELOCITY, B01031AI.V10

Ymin = -15.16 KPH @ 0.1194 Seconds, Ymax = 56.3 KPH @ -0.0199 Seconds



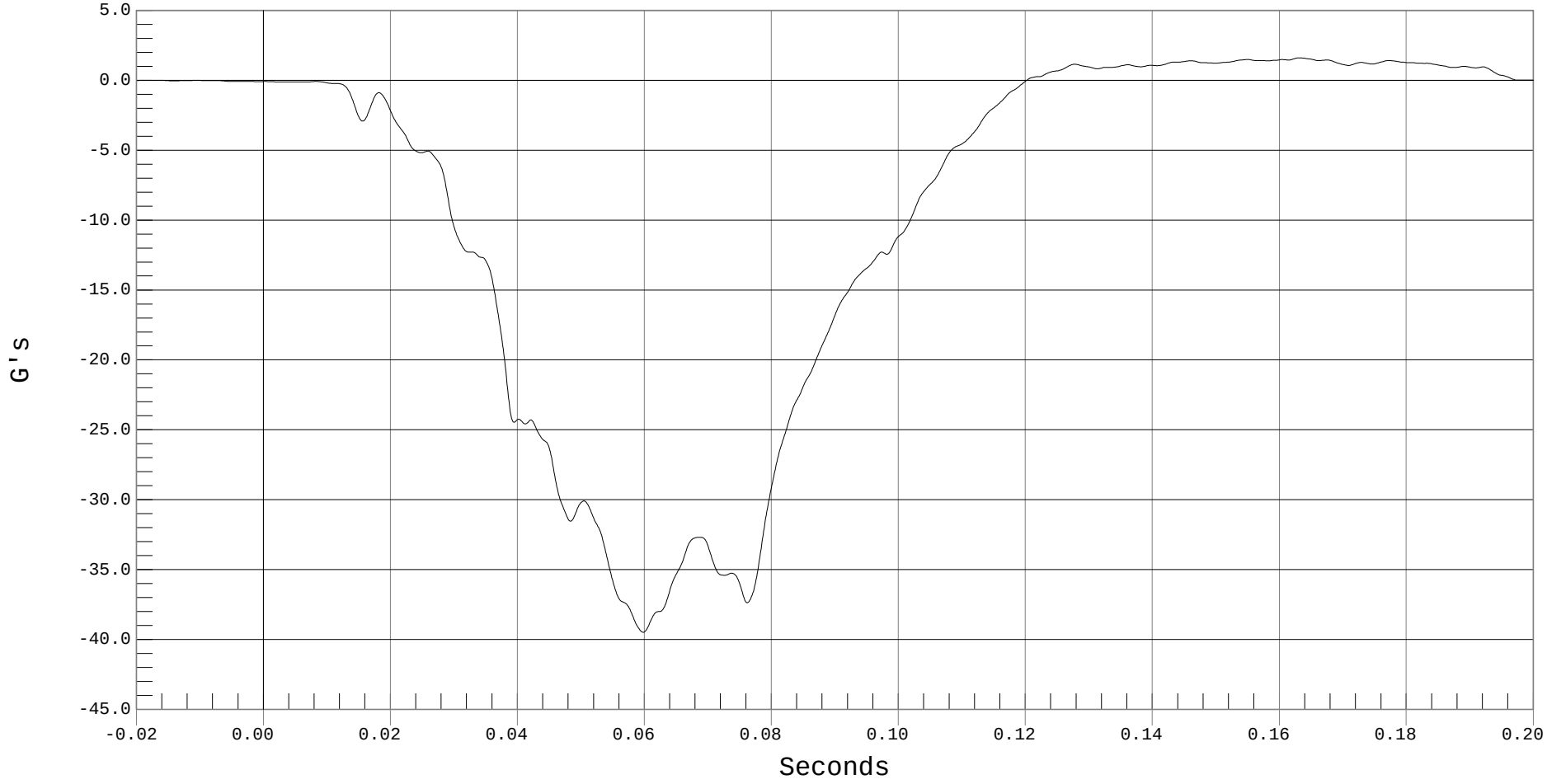
DRIVER CHEST REDUNDANT X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER CHEST Xr, B01031AF.A36

Ymin = -39.5 G's @ 0.0597 Seconds, Ymax = 1.61 G's @ 0.1631 Seconds



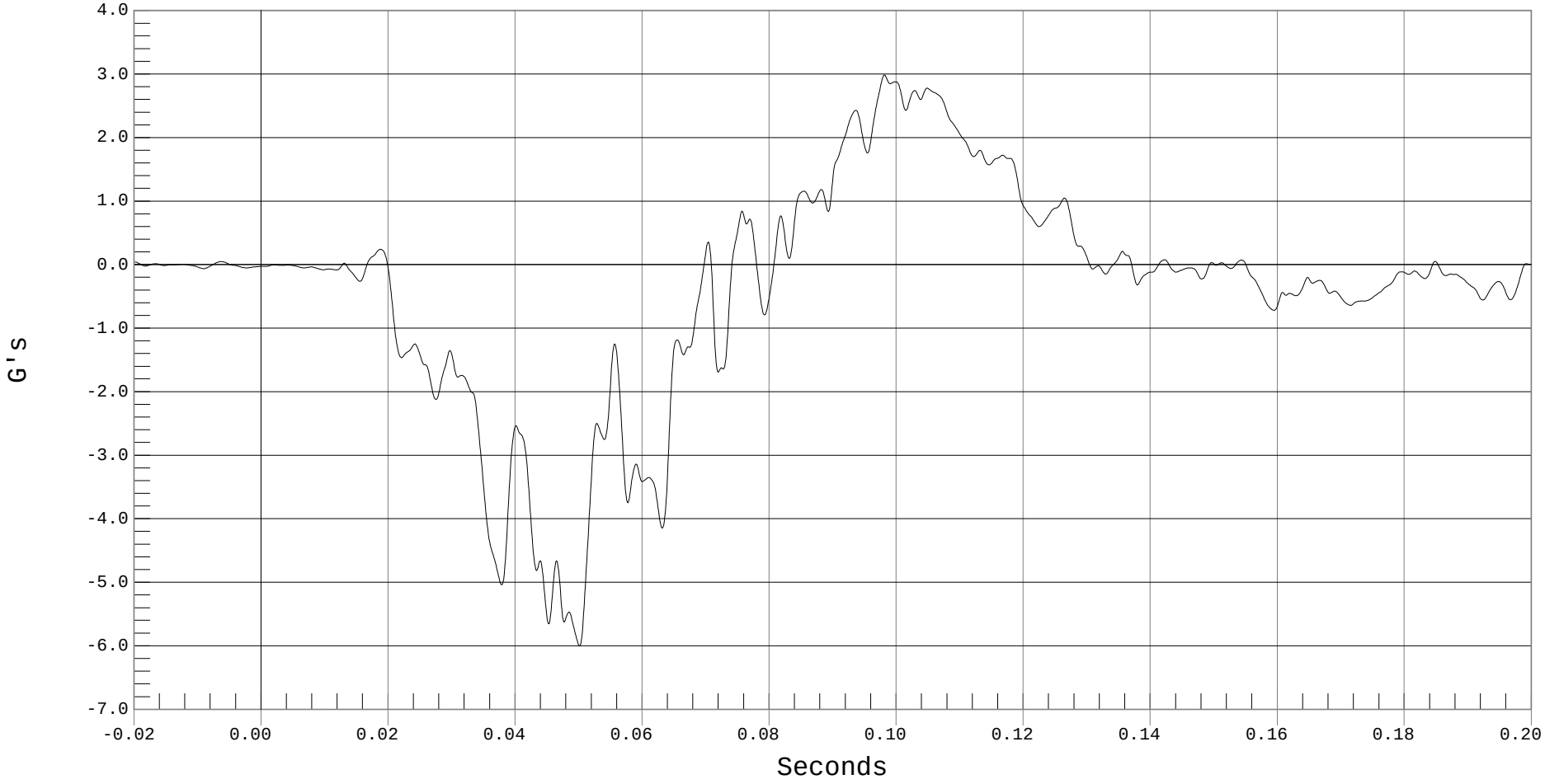
DRIVER CHEST REDUNDANT Y ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER CHEST Yr, B01031AF.A37

Ymin = -6.01 G's @ 0.0501 Seconds, Ymax = 2.98 G's @ 0.0981 Seconds



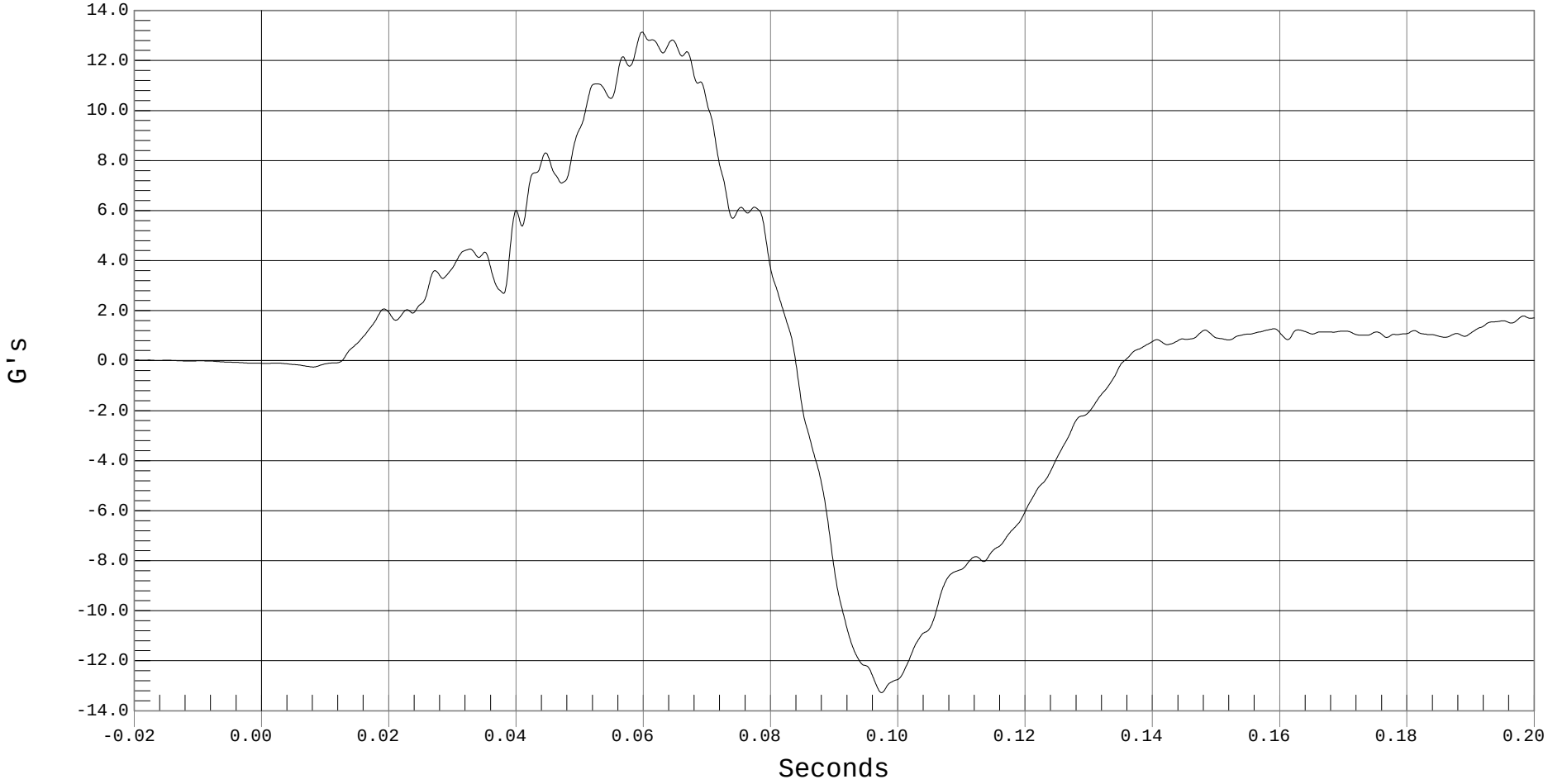
DRIVER CHEST REDUNDANT Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER CHEST Zr, B01031AF.A38

Ymin = -13.27 G's @ 0.0974 Seconds, Ymax = 13.14 G's @ 0.0597 Seconds



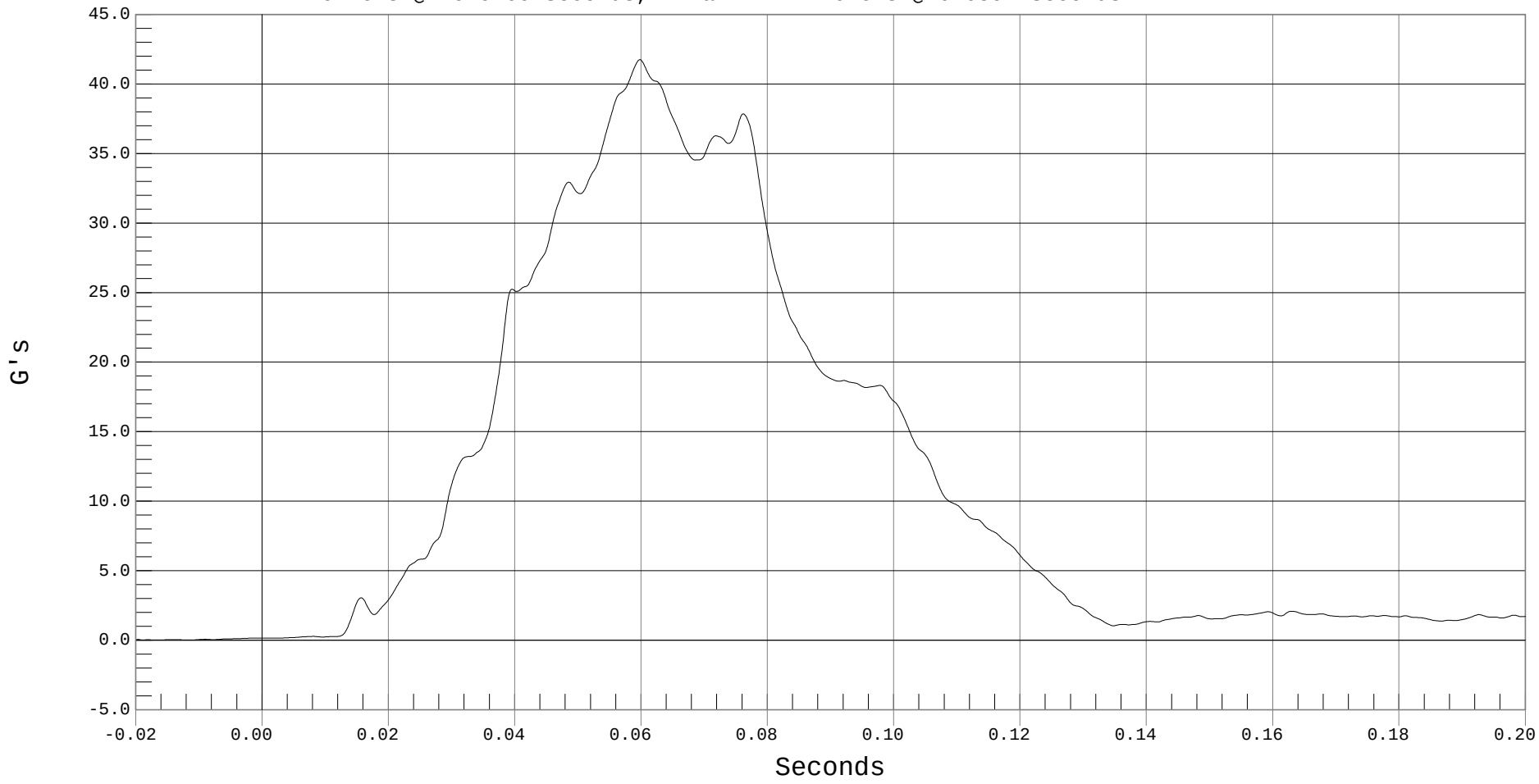
DRIVER CHEST REDUNDANT RESULTANT ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER CHEST REDUNDANT RESULTANT ACCELERATION, B01031AV.A36

Ymin = .01 G's @ -0.0160 Seconds, Ymax = 41.76 G's @ 0.0597 Seconds



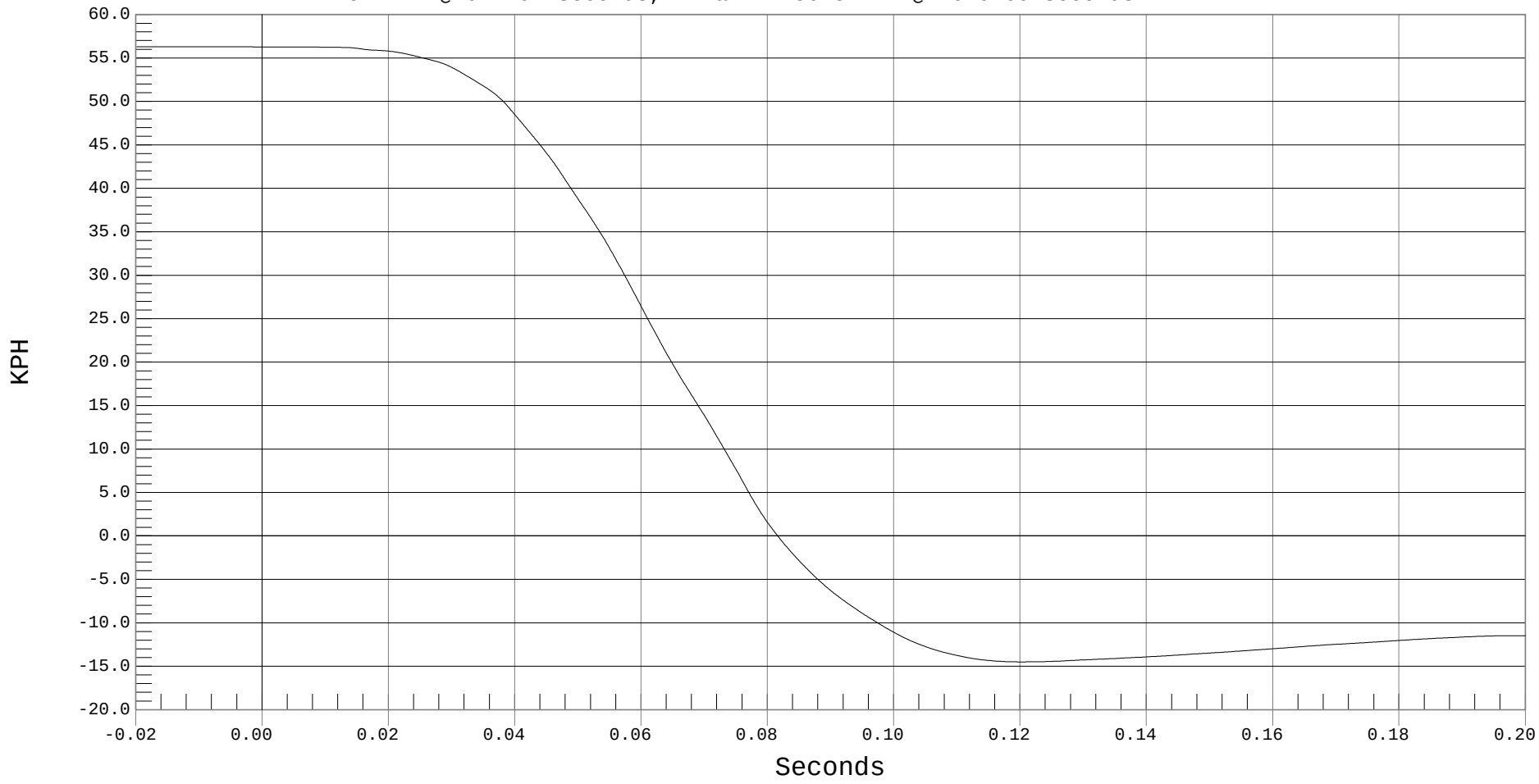
DRIVER CHEST REDUNDANT X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER CHEST REDUNDANT X VELOCITY, B01031AI.V36

Ymin = -14.51 KPH @ 0.1201 Seconds, Ymax = 56.3 KPH @ -0.0160 Seconds



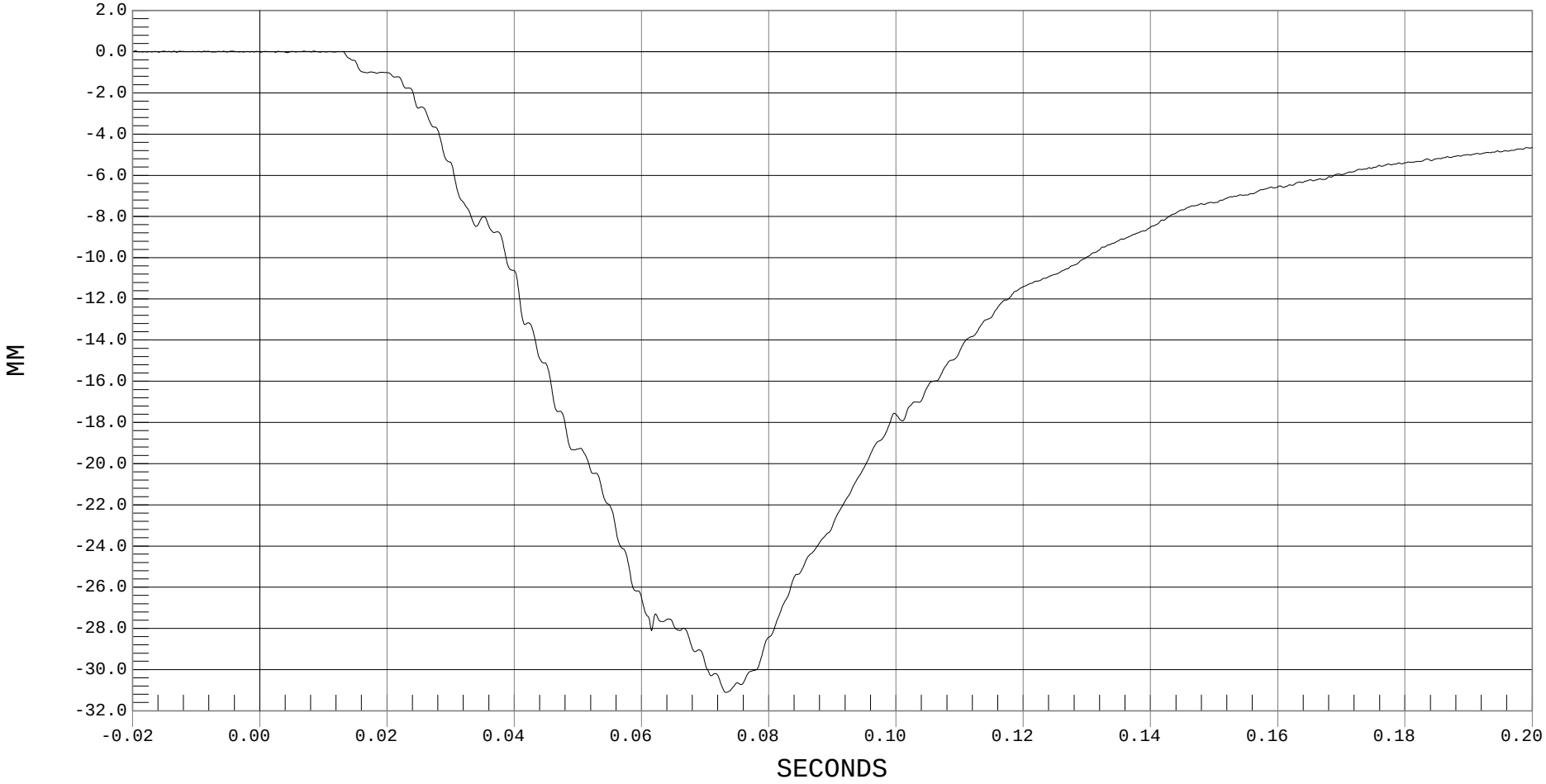
DRIVER CHEST COMPRESSION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER CHEST DISPLACEMENT, B01031DF.D13

Ymin = -31.11 MM @ 0.0732 SECONDS, Ymax = .04 MM @ -0.0196 SECONDS



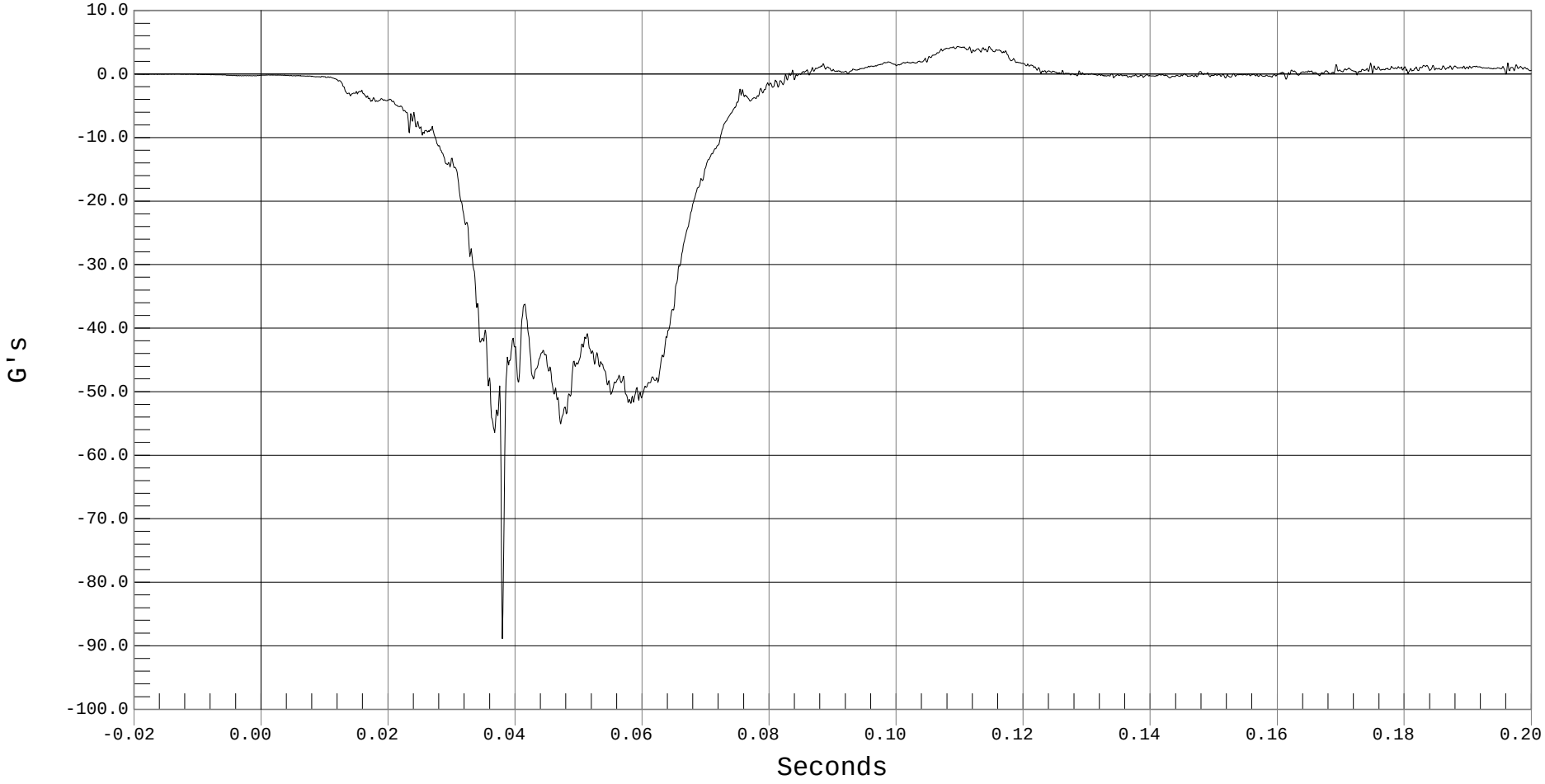
DRIVER PELVIS X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 DRIVER PELVIS X, B01031AT.A14

Ymin = -88.9 G's @ 0.0379 Seconds, Ymax = 4.33 G's @ 0.1097 Seconds



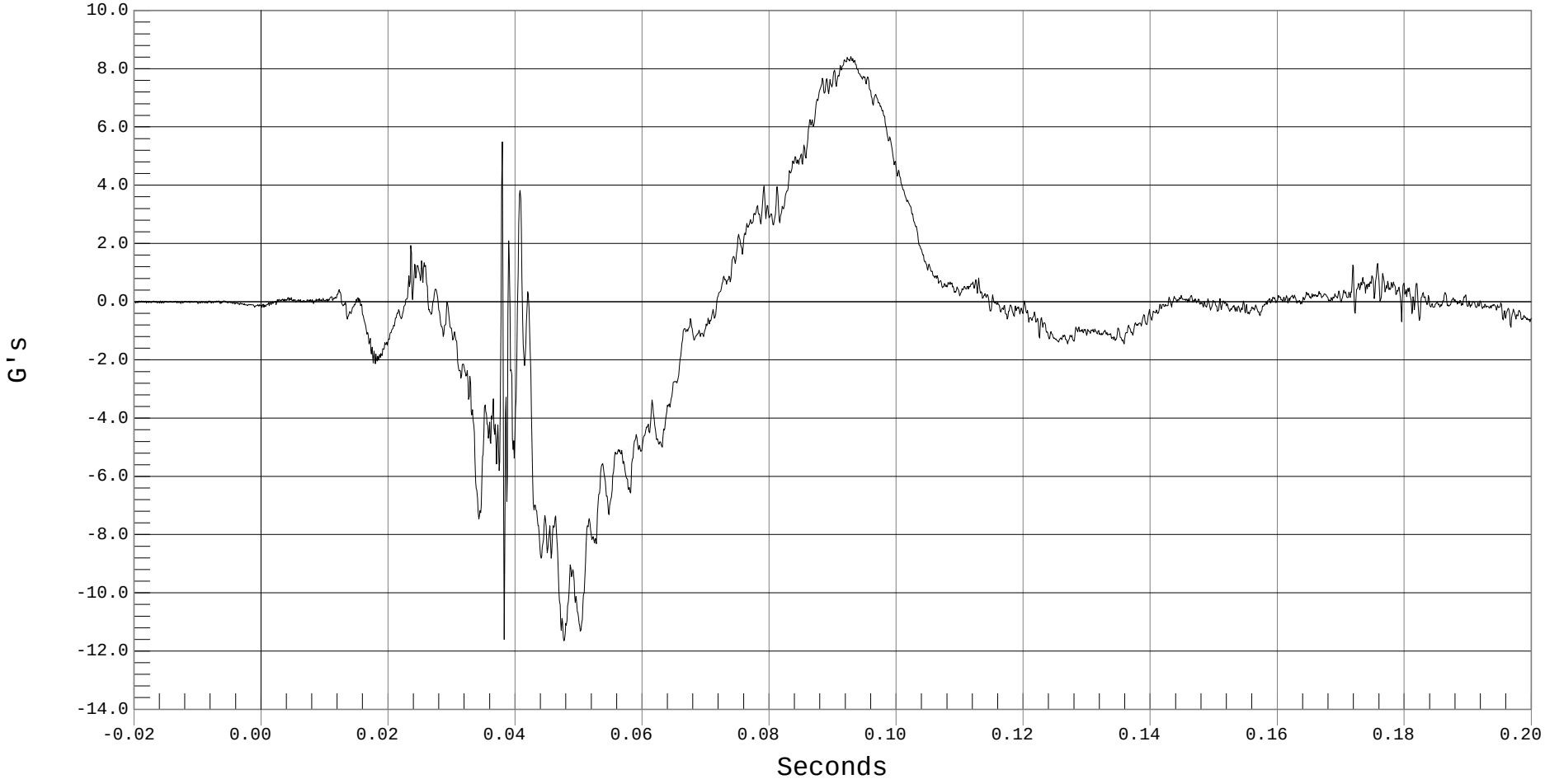
DRIVER PELVIS Y ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 DRIVER PELVIS Y, B01031AT.A15

Ymin = -11.64 G's @ 0.0476 Seconds, Ymax = 8.42 G's @ 0.0928 Seconds



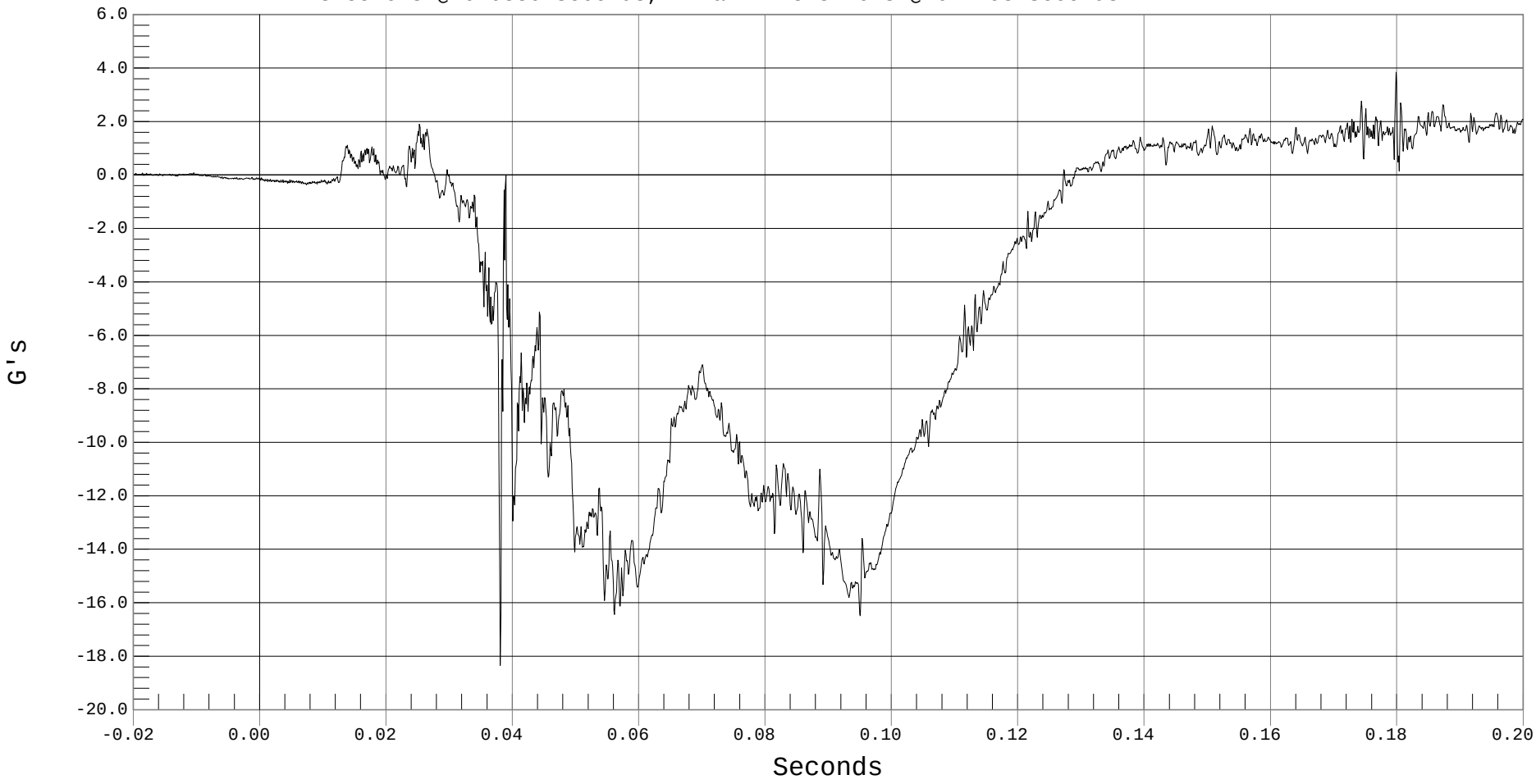
DRIVER PELVIS Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 DRIVER PELVIS Z, B01031AT.A16

Ymin = -18.35 G's @ 0.0380 Seconds, Ymax = 3.84 G's @ 0.1798 Seconds



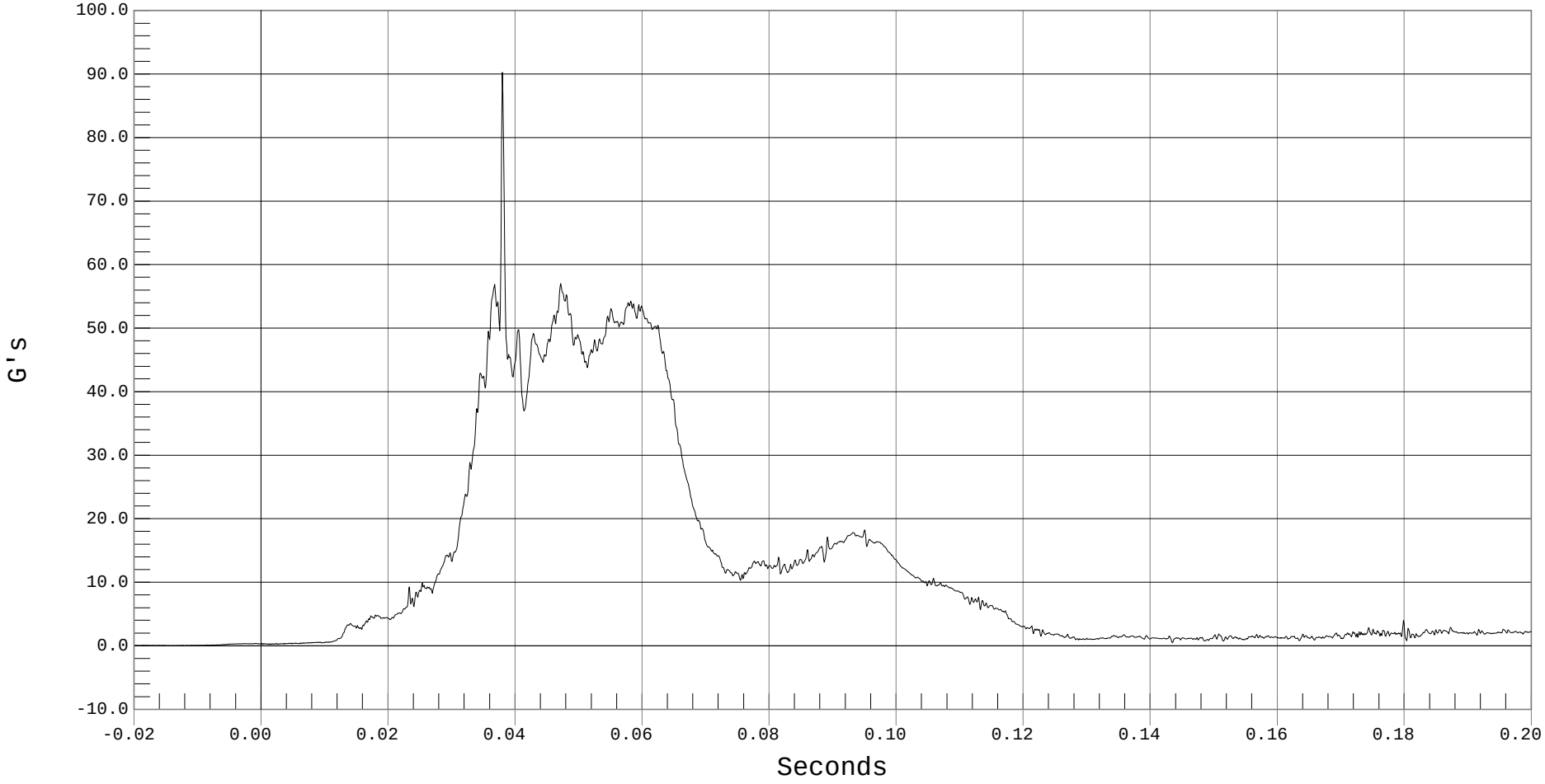
DRIVER PELVIS RESULTANT ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 DRIVER PELVIS RESULTANT ACCELERATION, B01031AV.A14

Ymin = .01 G's @ -0.0135 Seconds, Ymax = 90.24 G's @ 0.0379 Seconds



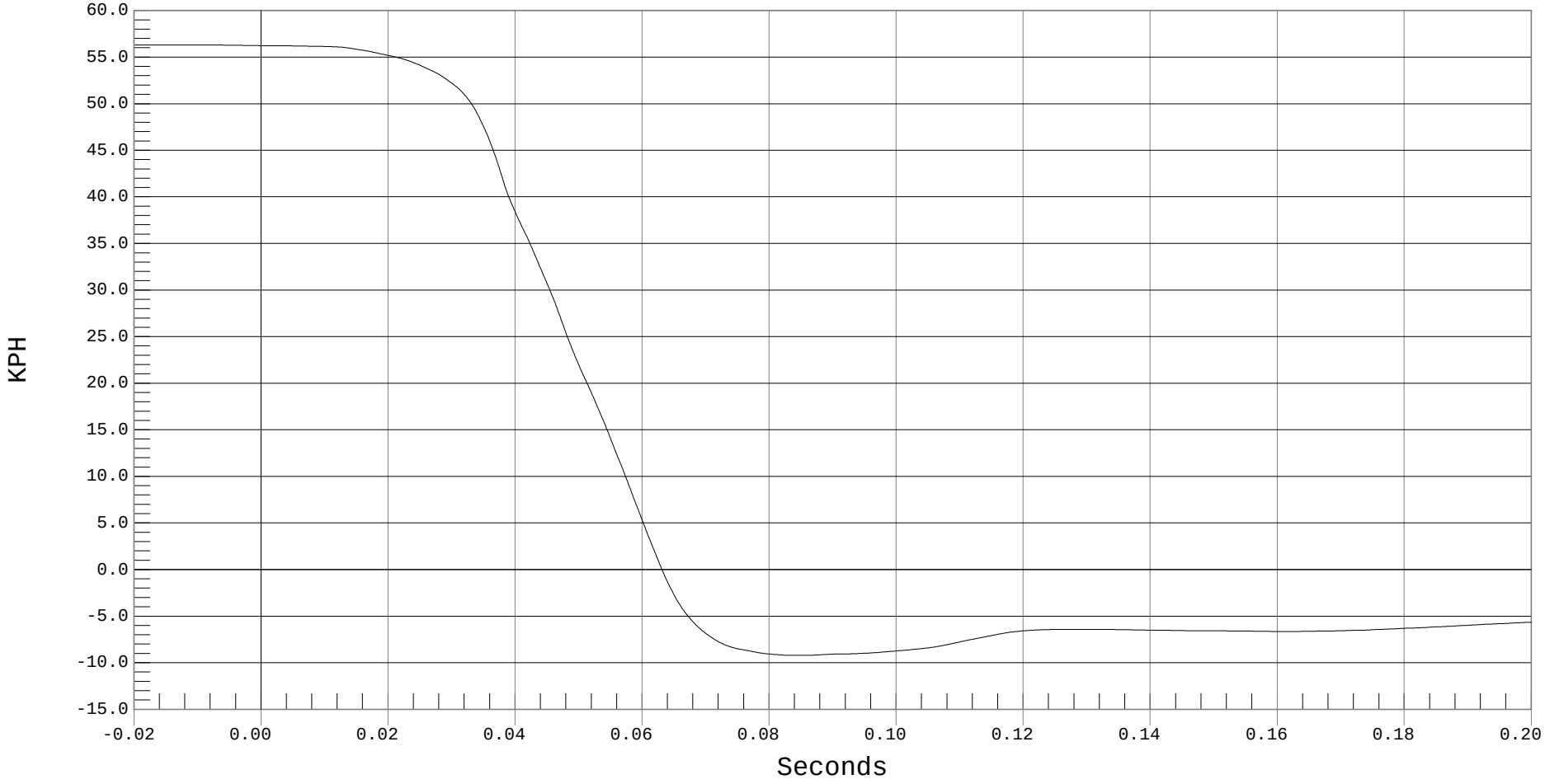
DRIVER PELVIS X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER PELVIS X VELOCITY, B01031AI.V14

Ymin = -9.21 KPH @ 0.0847 Seconds, Ymax = 56.3 KPH @ -0.0199 Seconds



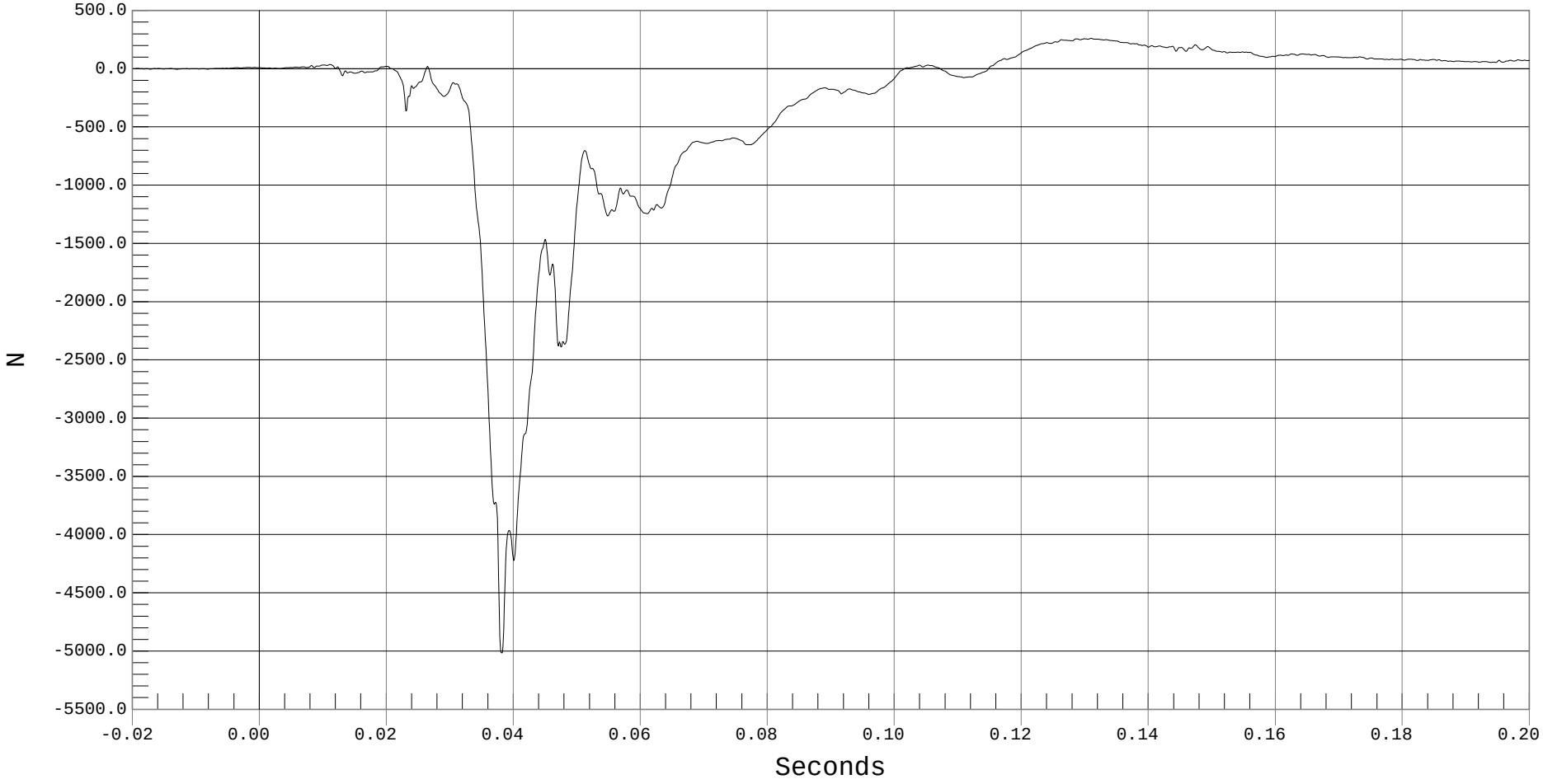
DRIVER LEFT FEMUR FORCE

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER LEFT FEMUR Z, B01031FF.F18

Ymin = -5016.68 N @ 0.0381 Seconds, Ymax = 261.14 N @ 0.1309 Seconds



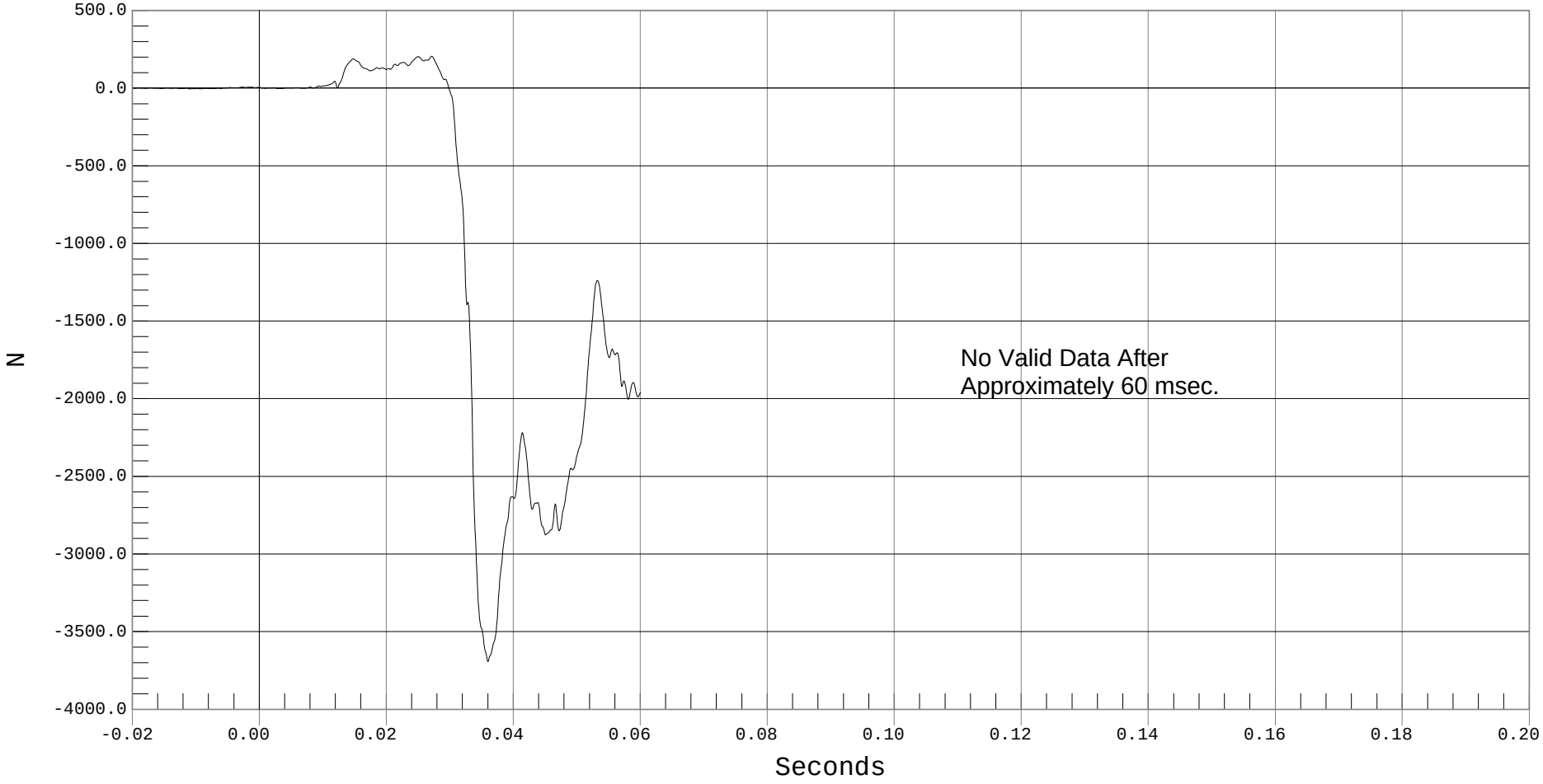
DRIVER RIGHT FEMUR FORCE (QD AFTER 60 MSEC)

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER RIGHT FEMUR Z, B01031FF.F17

Ymin = -3693.44 N @ 0.0359 Seconds, Ymax = 205.5 N @ 0.0271 Seconds



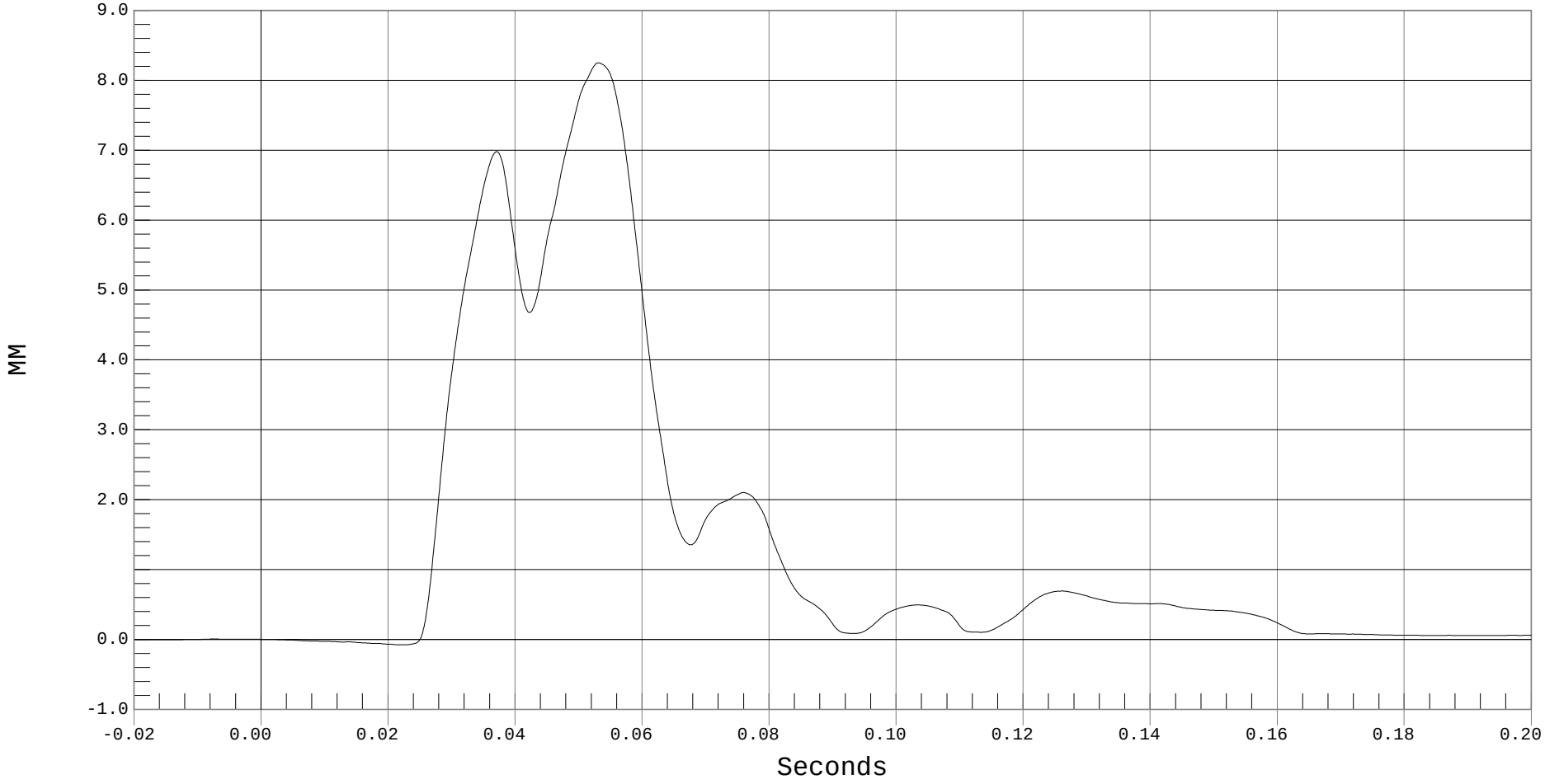
DRIVER LEFT KNEE SHEER

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER LEFT KNEE SHEER, B01031DF.D60

Ymin = -.08 MM @ 0.0220 Seconds, Ymax = 8.25 MM @ 0.0531 Seconds



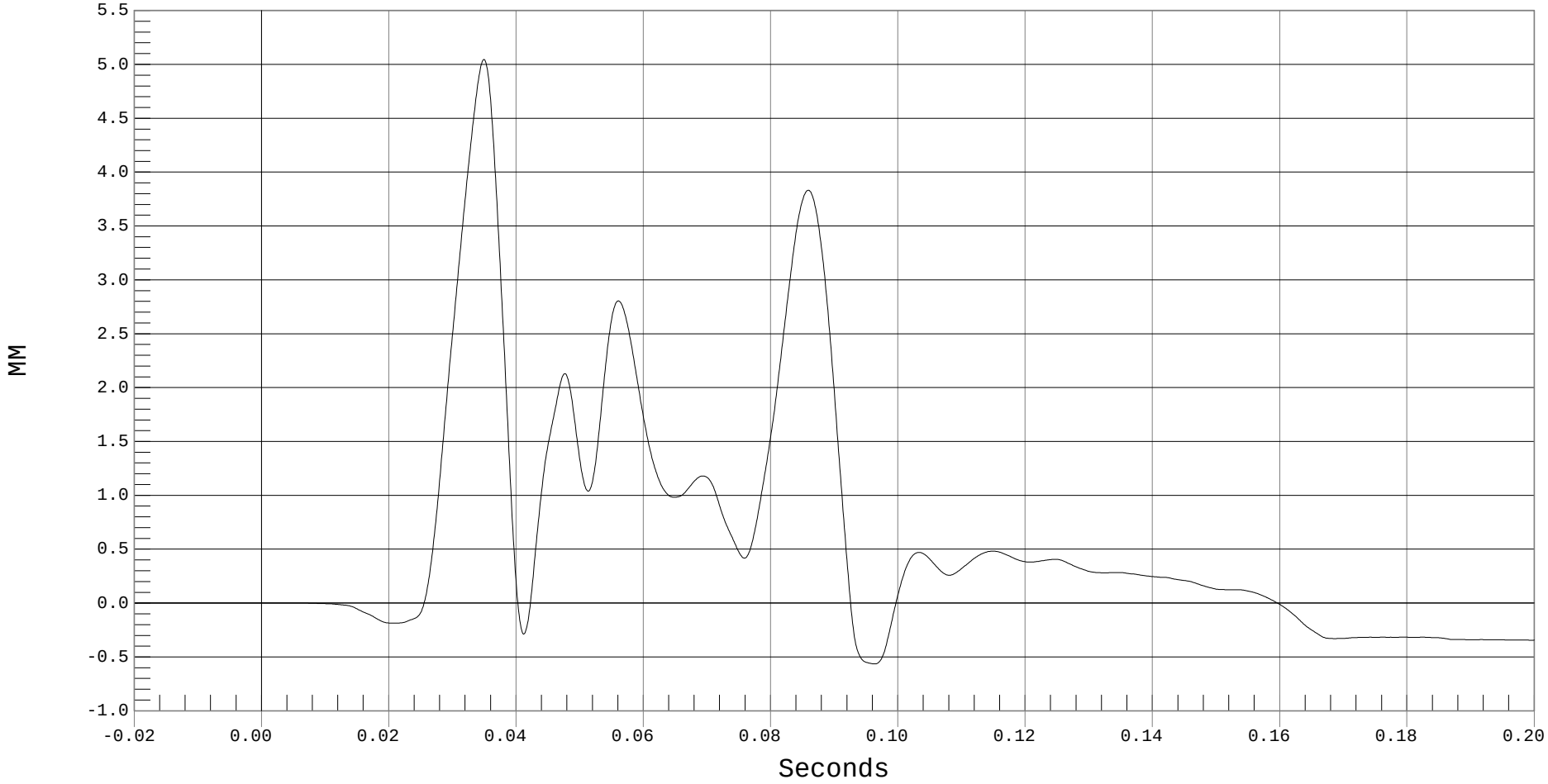
DRIVER RIGHT KNEE SHEER

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER RIGHT KNEE SHEER, B01031DF.D59

Ymin = -.57 MM @ 0.0962 Seconds, Ymax = 5.05 MM @ 0.0349 Seconds



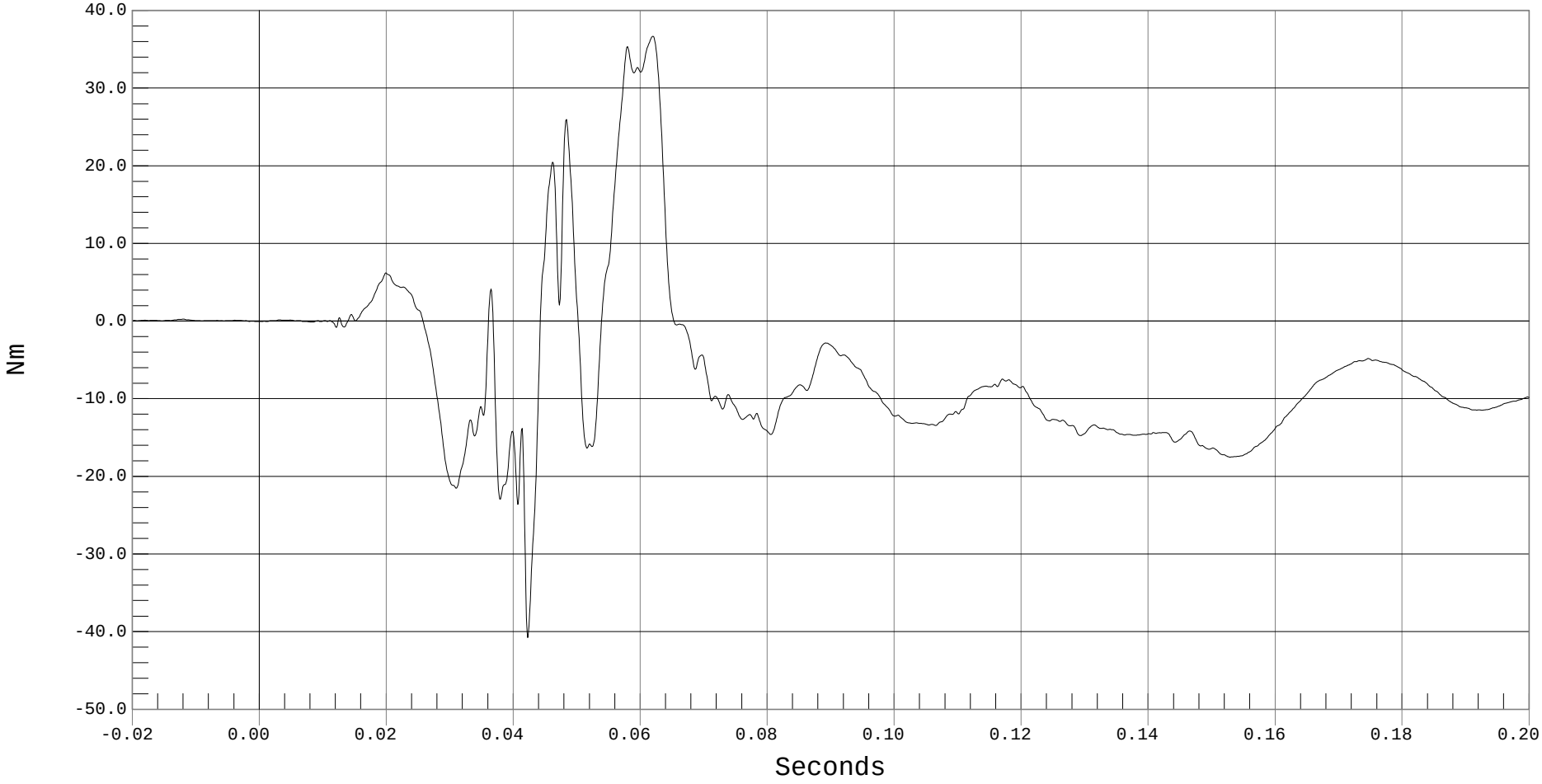
DRIVER LEFT UPPER TIBIA MOMENT X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER LEFT UPPER TIBIA MX, B01031MF.M75

Ymin = -40.77 Nm @ 0.0422 Seconds, Ymax = 36.69 Nm @ 0.0619 Seconds



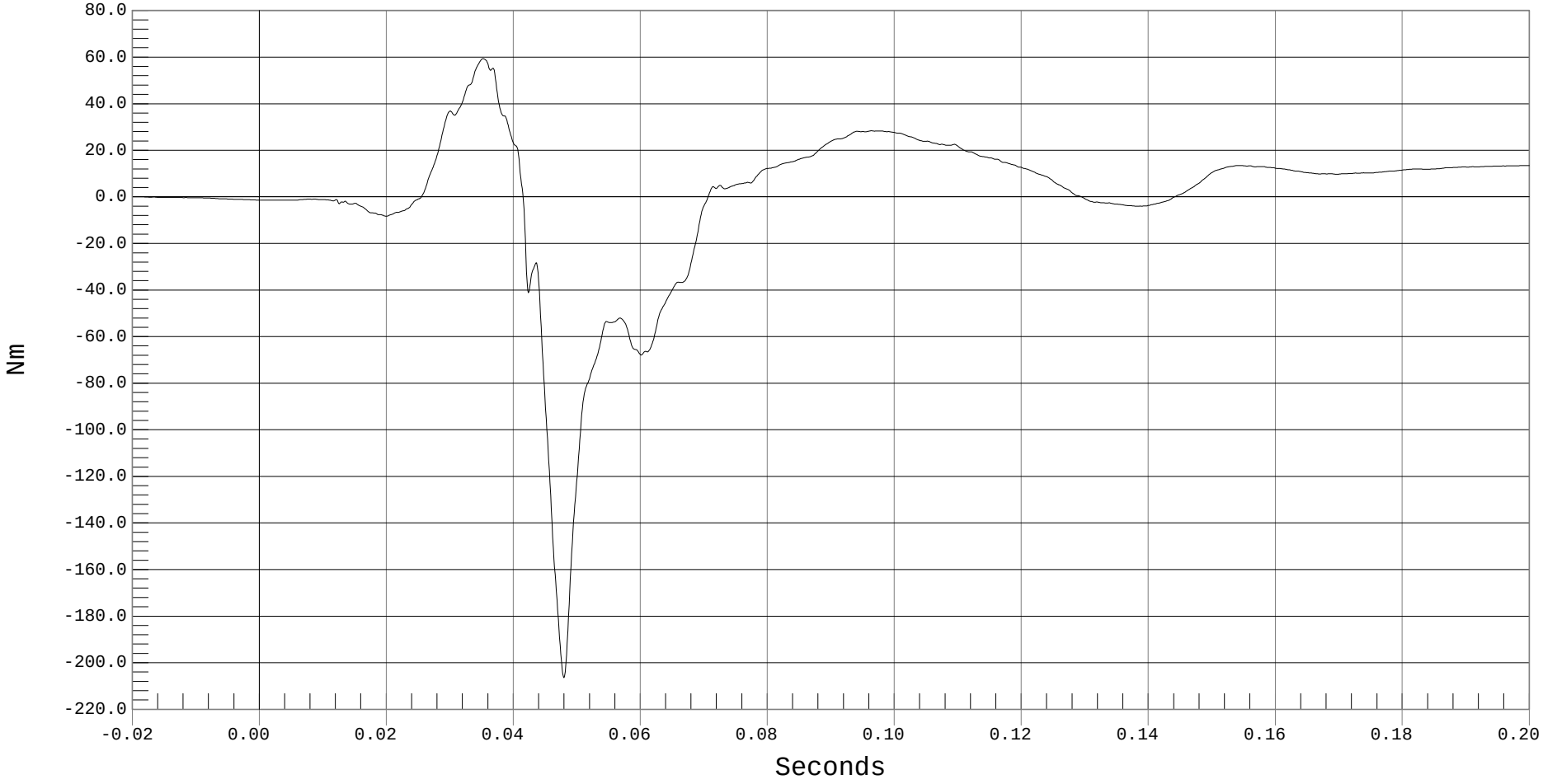
DRIVER LEFT UPPER TIBIA MOMENT Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER LEFT UPPER TIBIA MY, B01031MF.M76

Ymin = -206.45 Nm @ 0.0479 Seconds, Ymax = 59.31 Nm @ 0.0352 Seconds



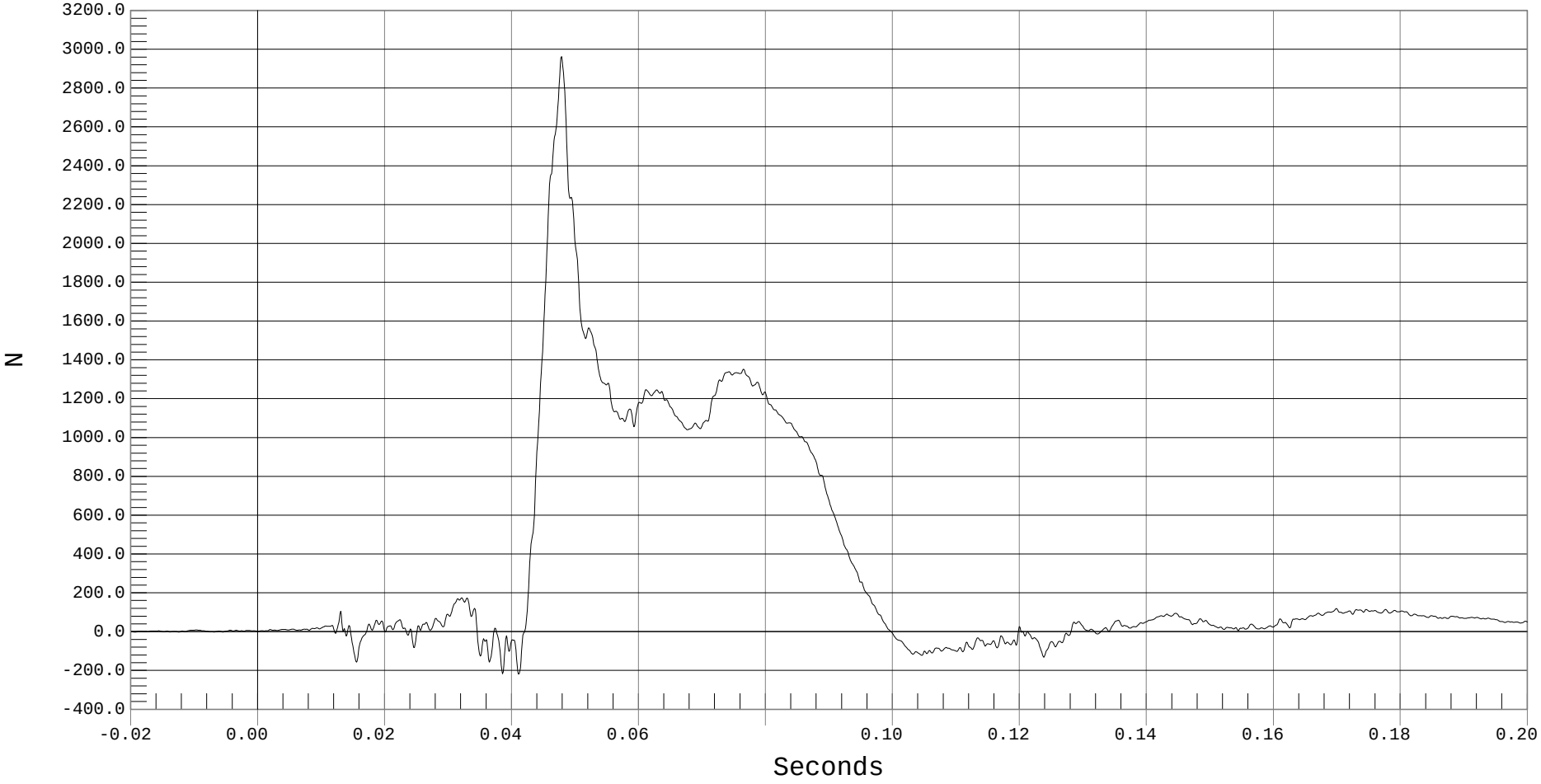
DRIVER LEFT UPPER TIBIA FORCE Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER LEFT UPPER TIBIA FZ, B01031FF.F77

Ymin = -218.85 N @ 0.0410 Seconds, Ymax = 2962.79 N @ 0.0478 Seconds



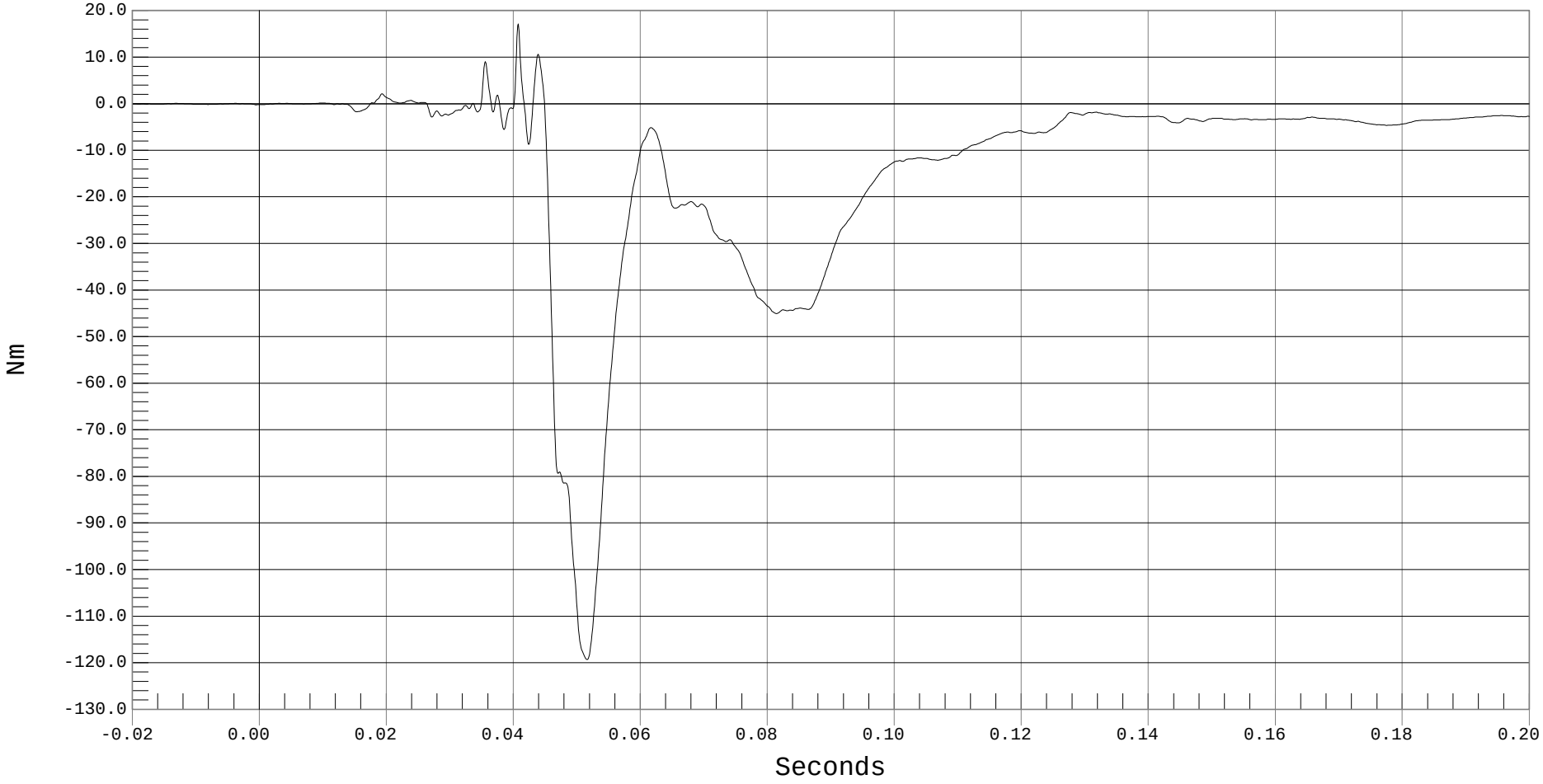
DRIVER LEFT LOWER TIBIA MOMENT X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER LEFT LOWER TIBIA MX, B01031MF.M78

Ymin = -119.33 Nm @ 0.0515 Seconds, Ymax = 17.16 Nm @ 0.0407 Seconds



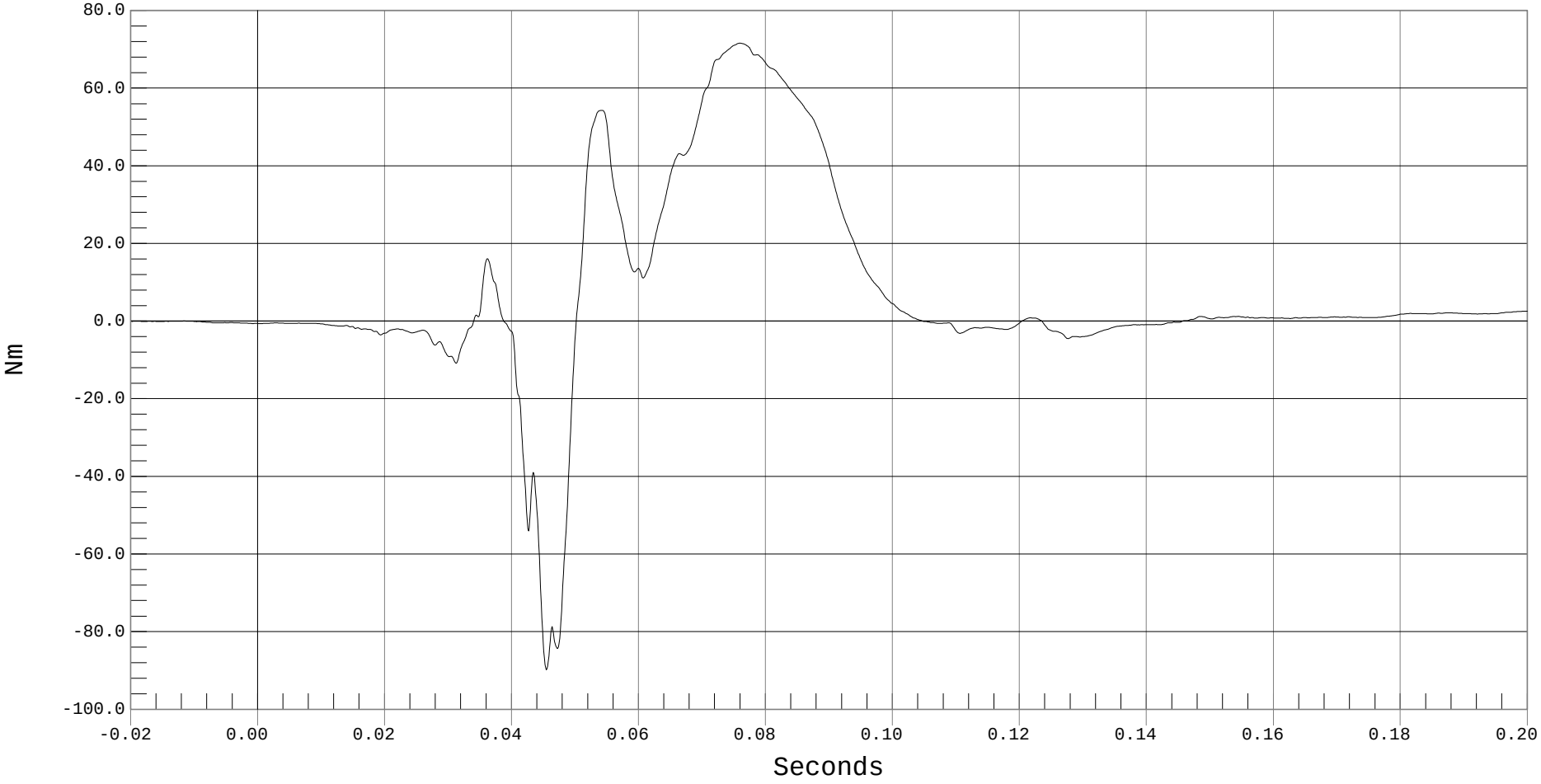
DRIVER LEFT LOWER TIBIA MOMENT Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER LEFT LOWER TIBIA MY, B01031MF.M79

Ymin = -89.79 Nm @ 0.0454 Seconds, Ymax = 71.58 Nm @ 0.0759 Seconds



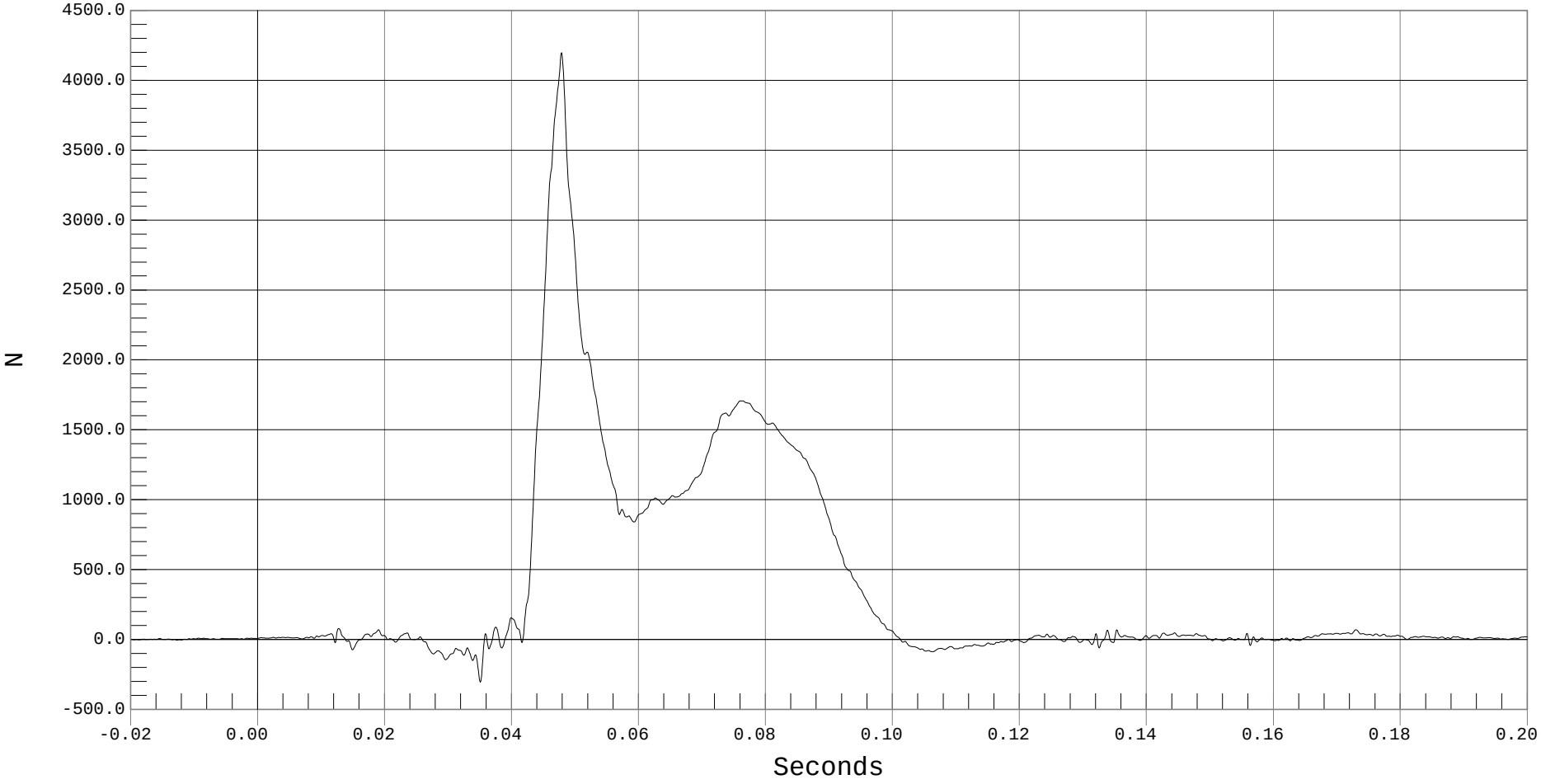
DRIVER LEFT LOWER TIBIA FORCE Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER LEFT LOWER TIBIA FZ, B01031FF.F80

Ymin = -306.06 N @ 0.0350 Seconds, Ymax = 4198.46 N @ 0.0478 Seconds



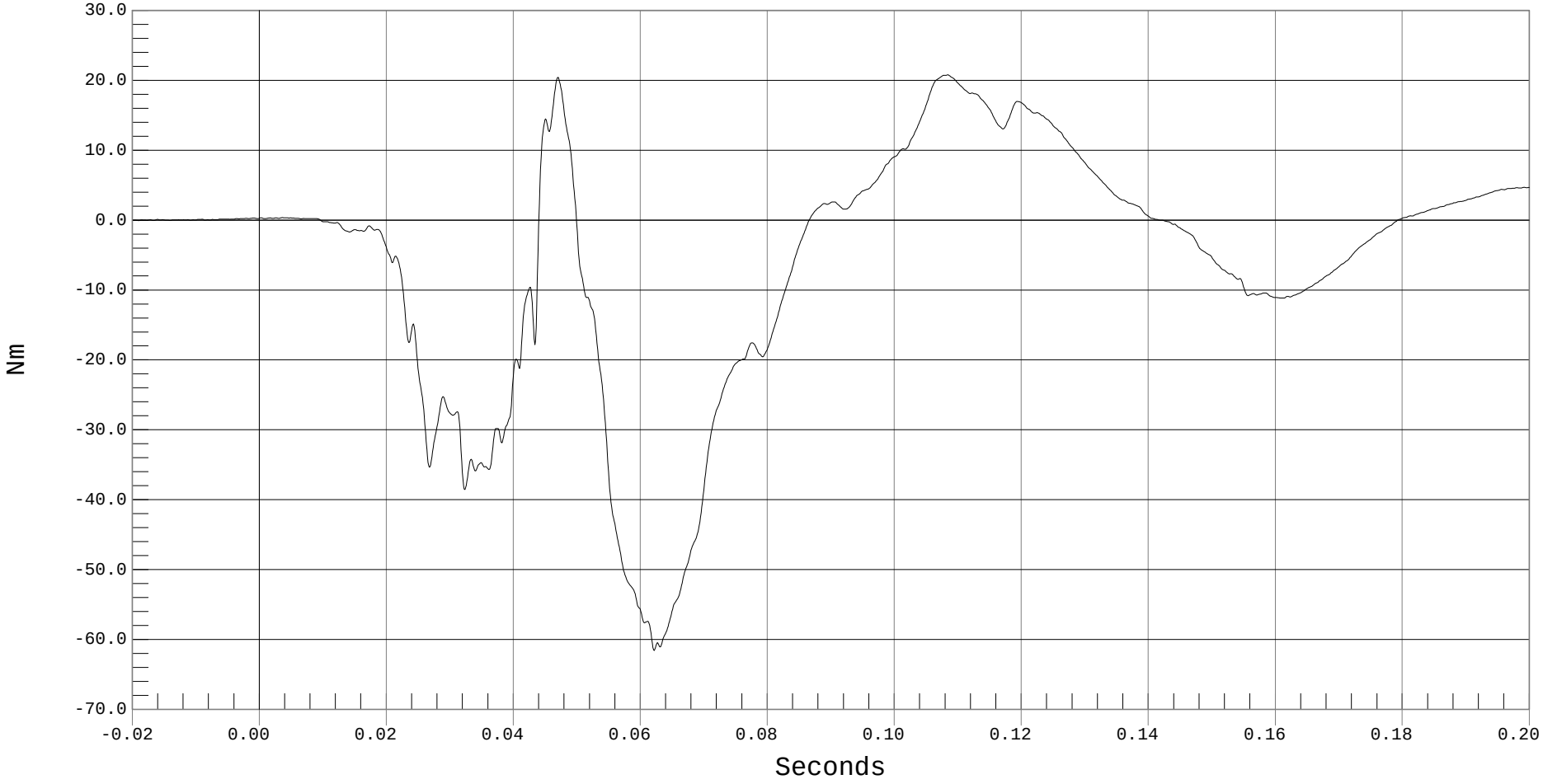
DRIVER RIGHT UPPER TIBIA MOMENT X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER RIGHT UPPER TIBIA MX, B01031MF.M69

Ymin = -61.61 Nm @ 0.0621 Seconds, Ymax = 20.78 Nm @ 0.1083 Seconds



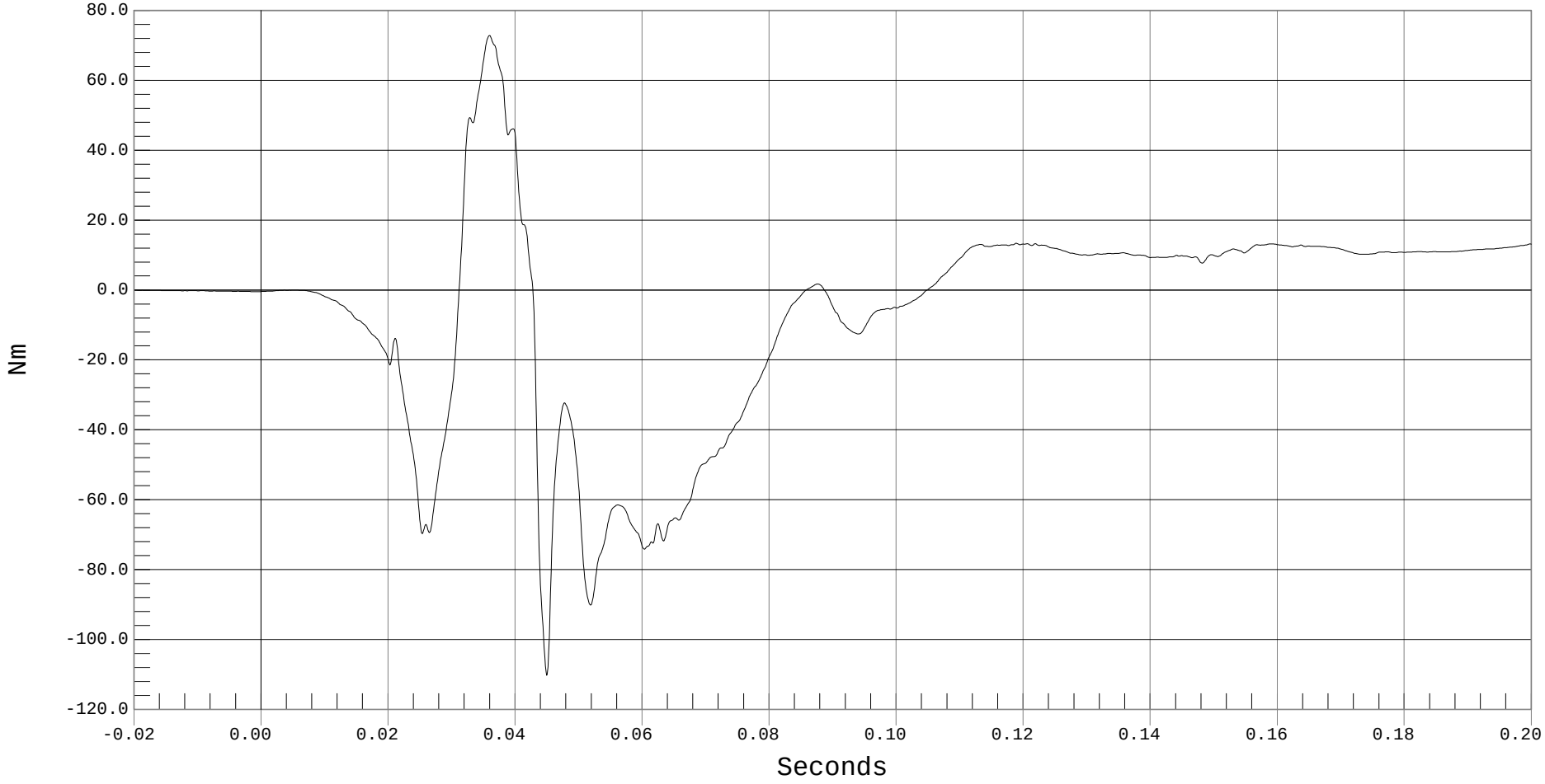
DRIVER RIGHT UPPER TIBIA MOMENT Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER RIGHT UPPER TIBIA MY, B01031MF.M70

Ymin = -110.3 Nm @ 0.0449 Seconds, Ymax = 72.85 Nm @ 0.0359 Seconds



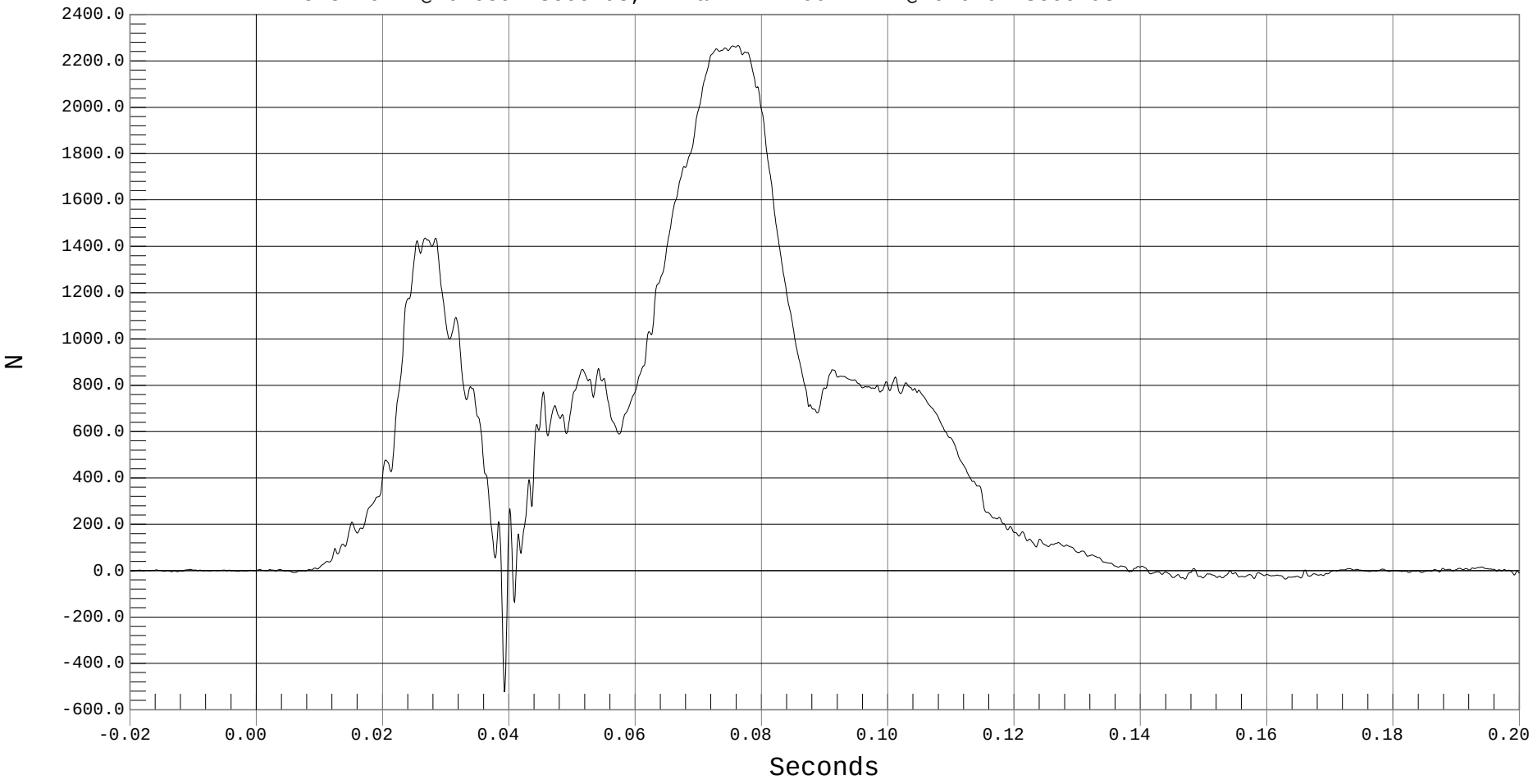
DRIVER RIGHT UPPER TIBIA FORCE Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER RIGHT UPPER TIBIA FZ, B01031FF.F71

Ymin = -523.76 N @ 0.0392 Seconds, Ymax = 2266.74 N @ 0.0762 Seconds



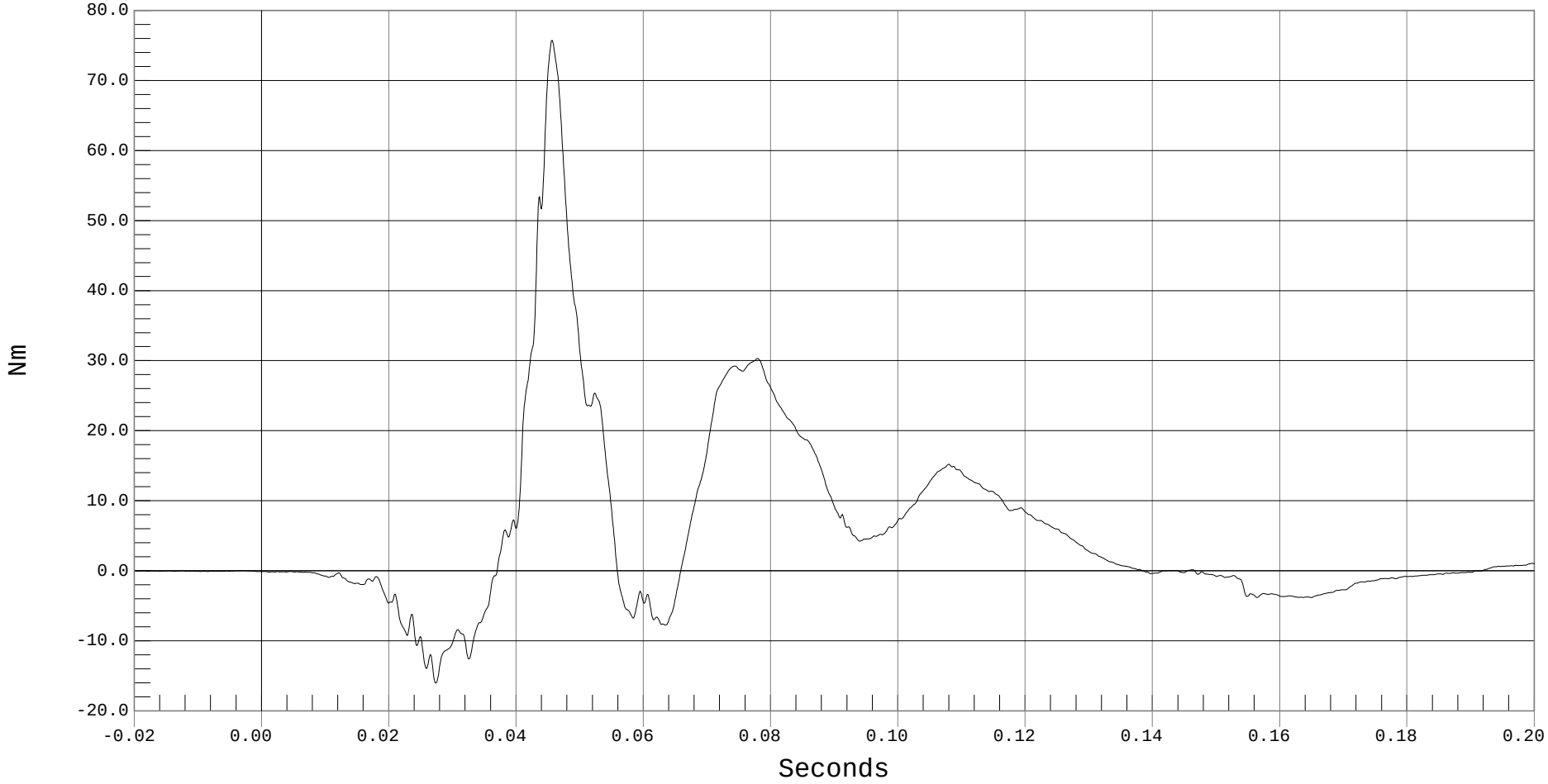
DRIVER RIGHT LOWER TIBIA MOMENT X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER RIGHT LOWER TIBIA MX, B01031MF.M72

Ymin = -16.07 Nm @ 0.0273 Seconds, Ymax = 75.76 Nm @ 0.0456 Seconds



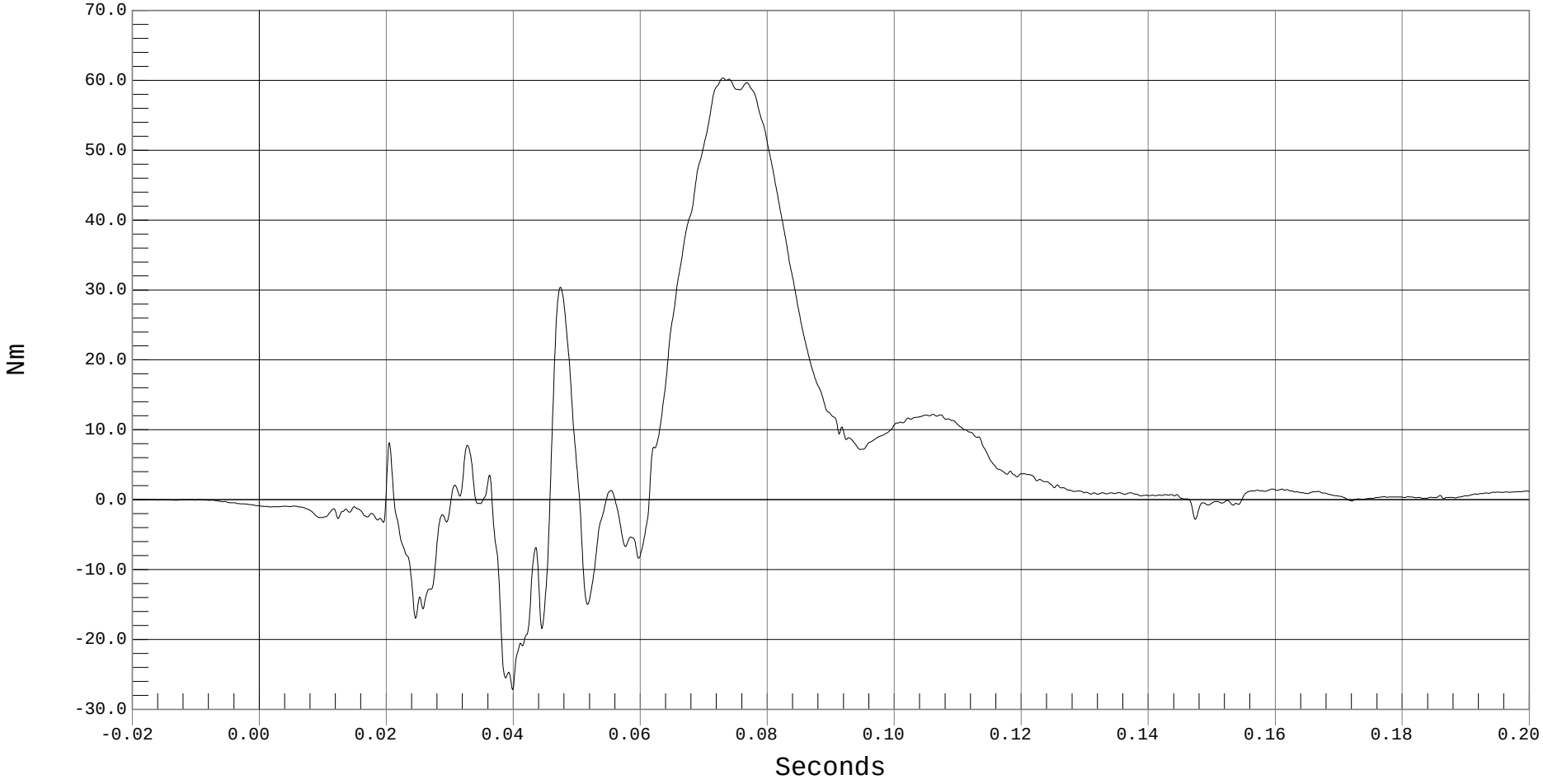
DRIVER RIGHT LOWER TIBIA MOMENT Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER RIGHT LOWER TIBIA MY, B01031MF.M73

Ymin = -27.21 Nm @ 0.0398 Seconds, Ymax = 60.34 Nm @ 0.0729 Seconds



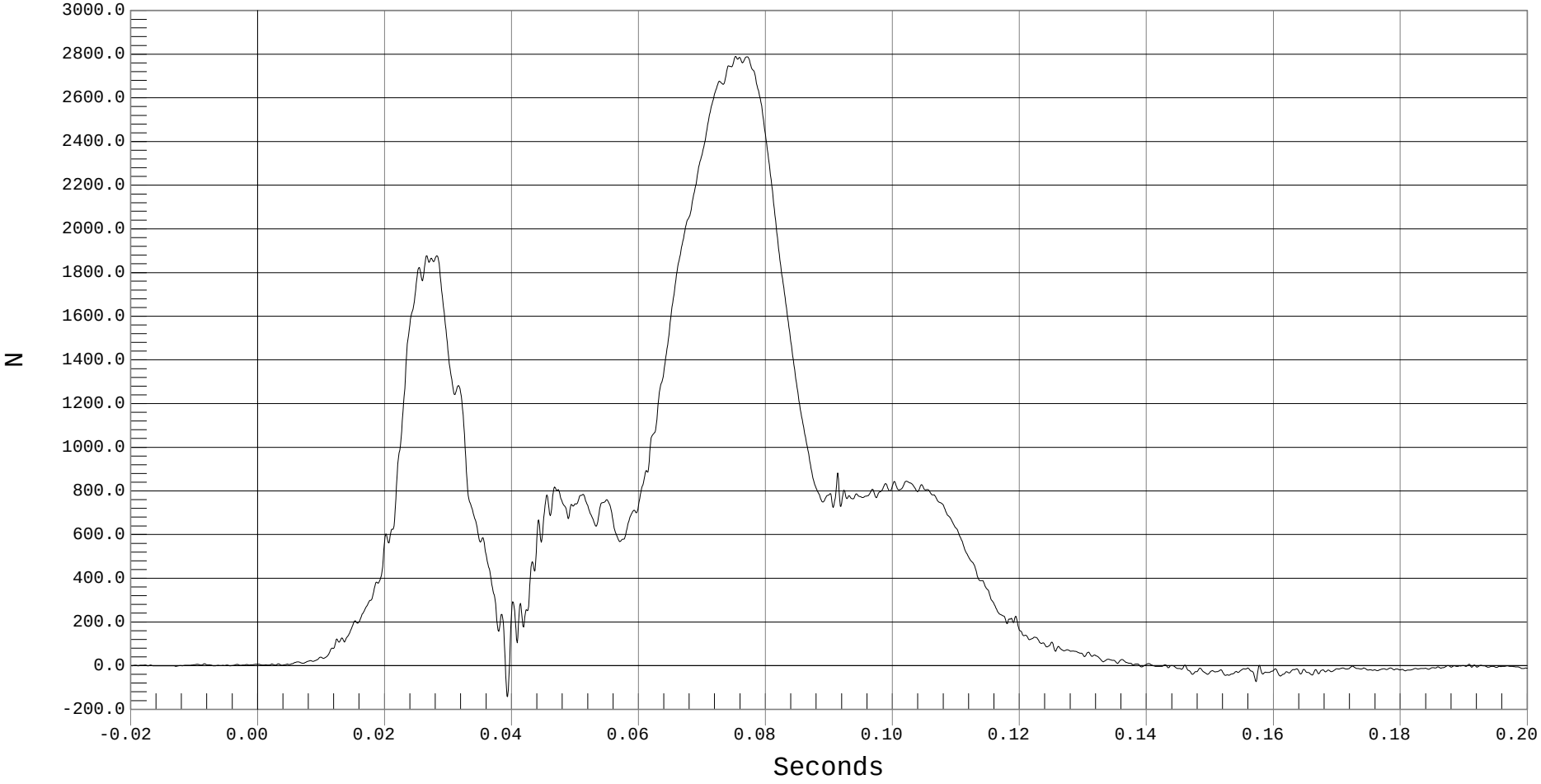
DRIVER RIGHT LOWER TIBIA FORCE Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DRIVER RIGHT LOWER TIBIA FZ, B01031FF.F74

Ymin = -142.43 N @ 0.0393 Seconds, Ymax = 2790.24 N @ 0.0752 Seconds



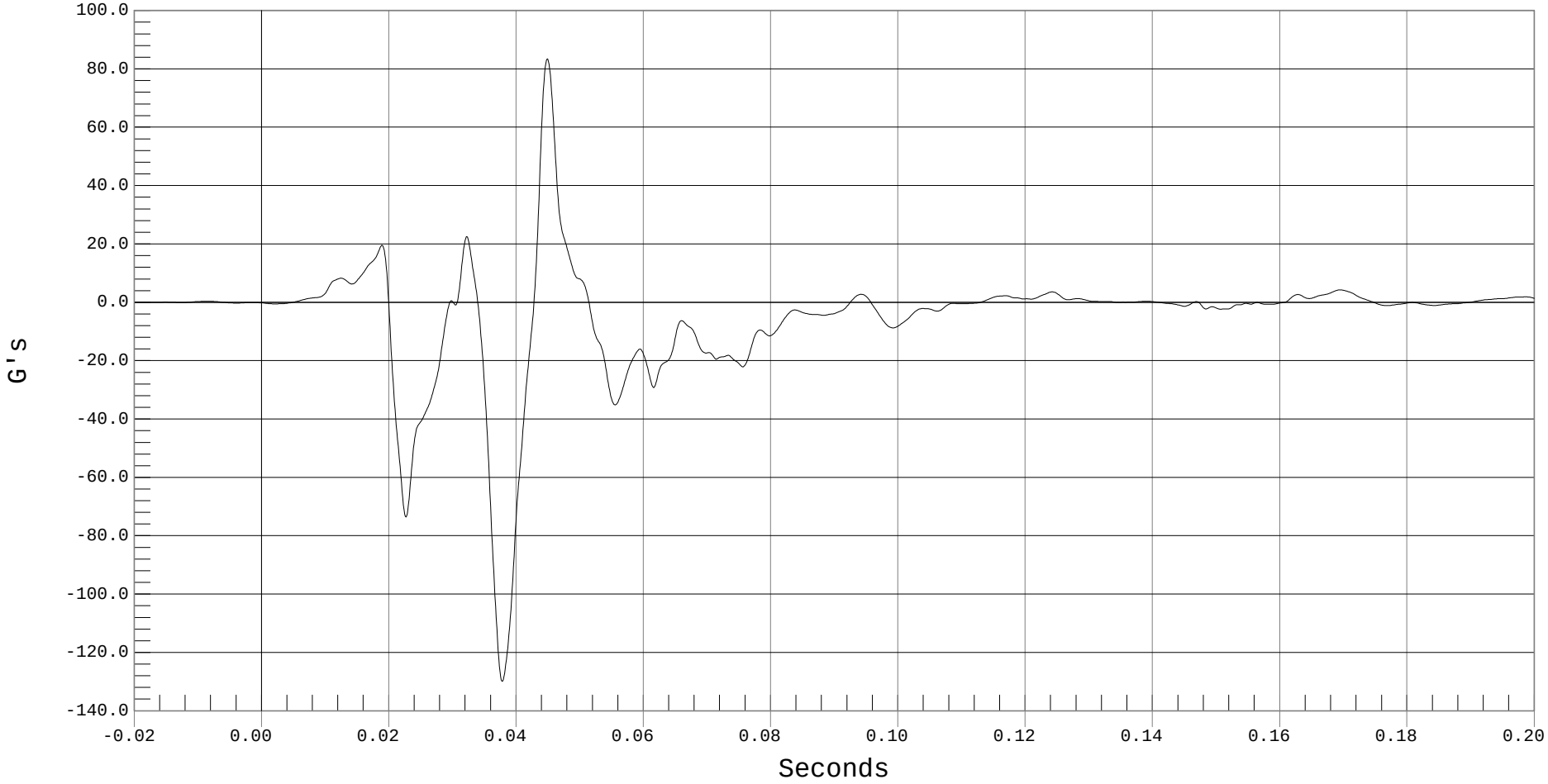
DRIVER LEFT FOOT @ BALL Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER LEFT FOOT @ BALL Z, C01031AF.A12

Ymin = -129.93 G's @ 0.0377 Seconds, Ymax = 83.45 G's @ 0.0448 Seconds



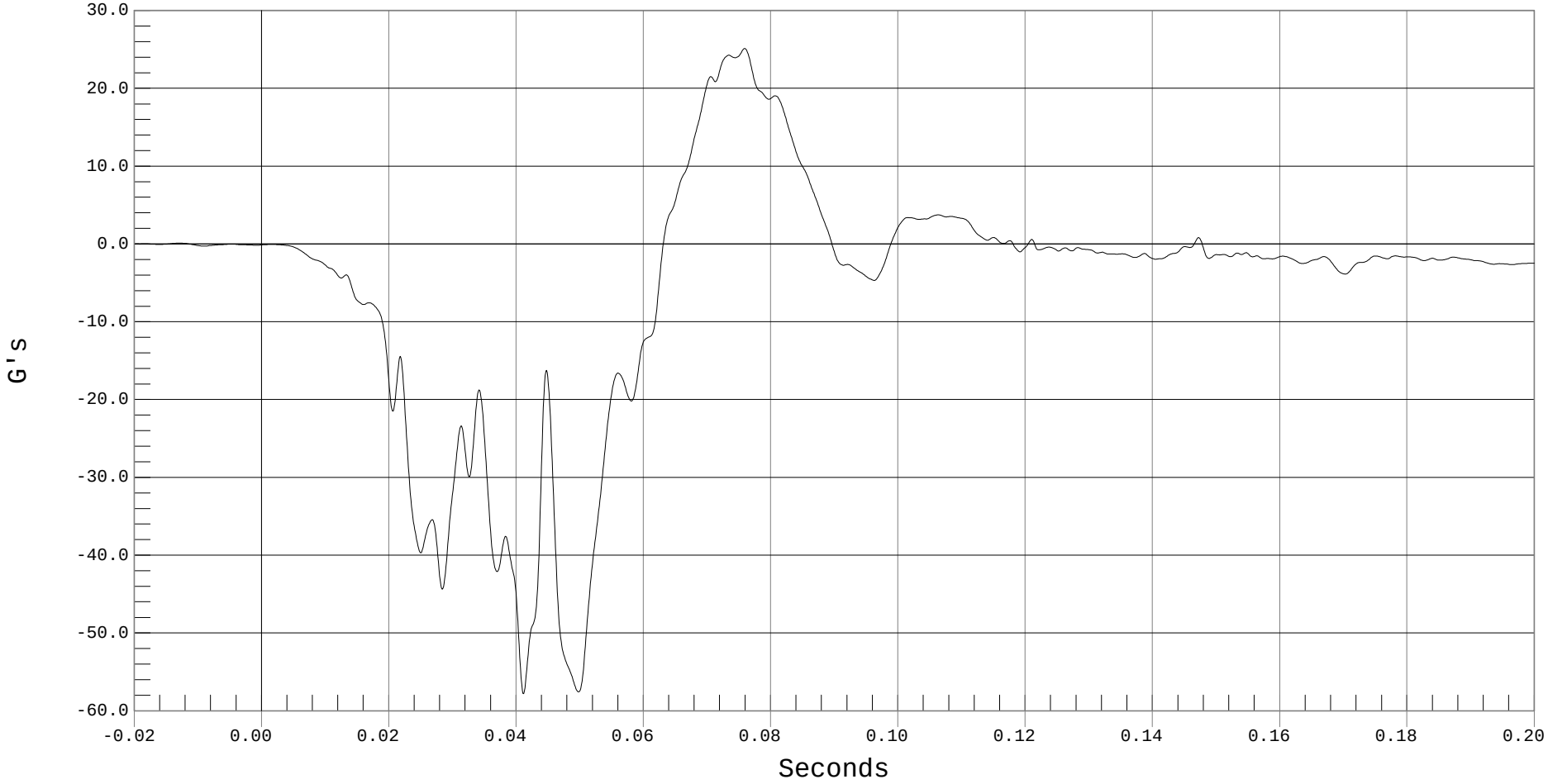
DRIVER LEFT FOOT @ HEEL X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER LEFT FOOT @ HEEL X, C01031AF.A10

Ymin = -57.81 G's @ 0.0411 Seconds, Ymax = 25.12 G's @ 0.0758 Seconds



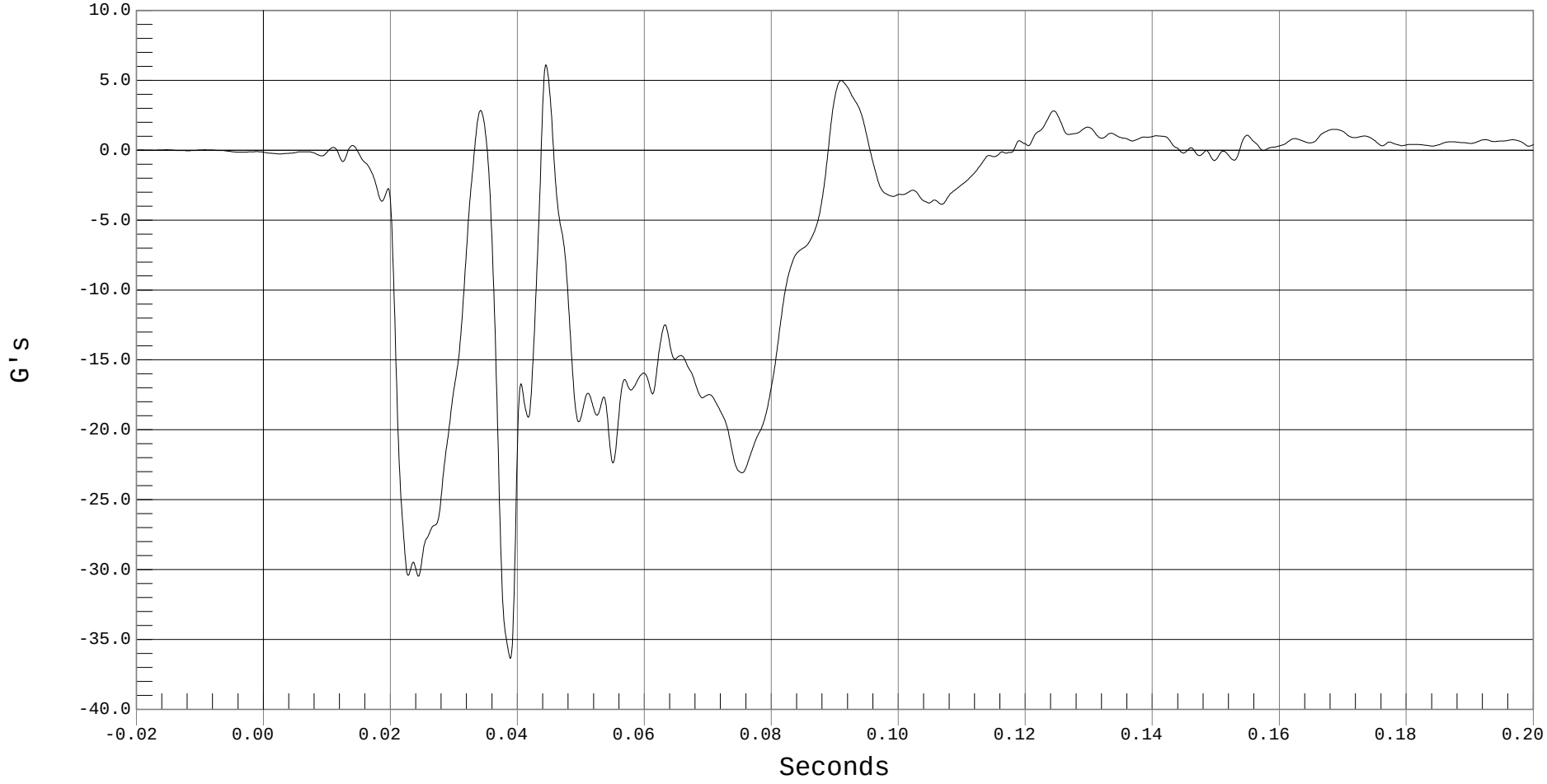
DRIVER LEFT FOOT @ HEEL Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER LEFT FOOT @ HEEL Z, C01031AF.A11

Ymin = -36.37 G's @ 0.0388 Seconds, Ymax = 6.12 G's @ 0.0444 Seconds



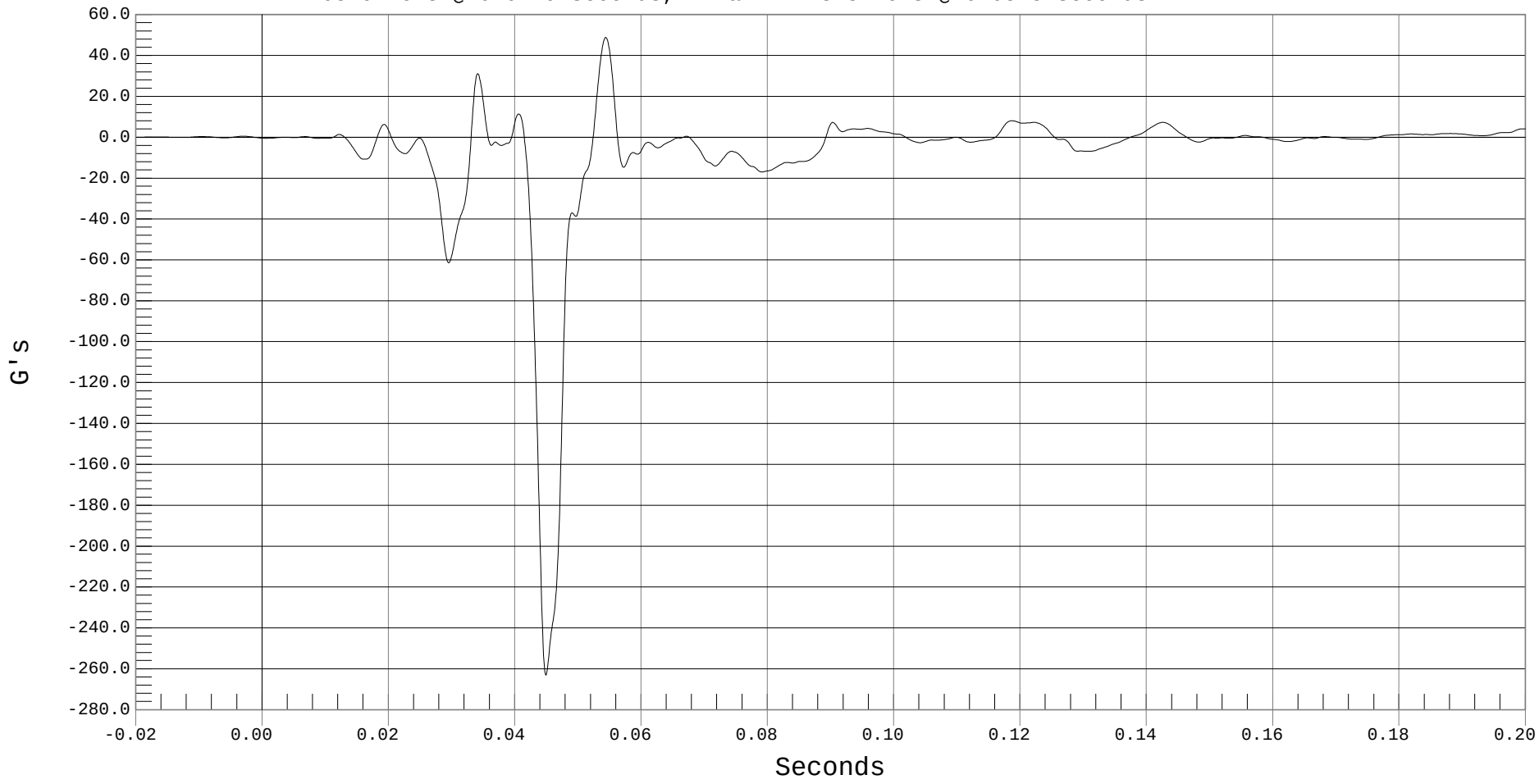
DRIVER RIGHT FOOT @ BALL Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER RIGHT FOOT @ BALL Z, B01031AF.A95

Ymin = -263.07 G's @ 0.0449 Seconds, Ymax = 48.81 G's @ 0.0543 Seconds



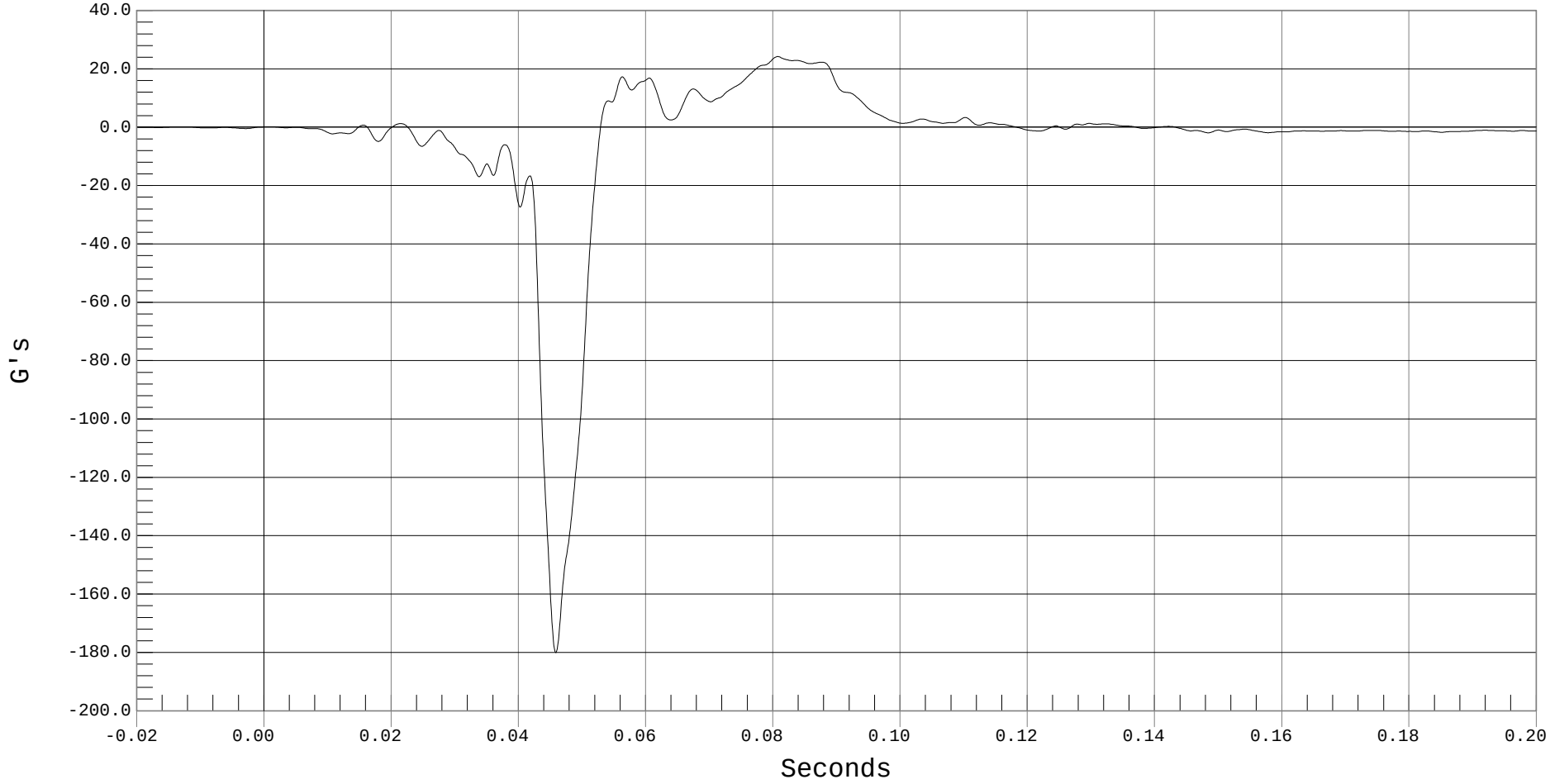
DRIVER RIGHT FOOT @ HEEL X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER RIGHT FOOT @ HEEL X, B01031AF.A93

Ymin = -180.1 G's @ 0.0458 Seconds, Ymax = 24.22 G's @ 0.0807 Seconds



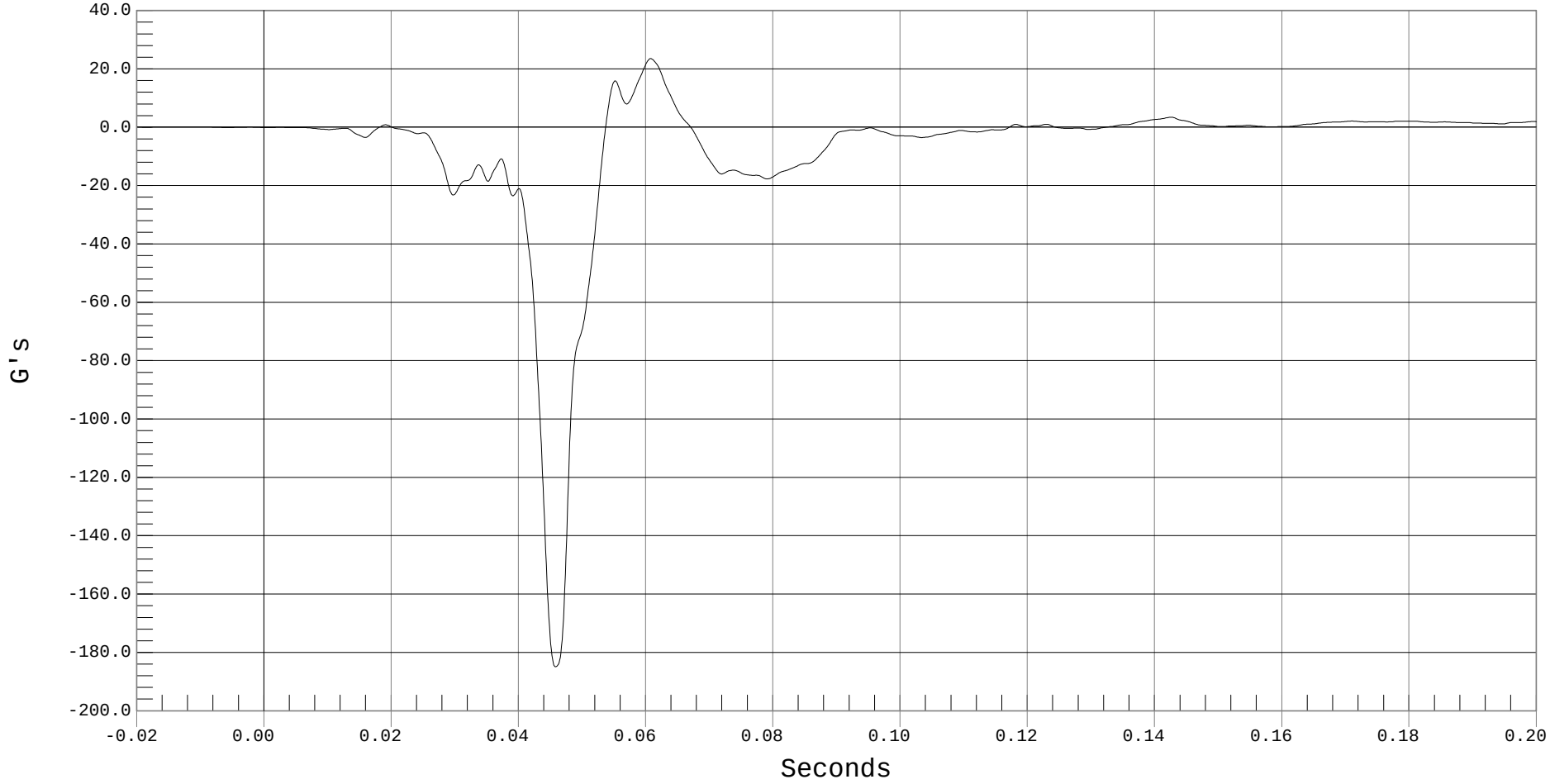
DRIVER RIGHT FOOT @ HEEL Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 DRIVER RIGHT FOOT @ HEEL Z, B01031AF.A94

Ymin = -184.92 G's @ 0.0457 Seconds, Ymax = 23.53 G's @ 0.0607 Seconds



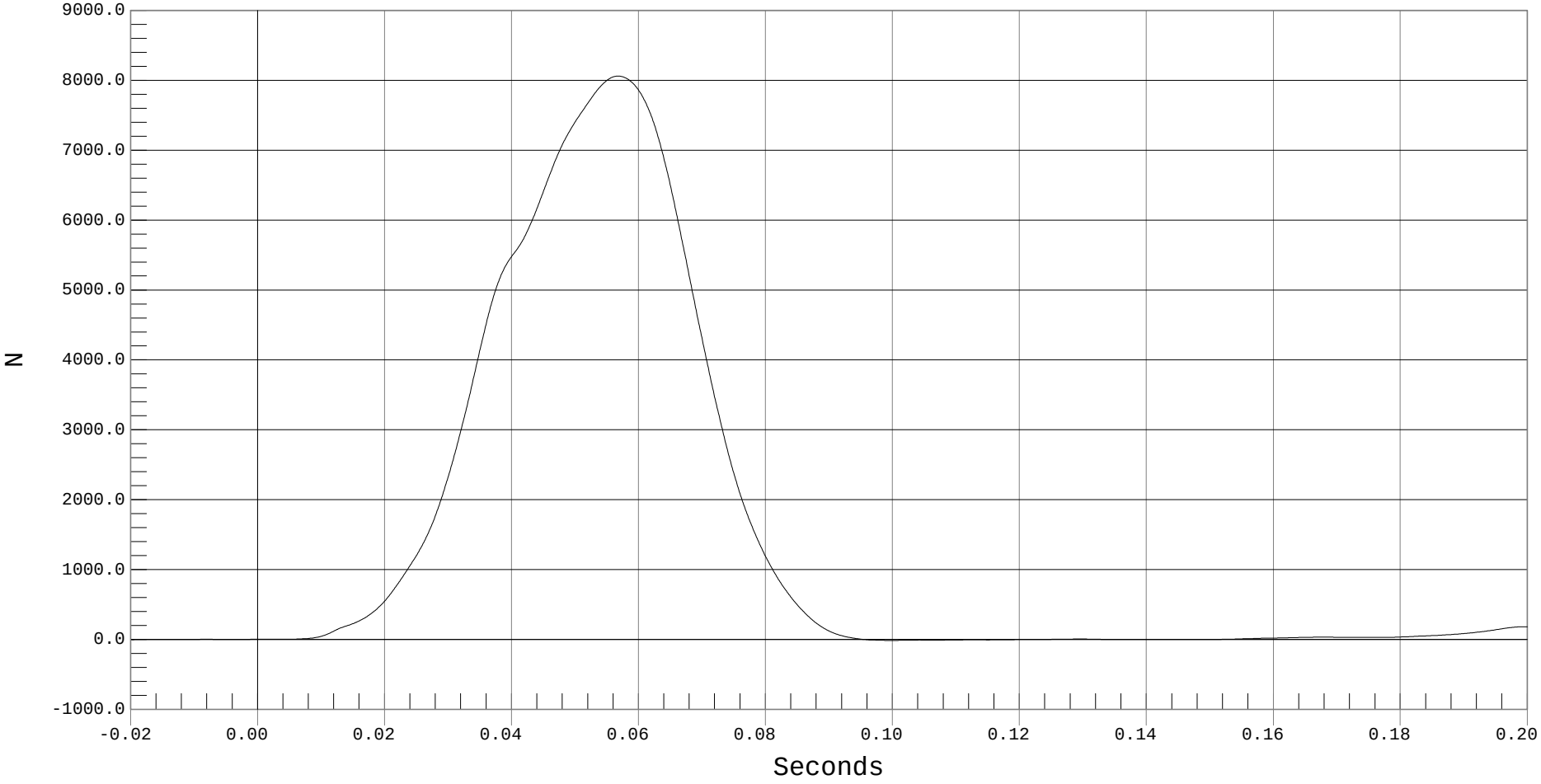
DRIVER LAP BELT FORCE

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 DRIVER LAP BELT, B01031FF.F66

Ymin = -14.74 N @ 0.0997 Seconds, Ymax = 8060.9 N @ 0.0567 Seconds



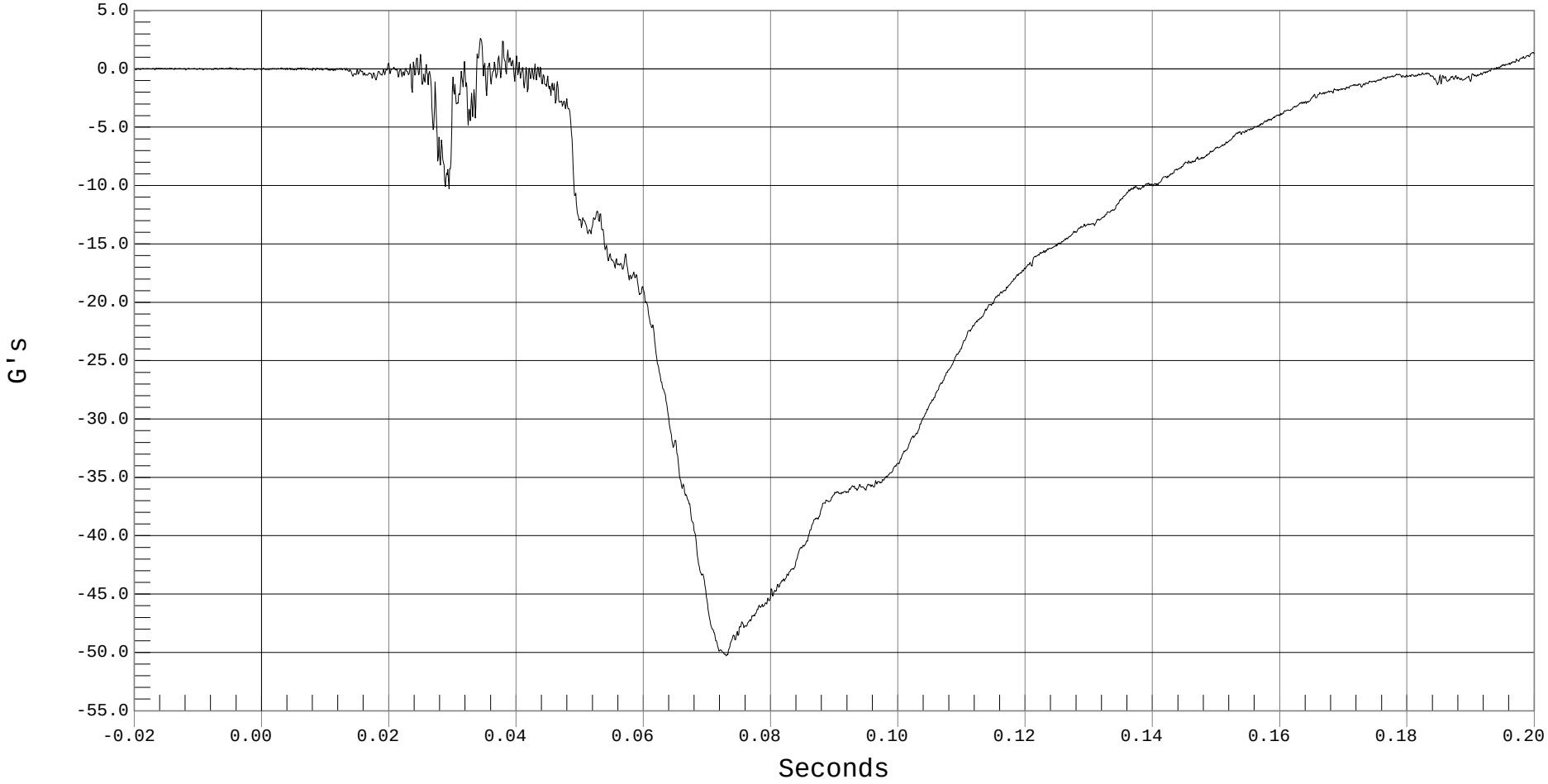
PASSENGER HEAD X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 PASSENGER HEAD X, B01031AT.A19

Ymin = -50.31 G's @ 0.0729 Seconds, Ymax = 2.6 G's @ 0.0343 Seconds



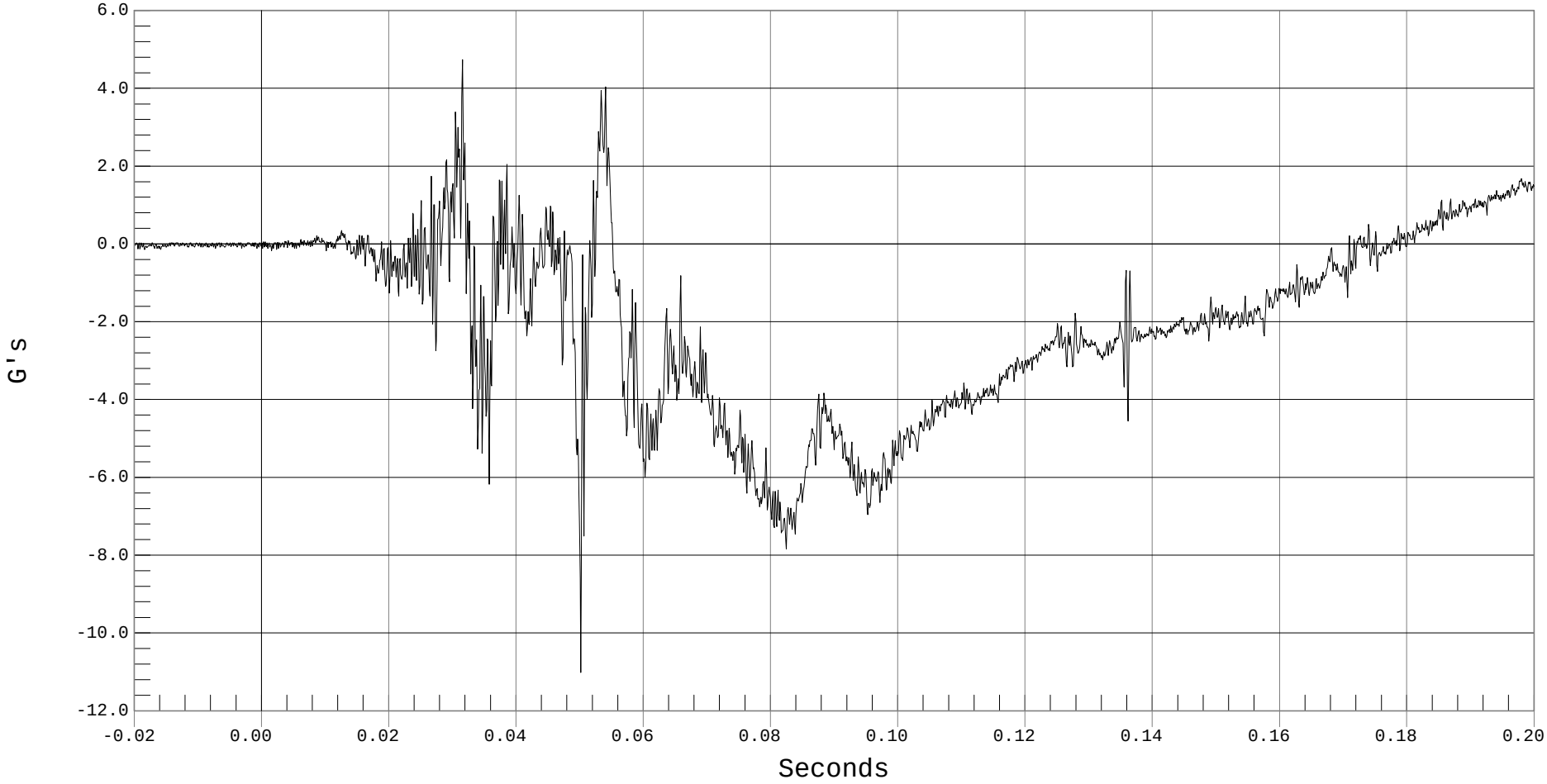
PASSENGER HEAD Y ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 PASSENGER HEAD Y, B01031AT.A20

Ymin = -11.02 G's @ 0.0501 Seconds, Ymax = 4.74 G's @ 0.0315 Seconds



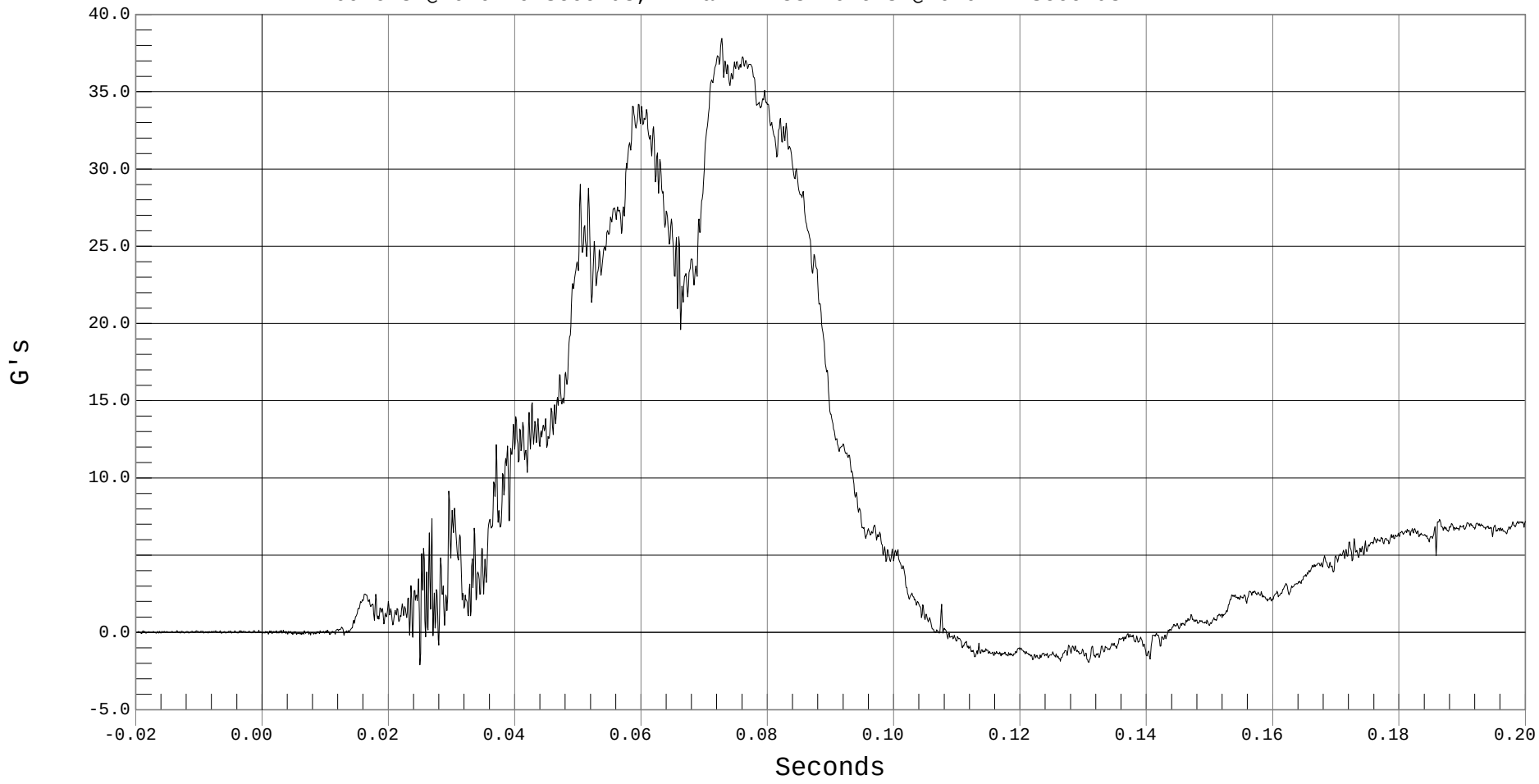
PASSENGER HEAD Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 PASSENGER HEAD Z, B01031AT.A21

Ymin = -2.09 G's @ 0.0249 Seconds, Ymax = 38.46 G's @ 0.0727 Seconds



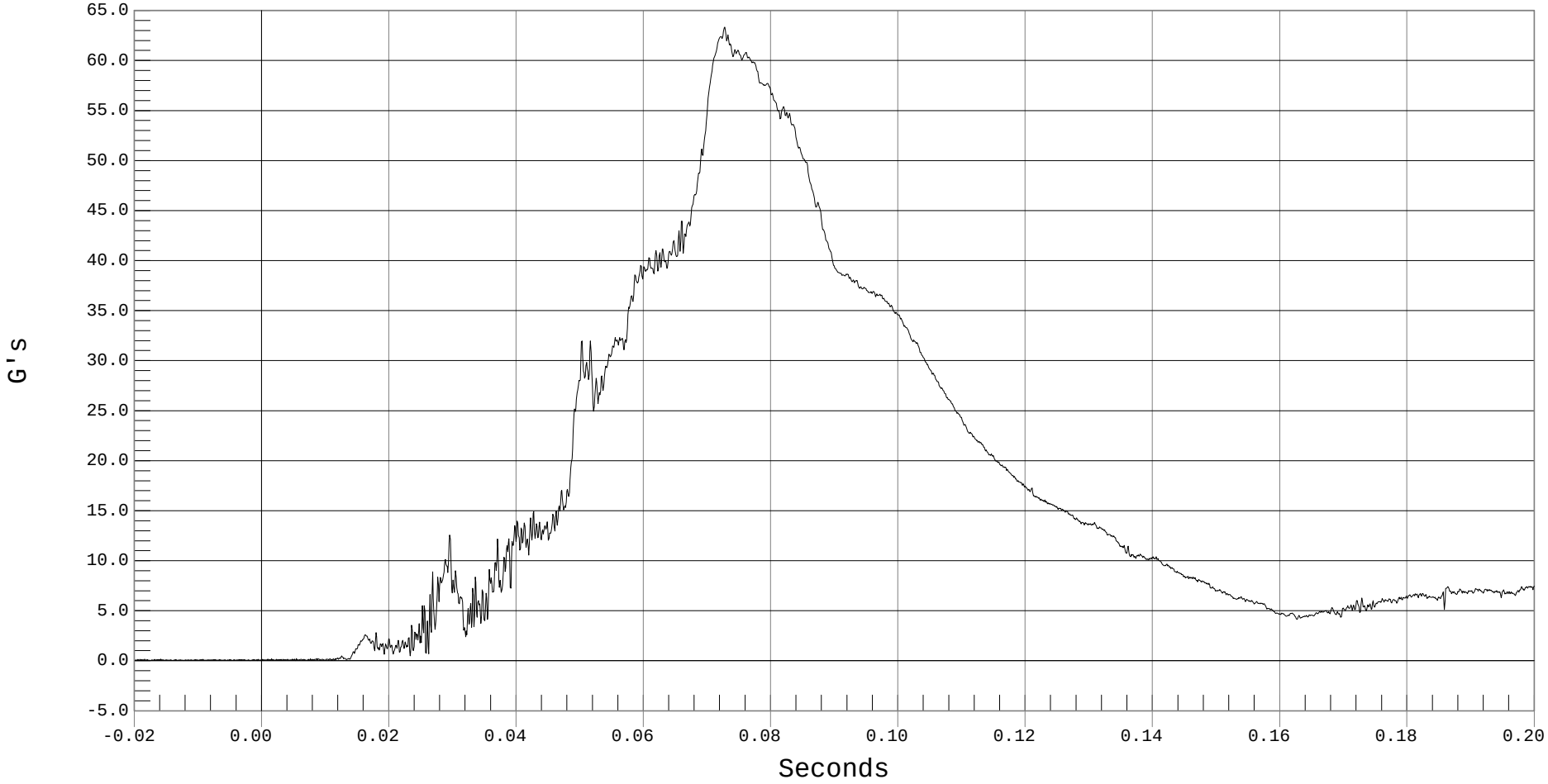
PASSENGER HEAD RESULTANT ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 PASSENGER HEAD RESULTANT ACCELERATION, B01031AV.A19

Ymin = .02 G's @ -0.0007 Seconds, Ymax = 63.34 G's @ 0.0727 Seconds



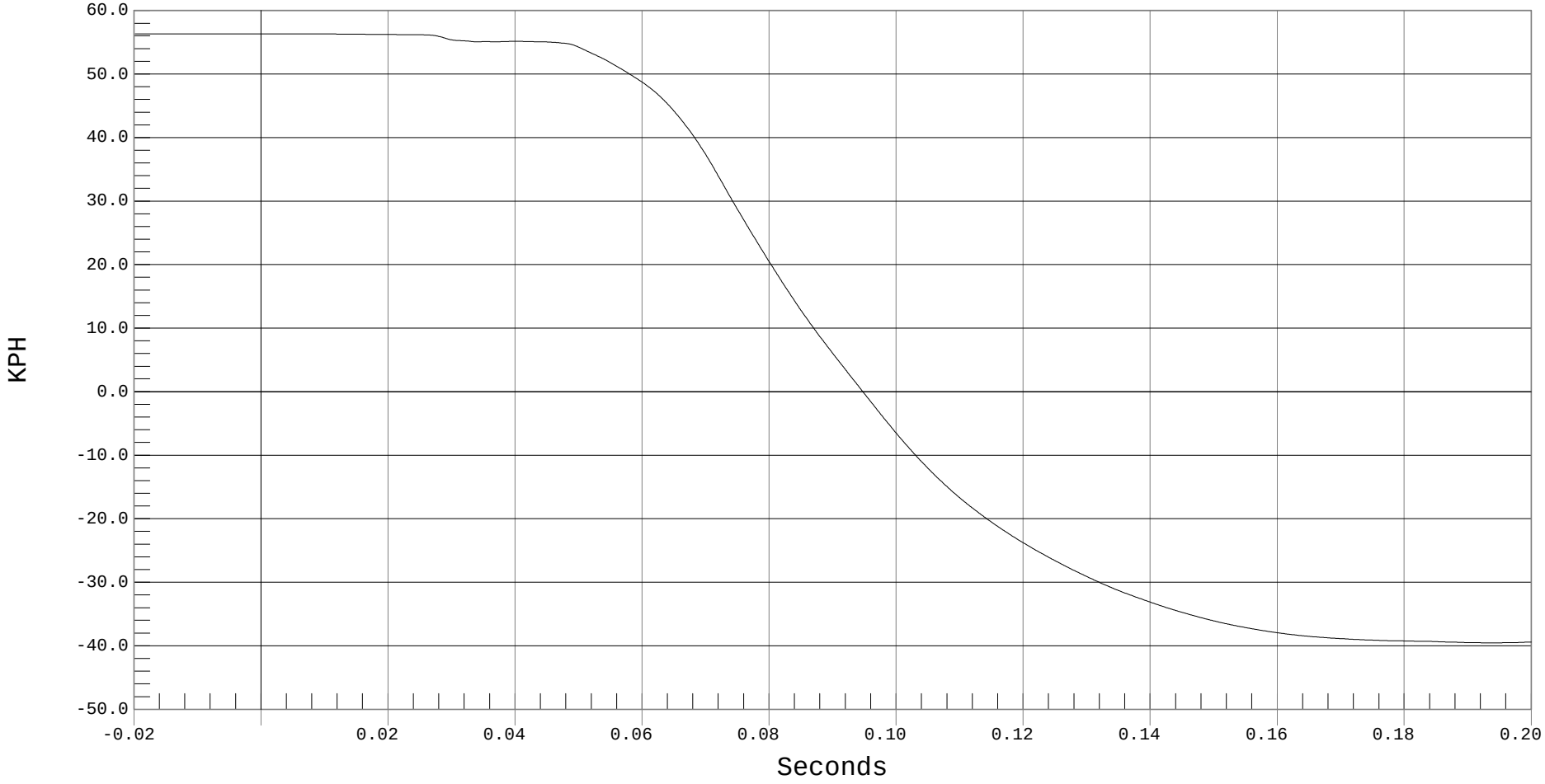
PASSENGER HEAD X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER HEAD X VELOCITY, B01031AI.V19

Ymin = -39.55 KPH @ 0.1936 Seconds, Ymax = 56.3 KPH @ -0.0127 Seconds



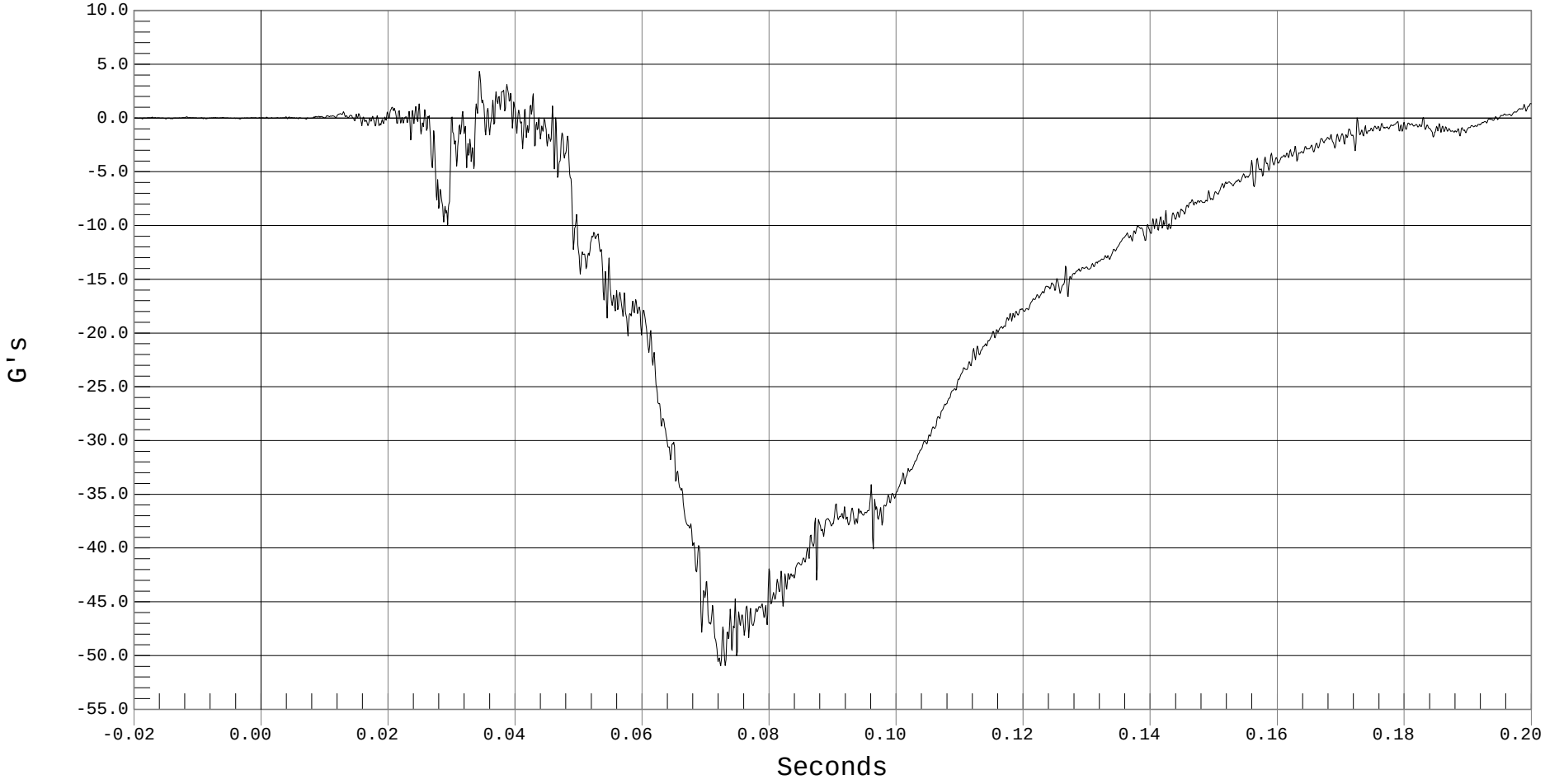
PASSENGER HEAD REDUNDANT X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 PASSENGER HEAD Xr, B01031AT.A41

Ymin = -50.96 G's @ 0.0723 Seconds, Ymax = 4.34 G's @ 0.0343 Seconds



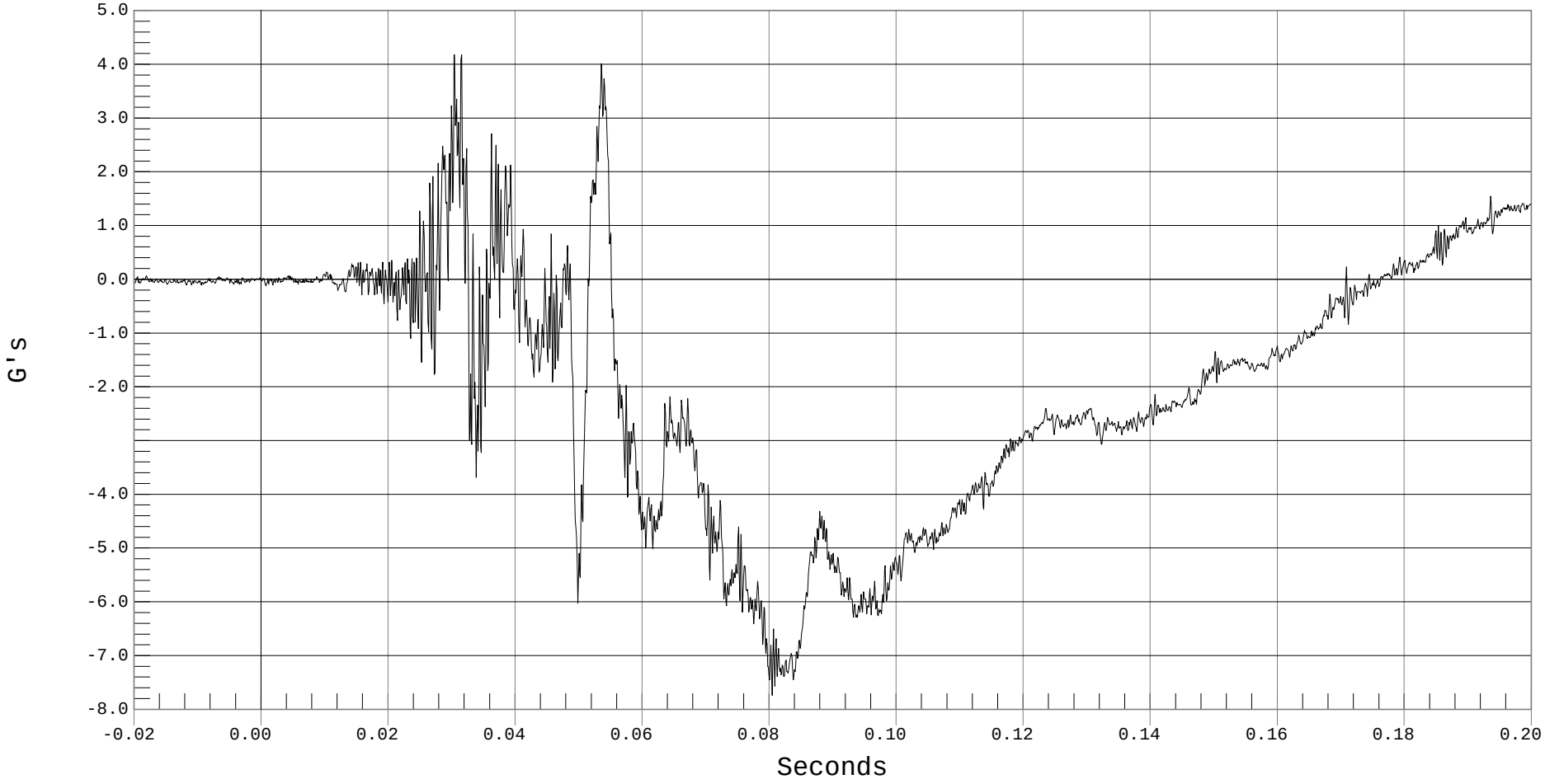
PASSENGER HEAD REDUNDANT Y ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 PASSENGER HEAD Yr, B01031AT.A42

Ymin = -7.74 G's @ 0.0804 Seconds, Ymax = 4.18 G's @ 0.0303 Seconds



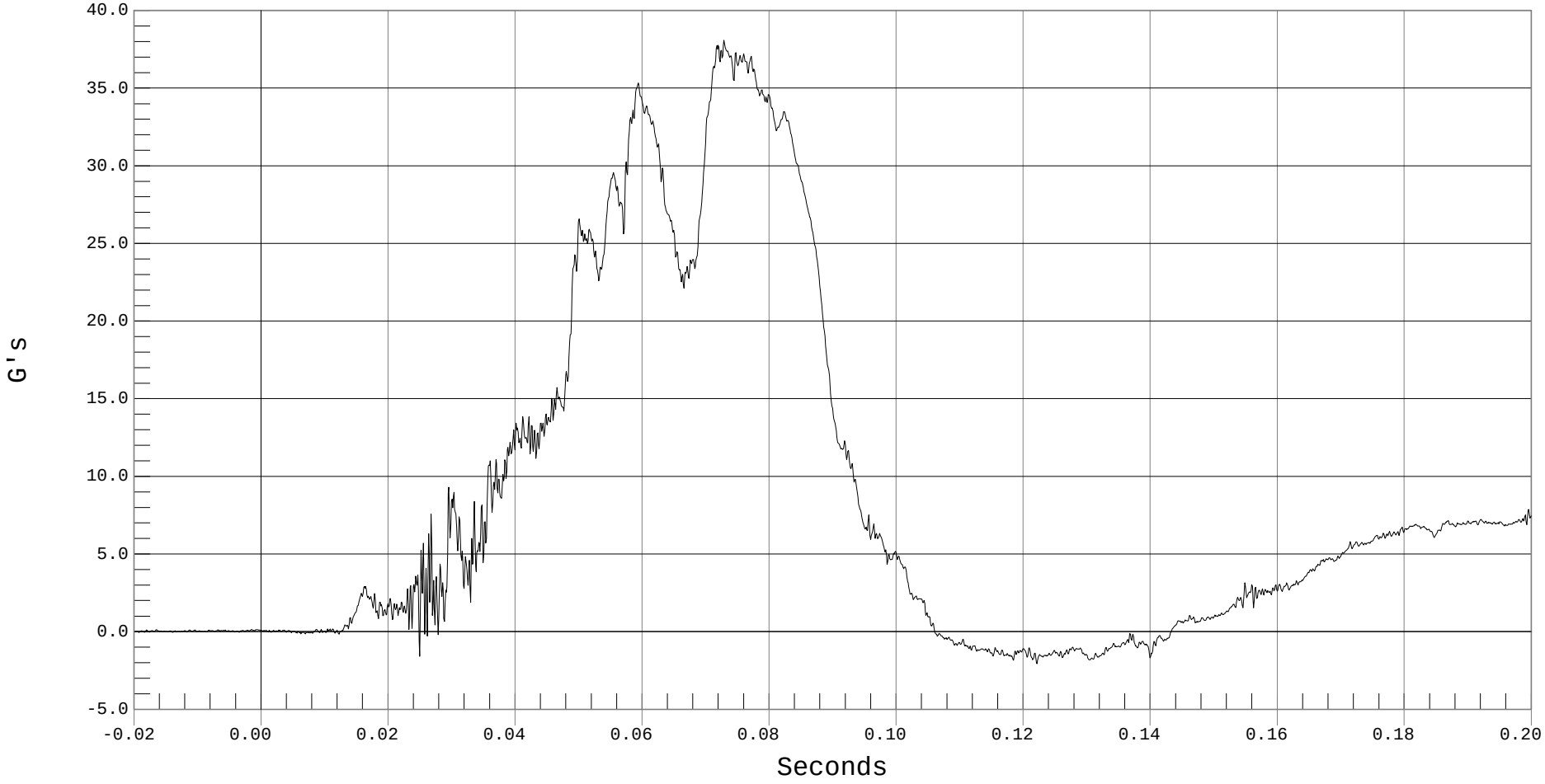
PASSENGER HEAD REDUNDANT Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 PASSENGER HEAD Zr, B01031AT.A43

Ymin = -2.07 G's @ 0.1221 Seconds, Ymax = 38.08 G's @ 0.0728 Seconds



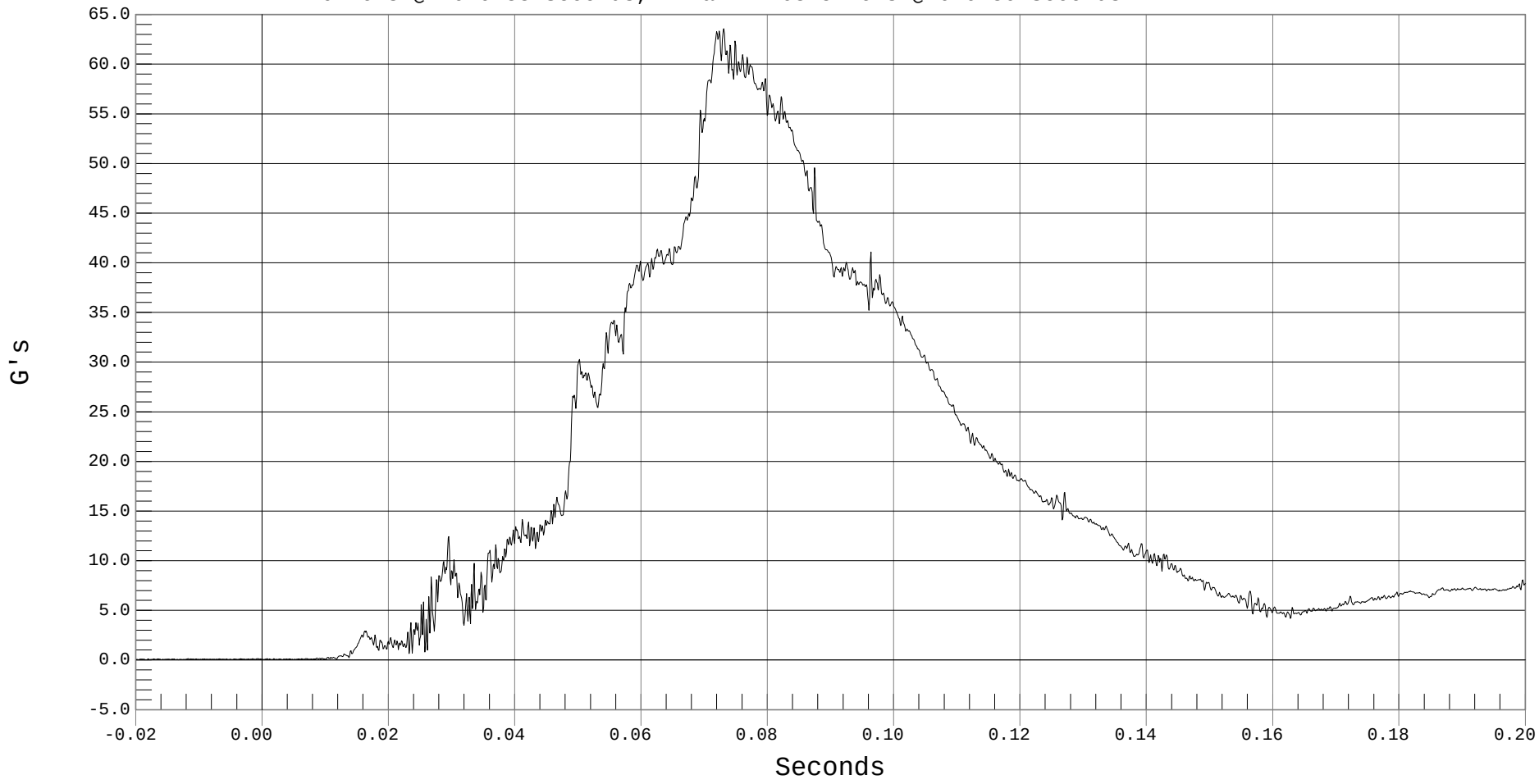
PASSENGER HEAD REDUNDANT RESULTANT ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 PASSENGER HEAD REDUNDANT RESULTANT ACCELERATION, B01031AV.A41

Ymin = .02 G's @ -0.0133 Seconds, Ymax = 63.57 G's @ 0.0730 Seconds



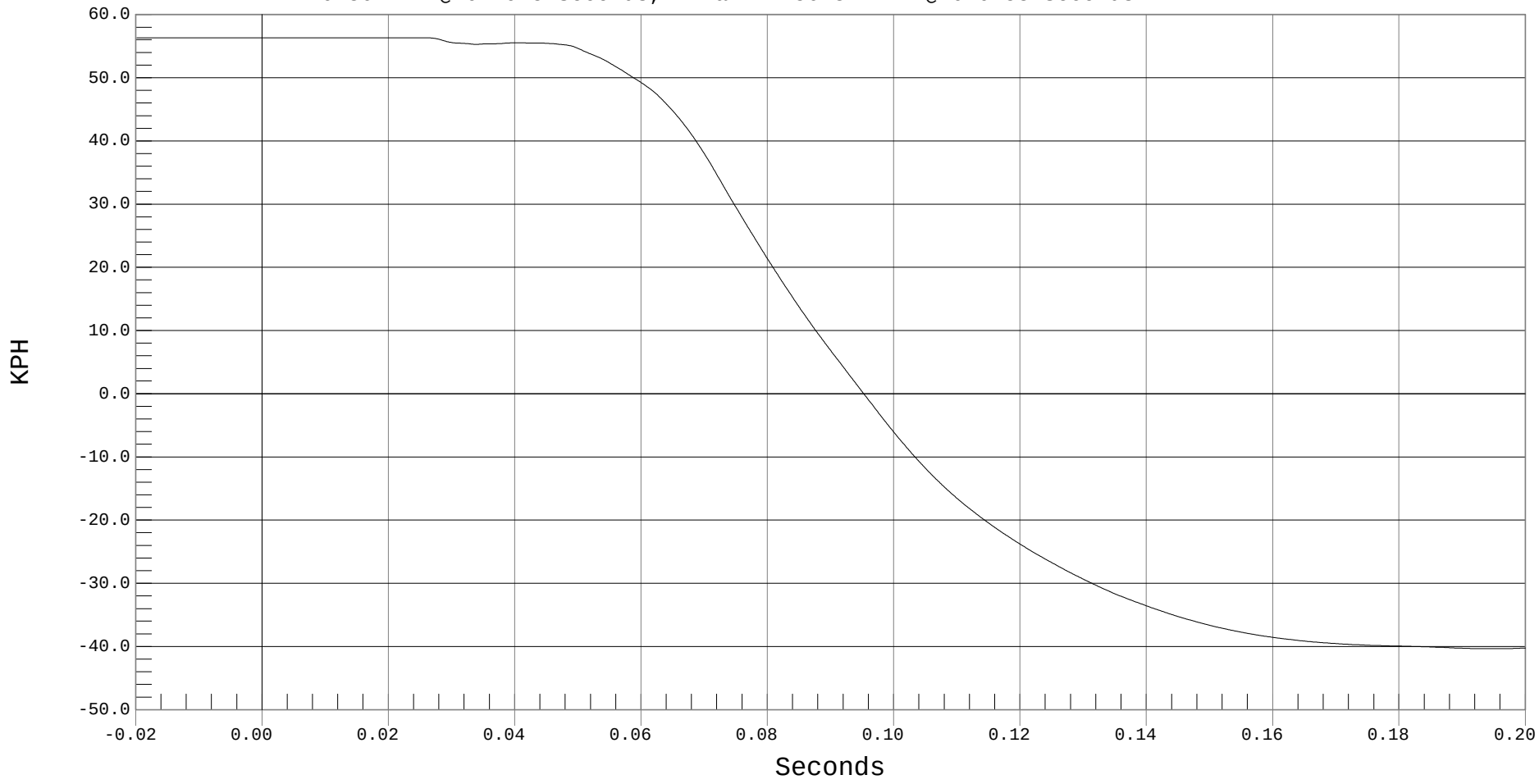
PASSENGER HEAD REDUNDANT X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER HEAD REDUNDANT X VELOCITY, B01031AI.V41

Ymin = -40.36 KPH @ 0.1945 Seconds, Ymax = 56.34 KPH @ 0.0153 Seconds



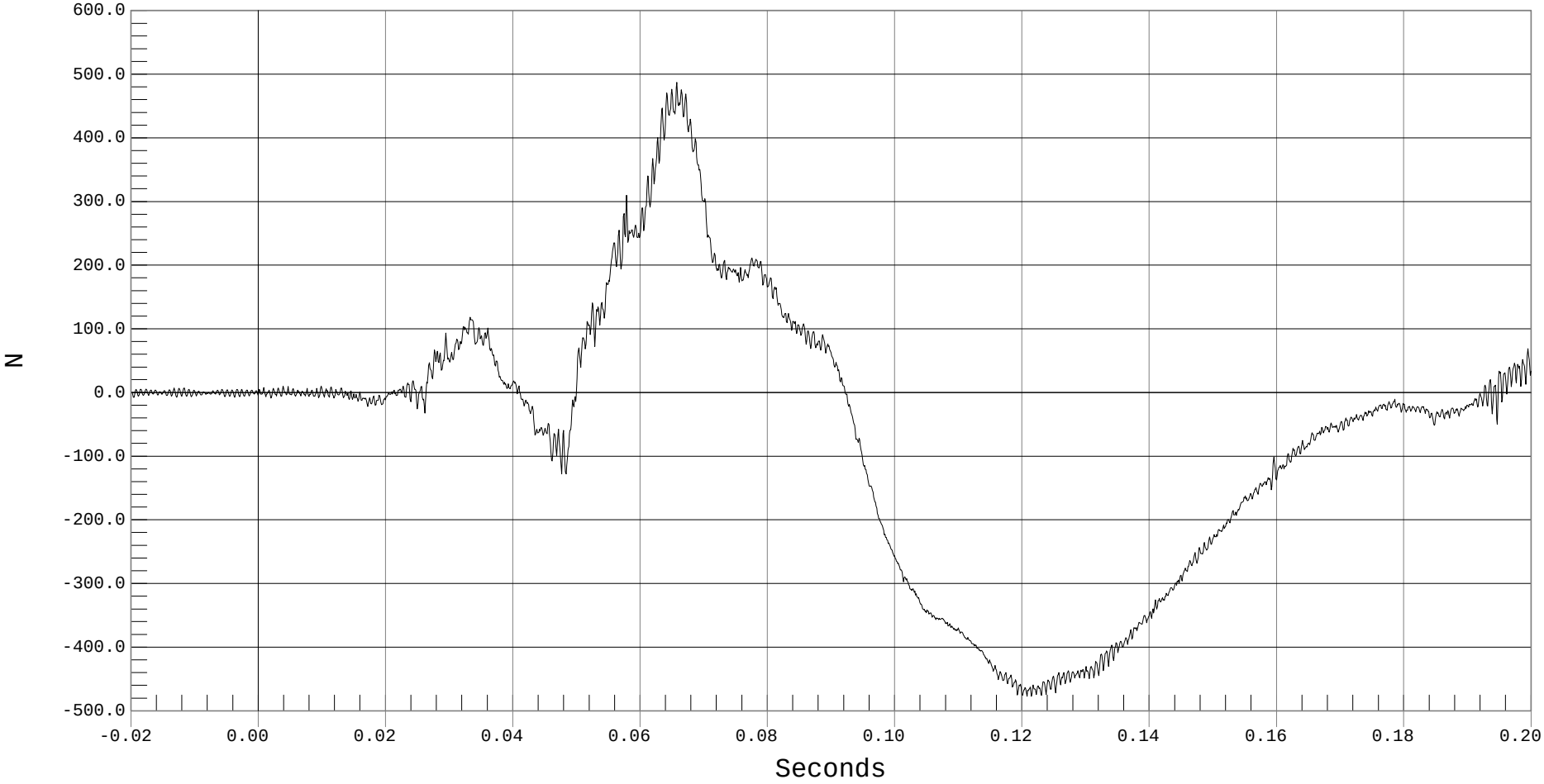
PASSENGER NECK FORCE X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 PASSENGER NECK FX, B01031FT.F44

Ymin = -477.27 N @ 0.1207 Seconds, Ymax = 487.09 N @ 0.0657 Seconds



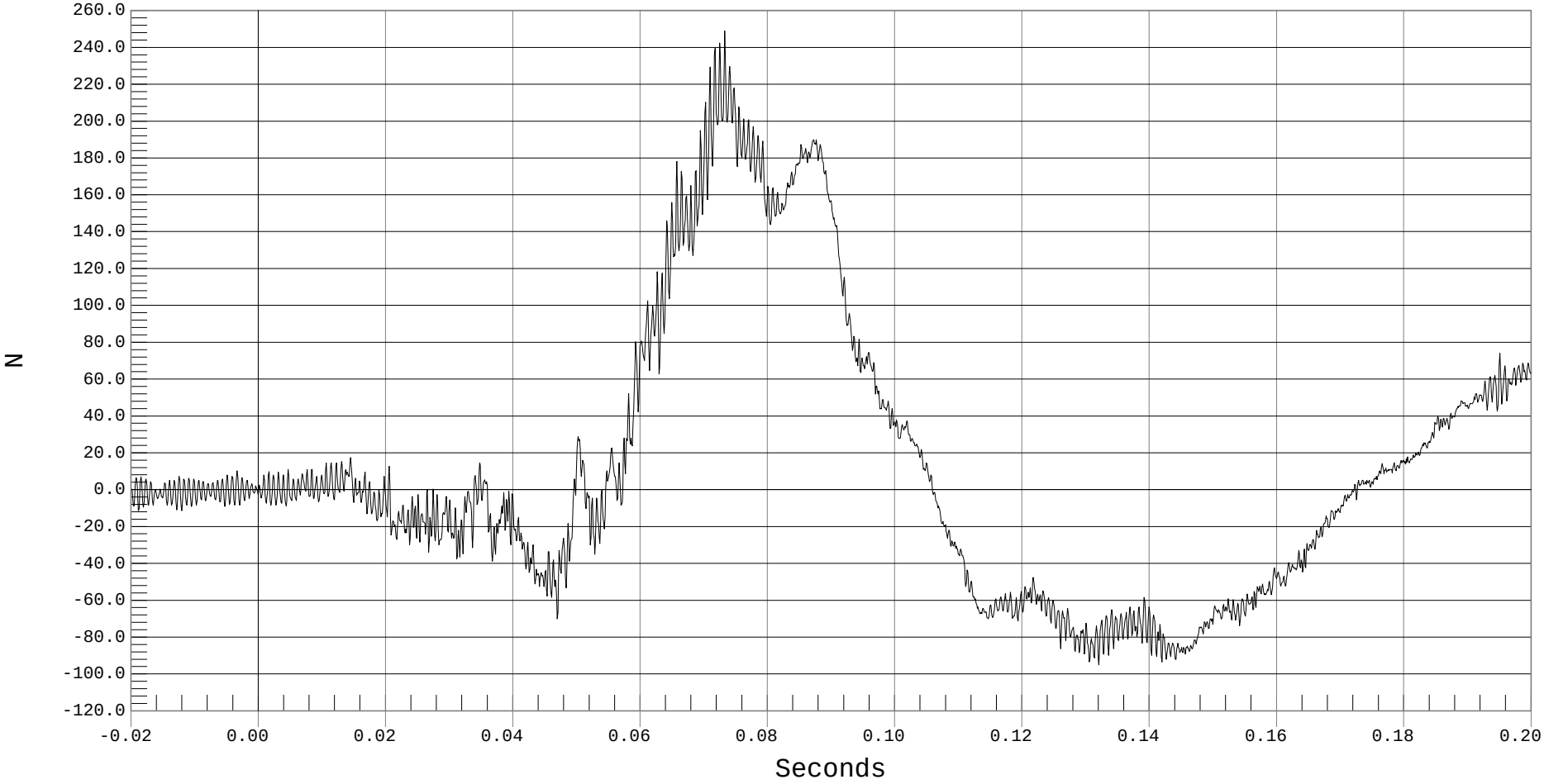
PASSENGER NECK FORCE Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 PASSENGER NECK FY, B01031FT.F45

Ymin = -95.03 N @ 0.1320 Seconds, Ymax = 249 N @ 0.0732 Seconds



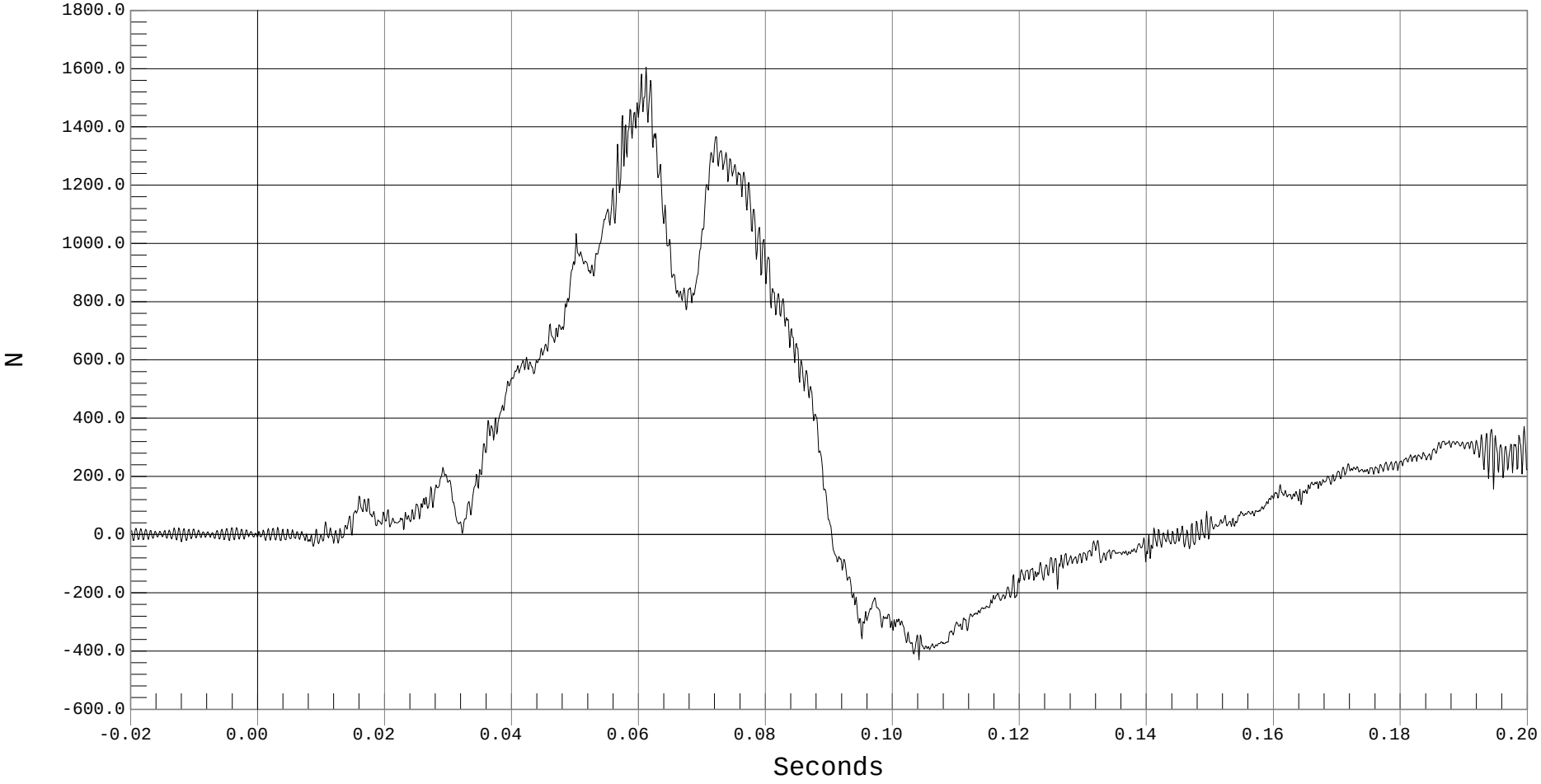
PASSENGER NECK FORCE Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 PASSENGER NECK FZ, B01031FT.F46

Ymin = -429.49 N @ 0.1041 Seconds, Ymax = 1605.43 N @ 0.0611 Seconds



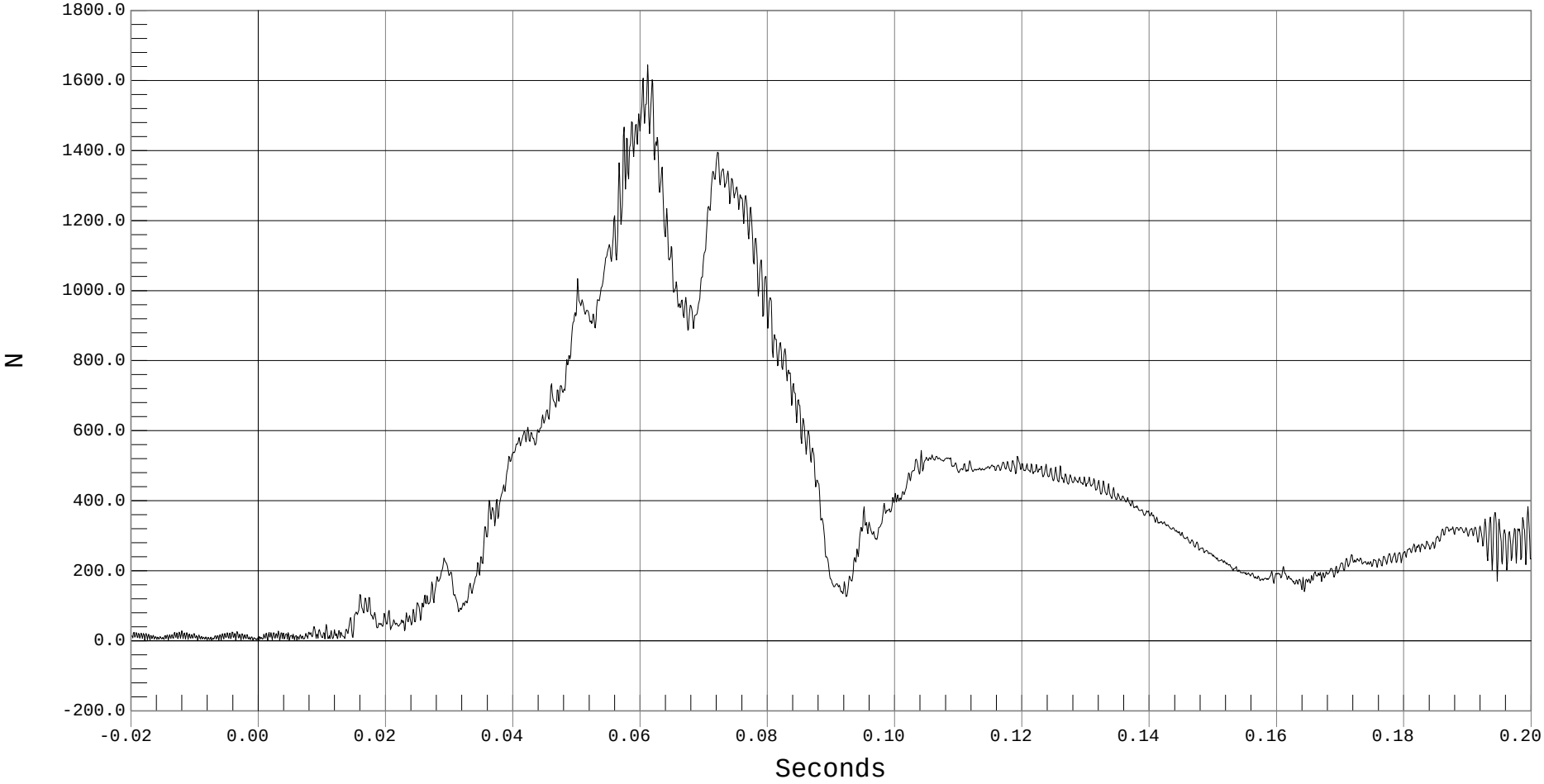
PASSENGER NECK FORCE RESULTANT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 PASSENGER NECK FORCE RESULTANT, B01031FV.F44

Ymin = .64 N @ -0.0096 Seconds, Ymax = 1644.21 N @ 0.0611 Seconds



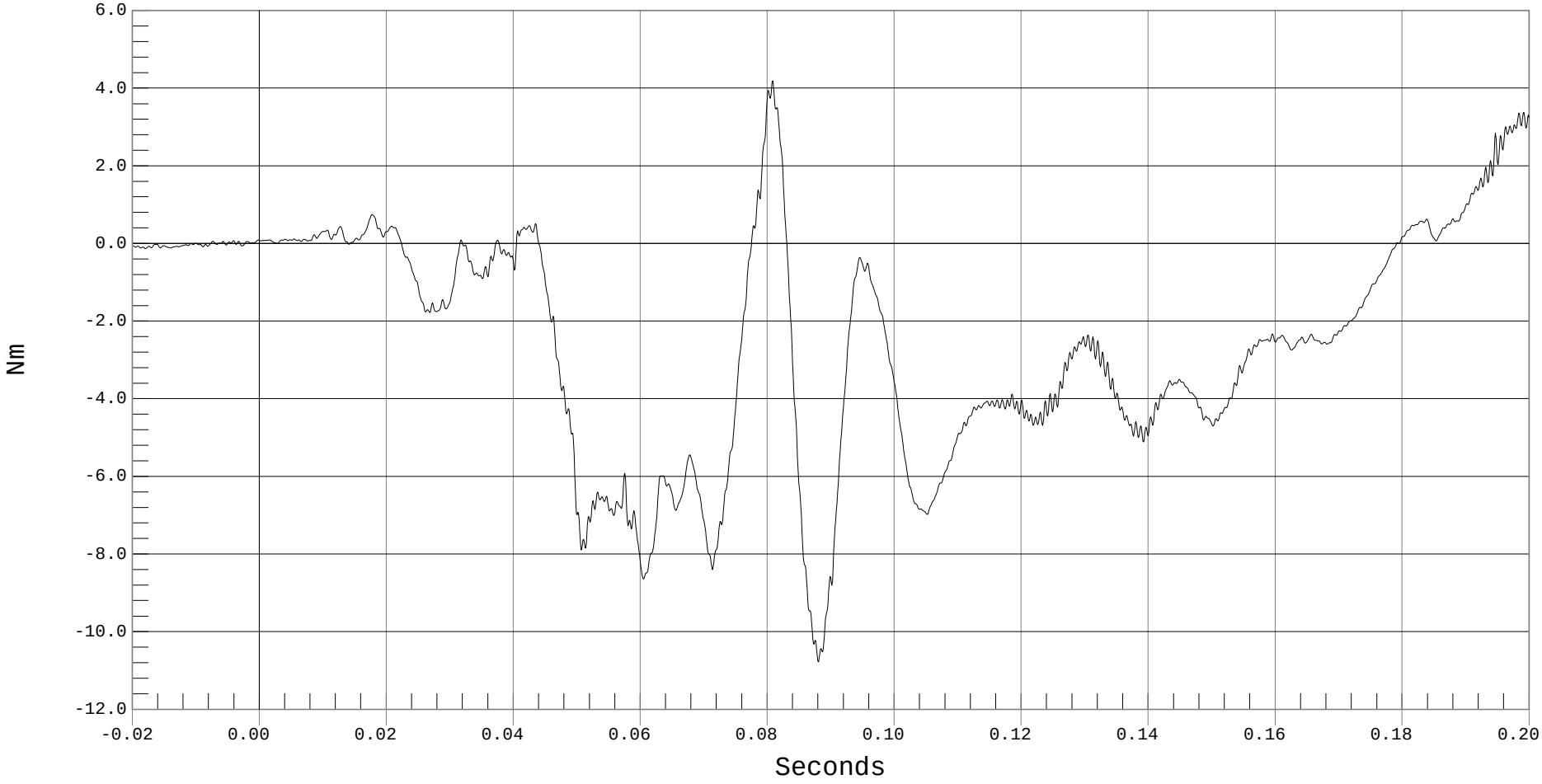
PASSENGER NECK MOMENT X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER NECK MX, B01031MF.M47

Ymin = -10.78 Nm @ 0.0880 Seconds, Ymax = 4.19 Nm @ 0.0808 Seconds



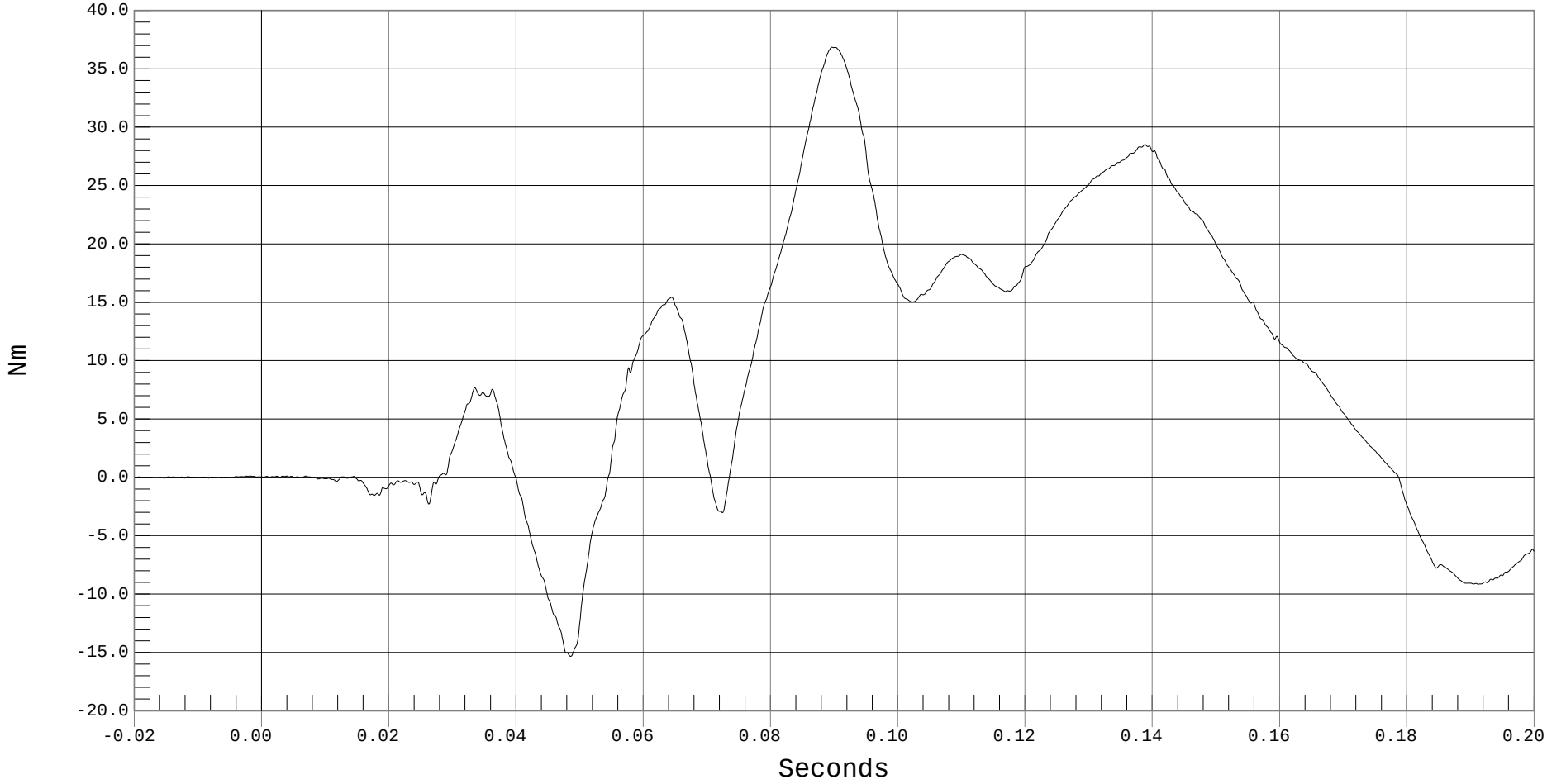
PASSENGER NECK MOMENT Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER NECK MY, B01031MF.M48

Ymin = -15.34 Nm @ 0.0485 Seconds, Ymax = 36.84 Nm @ 0.0896 Seconds



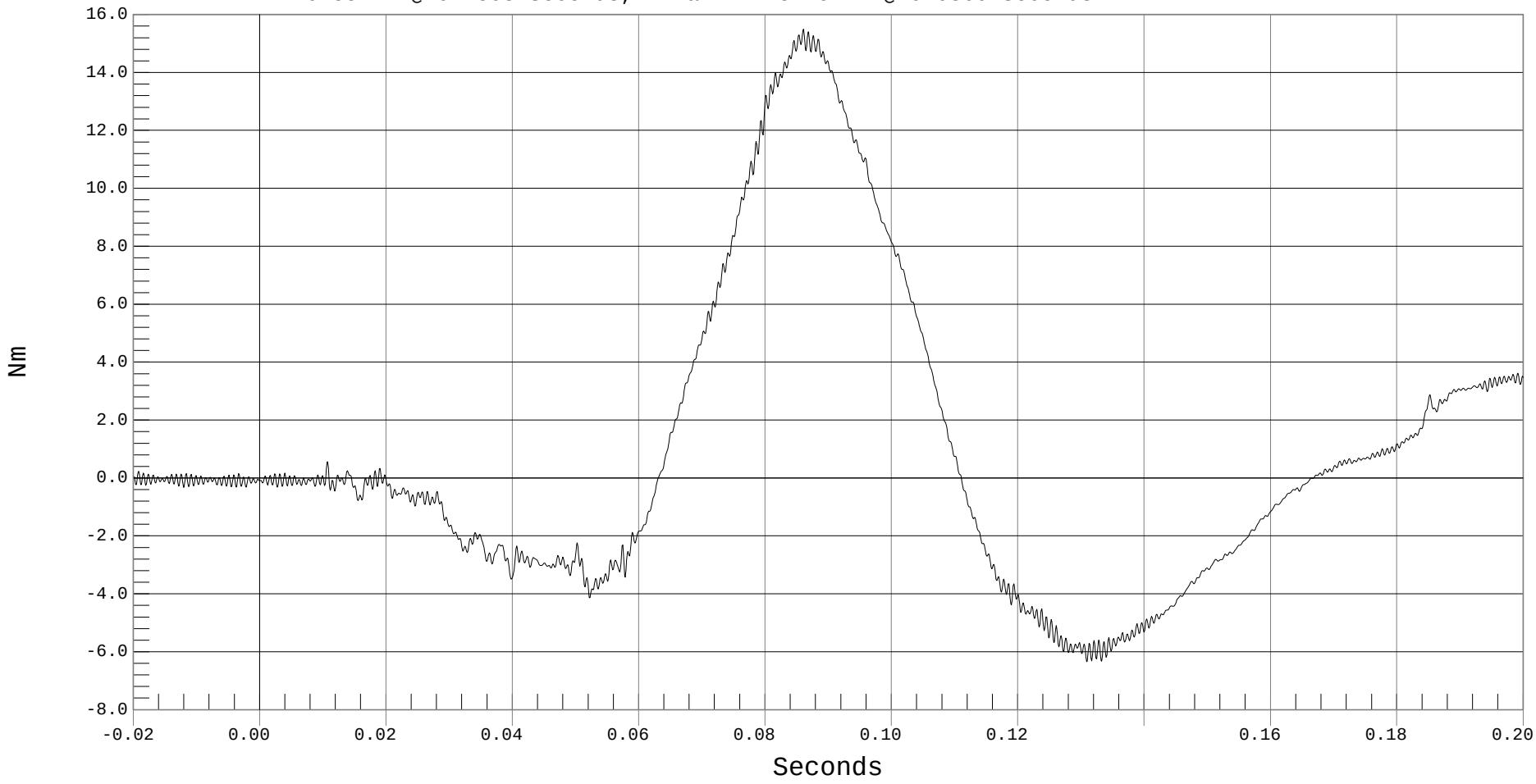
PASSENGER NECK MOMENT Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER NECK MZ, B01031MF.M49

Ymin = -6.35 Nm @ 0.1308 Seconds, Ymax = 15.49 Nm @ 0.0860 Seconds



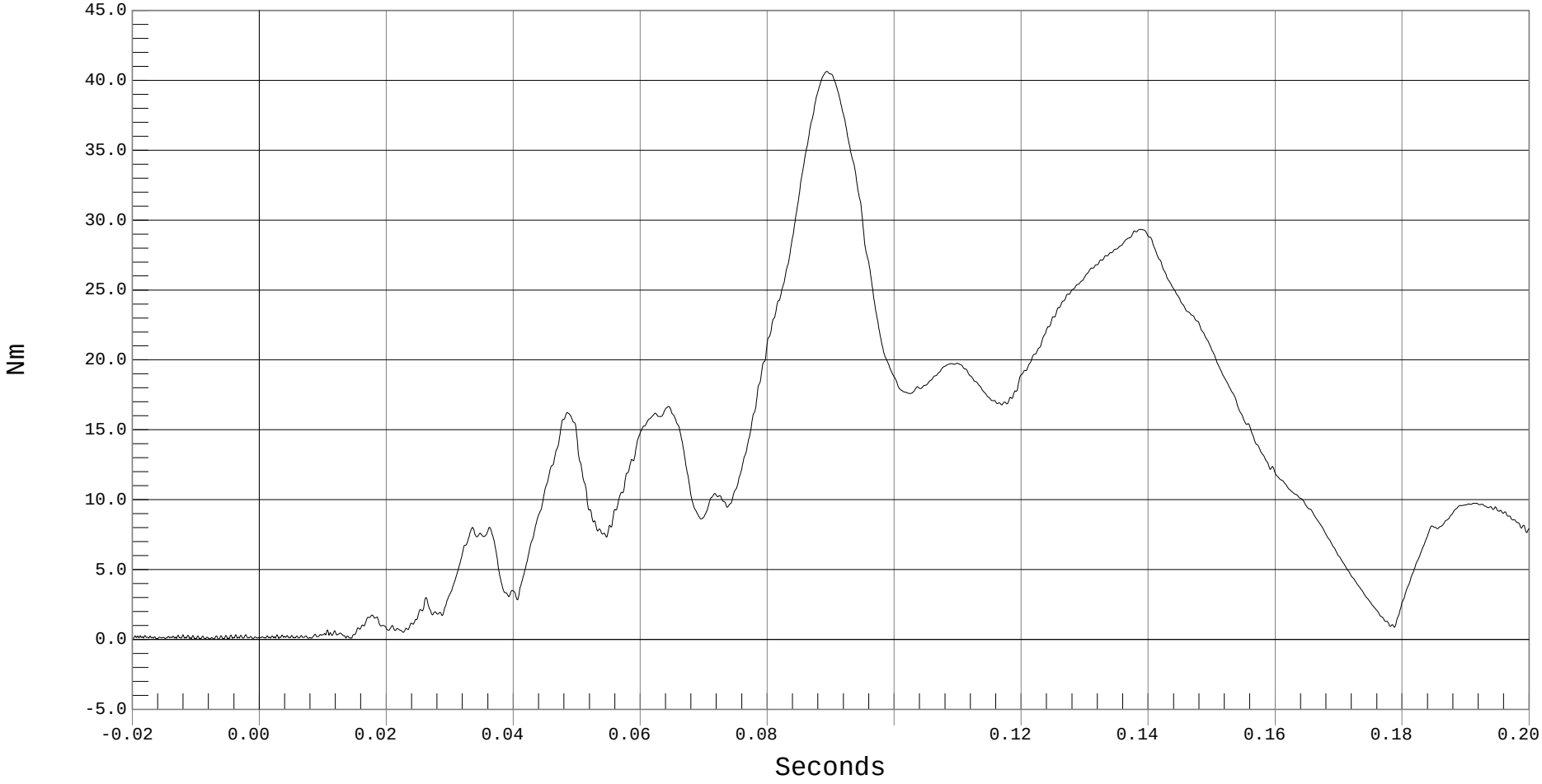
PASSENGER NECK MOMENT RESULTANT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER NECK MOMENT RESULTANT, B01031MV.M47

Ymin = .01 Nm @ -0.0065 Seconds, Ymax = 40.63 Nm @ 0.0893 Seconds



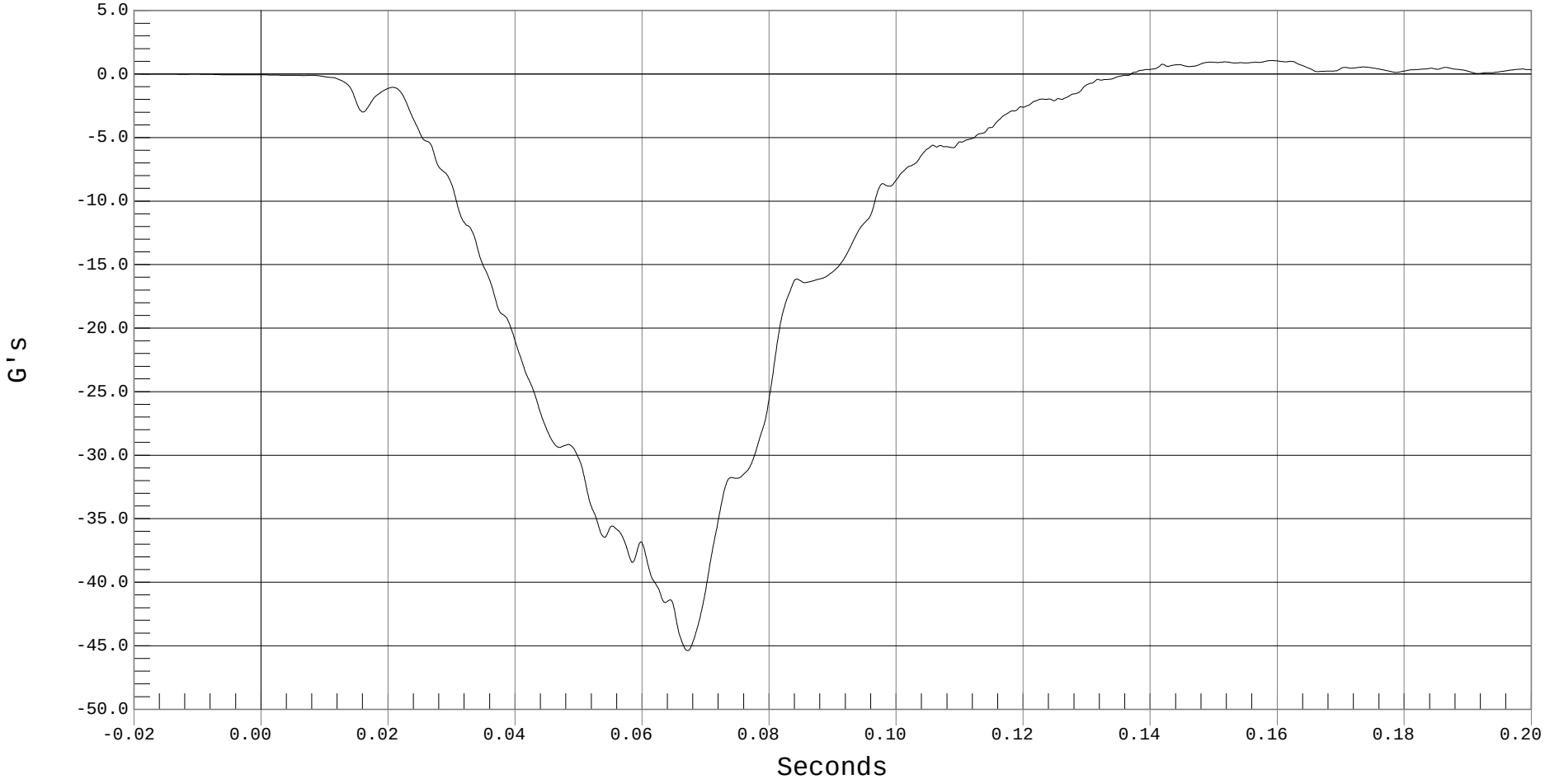
PASSENGER CHEST X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER CHEST X, B01031AF.A22

Ymin = -45.39 G's @ 0.0671 Seconds, Ymax = 1.06 G's @ 0.1590 Seconds



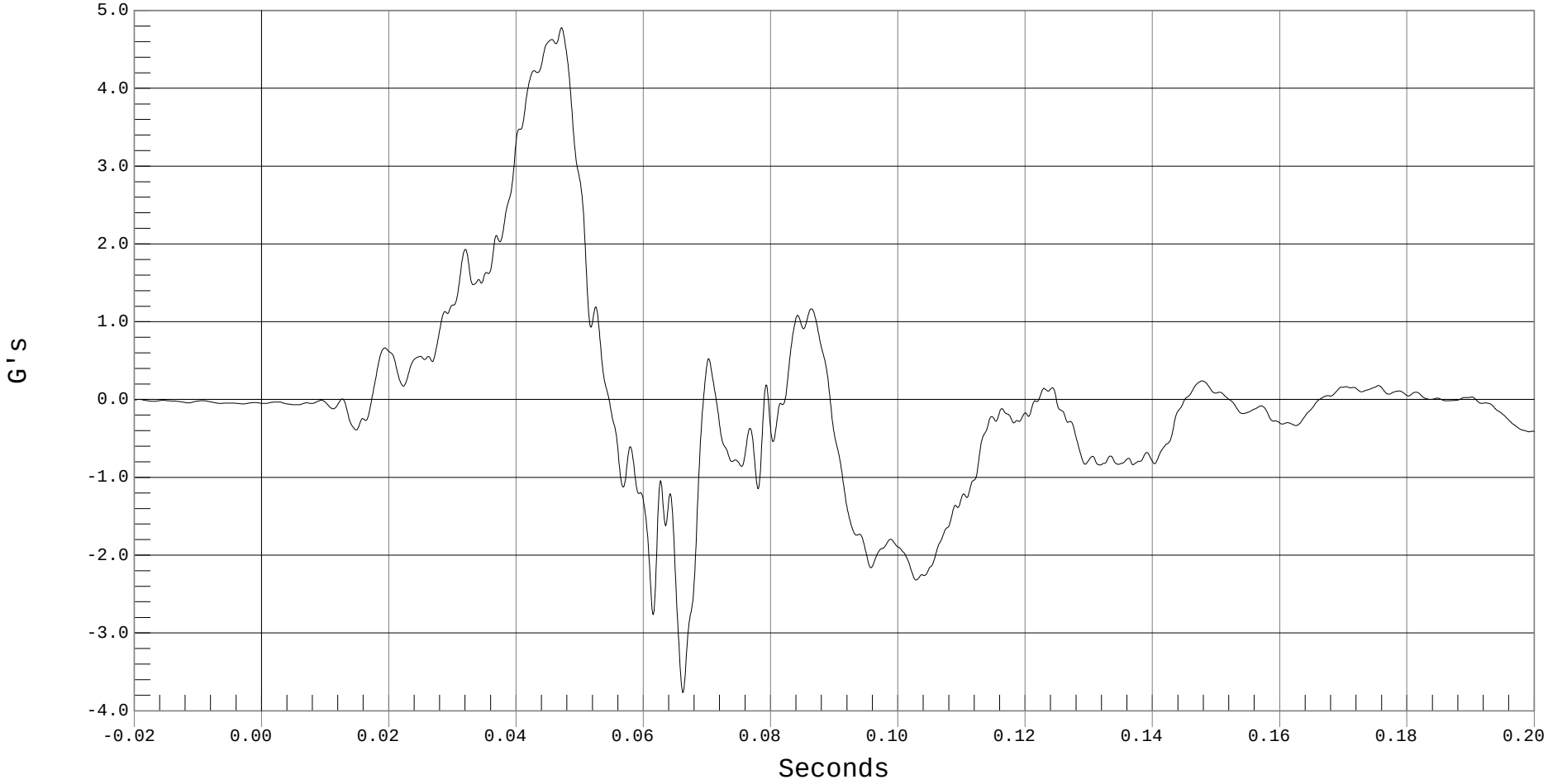
PASSENGER CHEST Y ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER CHEST Y, B01031AF.A23

Ymin = -3.77 G's @ 0.0661 Seconds, Ymax = 4.78 G's @ 0.0471 Seconds



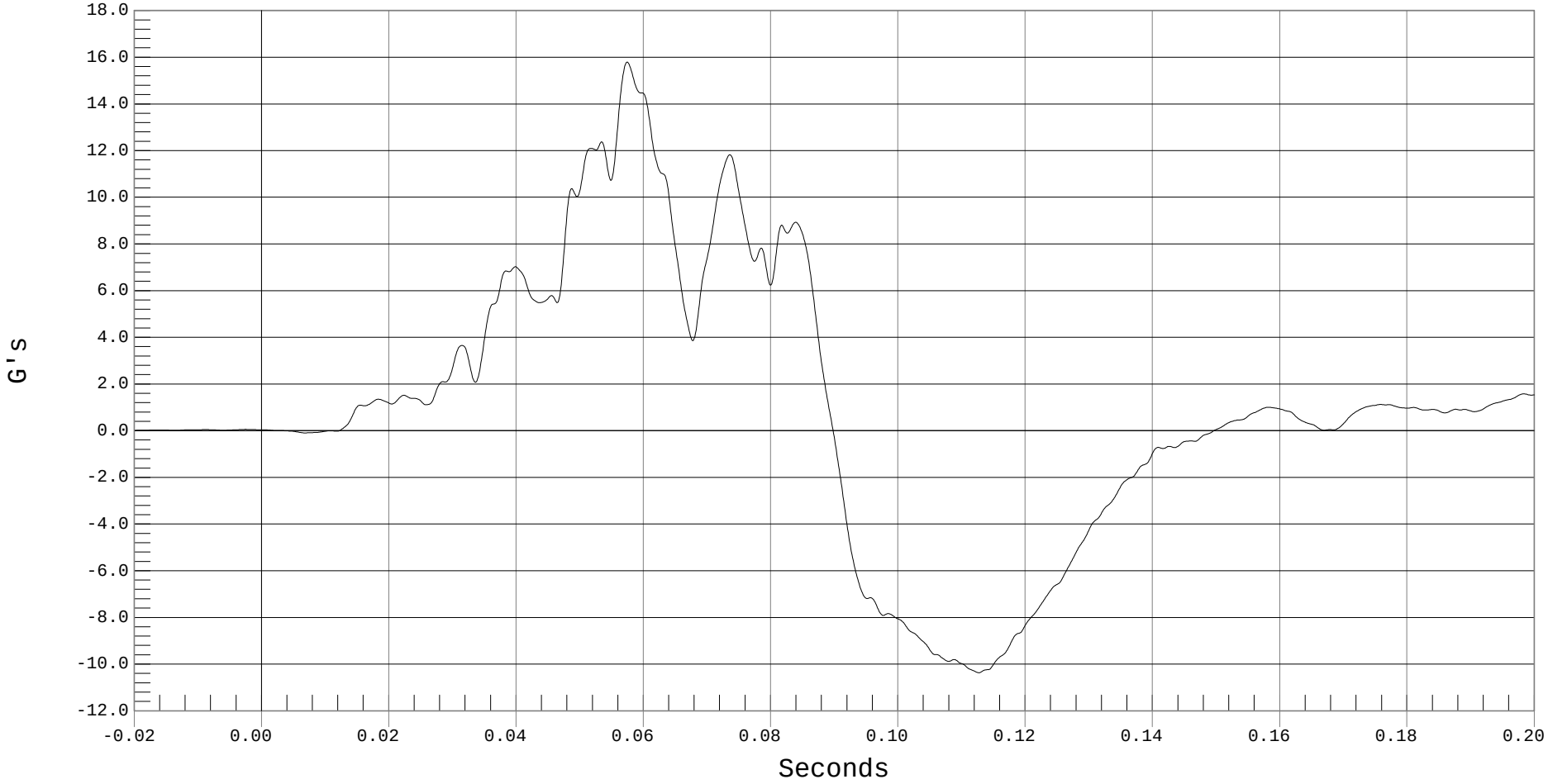
PASSENGER CHEST Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER CHEST Z, B01031AF.A24

Ymin = -10.37 G's @ 0.1126 Seconds, Ymax = 15.79 G's @ 0.0574 Seconds



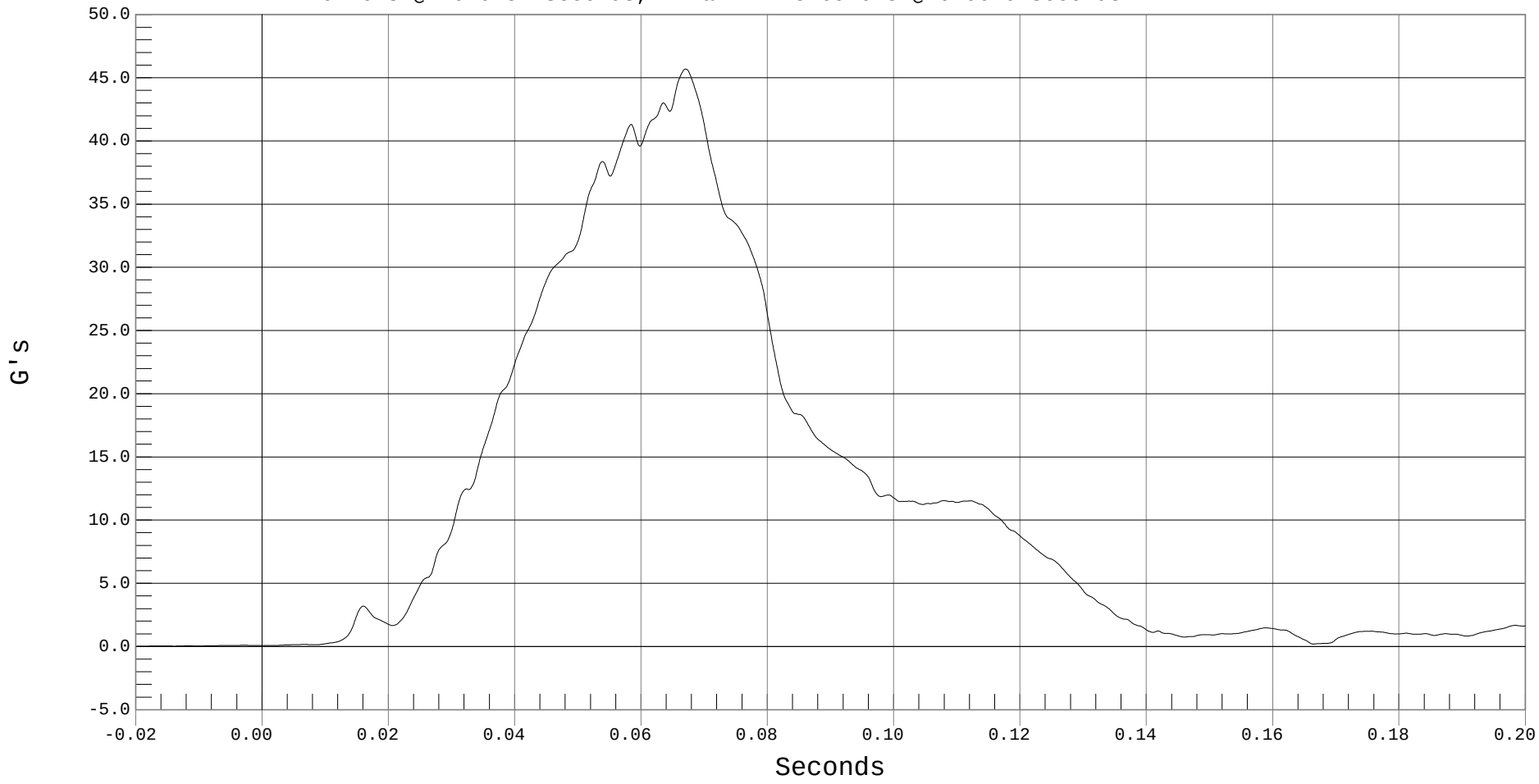
PASSENGER CHEST RESULTANT ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER CHEST RESULTANT ACCELERATION, B01031AV.A22

Ymin = .02 G's @ -0.0187 Seconds, Ymax = 45.69 G's @ 0.0670 Seconds



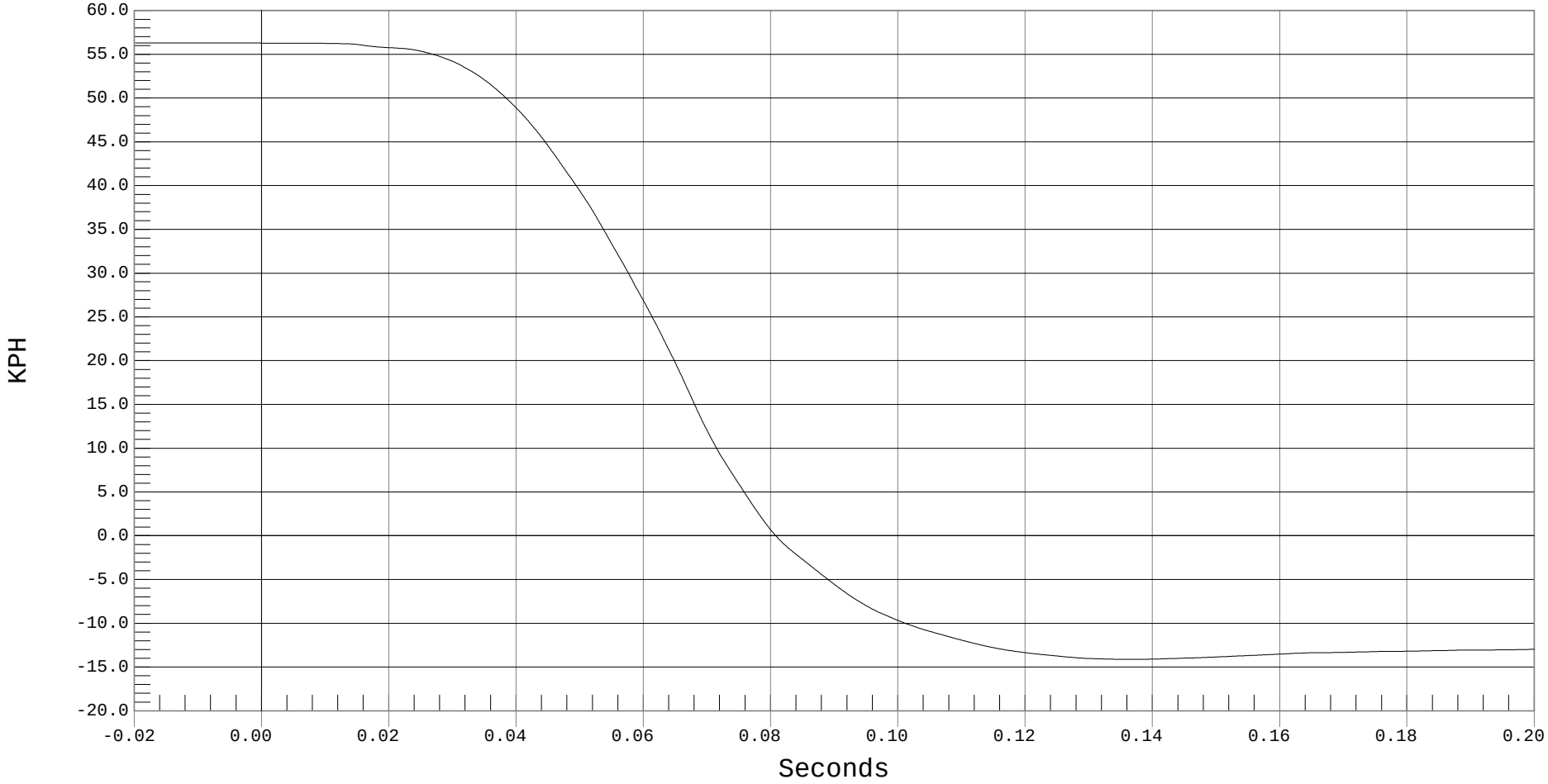
PASSENGER CHEST X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER CHEST X VELOCITY, B01031AI.V22

Ymin = -14.12 KPH @ 0.1369 Seconds, Ymax = 56.3 KPH @ -0.0182 Seconds



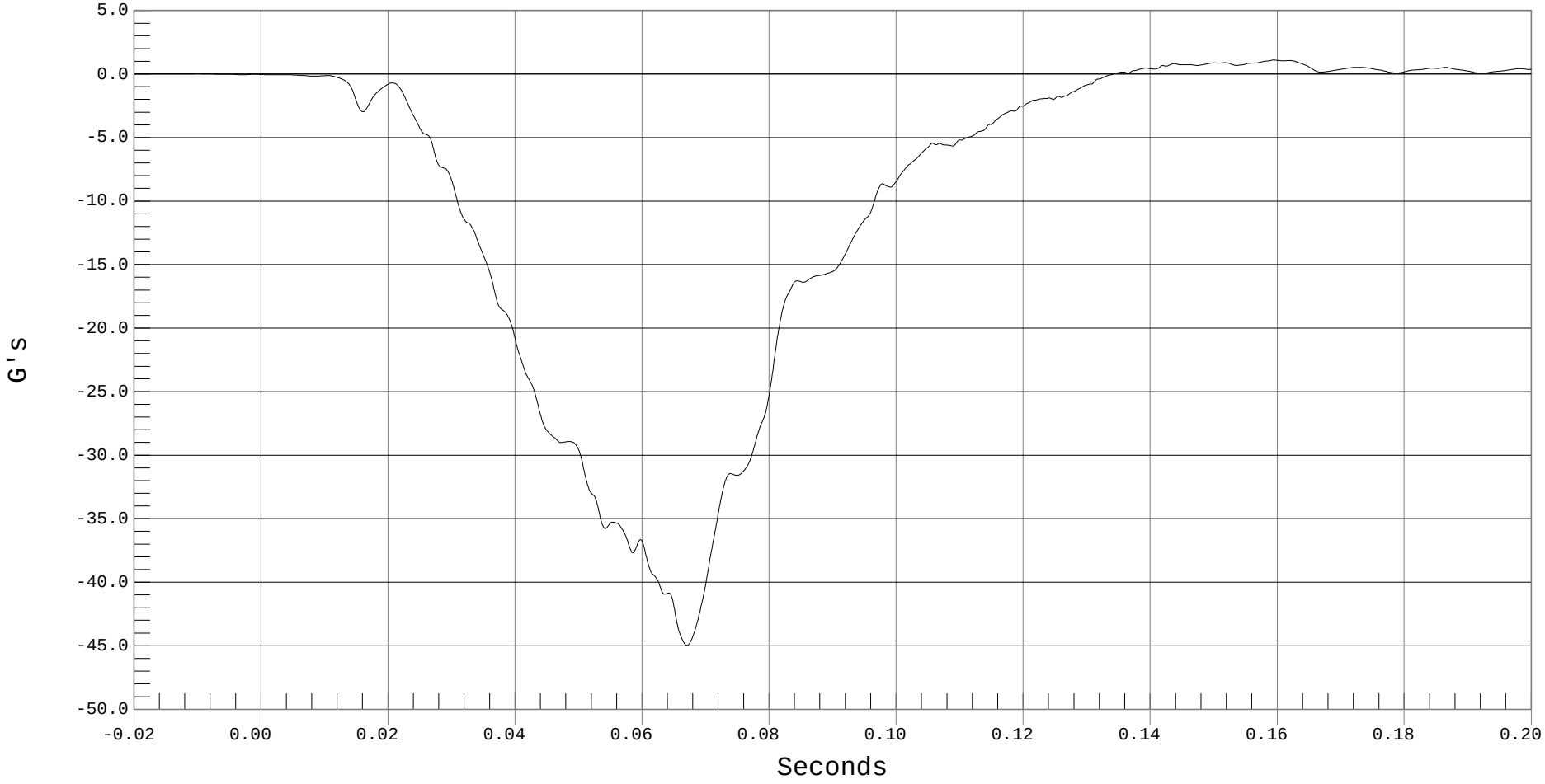
PASSENGER CHEST REDUNDANT X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER CHEST Xr, B01031AF.A50

Ymin = -44.96 G's @ 0.0670 Seconds, Ymax = 1.1 G's @ 0.1594 Seconds



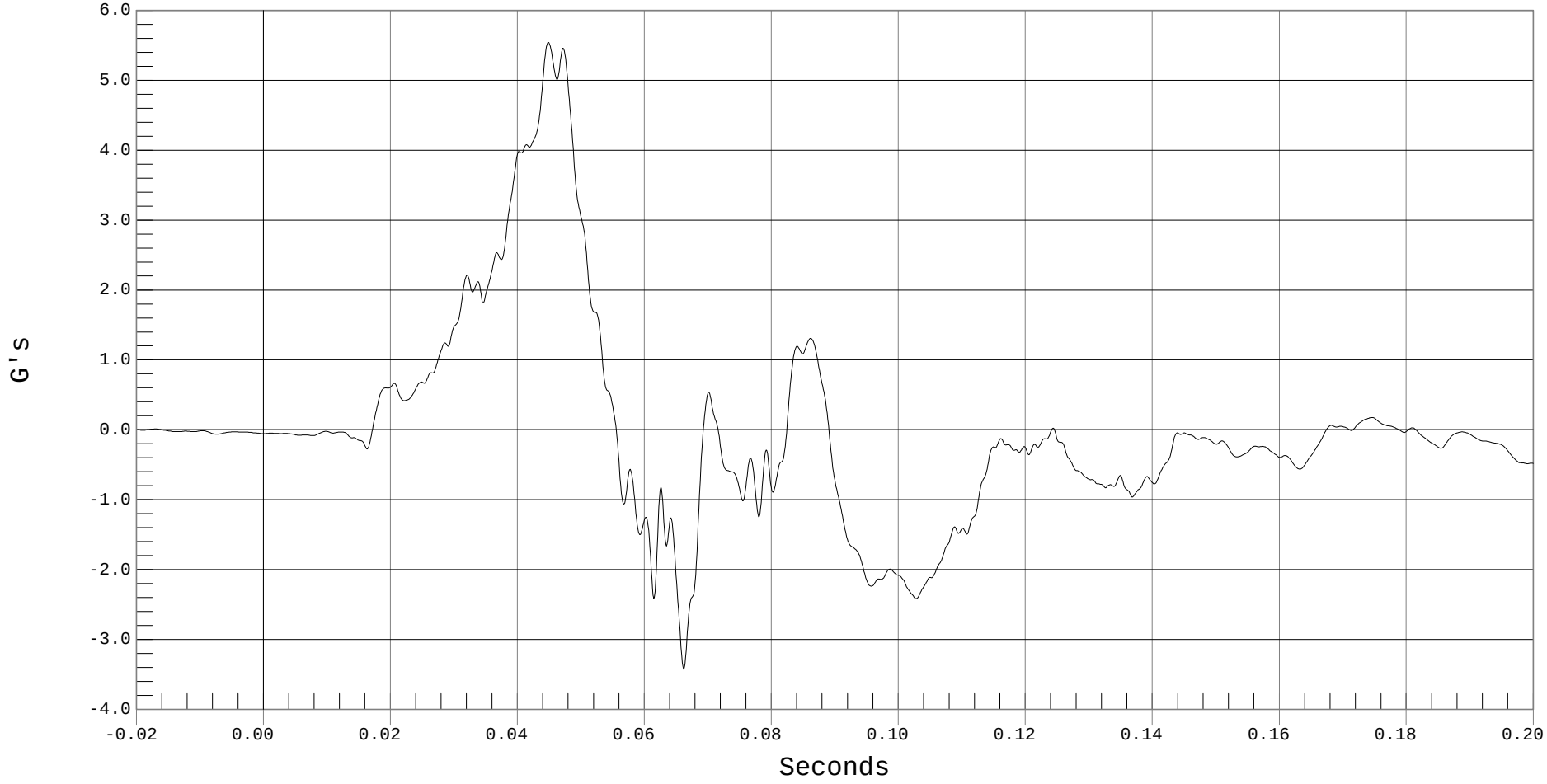
PASSENGER CHEST REDUNDANT Y ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER CHEST Yr, B01031AF.A51

Ymin = -3.43 G's @ 0.0661 Seconds, Ymax = 5.54 G's @ 0.0448 Seconds



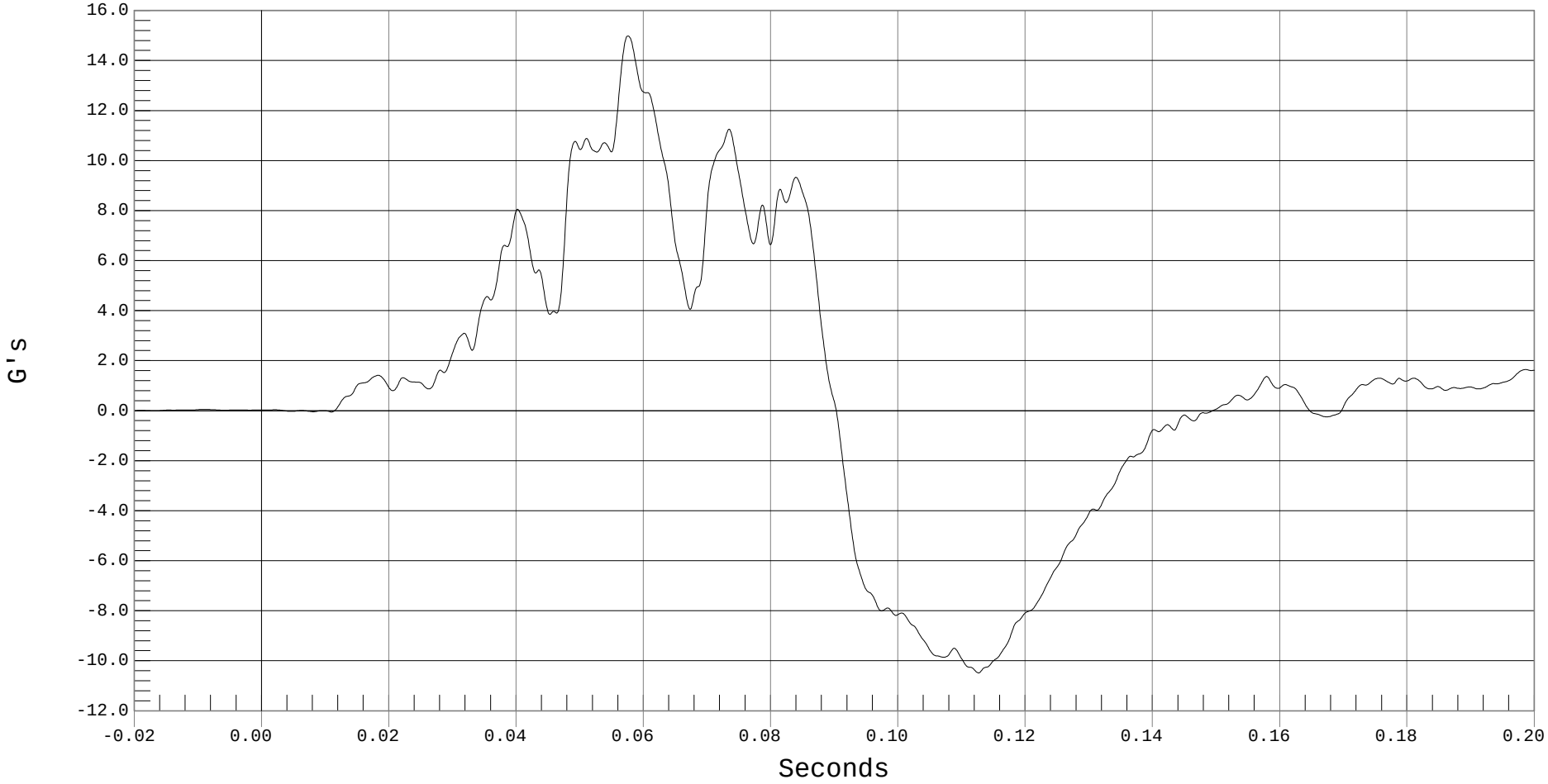
PASSENGER CHEST REDUNDANT Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER CHEST Zr, B01031AF.A52

Ymin = -10.49 G's @ 0.1126 Seconds, Ymax = 14.98 G's @ 0.0575 Seconds



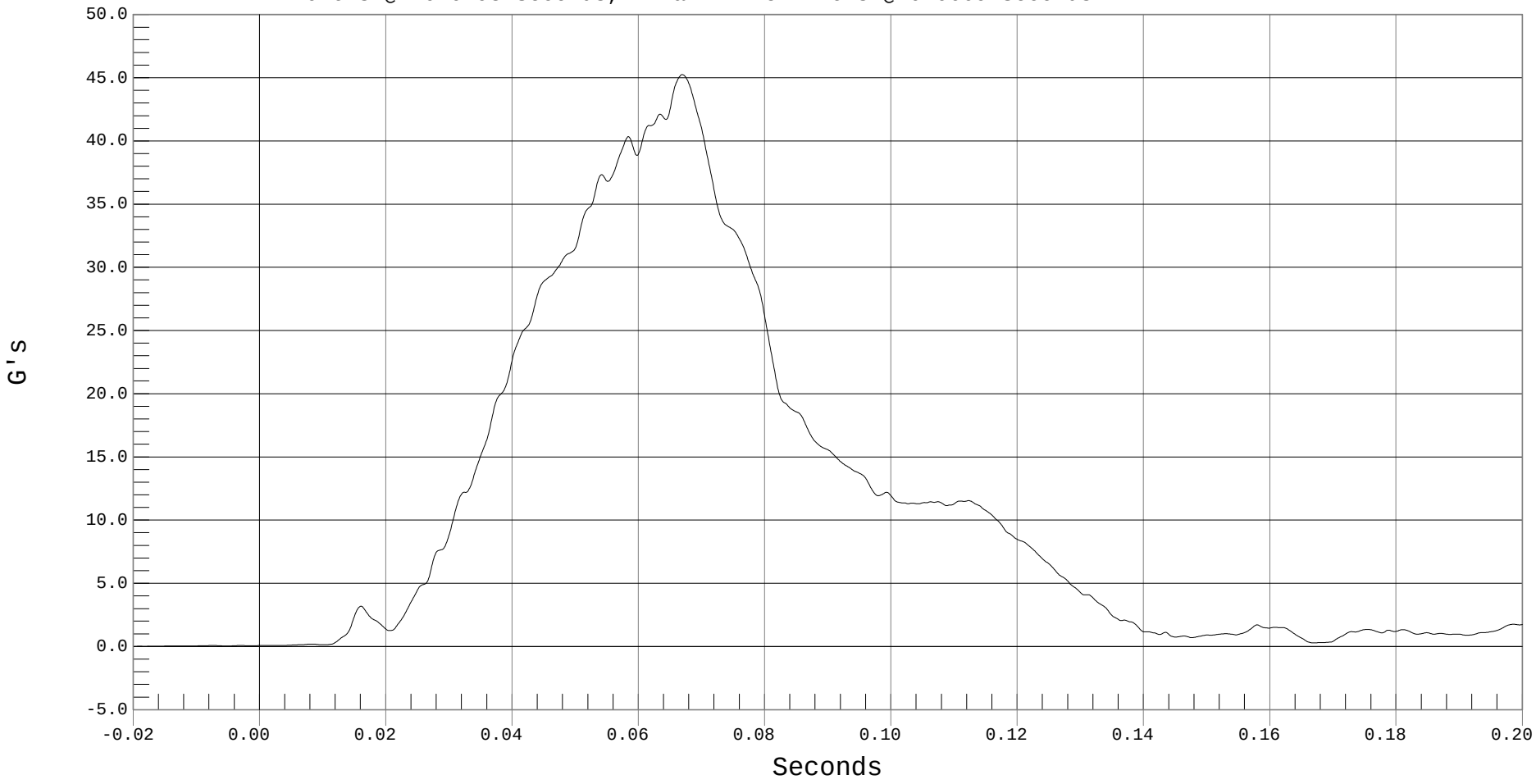
PASSENGER CHEST REDUNDANT RESULTANT ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER CHEST REDUNDANT RESULTANT ACCELERATION, B01031AV.A50

Ymin = 0 G's @ -0.0198 Seconds, Ymax = 45.24 G's @ 0.0669 Seconds



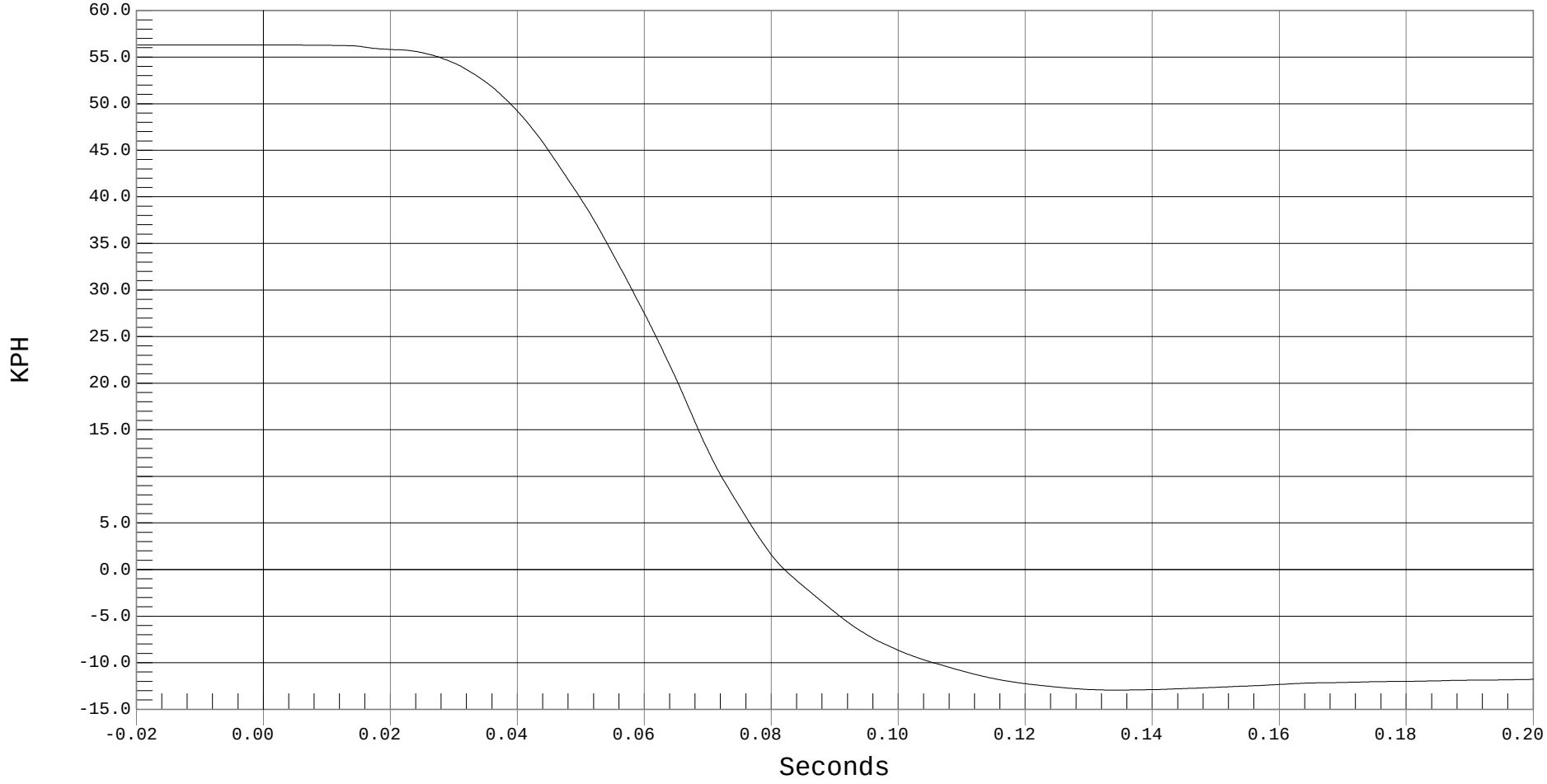
PASSENGER CHEST REDUNDANT X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER CHEST REDUNDANT X VELOCITY, B01031AI.V50

Ymin = -12.94 KPH @ 0.1341 Seconds, Ymax = 56.3 KPH @ -0.0086 Seconds



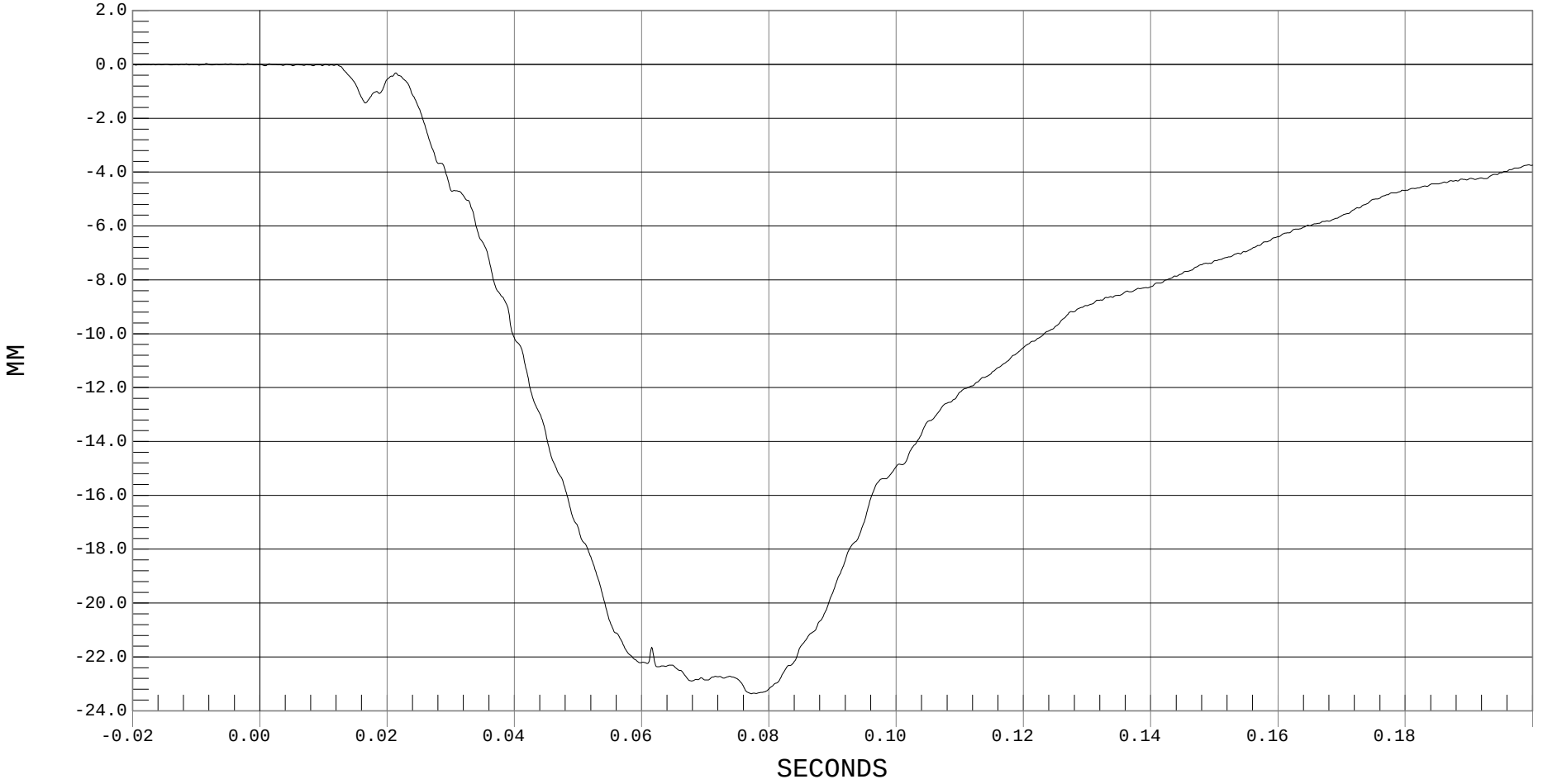
PASSENGER CHEST COMPRESSION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER CHEST DISP, B01031DF.D25

Ymin = -23.36 MM @ 0.0771 SECONDS, Ymax = .03 MM @ -0.0085 SECONDS



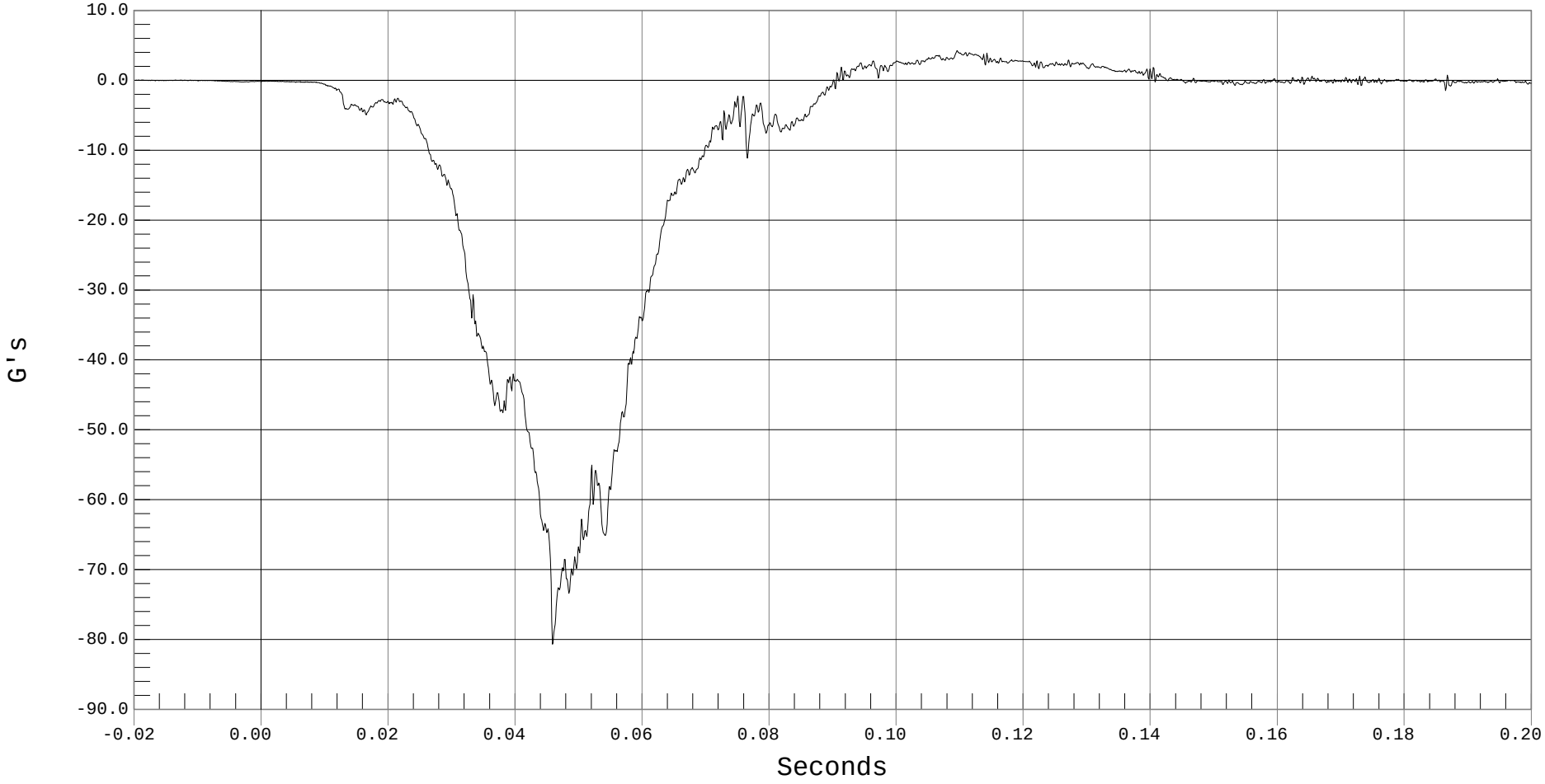
PASSENGER PELVIS X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 PASSENGER PELVIS X, B01031AT.A26

Ymin = -80.7 G's @ 0.0458 Seconds, Ymax = 4.27 G's @ 0.1095 Seconds



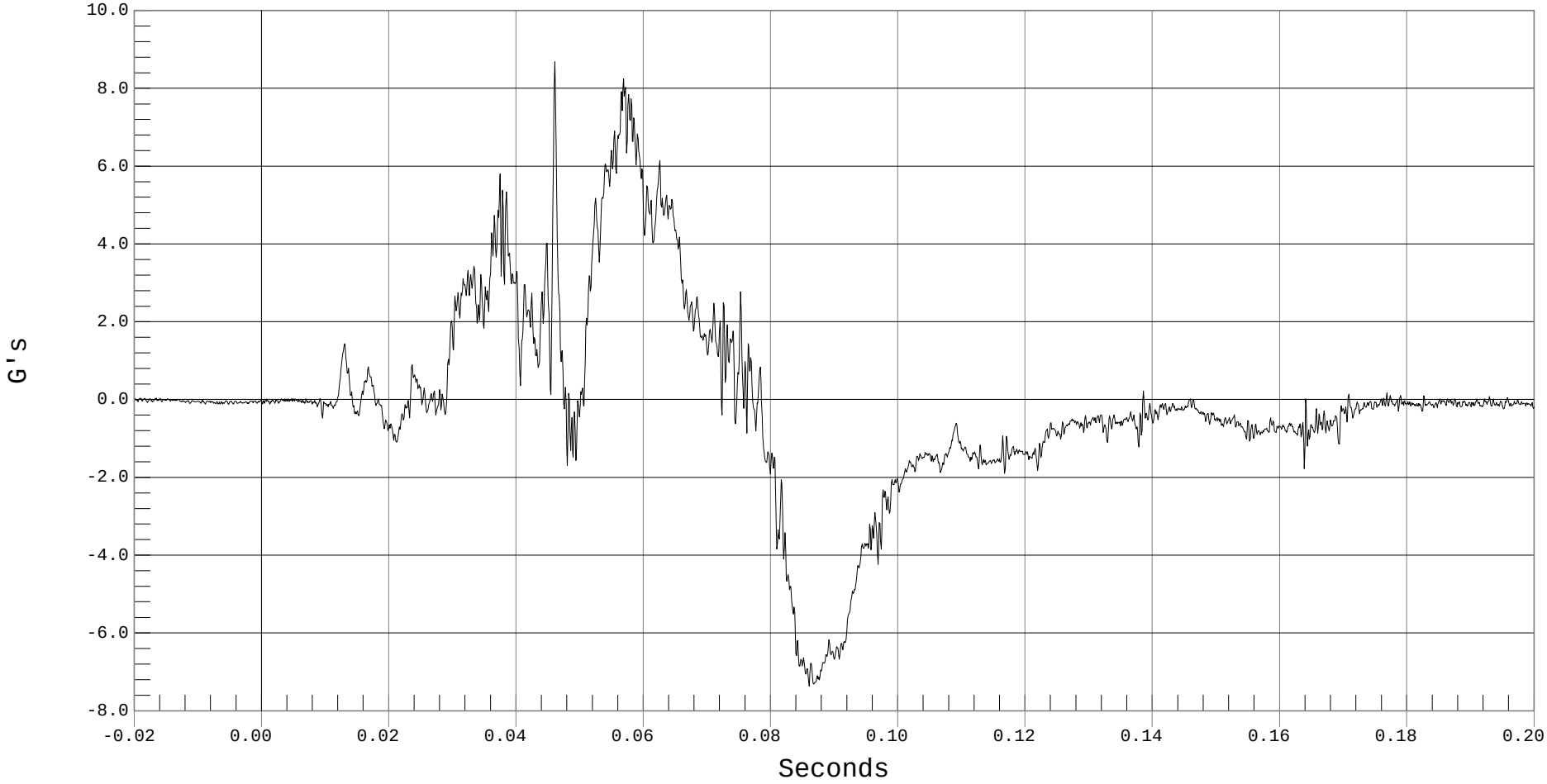
PASSENGER PELVIS Y ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 PASSENGER PELVIS Y, B01031AT.A27

Ymin = -7.37 G's @ 0.0860 Seconds, Ymax = 8.68 G's @ 0.0460 Seconds



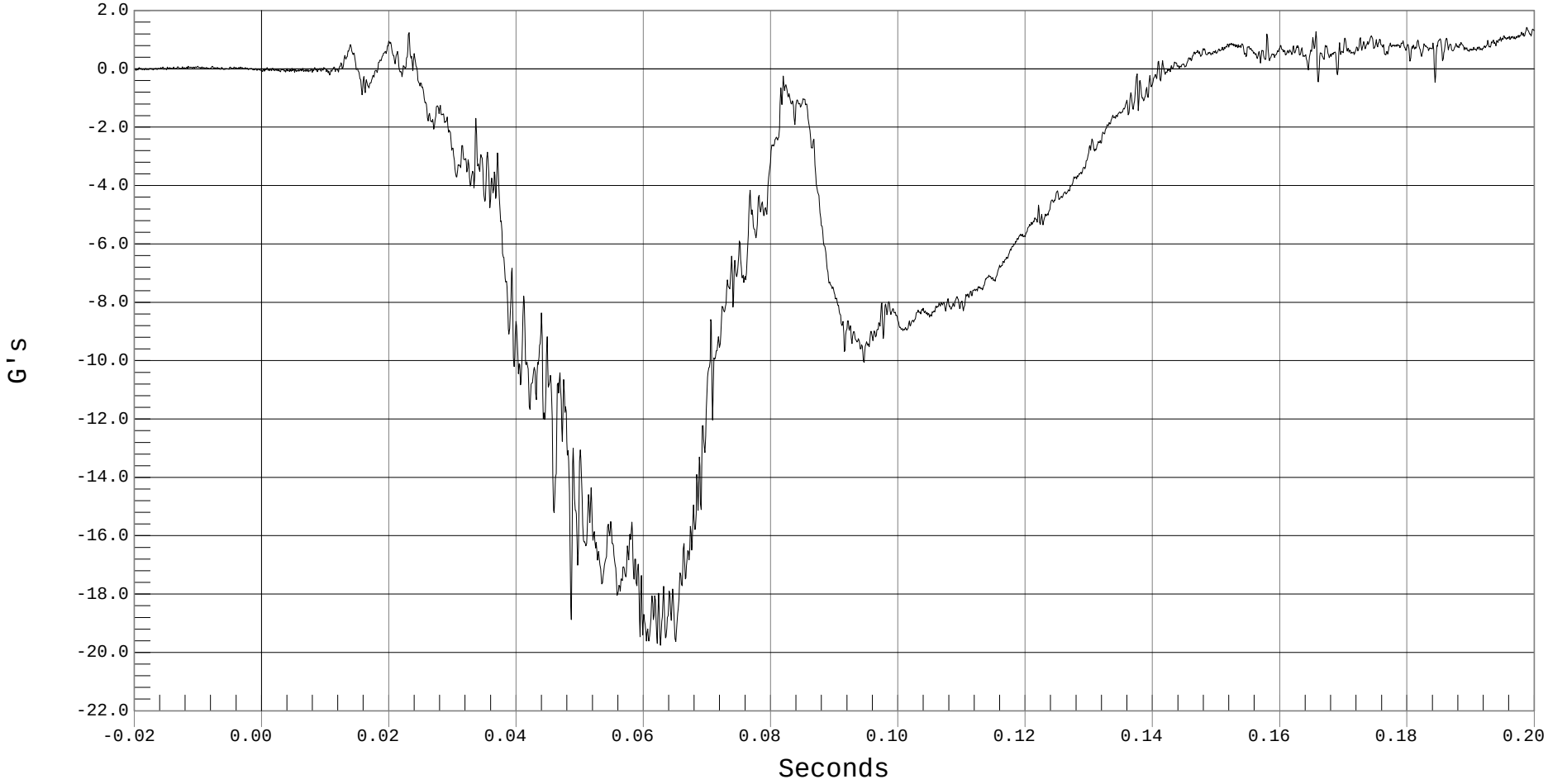
PASSENGER PELVIS Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 PASSENGER PELVIS Z, B01031AT.A28

Ymin = -19.76 G's @ 0.0626 Seconds, Ymax = 1.42 G's @ 0.1987 Seconds



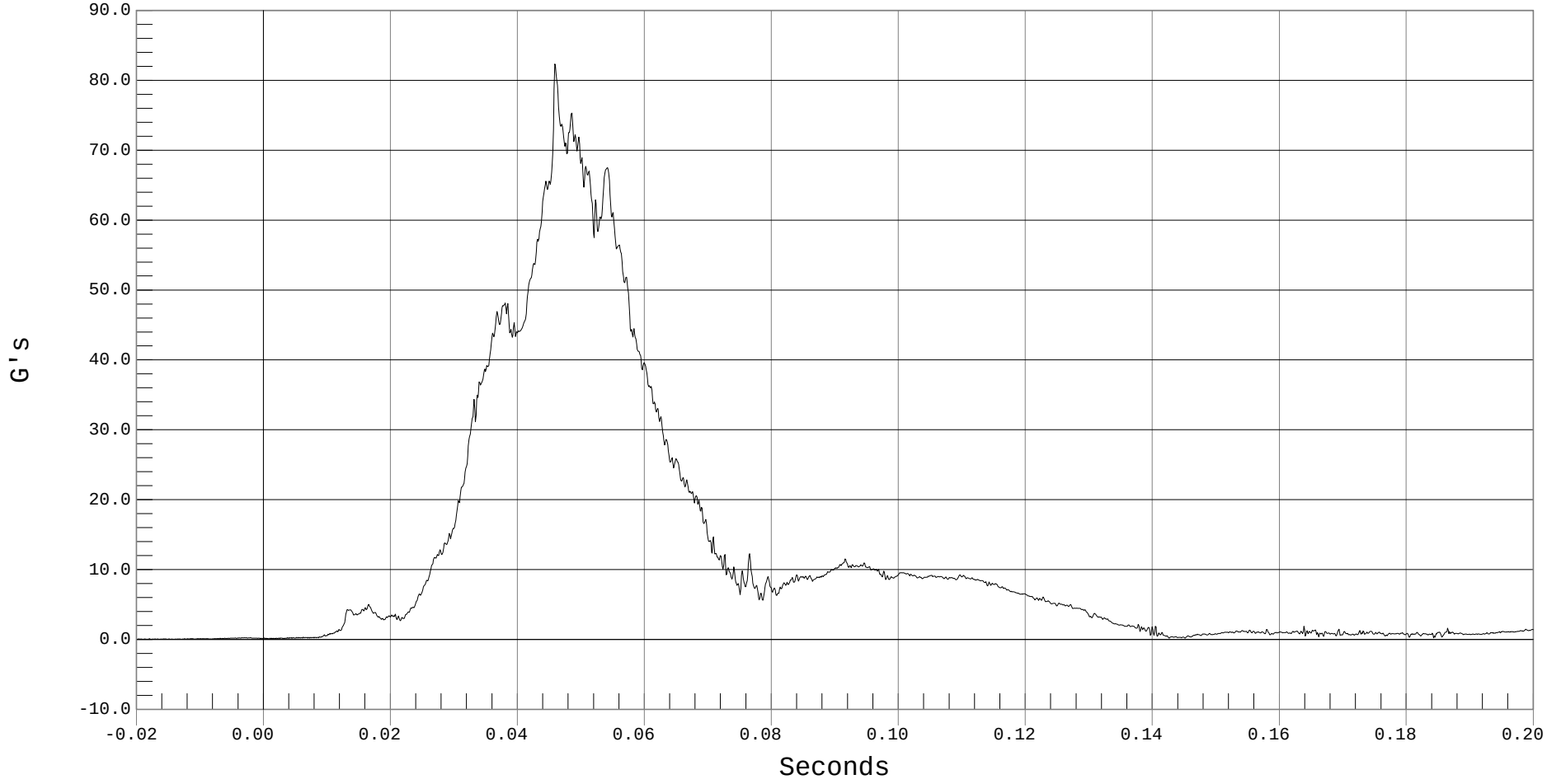
PASSENGER PELVIS RESULTANT ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 PASSENGER PELVIS RESULTANT ACCELERATION, B01031AV.A26

Ymin = .02 G's @ -0.0177 Seconds, Ymax = 82.35 G's @ 0.0458 Seconds



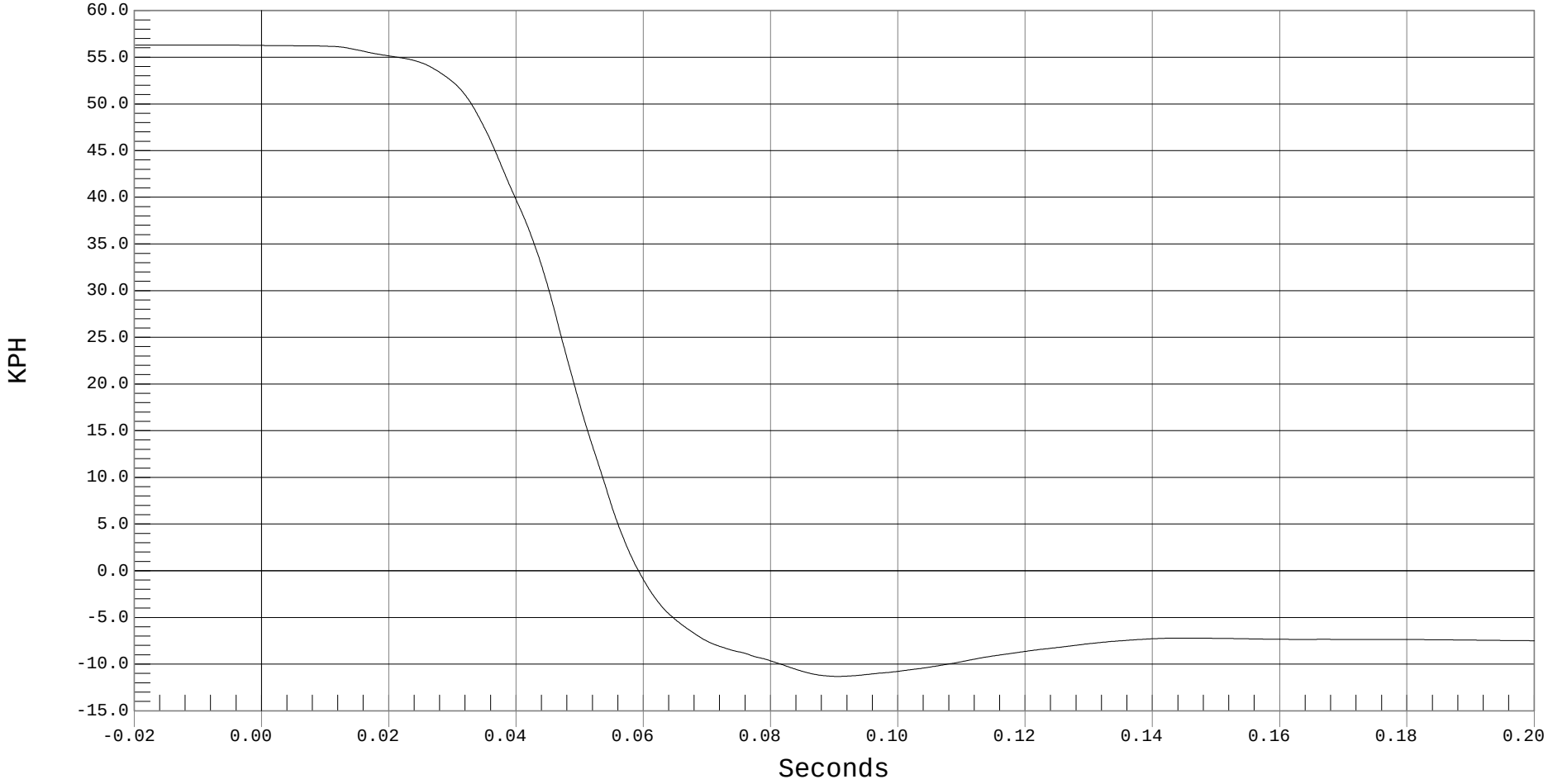
PASSENGER PELVIS X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER PELVIS X VELOCITY, B01031AI.V26

Ymin = -11.32 KPH @ 0.0904 Seconds, Ymax = 56.3 KPH @ -0.0181 Seconds



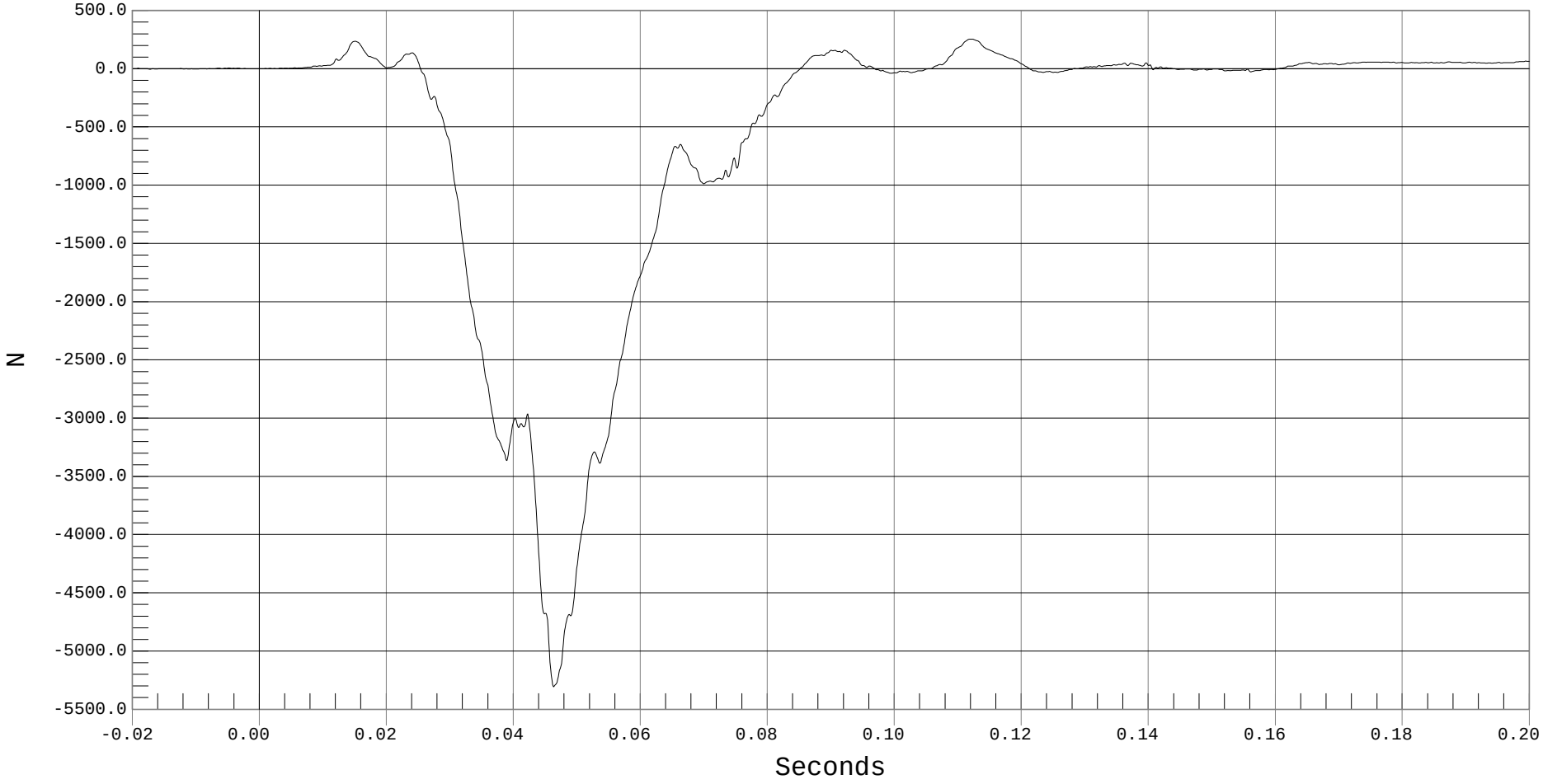
PASSENGER LEFT FEMUR FORCE

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER LEFT FEMUR Z, B01031FF.F30

Ymin = -5306.44 N @ 0.0463 Seconds, Ymax = 254.23 N @ 0.1119 Seconds



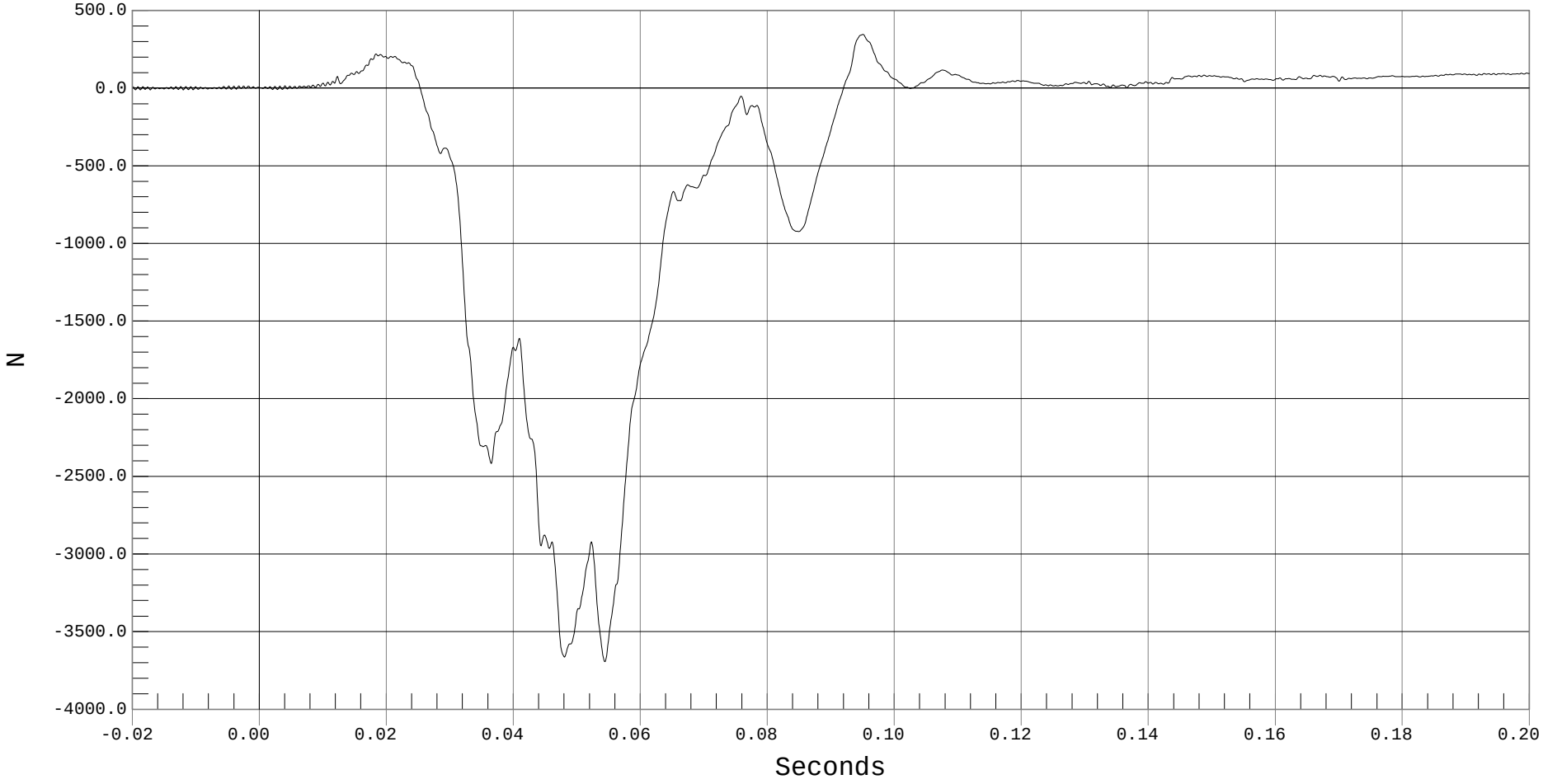
PASSENGER RIGHT FEMUR FORCE

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER RIGHT FEMUR Z, B01031FF.F29

Ymin = -3693.14 N @ 0.0543 Seconds, Ymax = 345.72 N @ 0.0950 Seconds



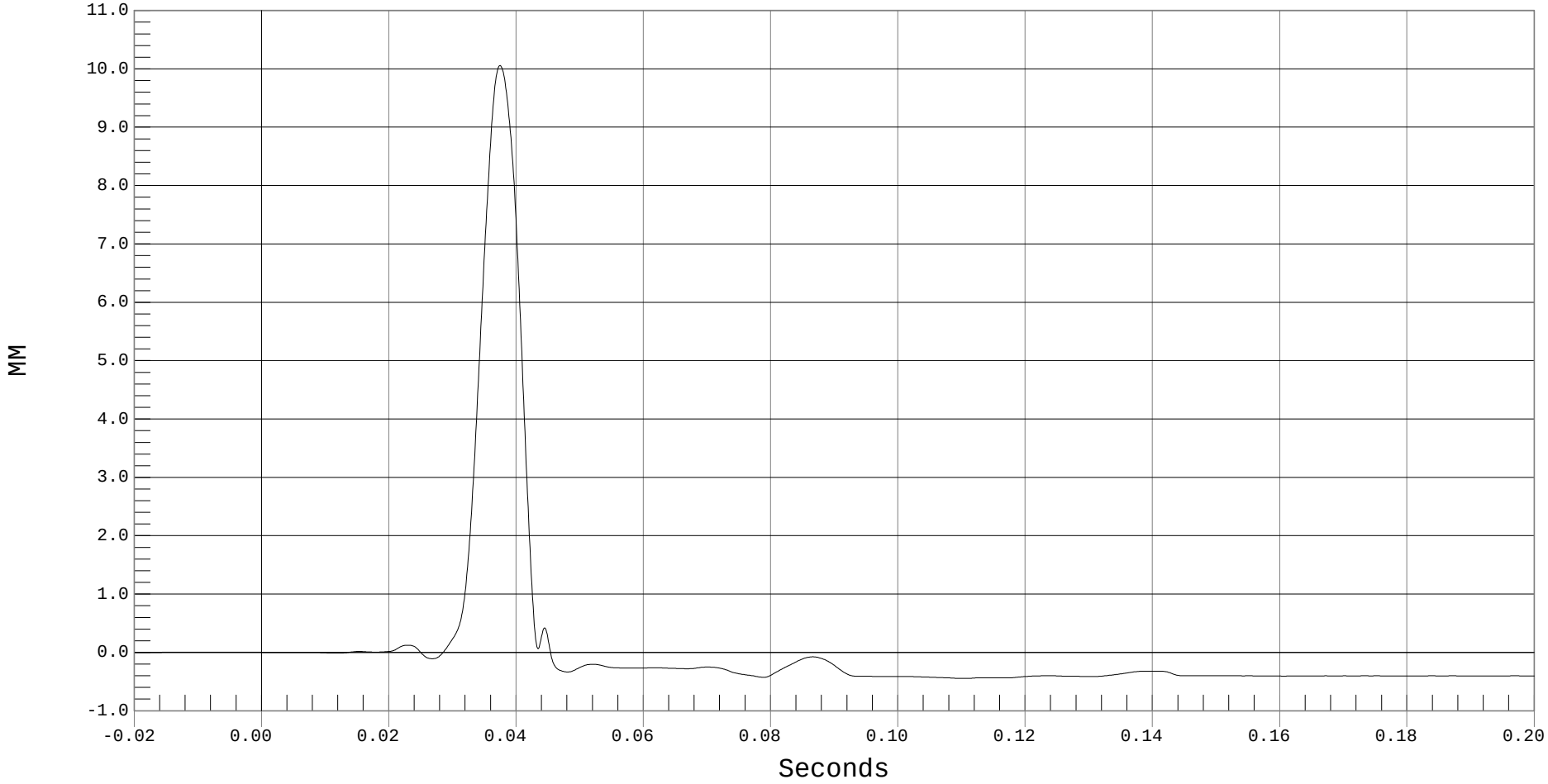
PASSENGER LEFT KNEE SHEER

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER LEFT KNEE SHEER, B01031DF.D62

Ymin = -.45 MM @ 0.1102 Seconds, Ymax = 10.06 MM @ 0.0374 Seconds



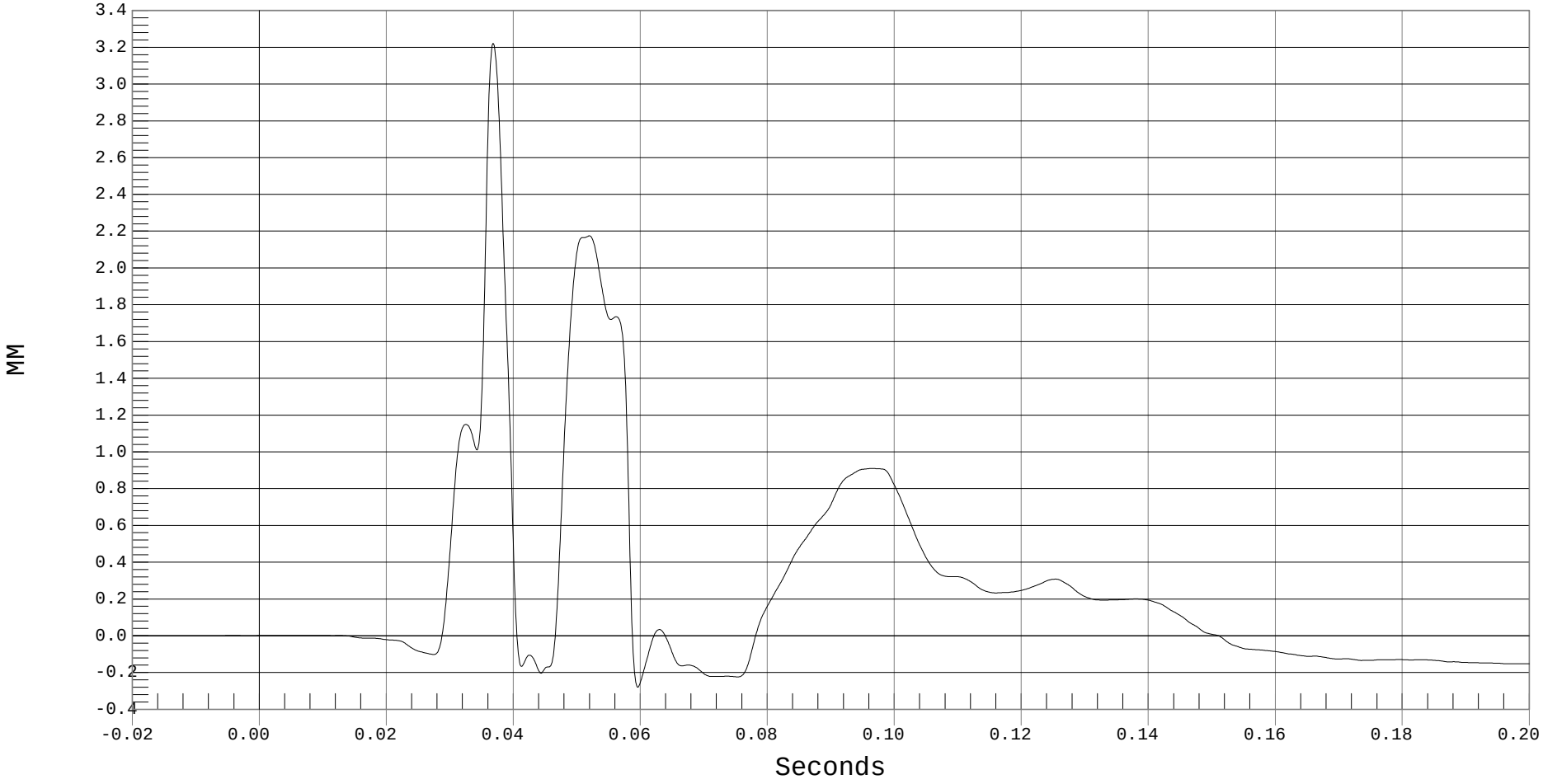
PASSENGER RIGHT KNEE SHEER

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER RIGHT KNEE SHEER, B01031DF.D61

Ymin = -.28 MM @ 0.0595 Seconds, Ymax = 3.22 MM @ 0.0367 Seconds



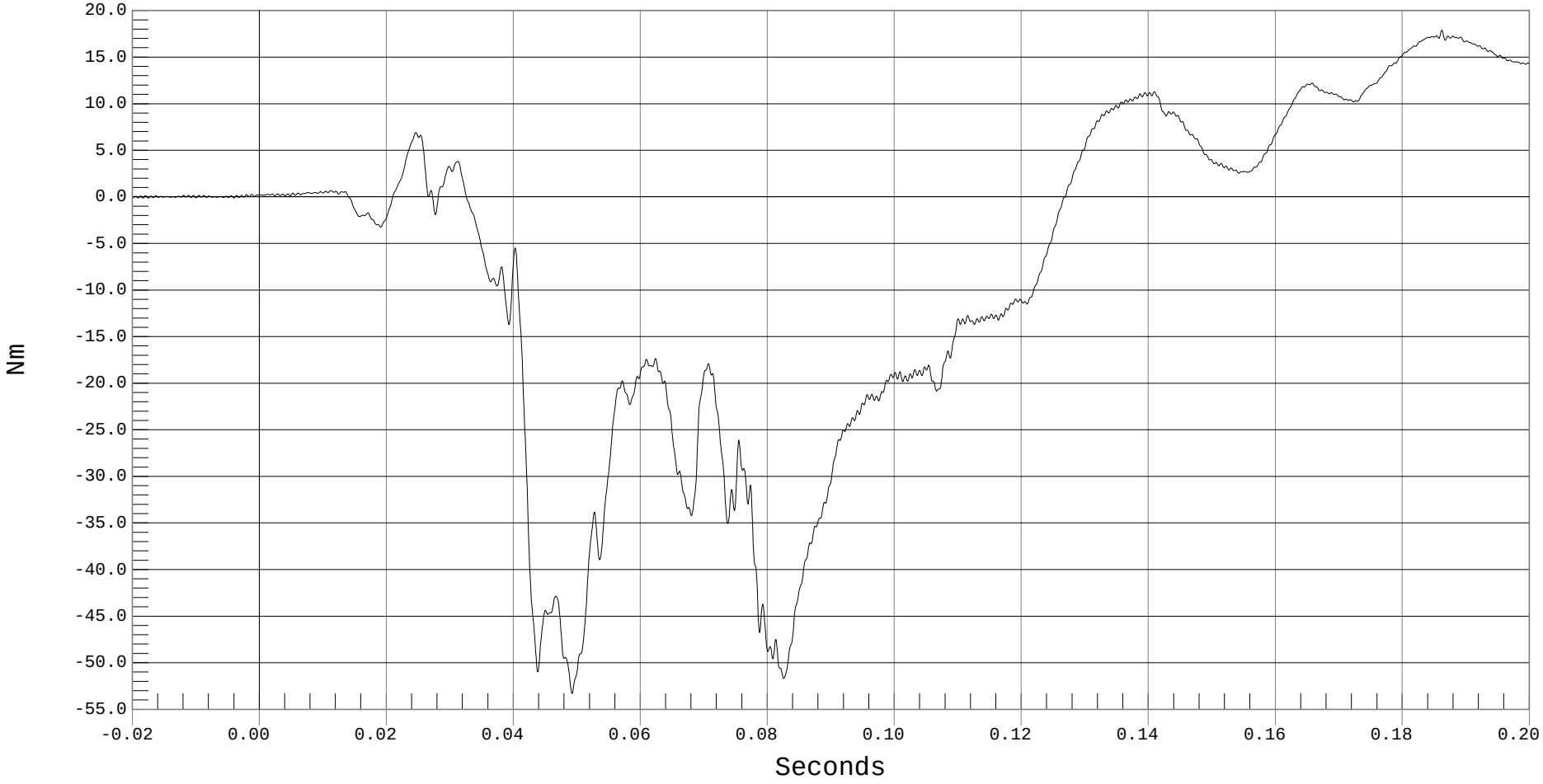
PASSENGER LEFT UPPER TIBIA MOMENT X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER LEFT UPPER TIBIA MX, B01031MF.M87

Ymin = -53.3 Nm @ 0.0492 Seconds, Ymax = 17.89 Nm @ 0.1861 Seconds



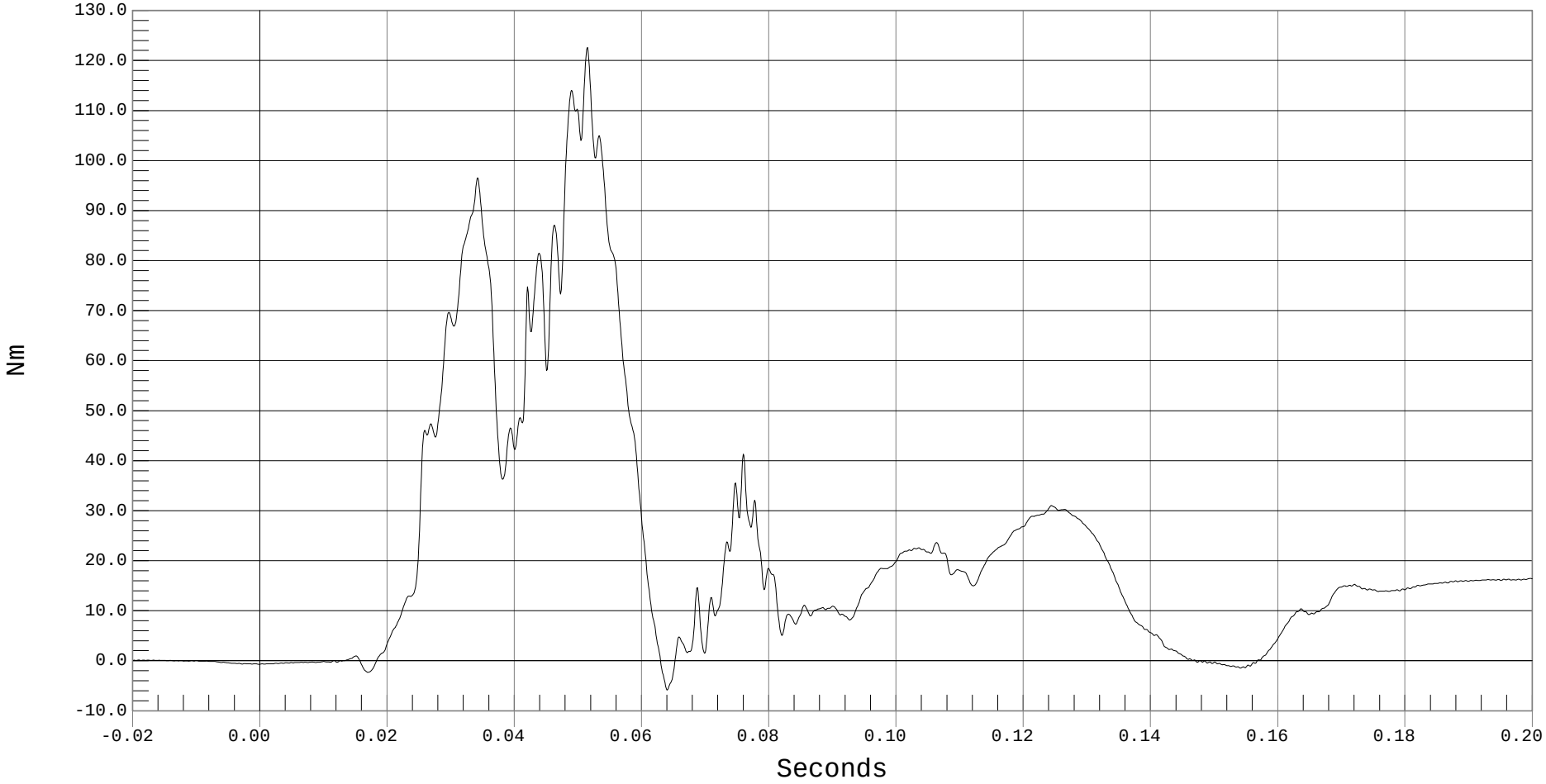
PASSENGER LEFT UPPER TIBIA MOMENT Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER LEFT UPPER TIBIA MY, B01031MF.M88

Ymin = -5.86 Nm @ 0.0639 Seconds, Ymax = 122.6 Nm @ 0.0514 Seconds



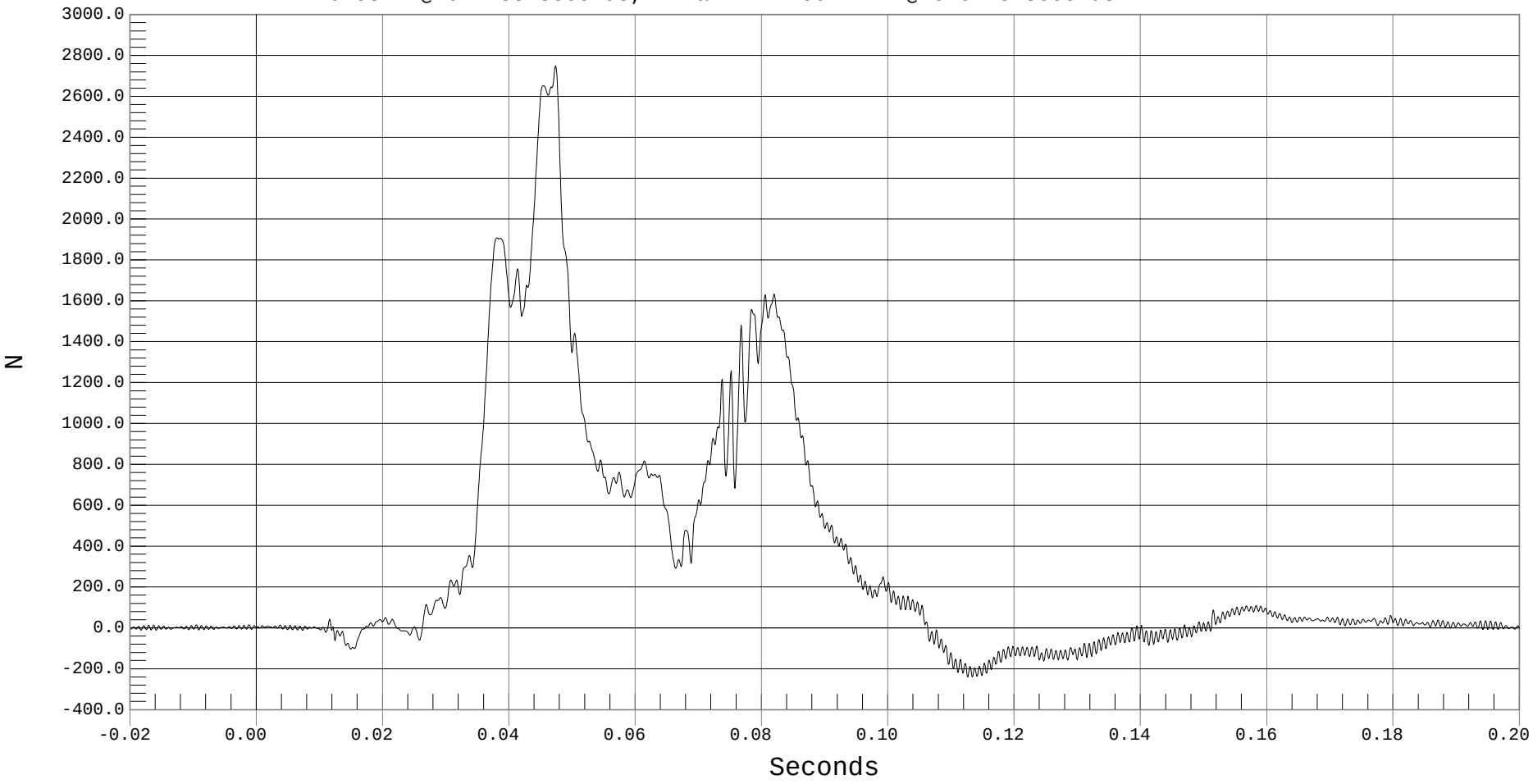
PASSENGER LEFT UPPER TIBIA FORCE Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER LEFT UPPER TIBIA FZ, B01031FF.F89

Ymin = -240.58 N @ 0.1133 Seconds, Ymax = 2750.47 N @ 0.0473 Seconds



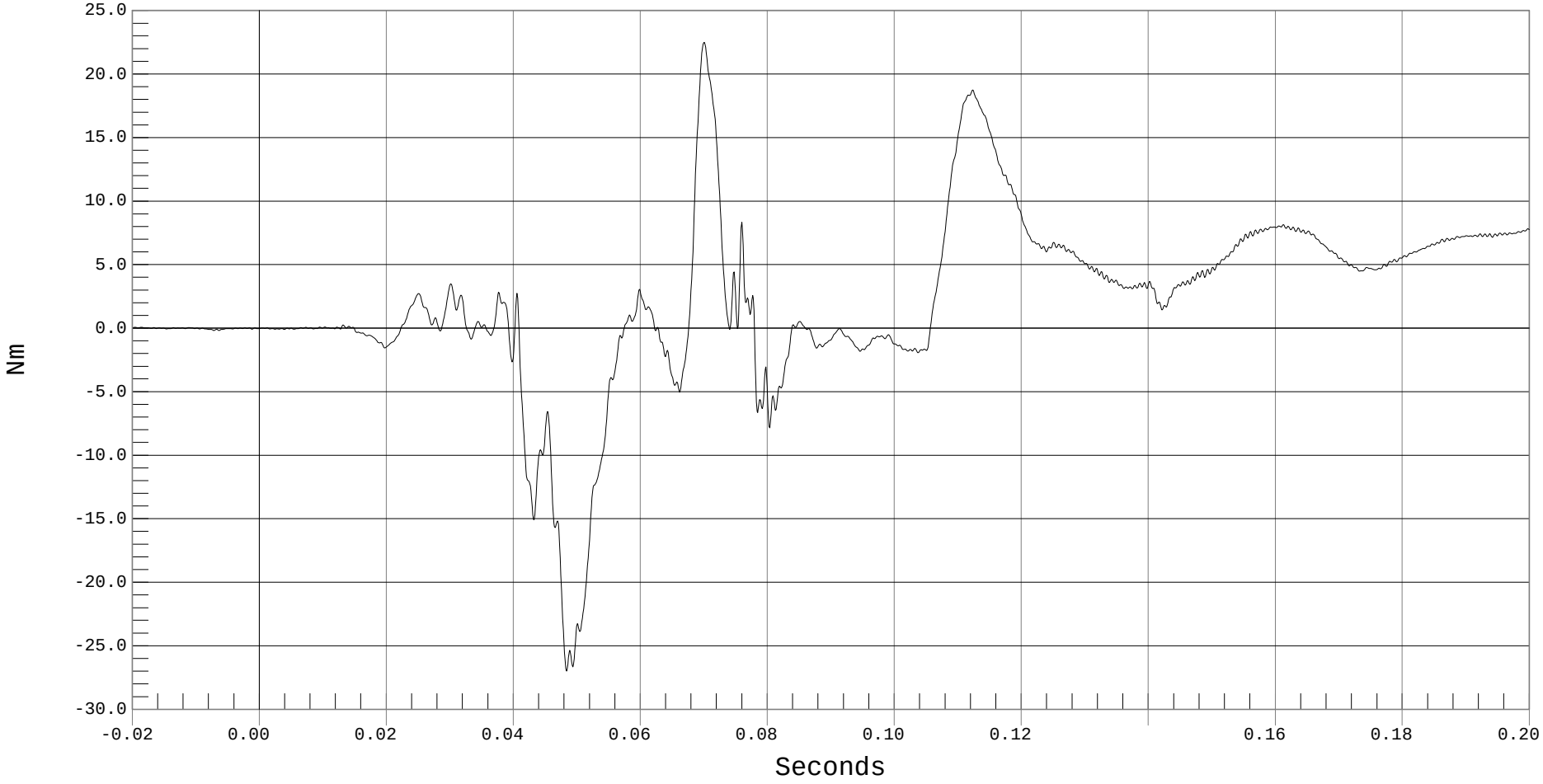
PASSENGER LEFT LOWER TIBIA MOMENT X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER LEFT LOWER TIBIA MX, B01031MF.M90

Ymin = -27 Nm @ 0.0483 Seconds, Ymax = 22.49 Nm @ 0.0700 Seconds



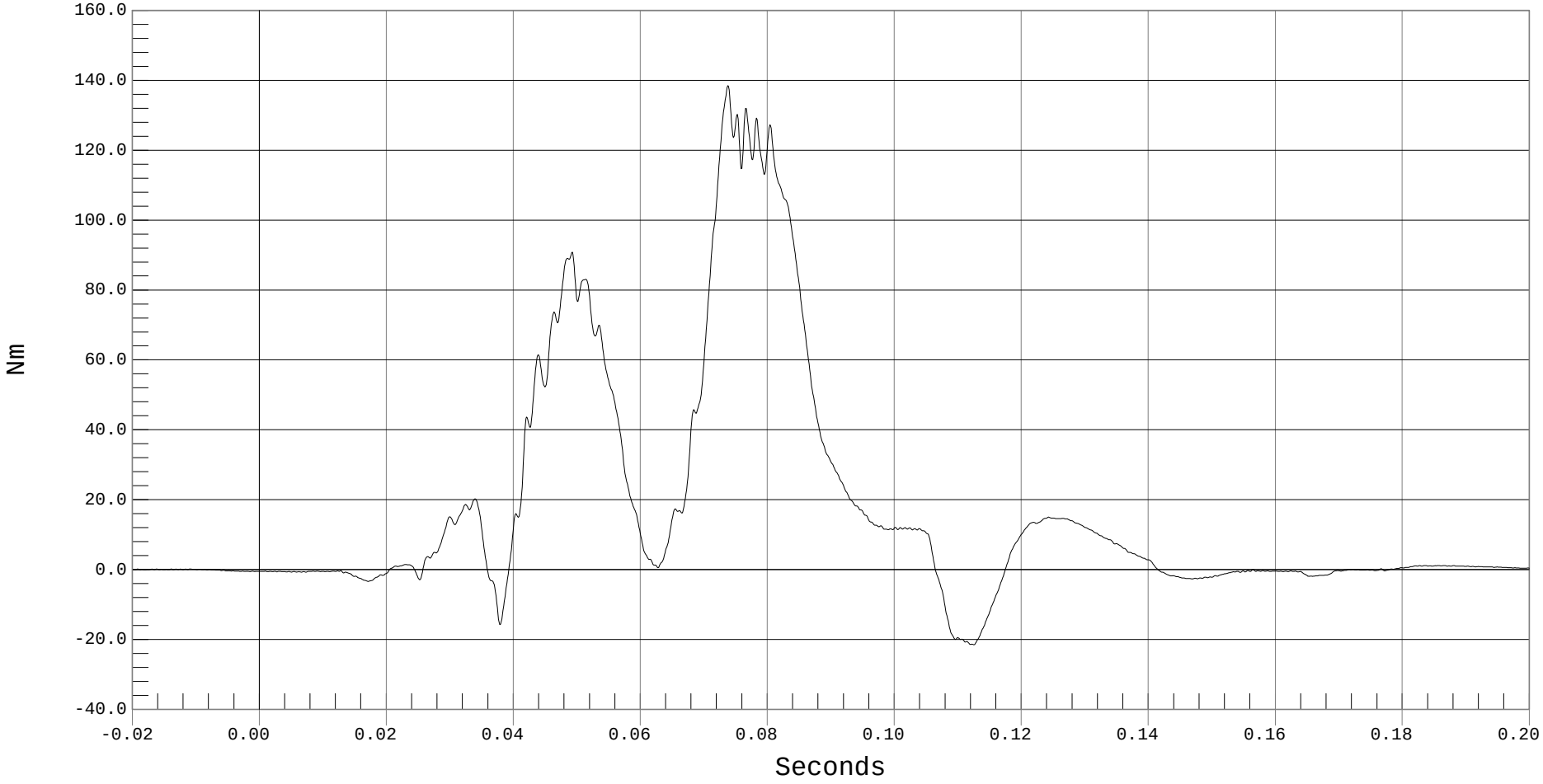
PASSENGER LEFT LOWER TIBIA MOMENT Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER LEFT LOWER TIBIA MY, B01031MF.M91

Ymin = -21.5 Nm @ 0.1124 Seconds, Ymax = 138.51 Nm @ 0.0737 Seconds



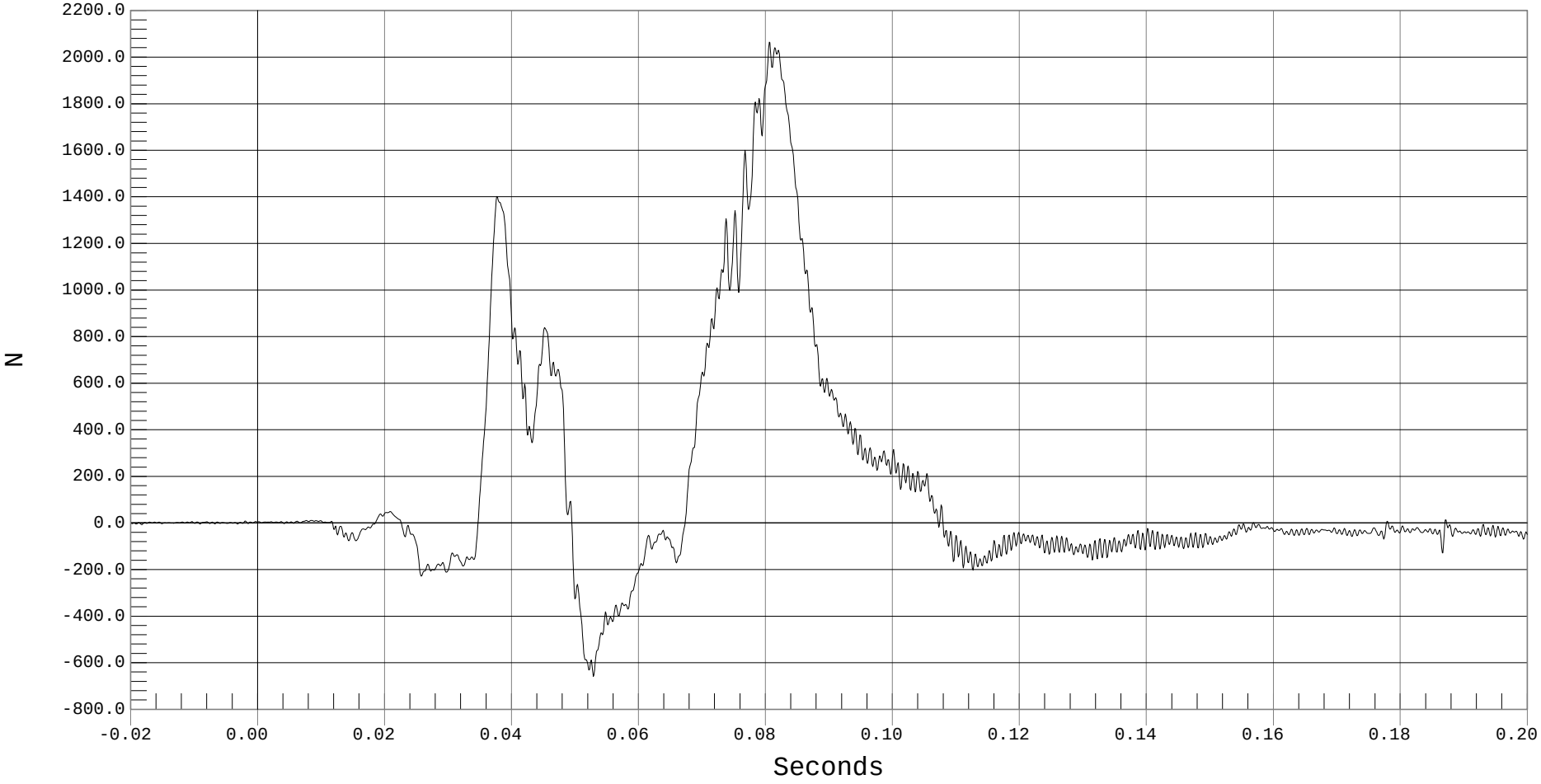
PASSENGER LEFT LOWER TIBIA FORCE Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER LEFT LOWER TIBIA FZ, B01031FF.F92

Ymin = -658.32 N @ 0.0528 Seconds, Ymax = 2064.52 N @ 0.0805 Seconds



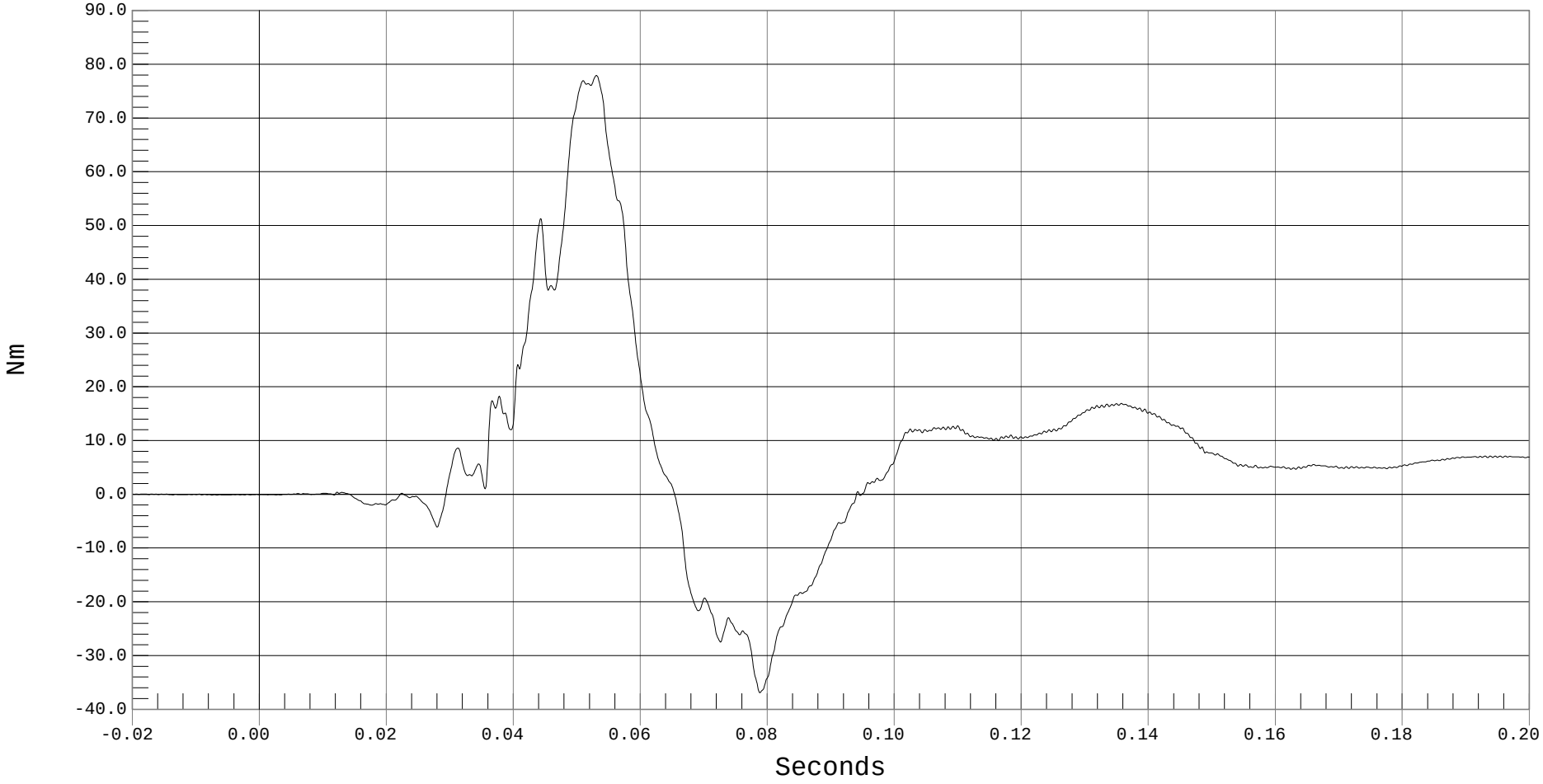
PASSENGER RIGHT UPPER TIBIA MOMENT X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER RIGHT UPPER TIBIA MX, B01031MF.M81

Ymin = -36.91 Nm @ 0.0787 Seconds, Ymax = 77.91 Nm @ 0.0530 Seconds



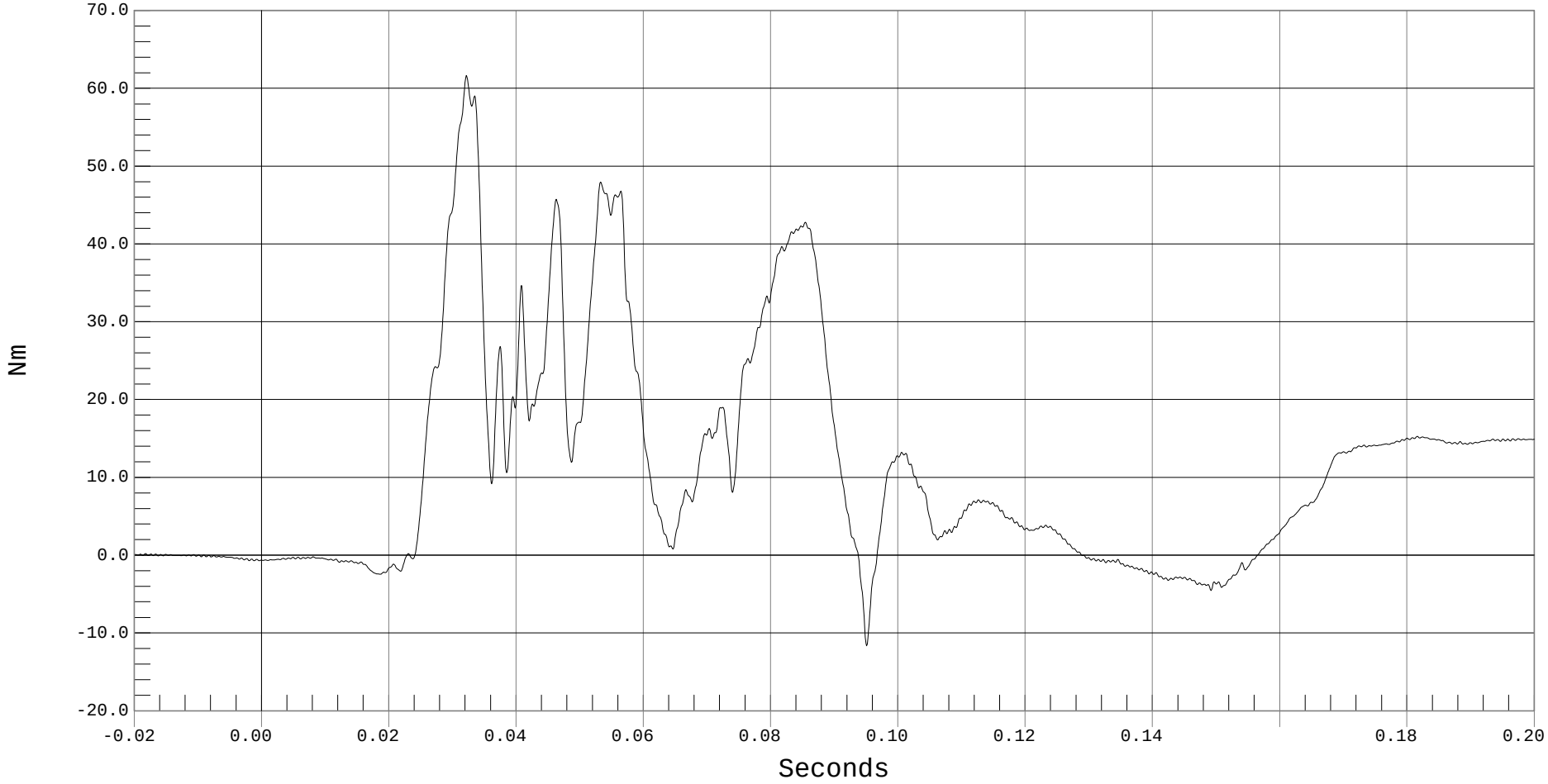
PASSENGER RIGHT UPPER TIBIA MOMENT Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER RIGHT UPPER TIBIA MY, B01031MF.M82

Ymin = -11.66 Nm @ 0.0950 Seconds, Ymax = 61.64 Nm @ 0.0321 Seconds



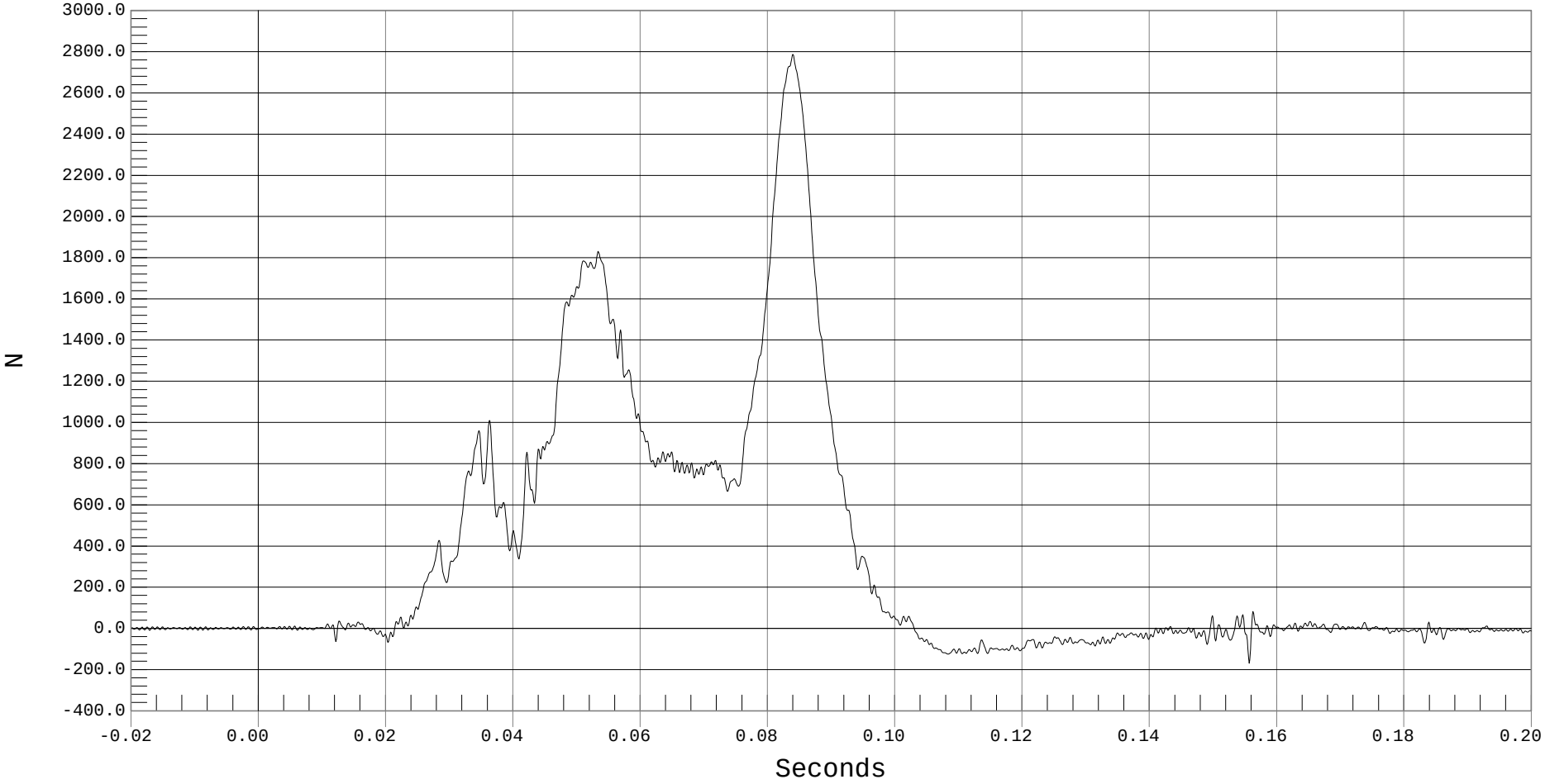
PASSENGER RIGHT UPPER TIBIA FORCE Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER RIGHT UPPER TIBIA FZ, B01031FF.F83

Ymin = -170.01 N @ 0.1556 Seconds, Ymax = 2787.79 N @ 0.0839 Seconds



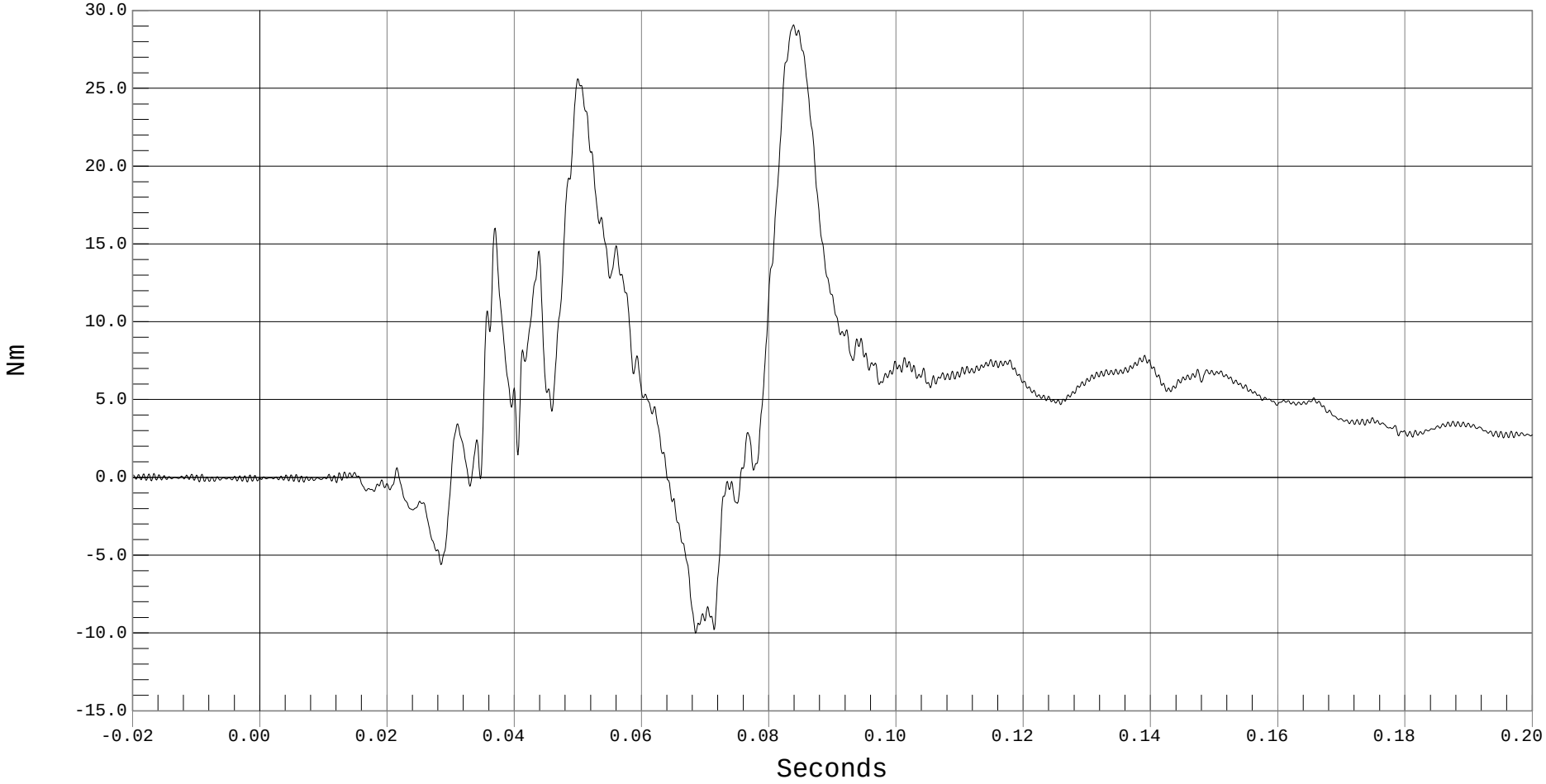
PASSENGER RIGHT LOWER TIBIA MOMENT X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER RIGHT LOWER TIBIA MX, B01031MF.M84

Ymin = -10.01 Nm @ 0.0684 Seconds, Ymax = 29.09 Nm @ 0.0838 Seconds



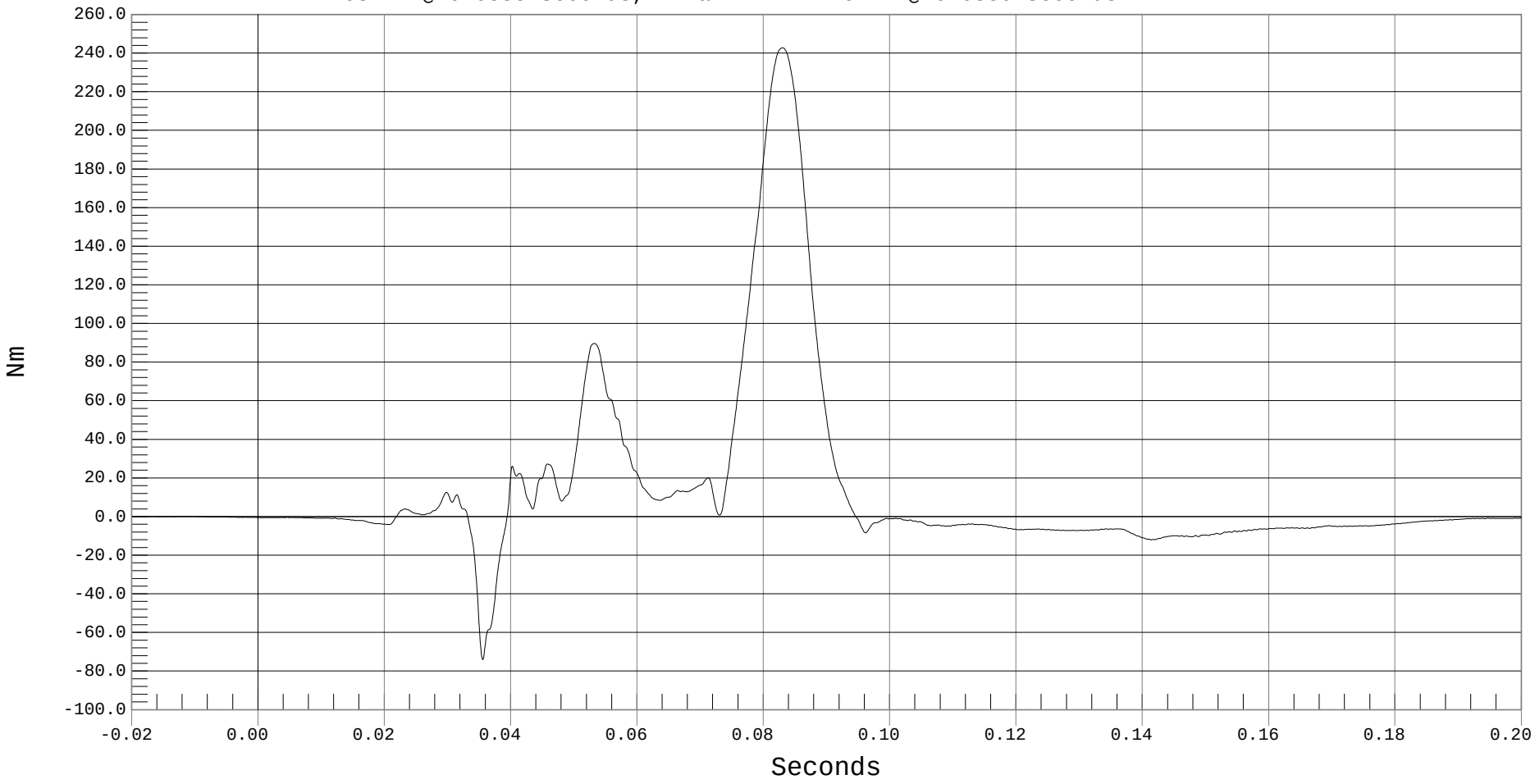
PASSENGER RIGHT LOWER TIBIA MOMENT Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER RIGHT LOWER TIBIA MY, B01031MF.M85

Ymin = -74.08 Nm @ 0.0355 Seconds, Ymax = 242.76 Nm @ 0.0830 Seconds



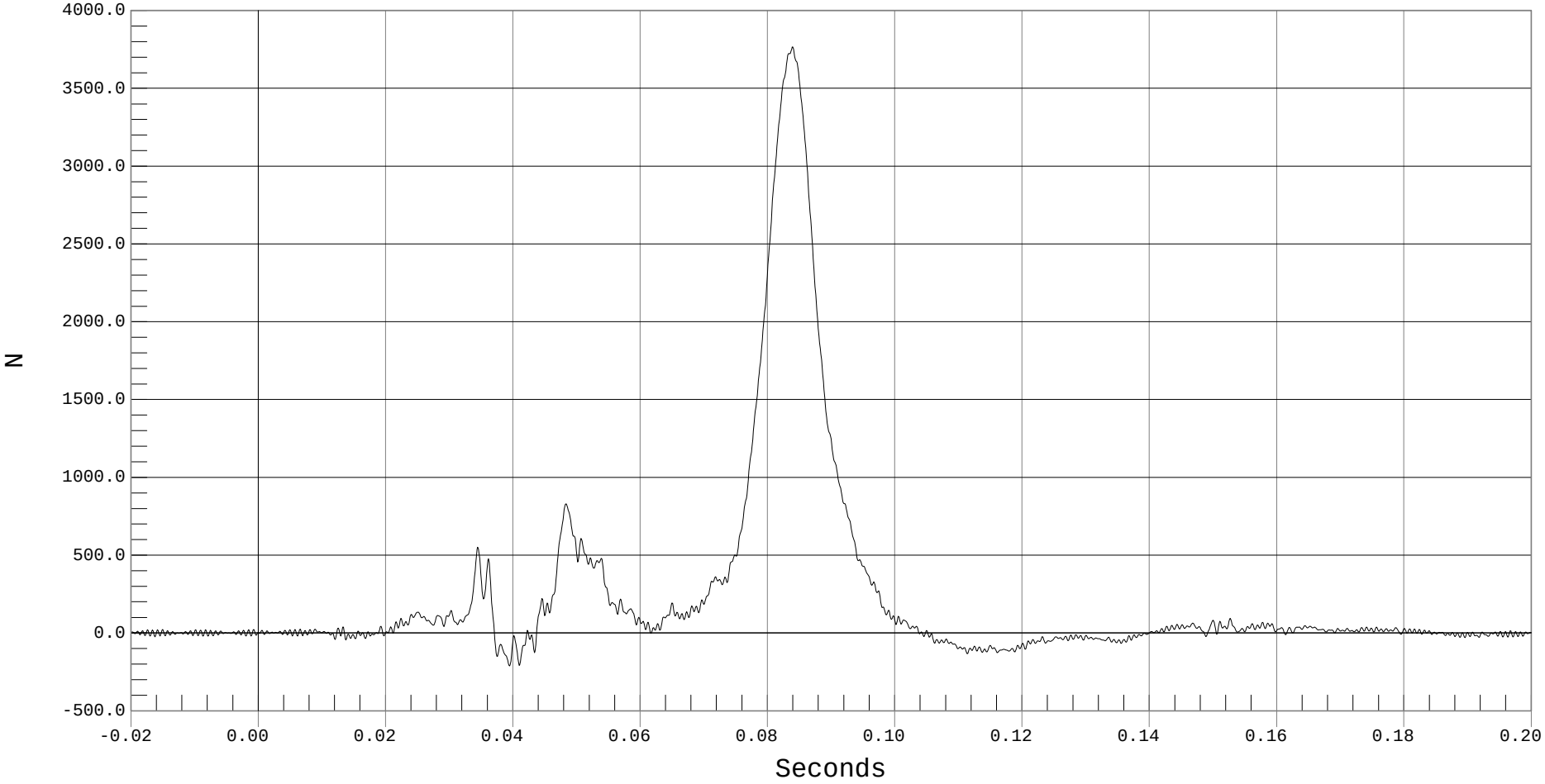
PASSENGER RIGHT LOWER TIBIA FORCE Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 PASSENGER RIGHT LOWER TIBIA FZ, B01031FF.F86

Ymin = -211.37 N @ 0.0394 Seconds, Ymax = 3766.54 N @ 0.0839 Seconds



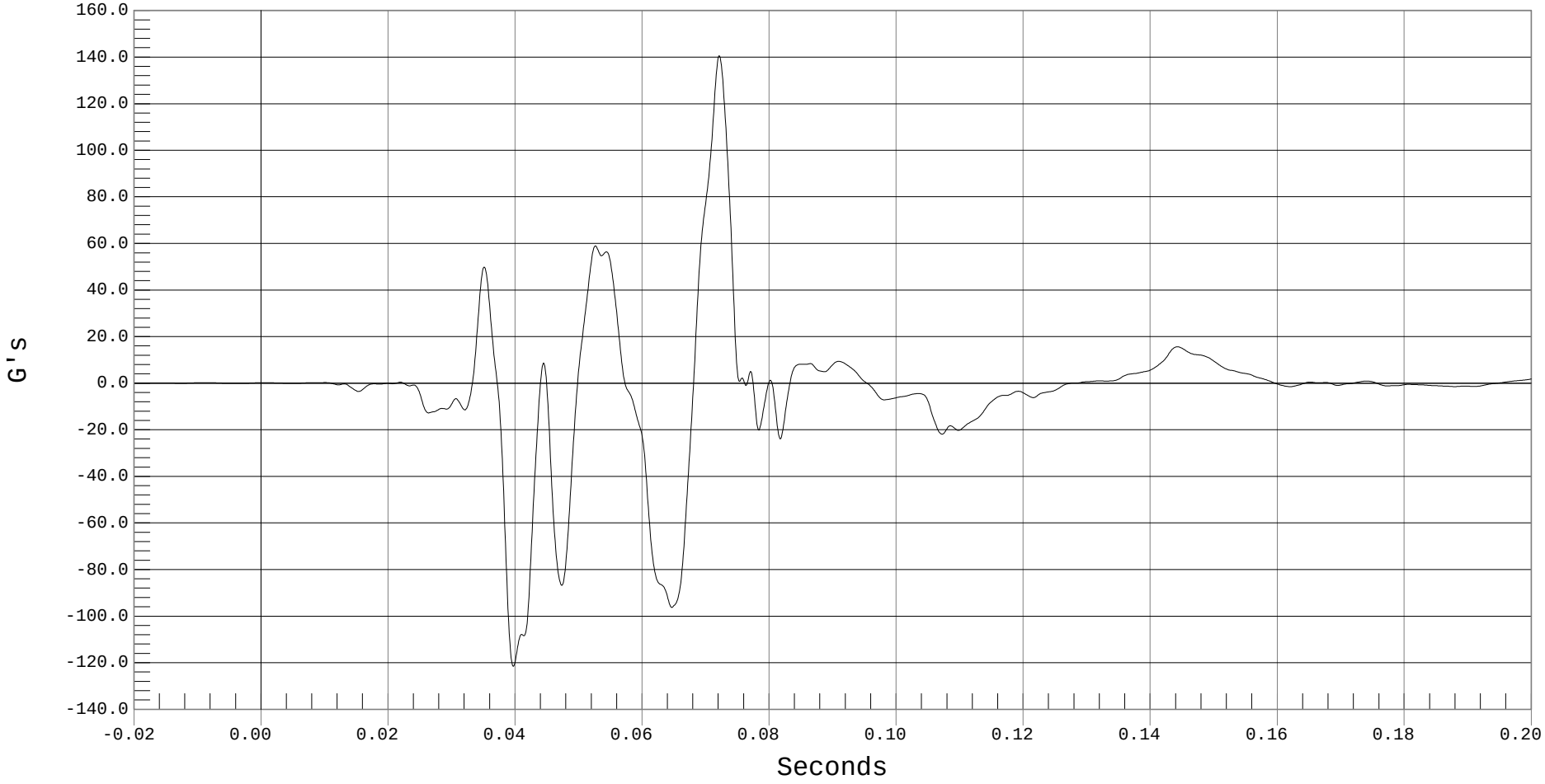
PASSENGER LEFT FOOT @ BALL Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER LEFT FOOT @ BALL Z, C01031AF.A09

Ymin = -121.52 G's @ 0.0396 Seconds, Ymax = 140.56 G's @ 0.0721 Seconds



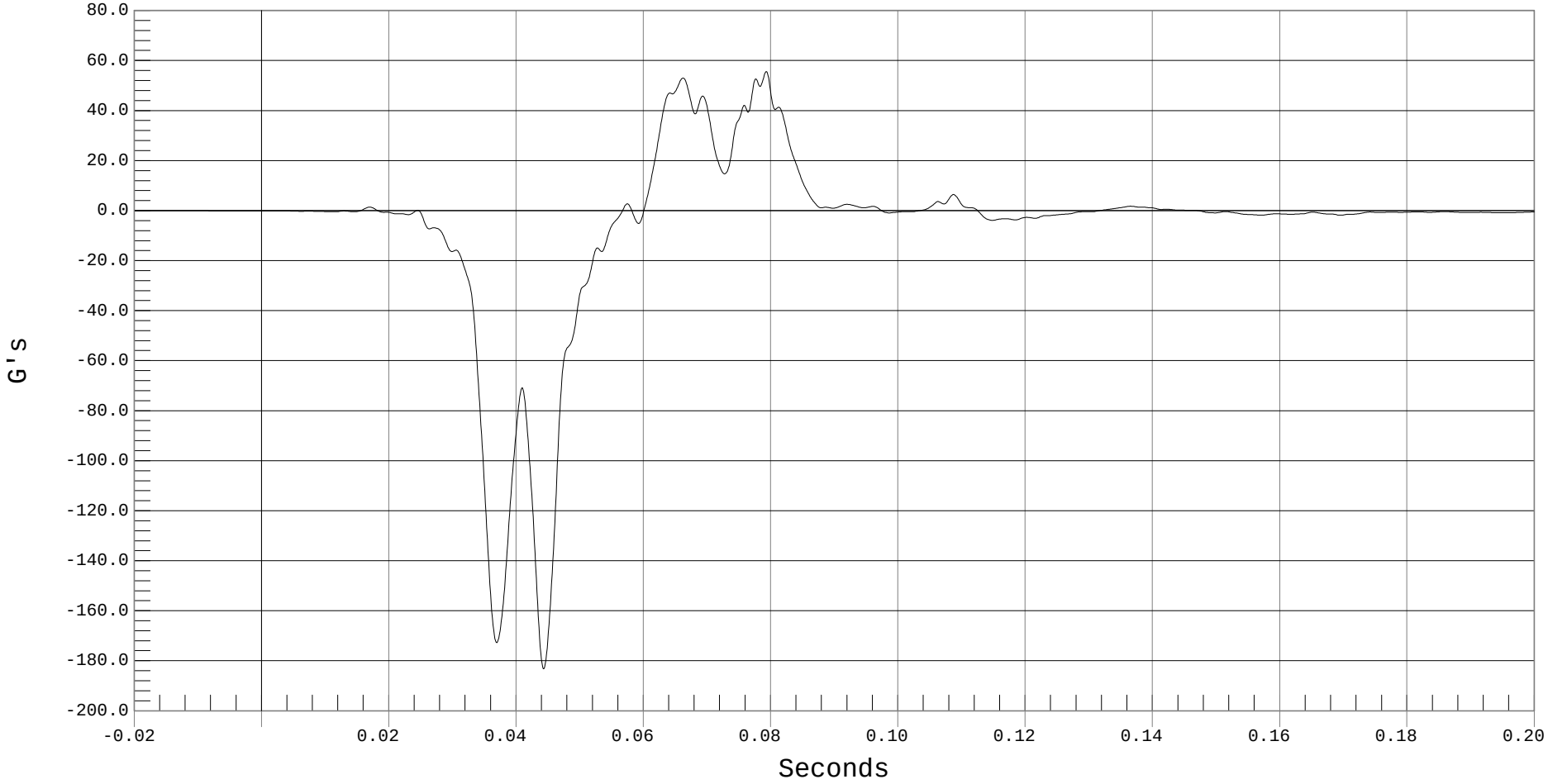
PASSENGER LEFT FOOT @ HEEL X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER LEFT FOOT @ HEEL X, C01031AF.A07

Ymin = -183.19 G's @ 0.0442 Seconds, Ymax = 55.55 G's @ 0.0792 Seconds



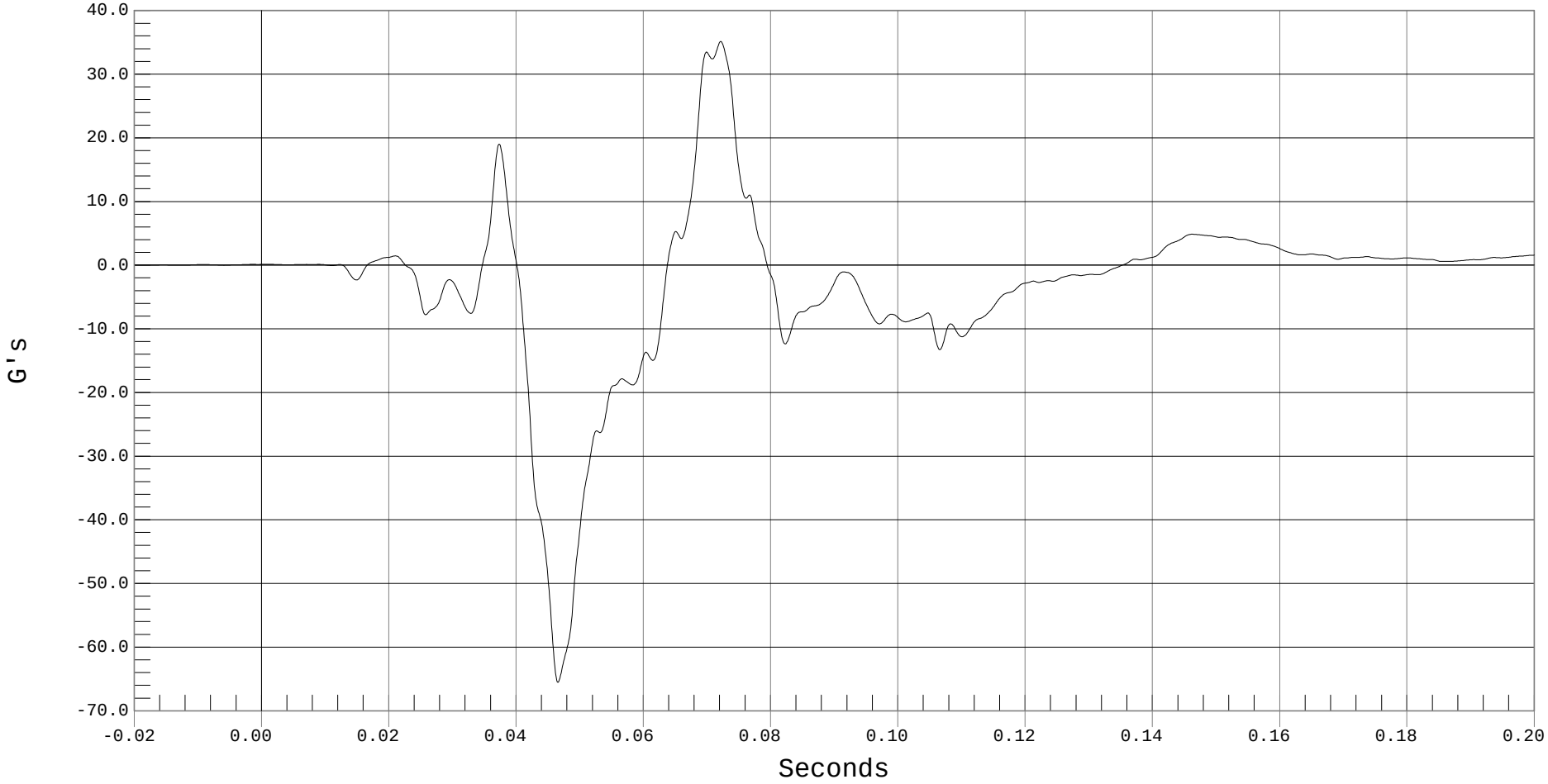
PASSENGER LEFT FOOT @ HEEL Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER LEFT FOOT @ HEEL Z, C01031AF.A08

Ymin = -65.53 G's @ 0.0465 Seconds, Ymax = 35.14 G's @ 0.0721 Seconds



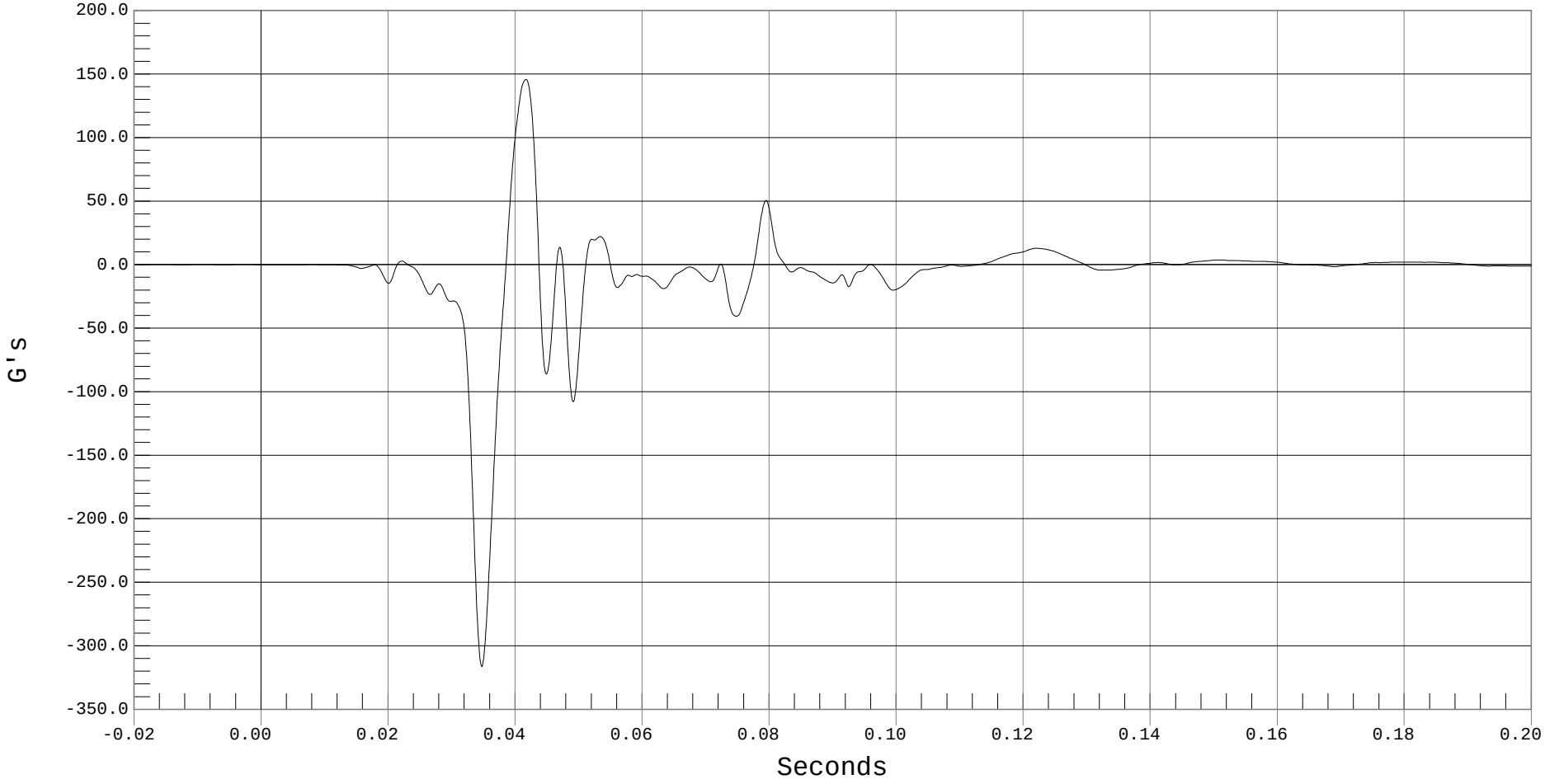
PASSENGER RIGHT FOOT @ BALL Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER RIGHT FOOT @ BALL Z, C01031AF.A06

Ymin = -316.41 G's @ 0.0347 Seconds, Ymax = 145.68 G's @ 0.0416 Seconds



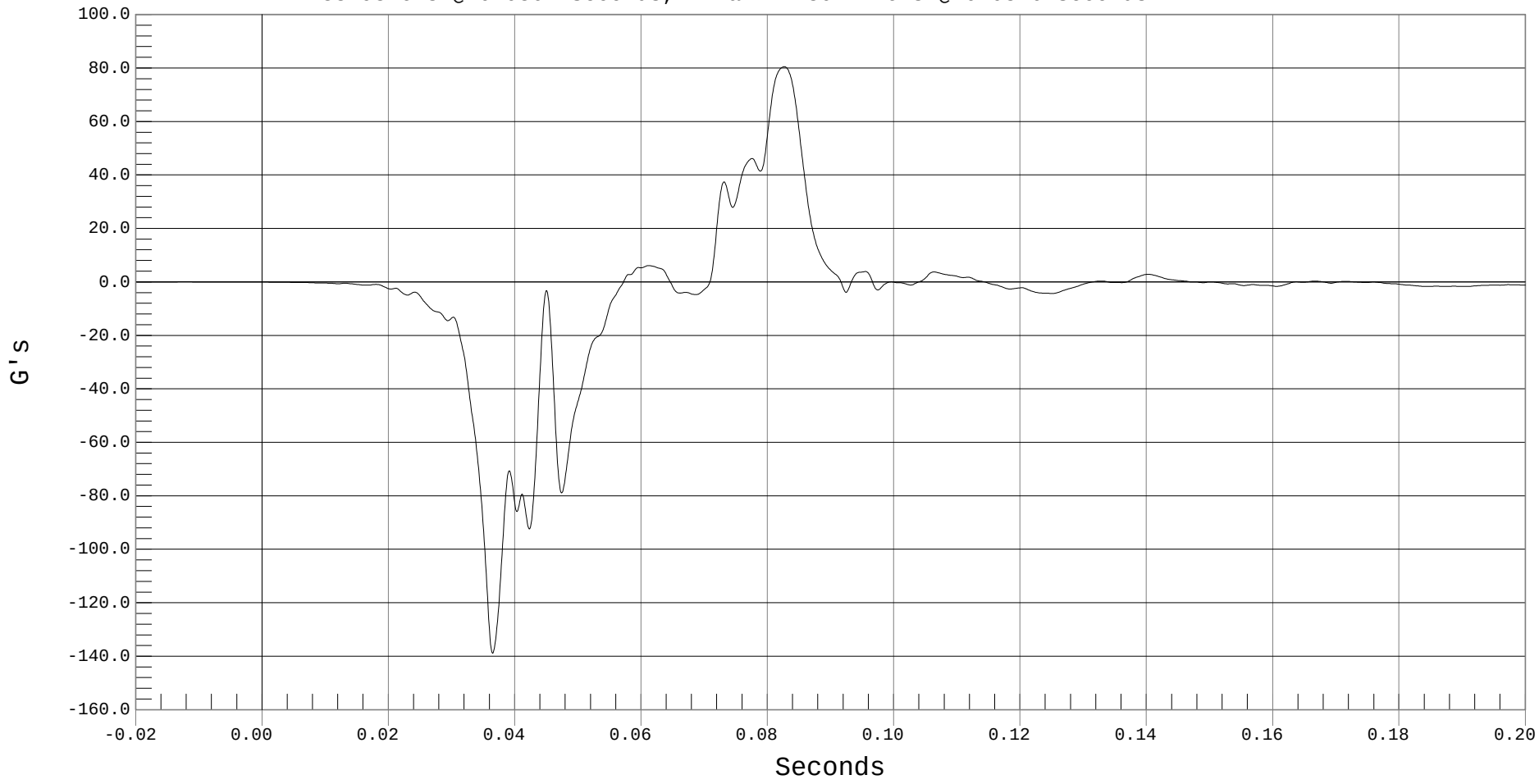
PASSENGER RIGHT FOOT @ HEEL X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER RIGHT FOOT @ HEEL X, C01031AF.A04

Ymin = -138.93 G's @ 0.0364 Seconds, Ymax = 80.47 G's @ 0.0826 Seconds



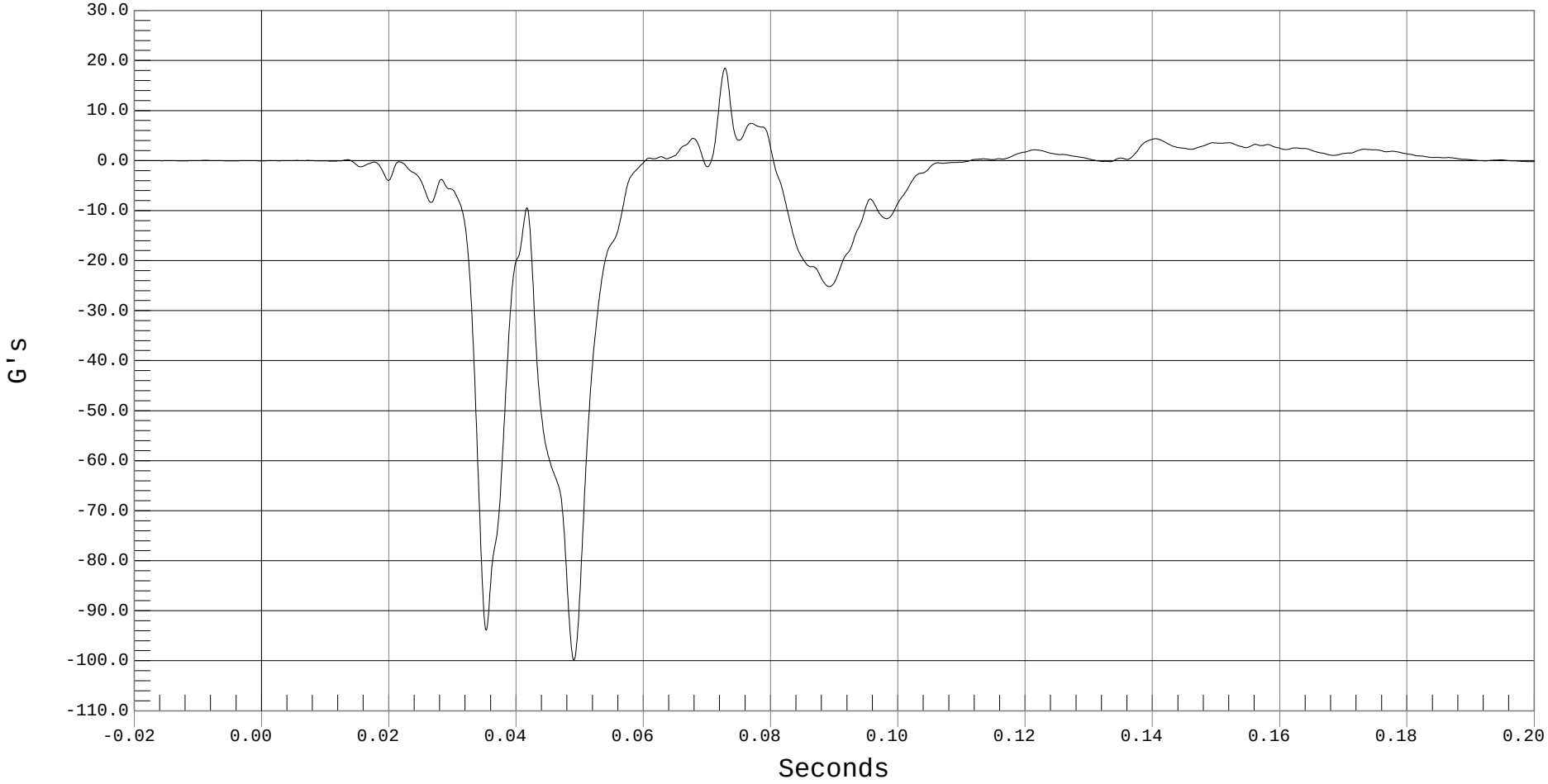
PASSENGER RIGHT FOOT @ HEEL Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 PASSENGER RIGHT FOOT @ HEEL Z, C01031AF.A05

Ymin = -99.93 G's @ 0.0490 Seconds, Ymax = 18.48 G's @ 0.0727 Seconds



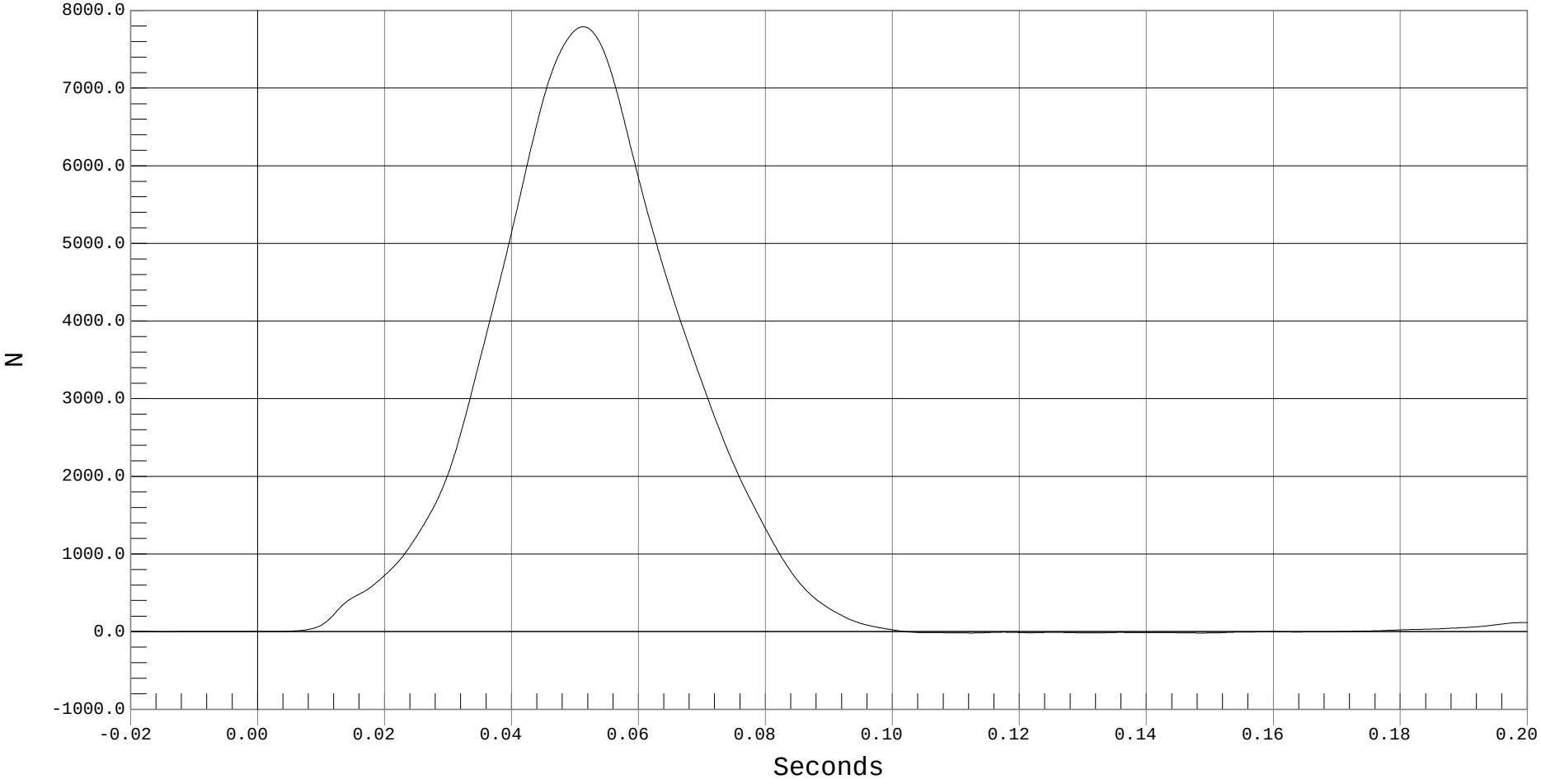
PASSENGER LAP BELT FORCE

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 PASSENGER LAP BELT, B01031FF.F68

Ymin = -18.18 N @ 0.1486 Seconds, Ymax = 7790.01 N @ 0.0512 Seconds



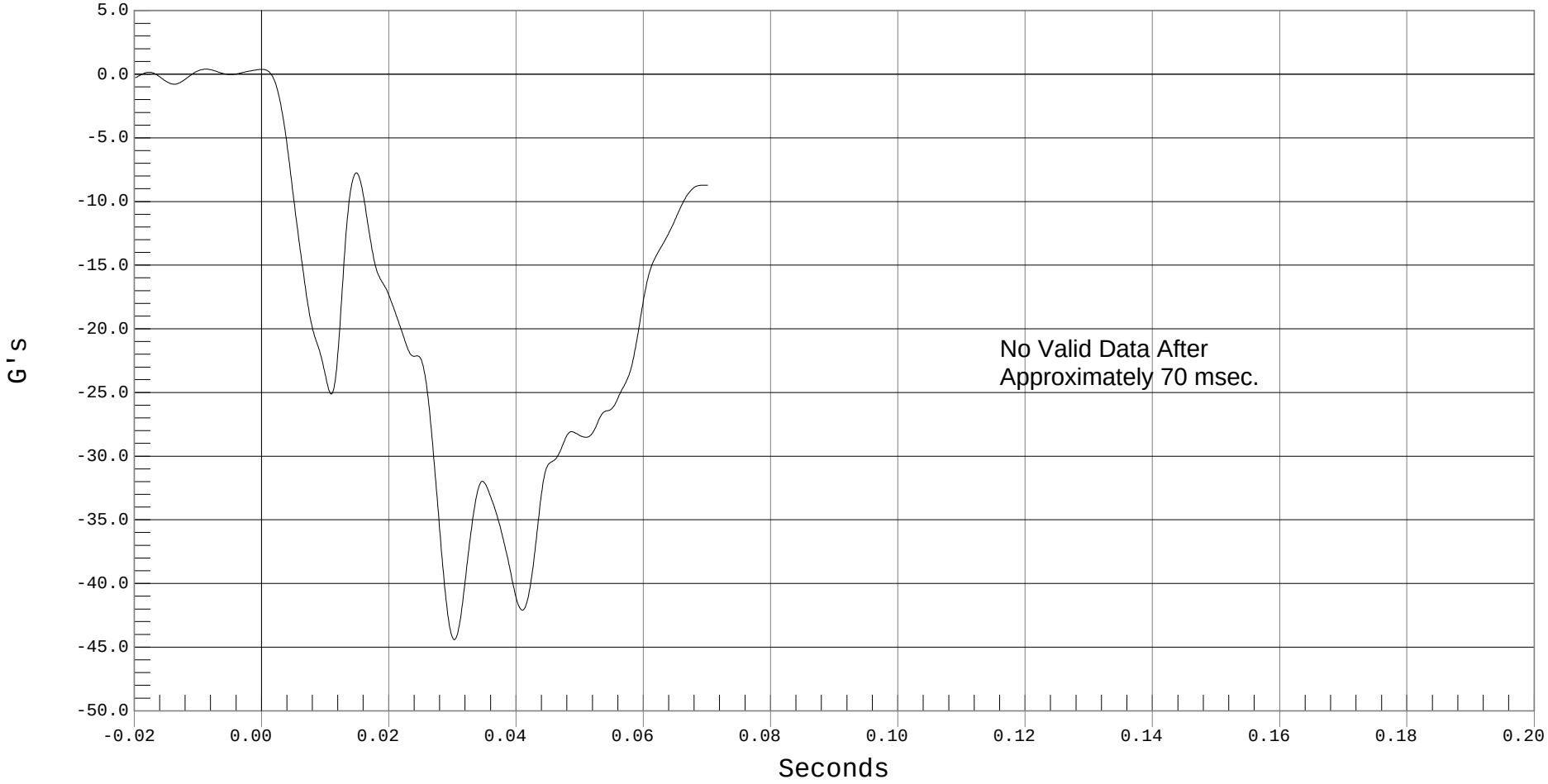
LEFT REAR SEAT CROSSMEMBER X ACCELERATION (QD AFTER 70 MSEC)

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 LEFT REAR SEAT CROSSMEMBER X, B01031AF.A59

Ymin = -44.42 G's @ 0.0302 Seconds, Ymax = .4 G's @ -0.0088 Seconds



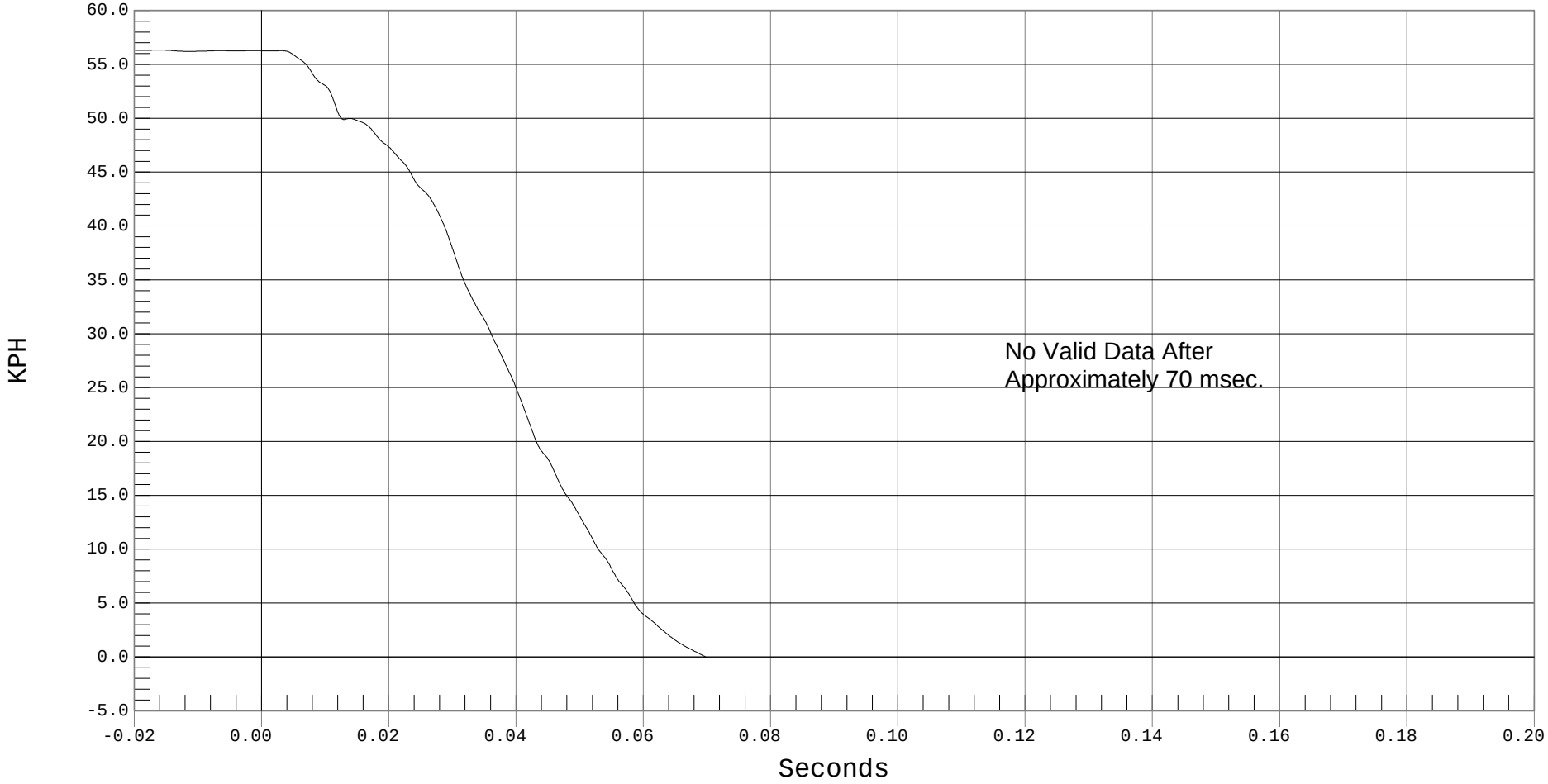
LEFT REAR SEAT CROSSMEMBER X VELOCITY (QD AFTER 70 MSEC)

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 LEFT REAR SEAT CROSSMEMBER X VELOCITY, B01031AI.V59

Ymin = -.1 KPH @ 0.0700 Seconds, Ymax = 56.33 KPH @ -0.0163 Seconds



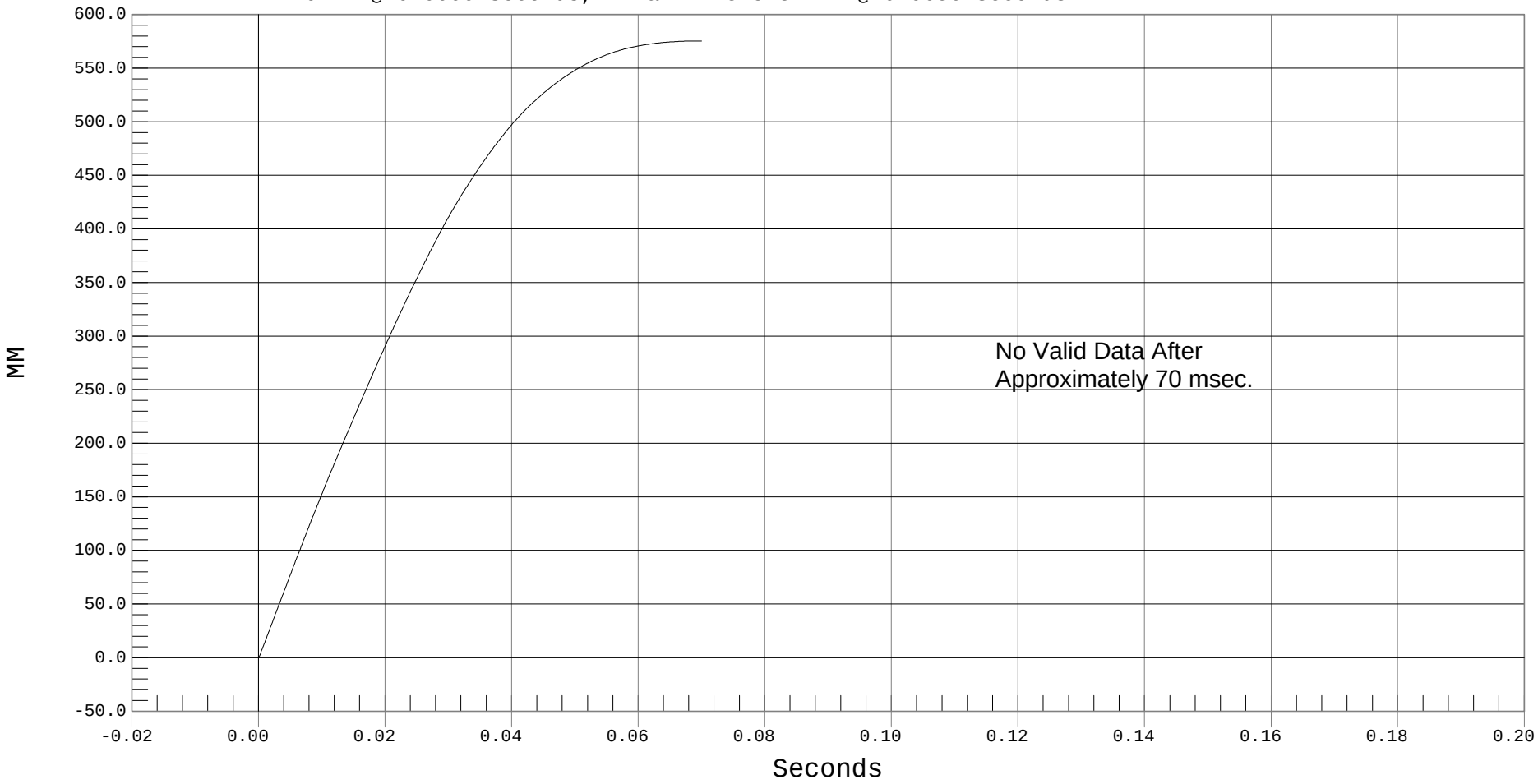
LEFT REAR SEAT CROSSMEMBER X DISPLACEMENT (QD AFTER 70 MSEC)

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 LEFT REAR SEAT CROSSMEMBER X DISPLACEMENT, B01031AI.D59

Ymin = 0 MM @ 0.0000 Seconds, Ymax = 575.37 MM @ 0.0696 Seconds



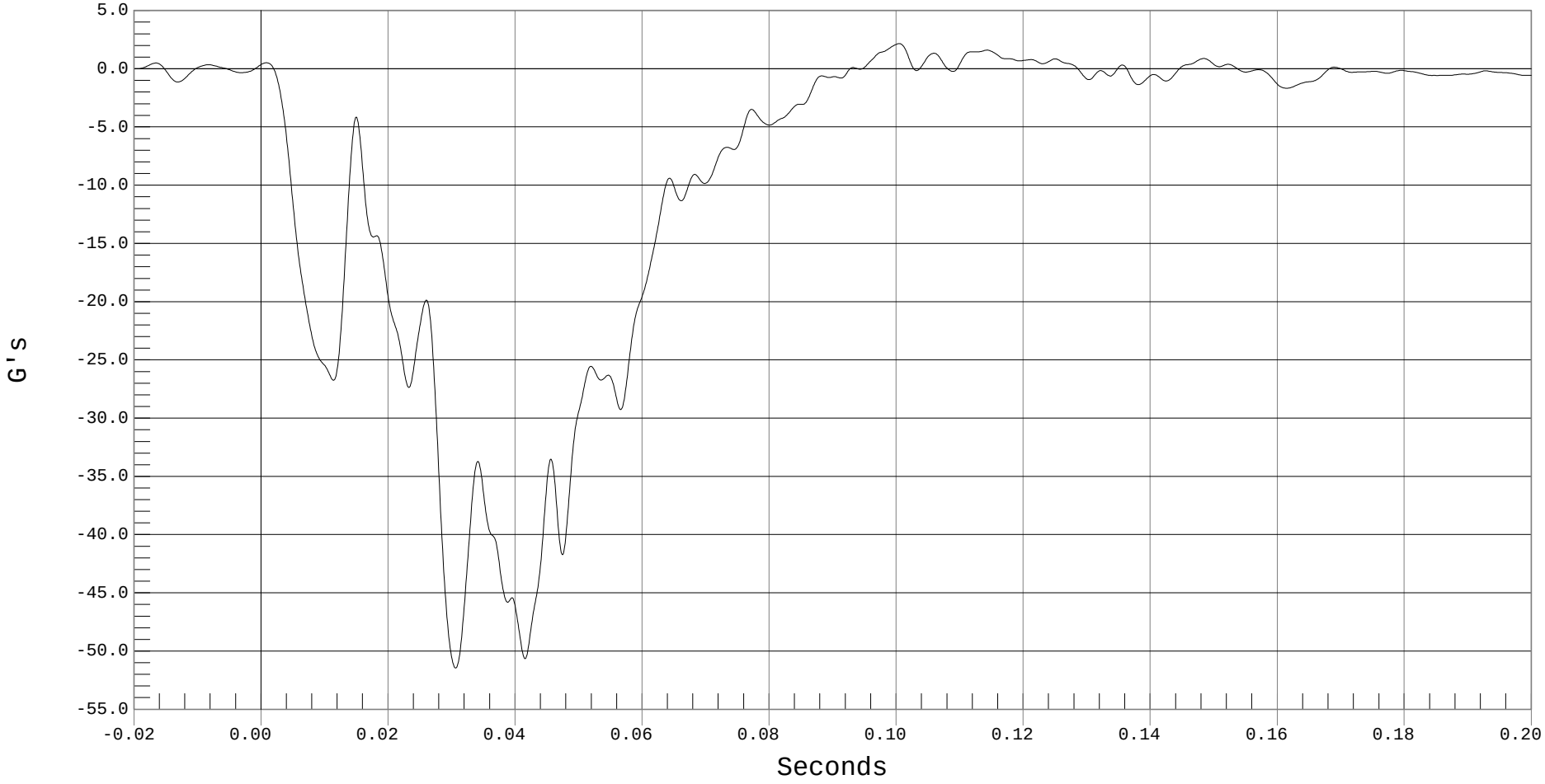
RIGHT REAR SEAT CROSSMEMBER X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 RIGHT REAR SEAT CROSSMEMBER X, B01031AF.A58

Ymin = -51.45 G's @ 0.0305 Seconds, Ymax = 2.15 G's @ 0.1004 Seconds



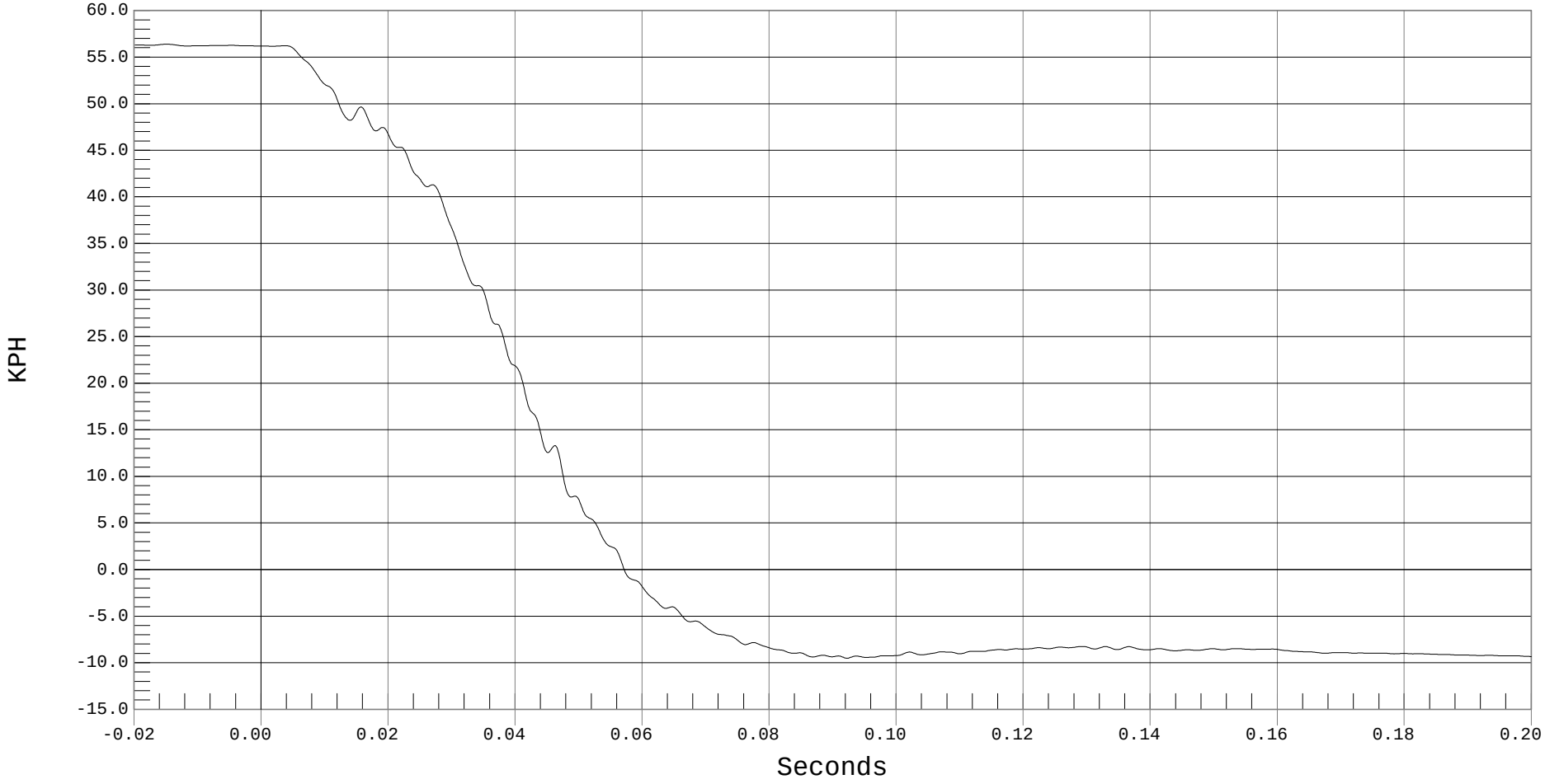
RIGHT REAR SEAT CROSSMEMBER X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 RIGHT REAR SEAT CROSSMEMBER X VELOCITY, B01031AI.V58

Ymin = -9.53 KPH @ 0.0922 Seconds, Ymax = 56.39 KPH @ -0.0149 Seconds



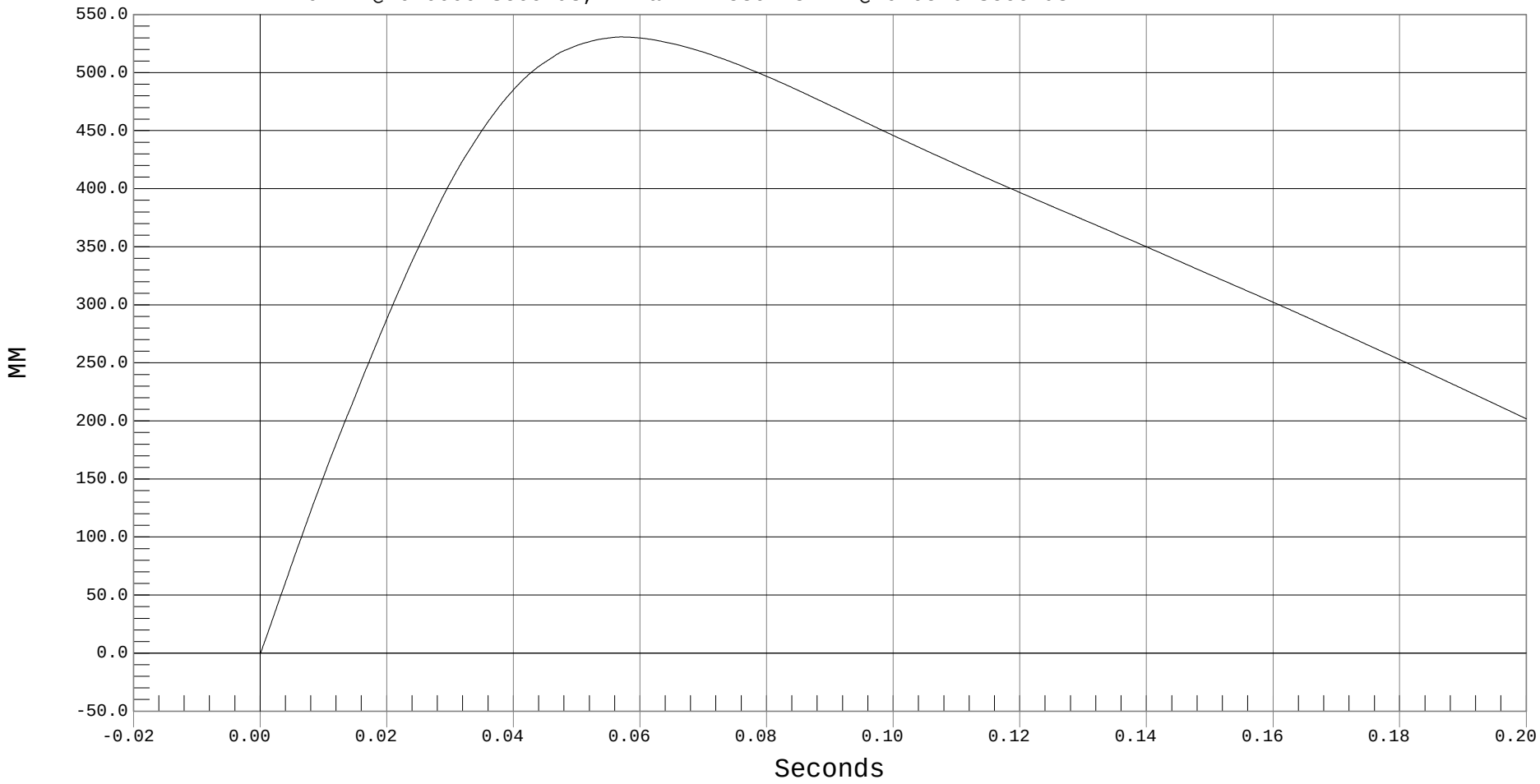
RIGHT REAR SEAT CROSSMEMBER X DISPLACEMENT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 RIGHT REAR SEAT CROSSMEMBER X DISPLACEMENT, B01031AI.D58

Ymin = 0 MM @ 0.0000 Seconds, Ymax = 530.73 MM @ 0.0570 Seconds



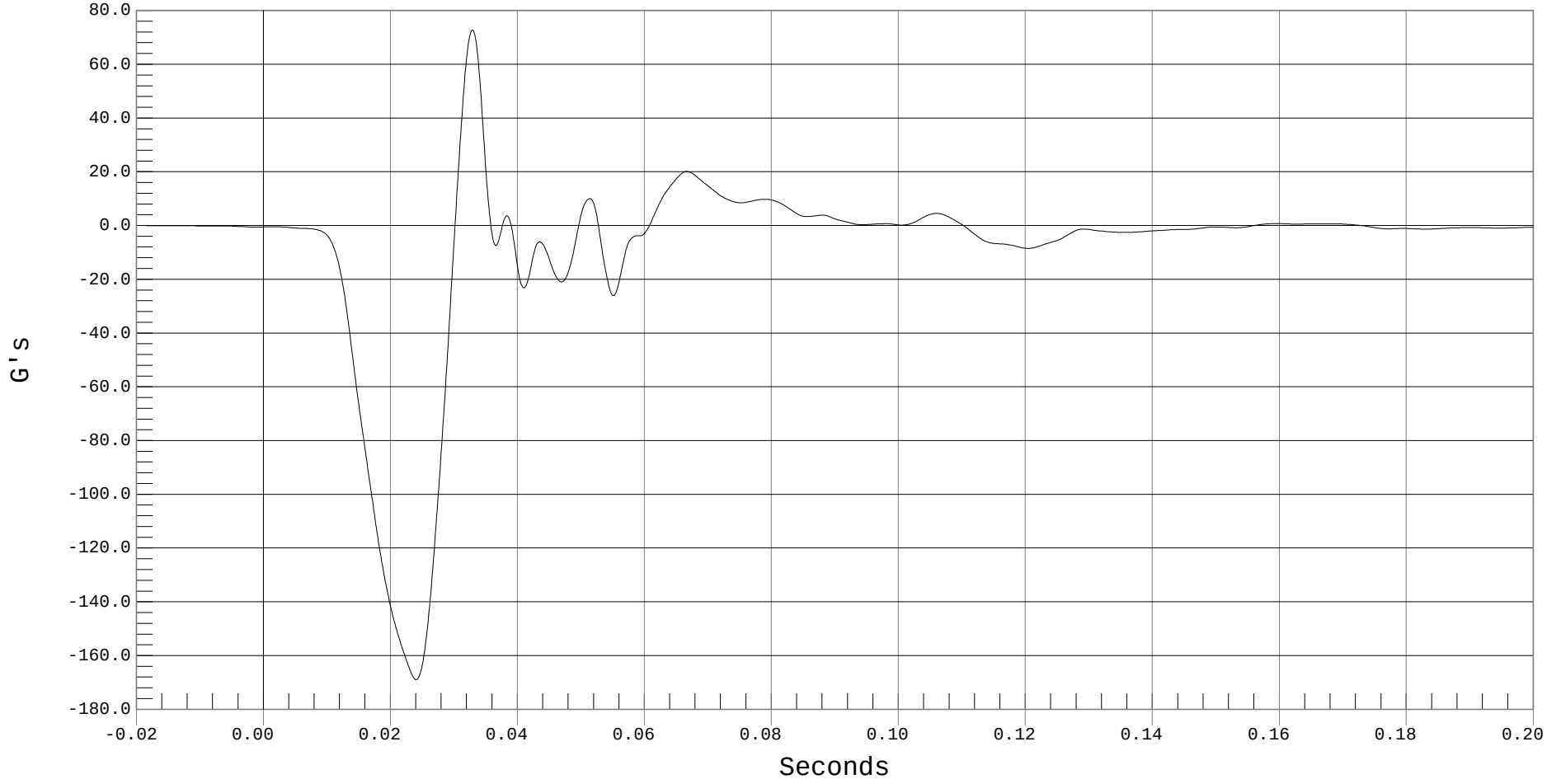
UPPER ENGINE X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 ENGINE UPPER X, B01031AF.A55

Ymin = -168.98 G's @ 0.0240 Seconds, Ymax = 72.72 G's @ 0.0328 Seconds



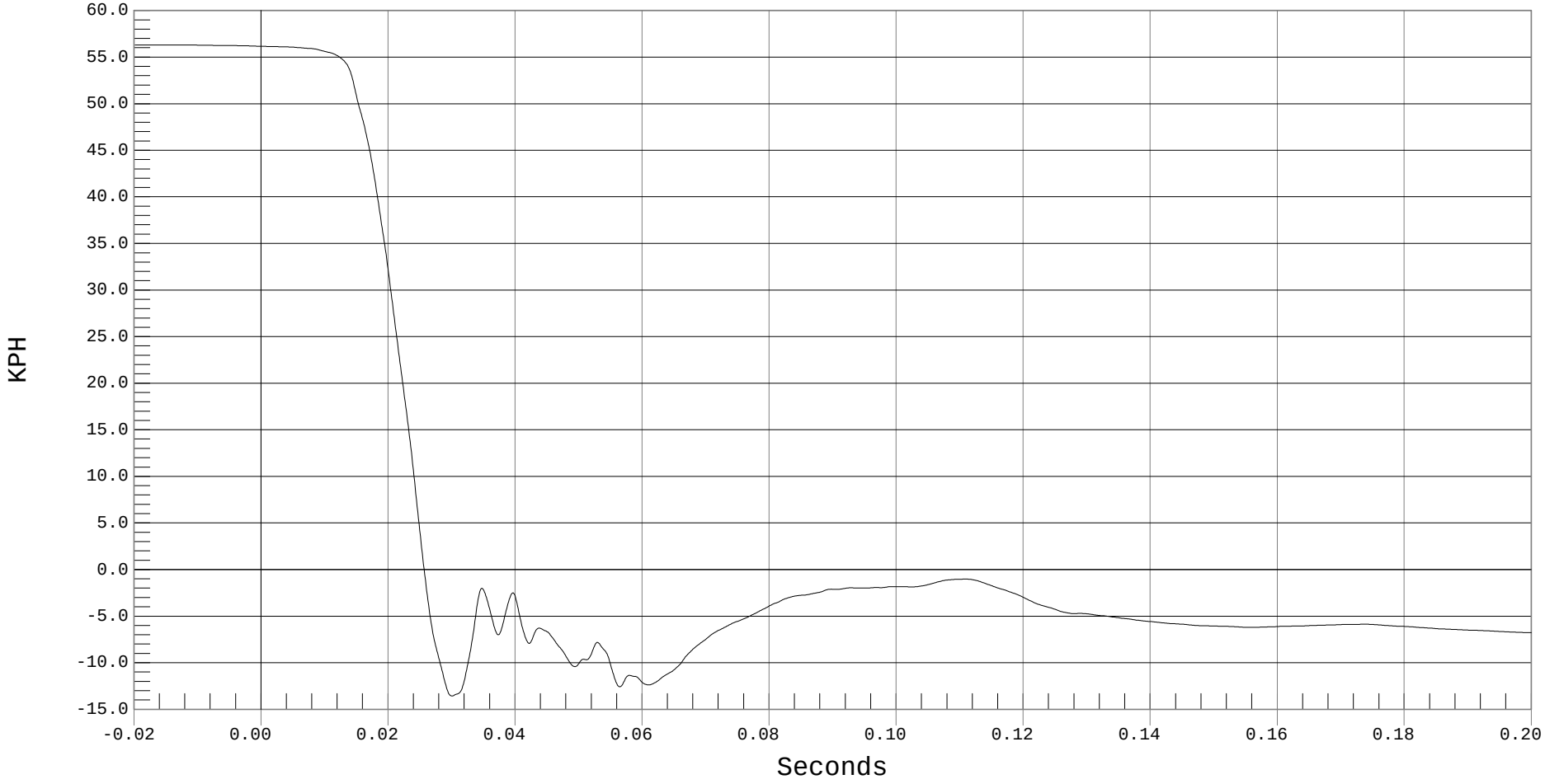
UPPER ENGINE X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 TOP OF ENGINE BLOCK X VELOCITY, B01031AI.V55

Ymin = -13.57 KPH @ 0.0300 Seconds, Ymax = 56.3 KPH @ -0.0196 Seconds



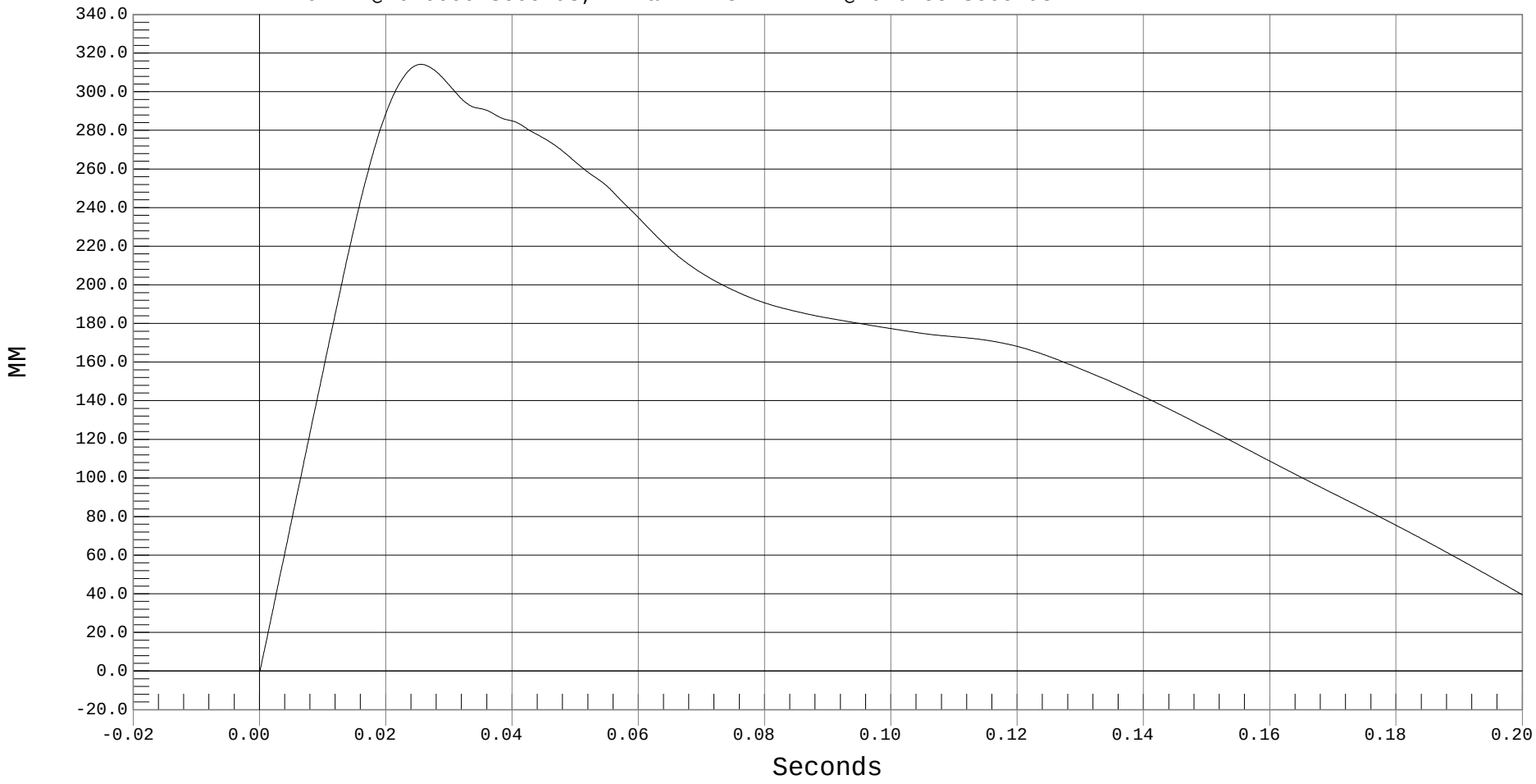
UPPER ENGINE X DISPLACEMENT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 TOP OF ENGINE BLOCK X DISPLACEMENT, B01031AI.D55

Ymin = 0 MM @ 0.0000 Seconds, Ymax = 314.2 MM @ 0.0255 Seconds



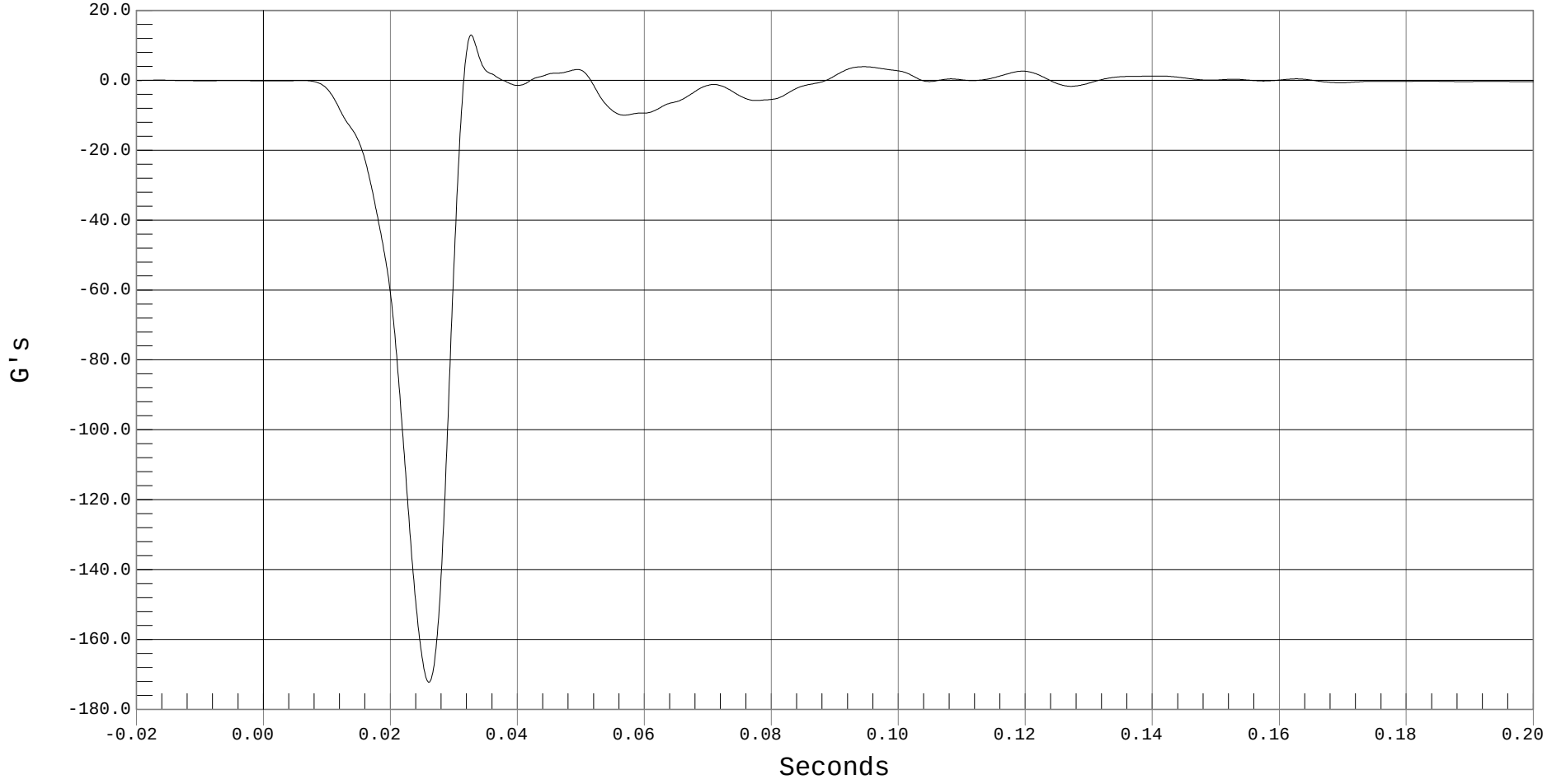
LOWER ENGINE X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 ENGINE LOWER X, B01031AF.A56

Ymin = -172.26 G's @ 0.0260 Seconds, Ymax = 12.99 G's @ 0.0326 Seconds



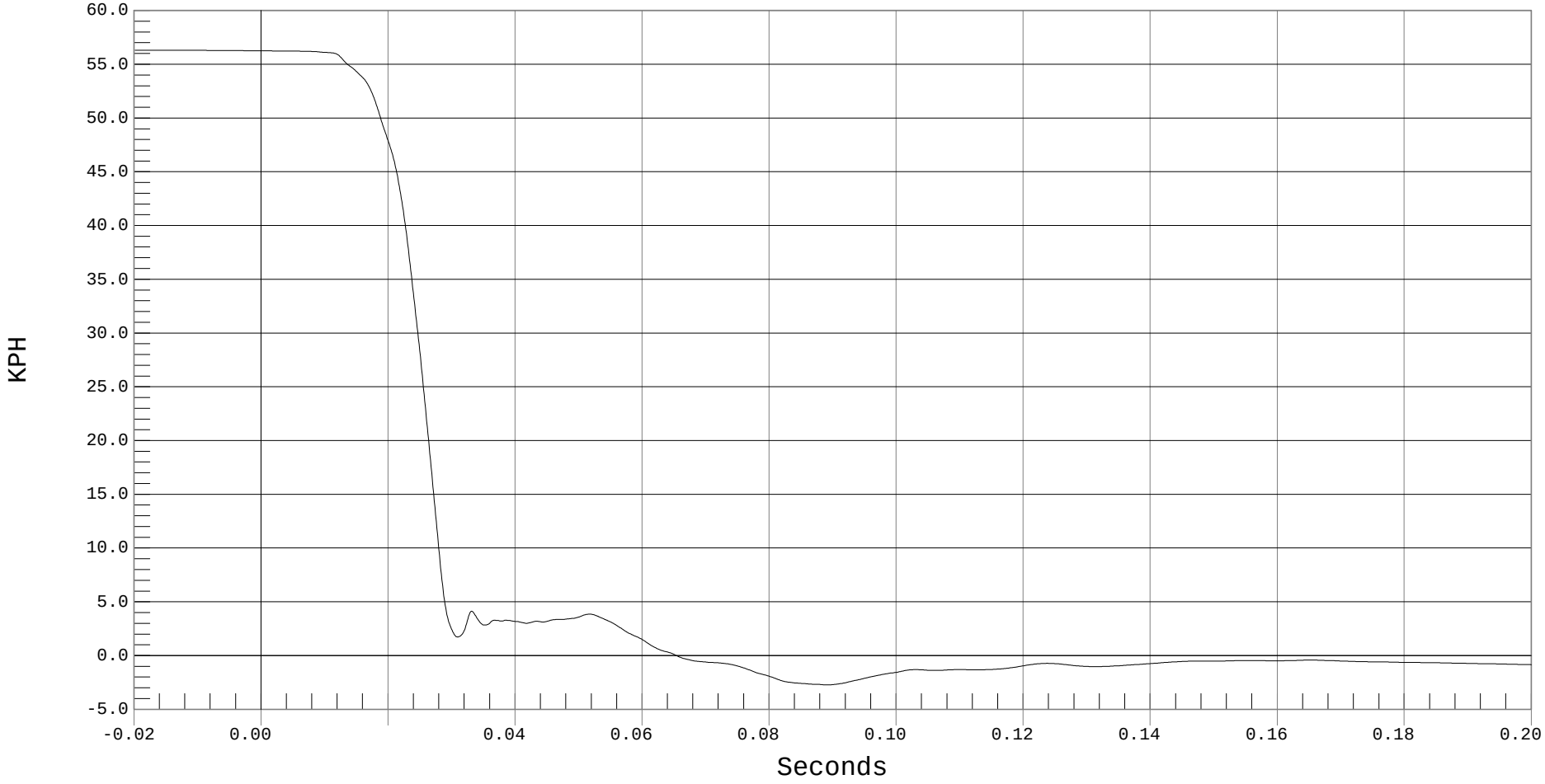
LOWER ENGINE X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 BOTTOM OF ENGINE X VELOCITY, B01031AI.V56

Ymin = -2.73 KPH @ 0.0891 Seconds, Ymax = 56.31 KPH @ -0.0147 Seconds



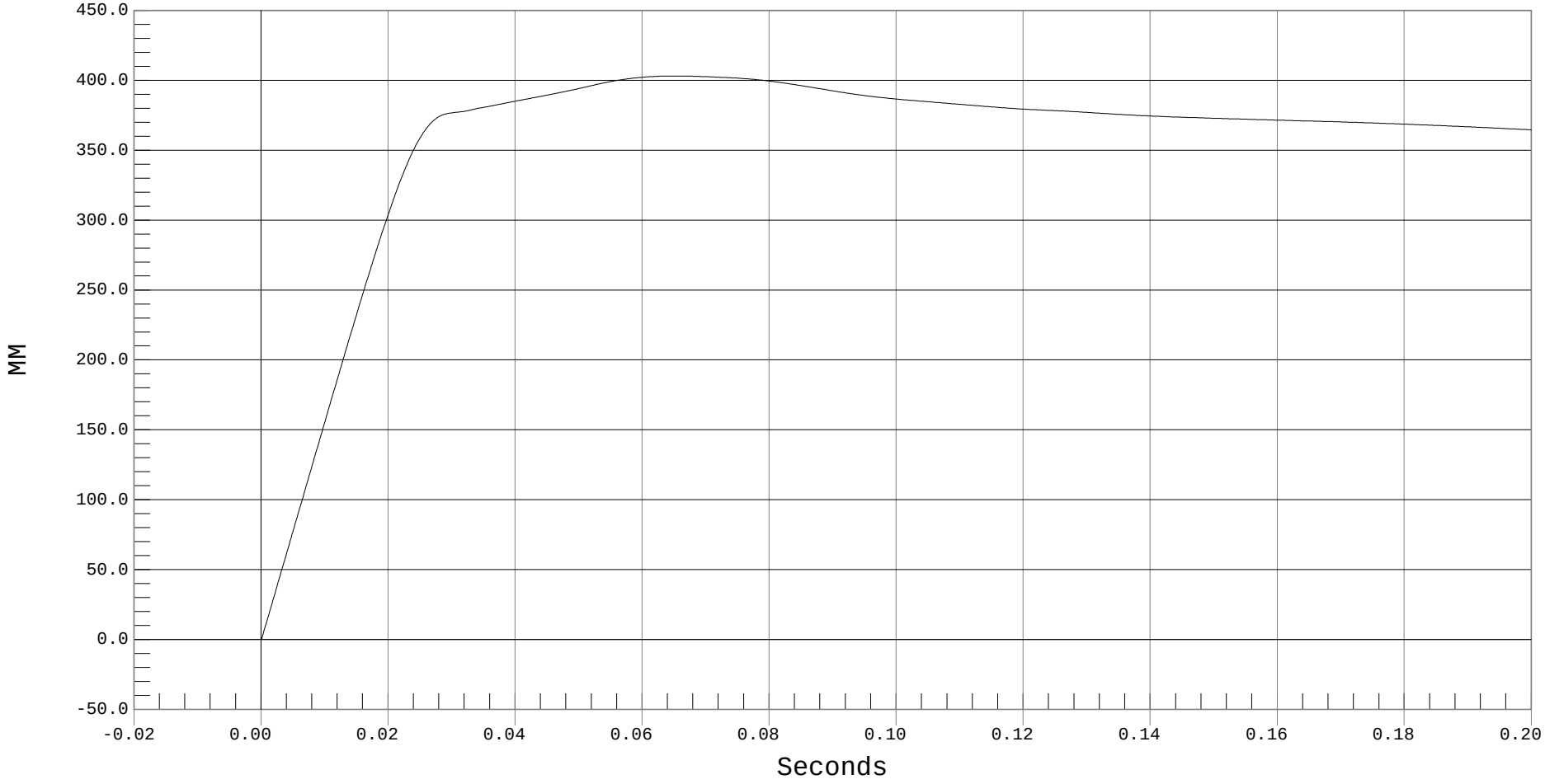
LOWER ENGINE X DISPLACEMENT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 BOTTOM OF ENGINE X DISPLACEMENT, B01031AI.D56

Ymin = 0 MM @ 0.0000 Seconds, Ymax = 403.14 MM @ 0.0652 Seconds



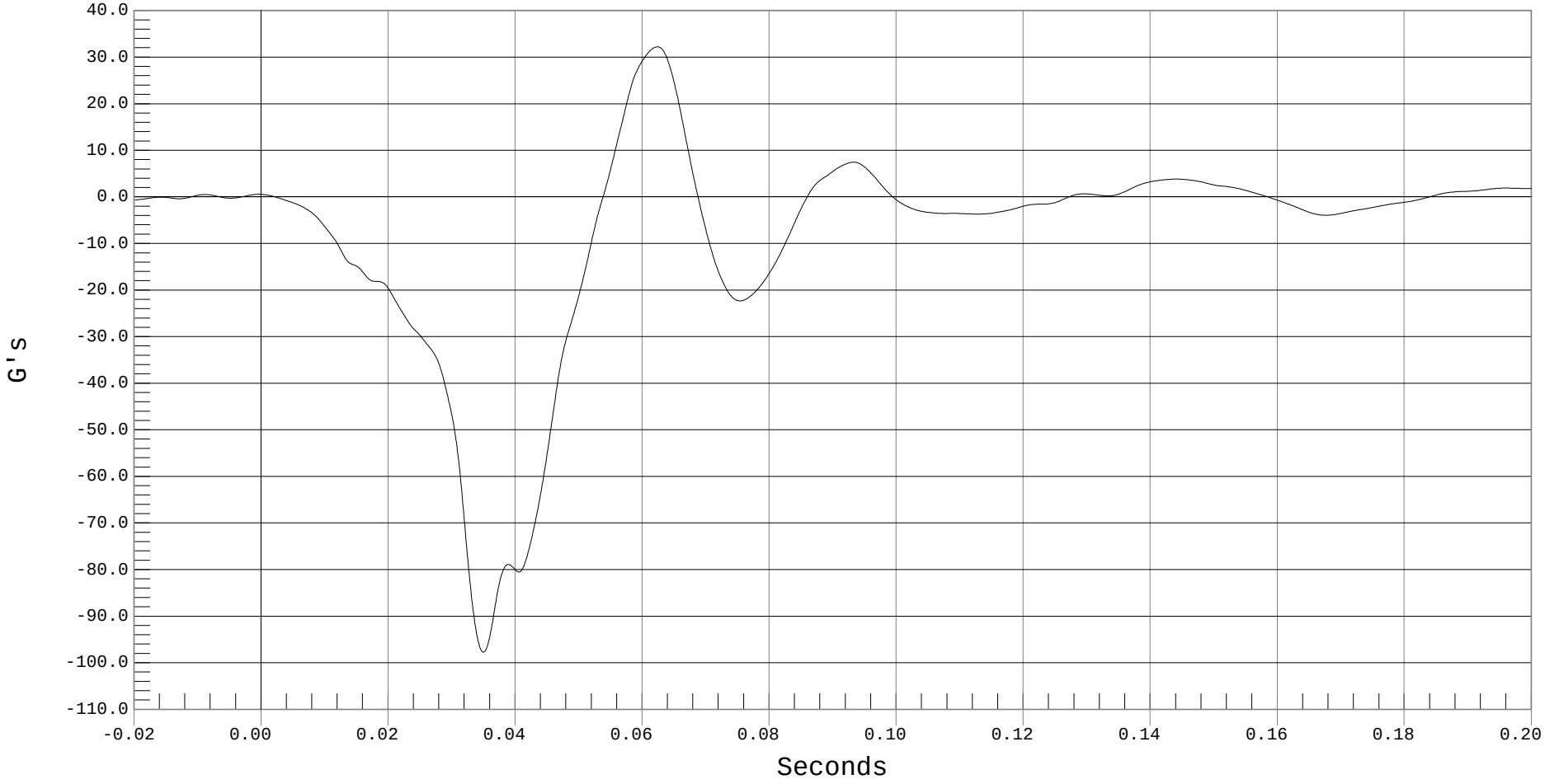
LEFT BRAKE CALIPER X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 LEFT BRAKE CALIPER X, B01031AF.A61

Ymin = -97.75 G's @ 0.0349 Seconds, Ymax = 32.21 G's @ 0.0623 Seconds



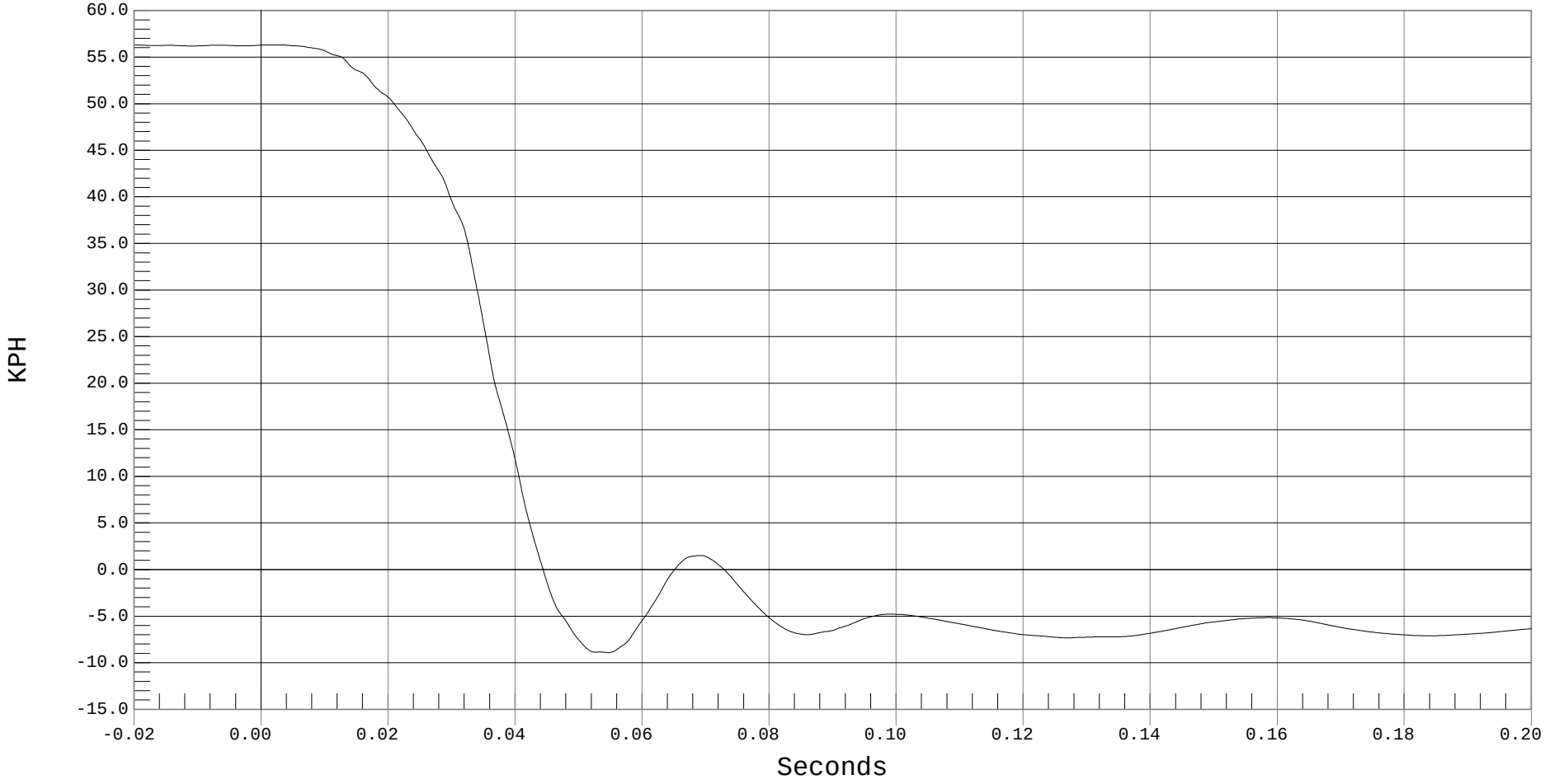
LEFT BRAKE CALIPER X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 LEFT BRAKE CALIPER X VELOCITY, B01031AI.V61

Ymin = -8.91 KPH @ 0.0546 Seconds, Ymax = 56.3 KPH @ 0.0025 Seconds



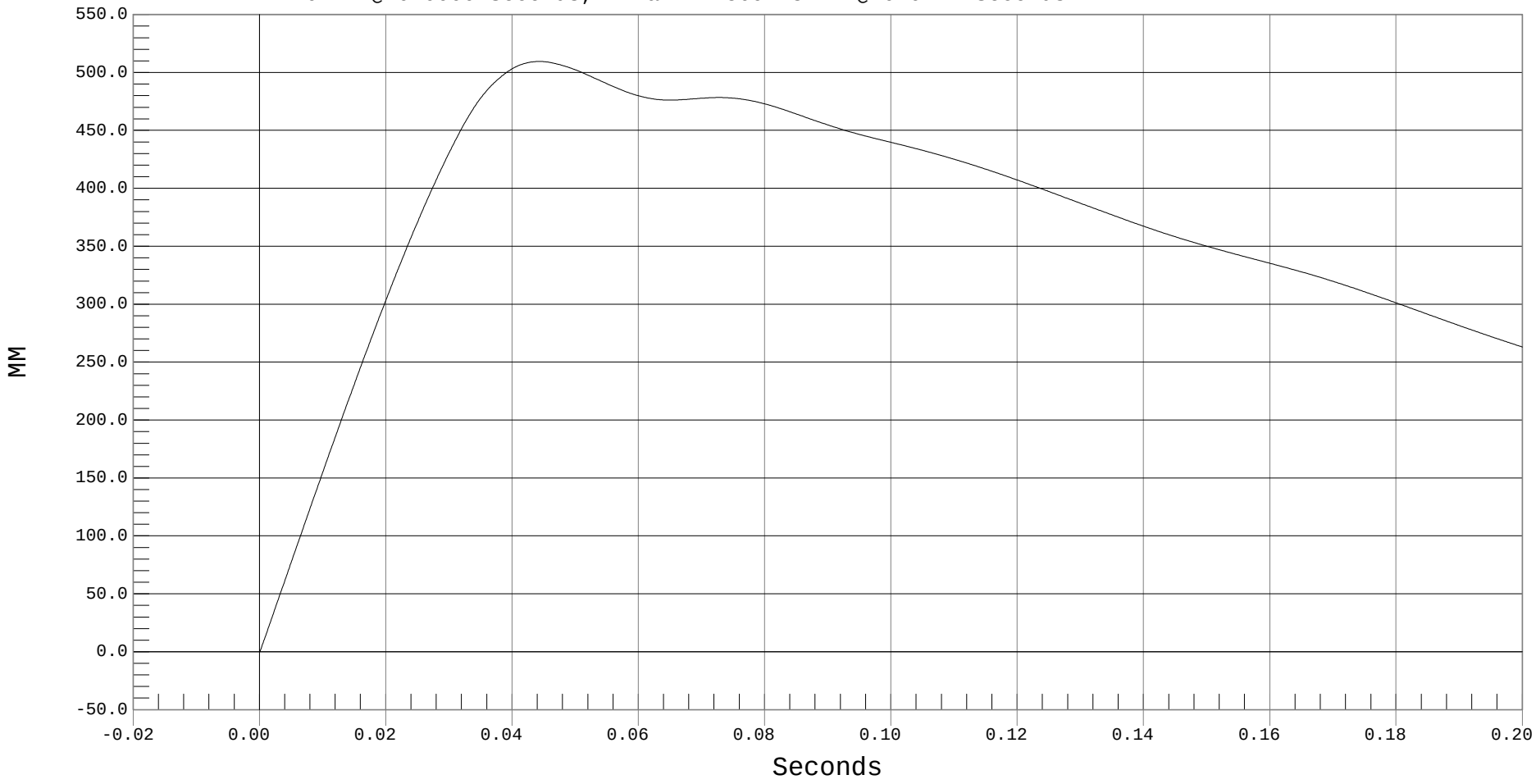
LEFT BRAKE CALIPER X DISPLACEMENT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 LEFT BRAKE CALIPER X DISPLACEMENT, B01031AI.D61

Ymin = 0 MM @ 0.0000 Seconds, Ymax = 509.48 MM @ 0.0442 Seconds



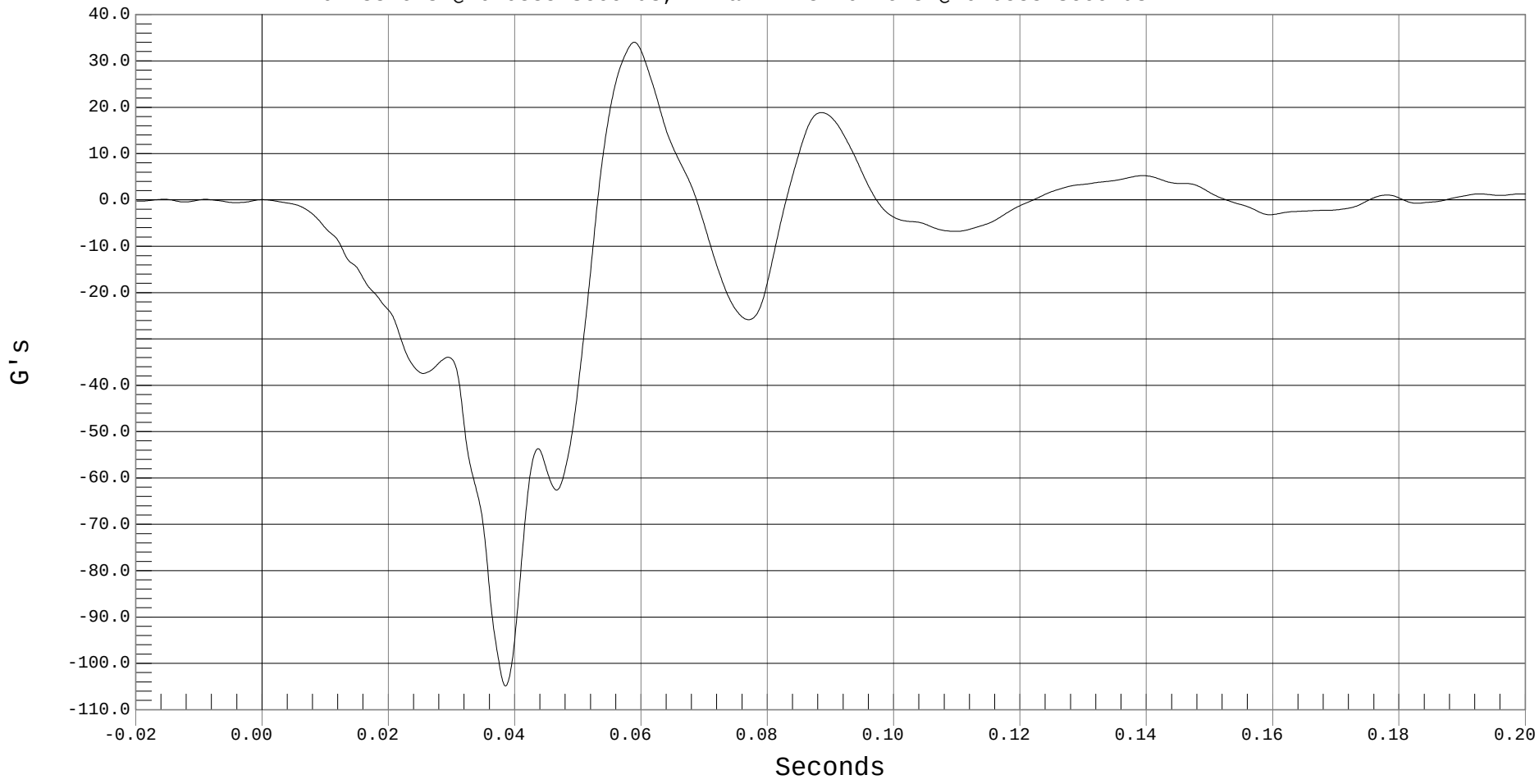
RIGHT BRAKE CALIPER X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 RIGHT BRAKE CALIPER X, B01031AF.A60

Ymin = -104.88 G's @ 0.0385 Seconds, Ymax = 34.02 G's @ 0.0588 Seconds



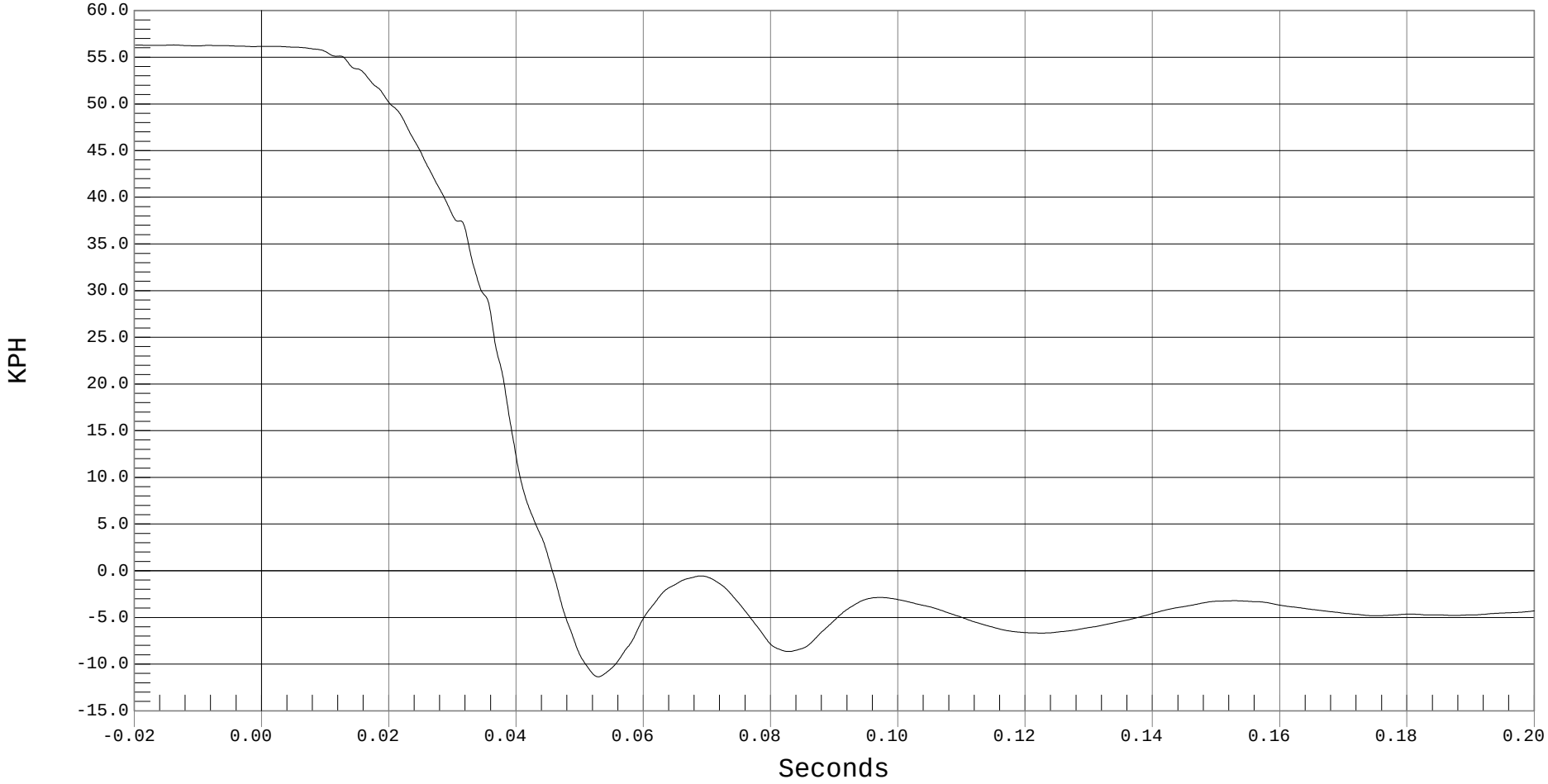
RIGHT BRAKE CALIPER X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 RIGHT BRAKE CALIPER X VELOCITY, B01031AI.V60

Ymin = -11.36 KPH @ 0.0528 Seconds, Ymax = 56.31 KPH @ -0.0139 Seconds



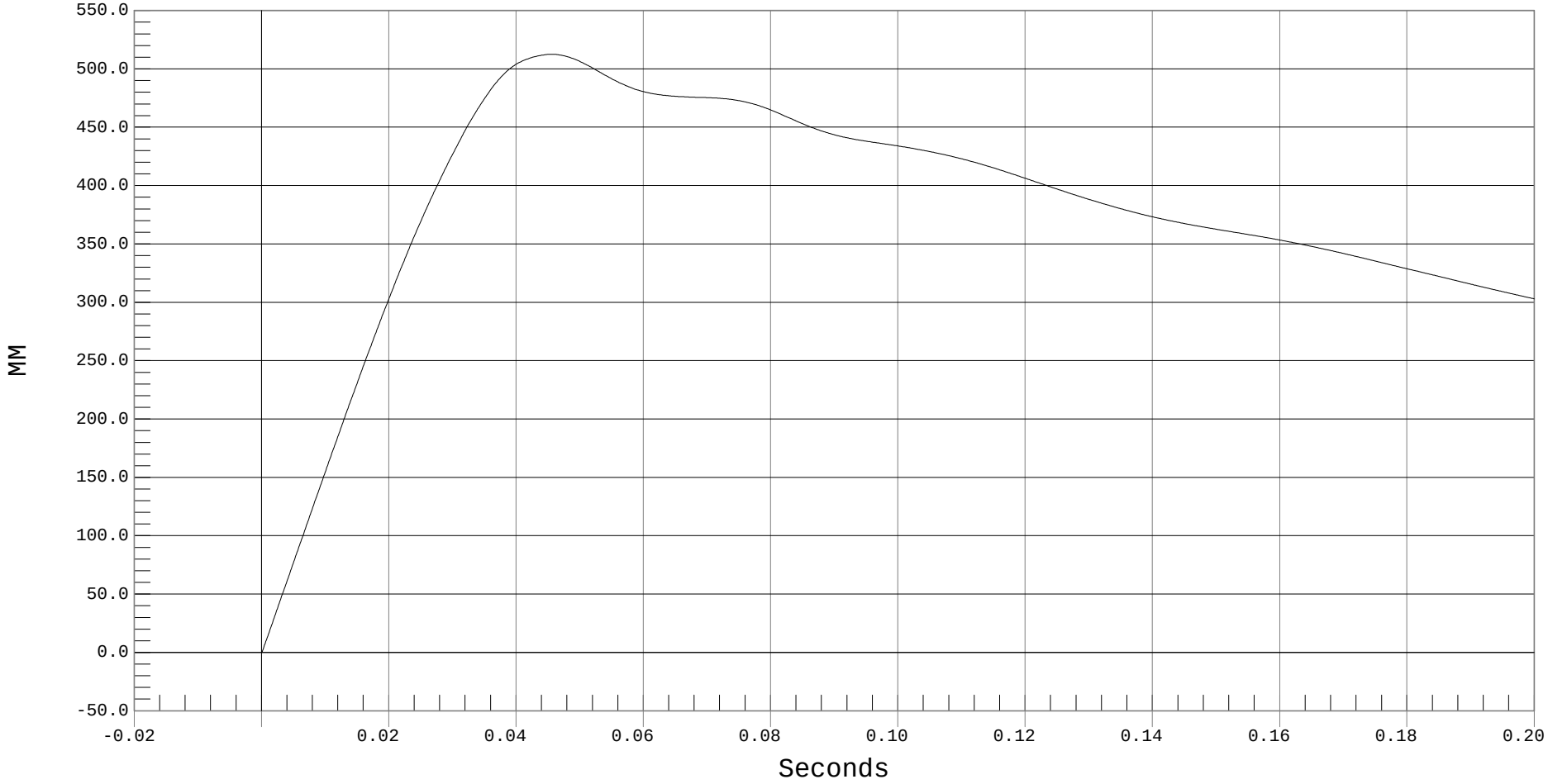
RIGHT BRAKE CALIPER X DISPLACEMENT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 RIGHT BRAKE CALIPER X DISPLACEMENT, B01031AI.D60

Ymin = 0 MM @ 0.0000 Seconds, Ymax = 512.46 MM @ 0.0455 Seconds



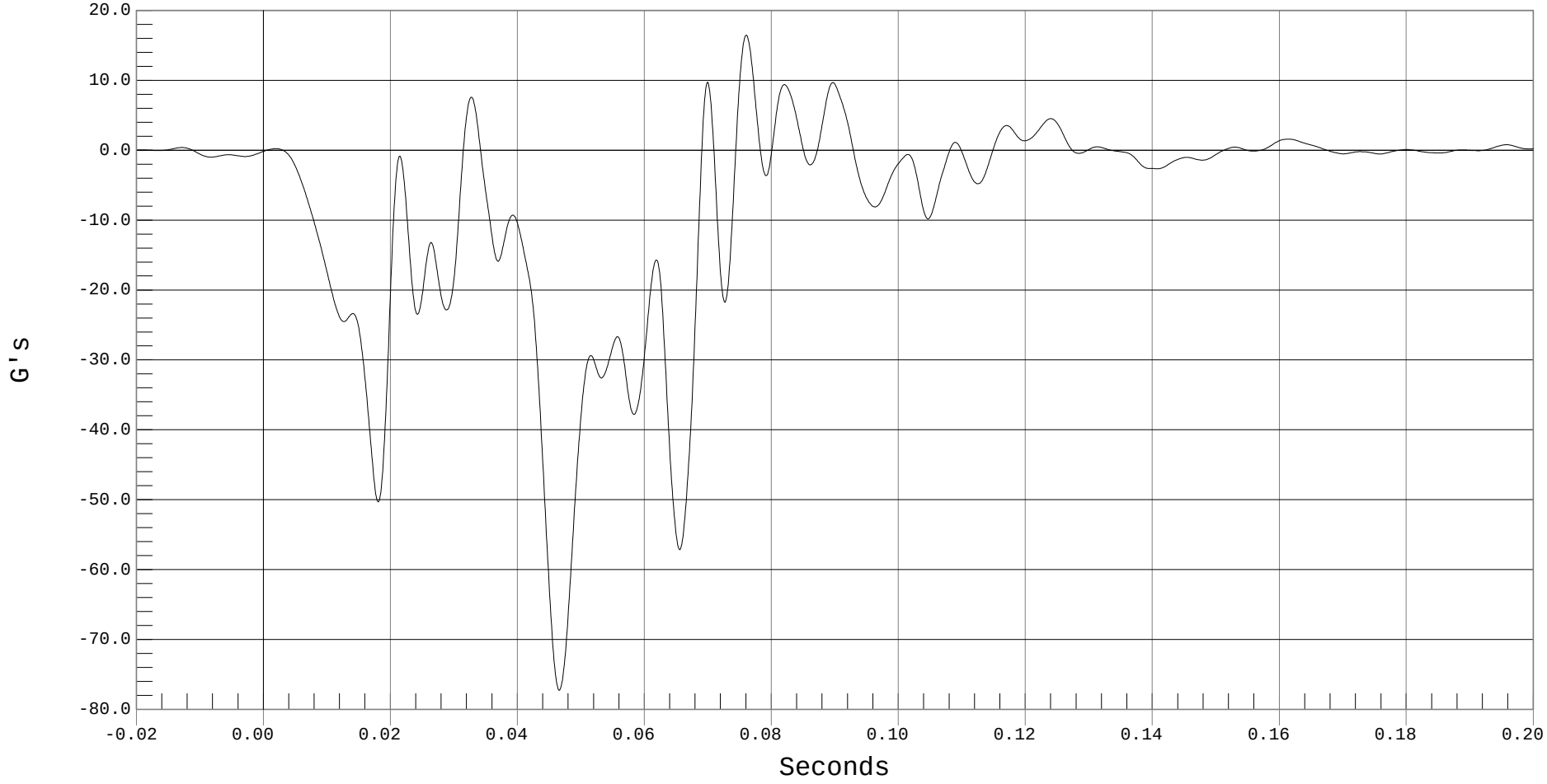
INSTRUMENT PANEL X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 INSTRUMENT PANEL X, B01031AF.A57

Ymin = -77.29 G's @ 0.0465 Seconds, Ymax = 16.45 G's @ 0.0760 Seconds



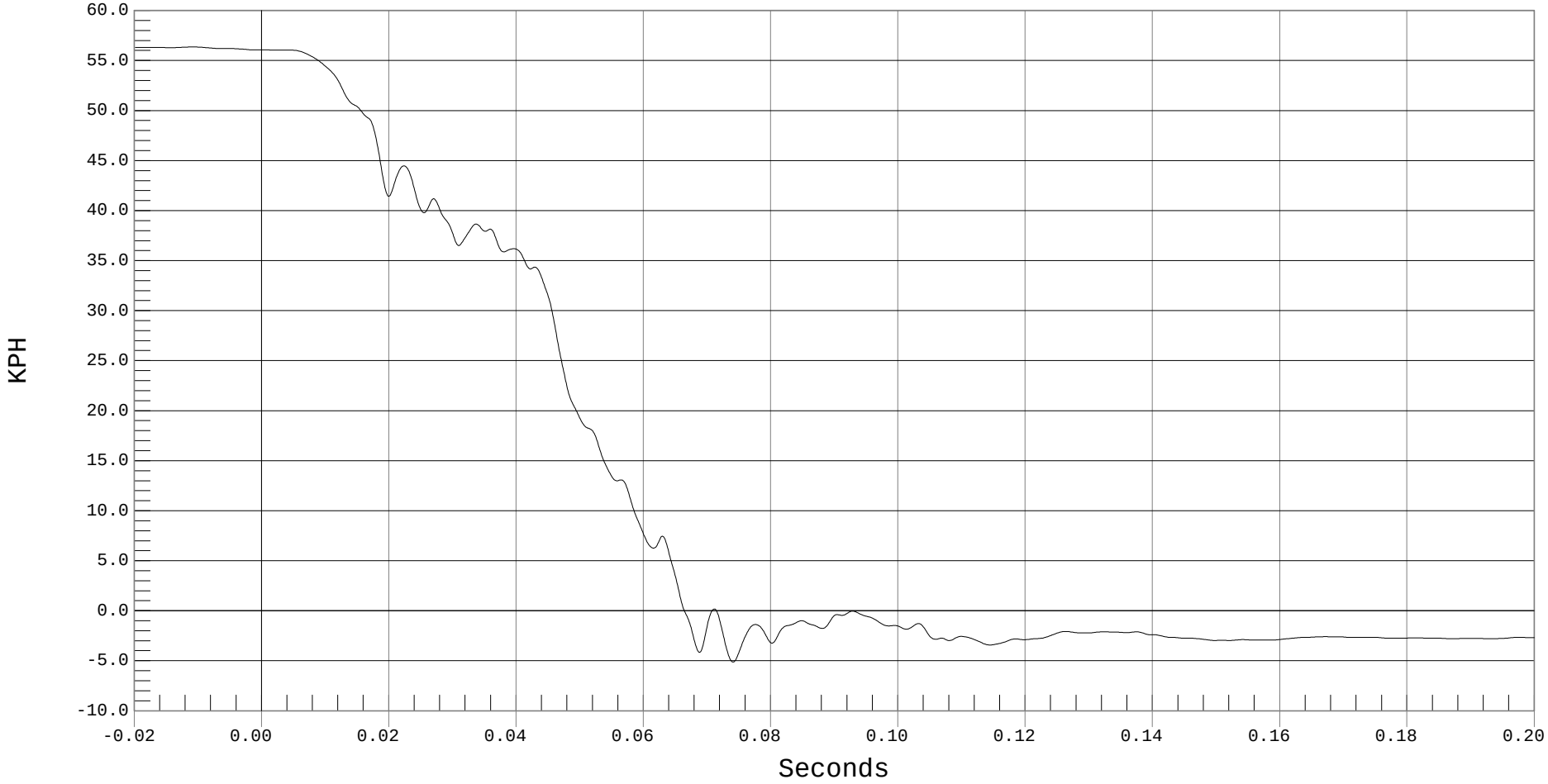
INSTRUMENT PANEL X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 INSTRUMENT PANEL X VELOCITY, B01031AI.V57

Ymin = -5.13 KPH @ 0.0740 Seconds, Ymax = 56.36 KPH @ -0.0109 Seconds



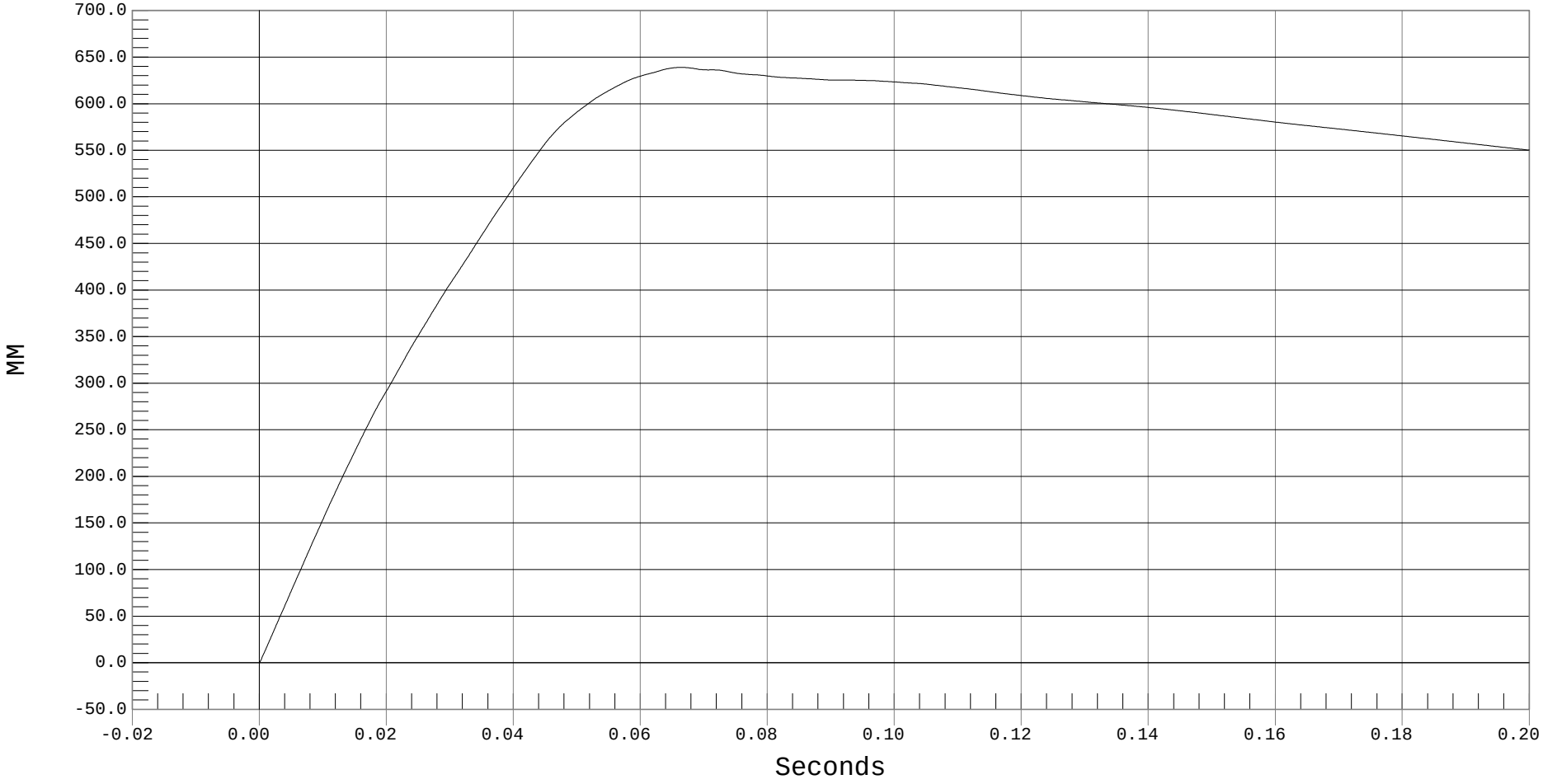
INSTRUMENT PANEL X DISPLACEMENT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 INSTRUMENT PANEL X DISPLACEMENT, B01031AI.D57

Ymin = 0 MM @ 0.0000 Seconds, Ymax = 638.82 MM @ 0.0663 Seconds



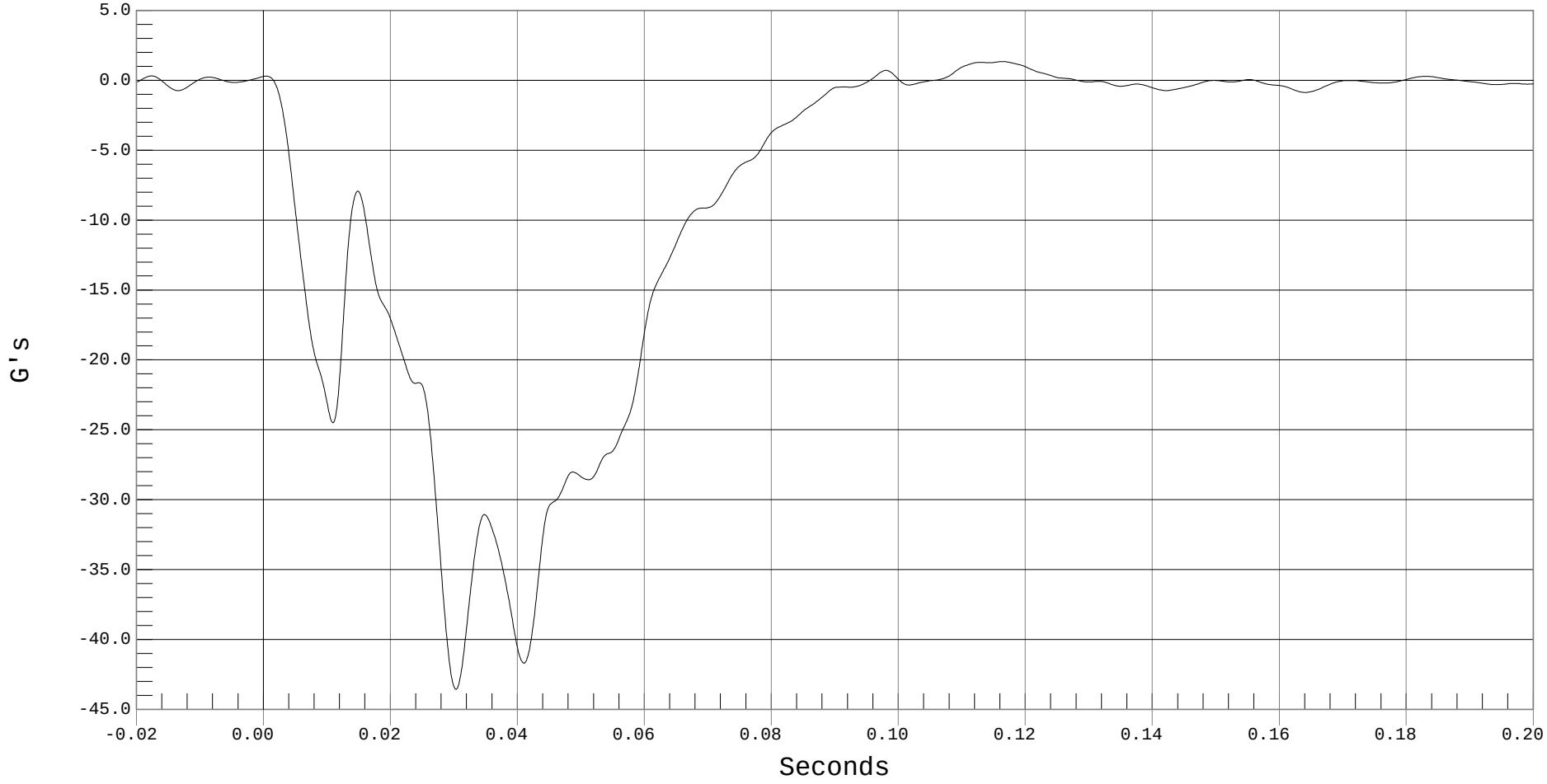
LEFT REAR SEAT CROSSMEMBER REDUNDANT X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 LEFT REAR SEAT X-MEMBER Xr, C01031AF.A03

Ymin = -43.57 G's @ 0.0302 Seconds, Ymax = 1.35 G's @ 0.1163 Seconds



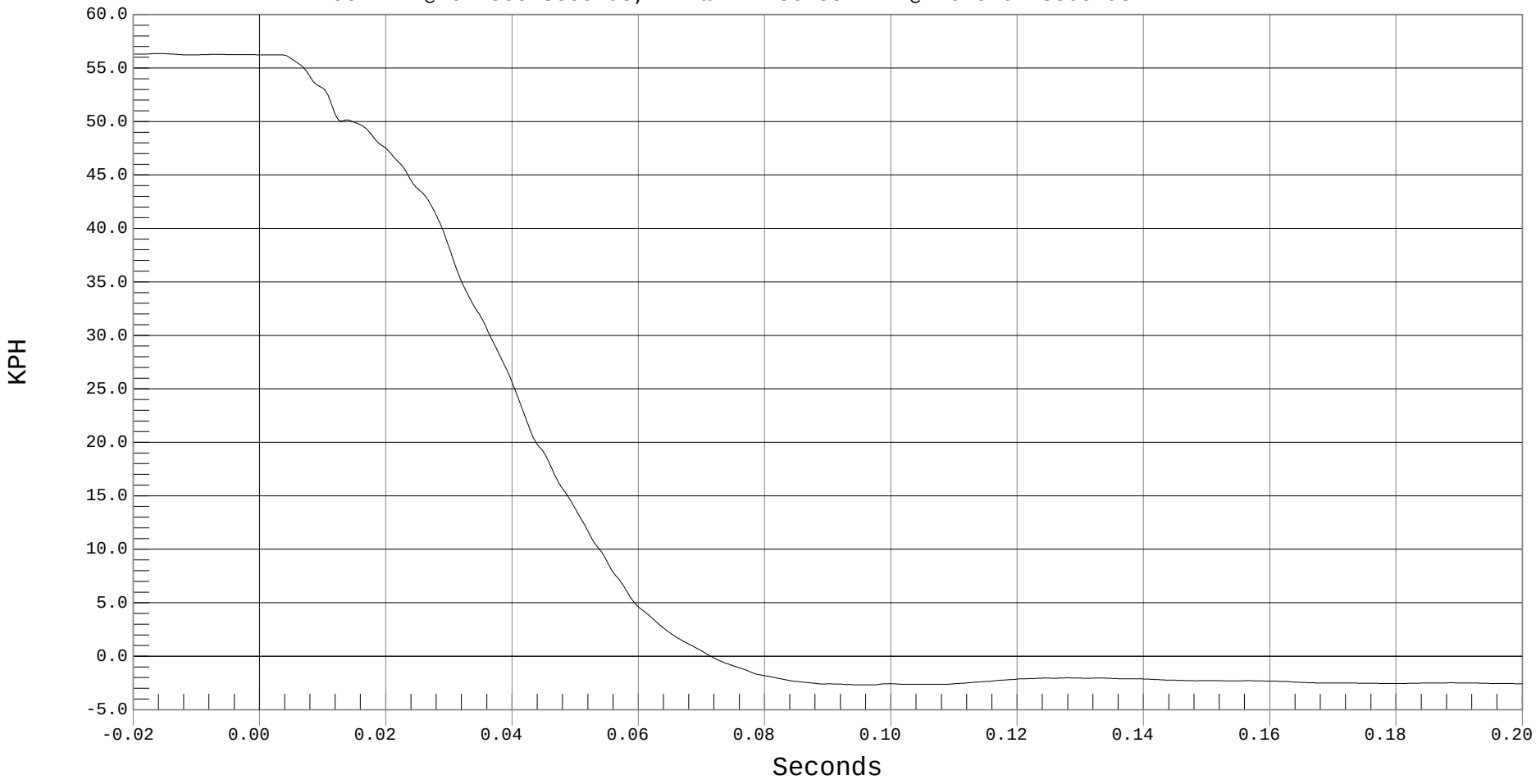
LEFT REAR SEAT CROSSMEMBER REDUNDANT X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 LEFT REAR SEAT CROSSMEMBER REDUNDANT X VELOCITY, C01031AI.V03

Ymin = -2.96 KPH @ 0.2500 Seconds, Ymax = 56.35 KPH @ -0.0161 Seconds



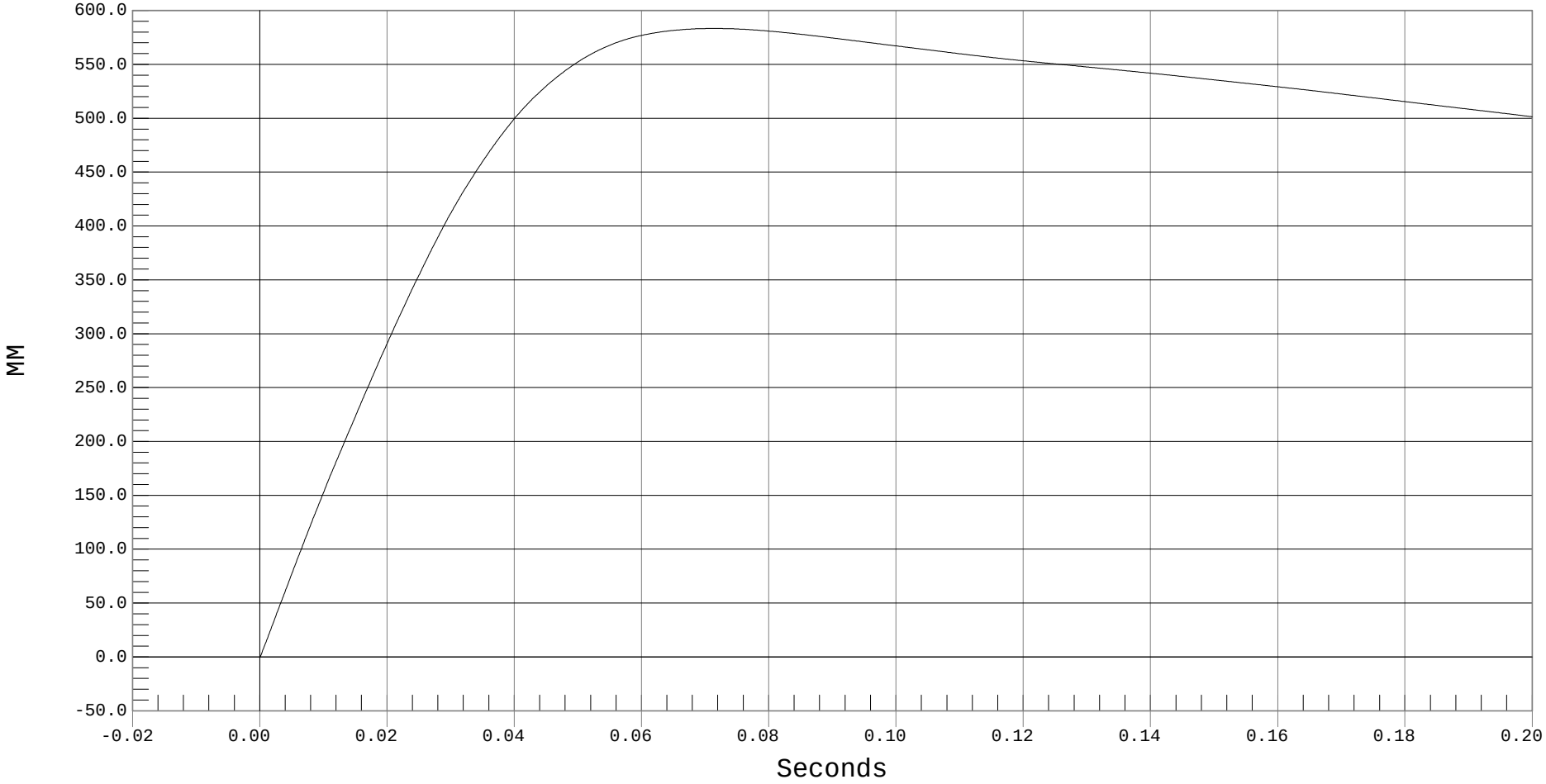
LEFT REAR SEAT CROSSMEMBER REDUNDANT X DISPLACEMENT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 LEFT REAR SEAT CROSSMEMBER REDUNDANT X DISPLACEMENT, C01031AI.D03

Ymin = 0 MM @ 0.0000 Seconds, Ymax = 583.38 MM @ 0.0712 Seconds



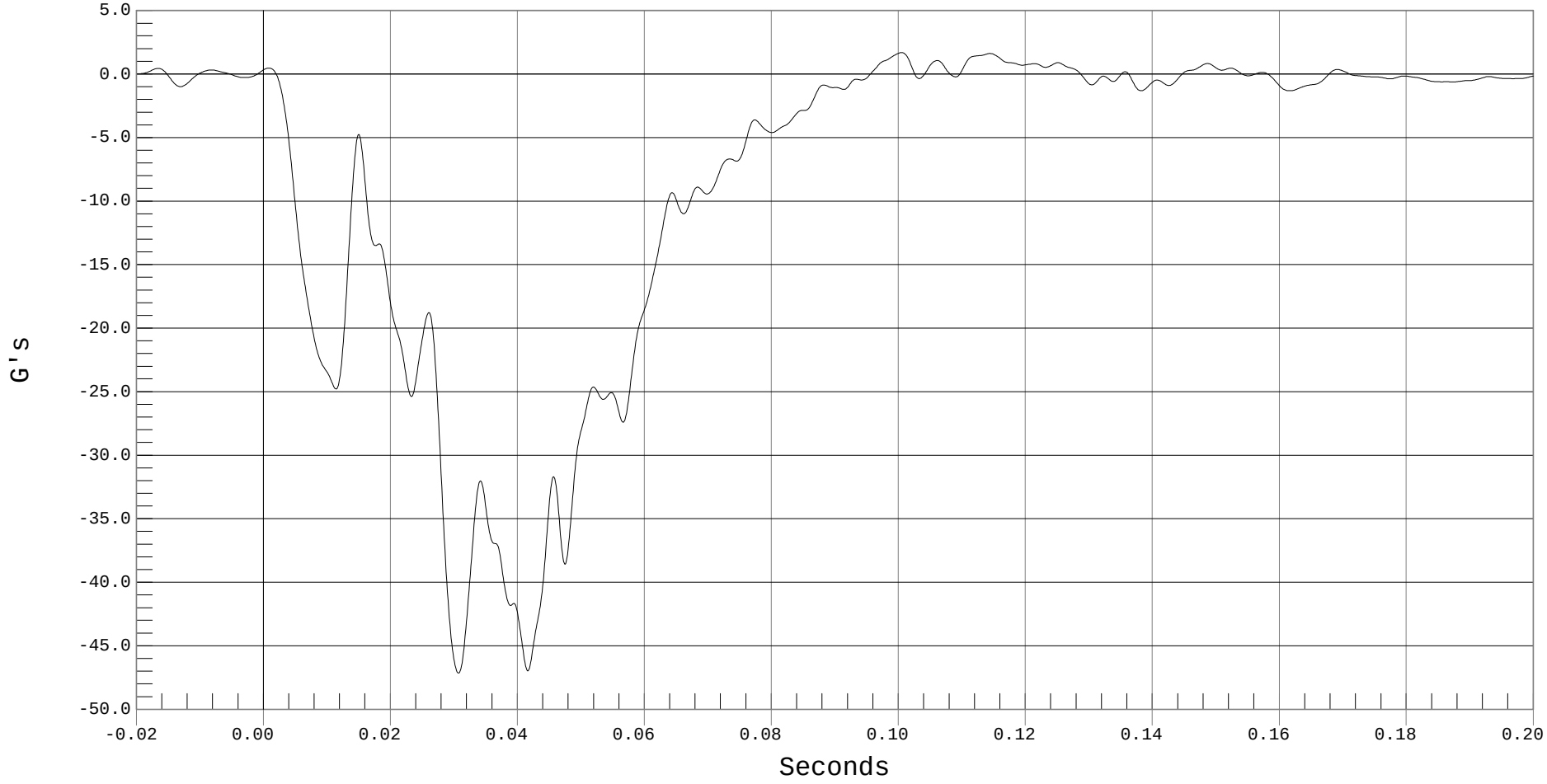
RIGHT REAR SEAT CROSSMEMBER REDUNDANT X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 RIGHT REAR SEAT X-MEMBER Xr, C01031AF.A02

Ymin = -47.15 G's @ 0.0306 Seconds, Ymax = 1.69 G's @ 0.1004 Seconds



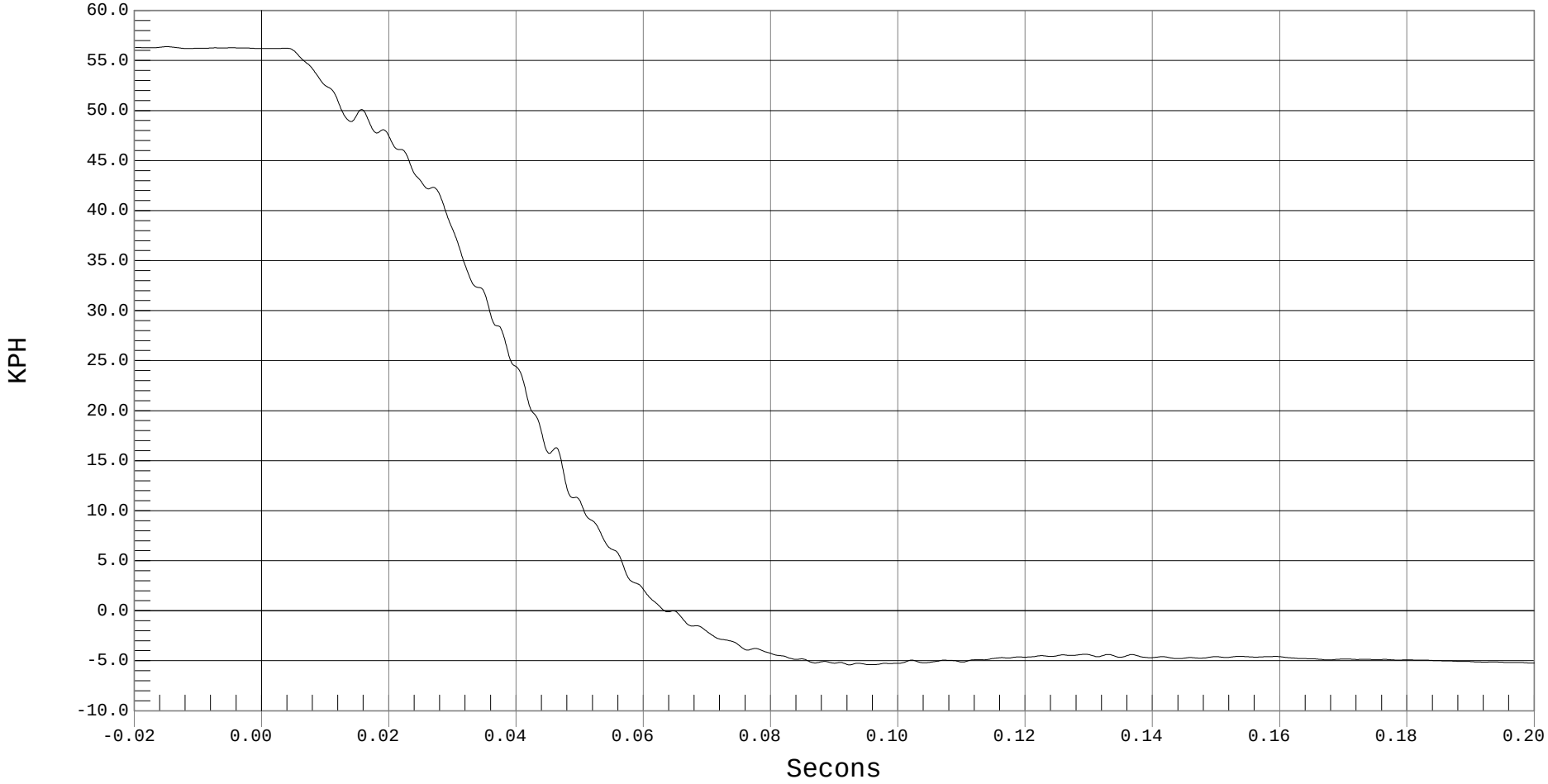
RIGHT REAR SEAT CROSSMEMBER REDUNDANT X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 RIGHT REAR SEAT CROSSMEMBER REDUNDANT X VELOCITY, C01031AI.V02

Ymin = -5.76 KPH @ 0.2500 Secons, Ymax = 56.38 KPH @ -0.0149 Secons



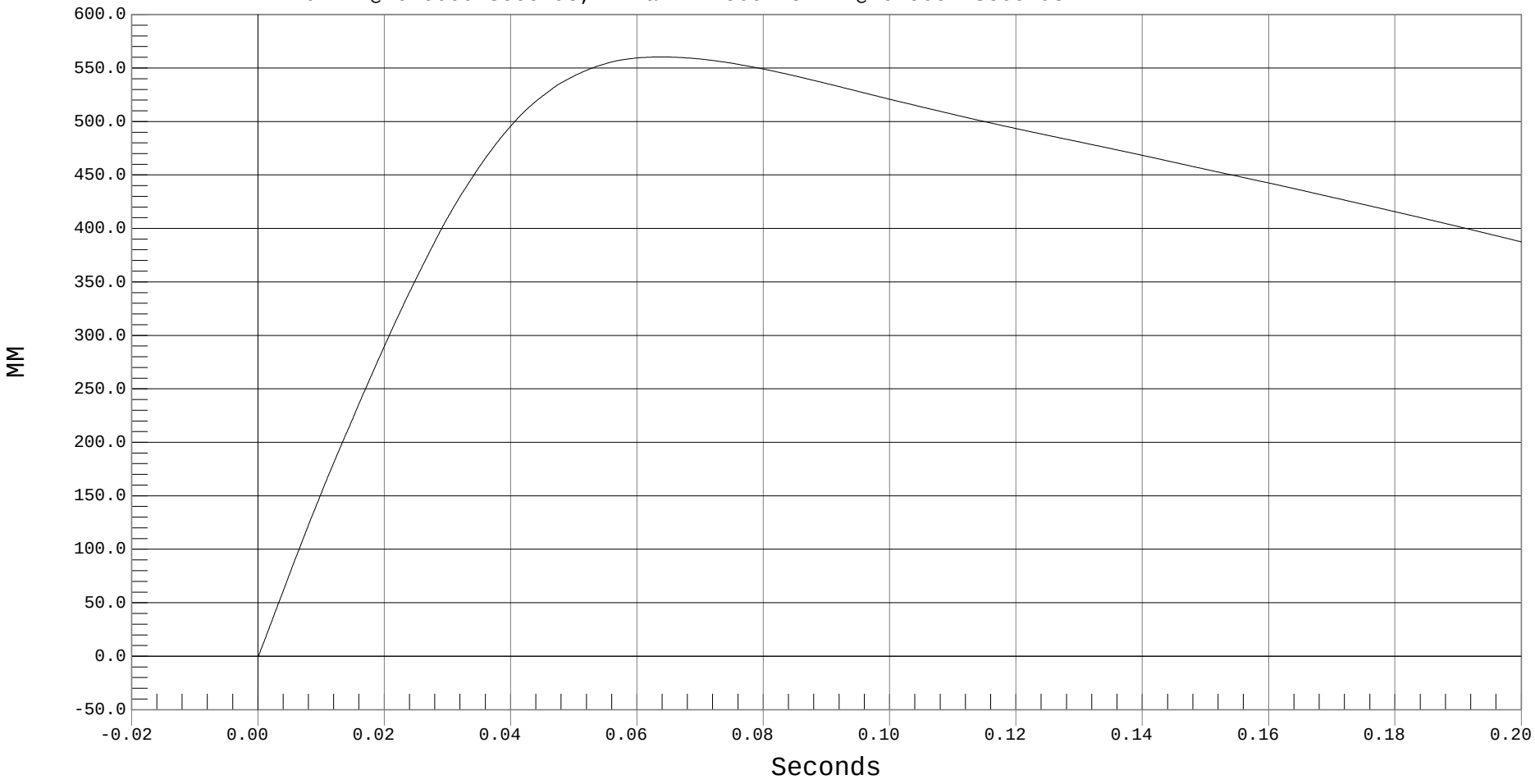
RIGHT REAR SEAT CROSSMEMBER REDUNDANT X DISPLACEMENT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 RIGHT REAR SEAT CROSSMEMBER REDUNDANT X DISPLACEMENT, C01031AI.D02

Ymin = 0 MM @ 0.0000 Seconds, Ymax = 560.23 MM @ 0.0631 Seconds



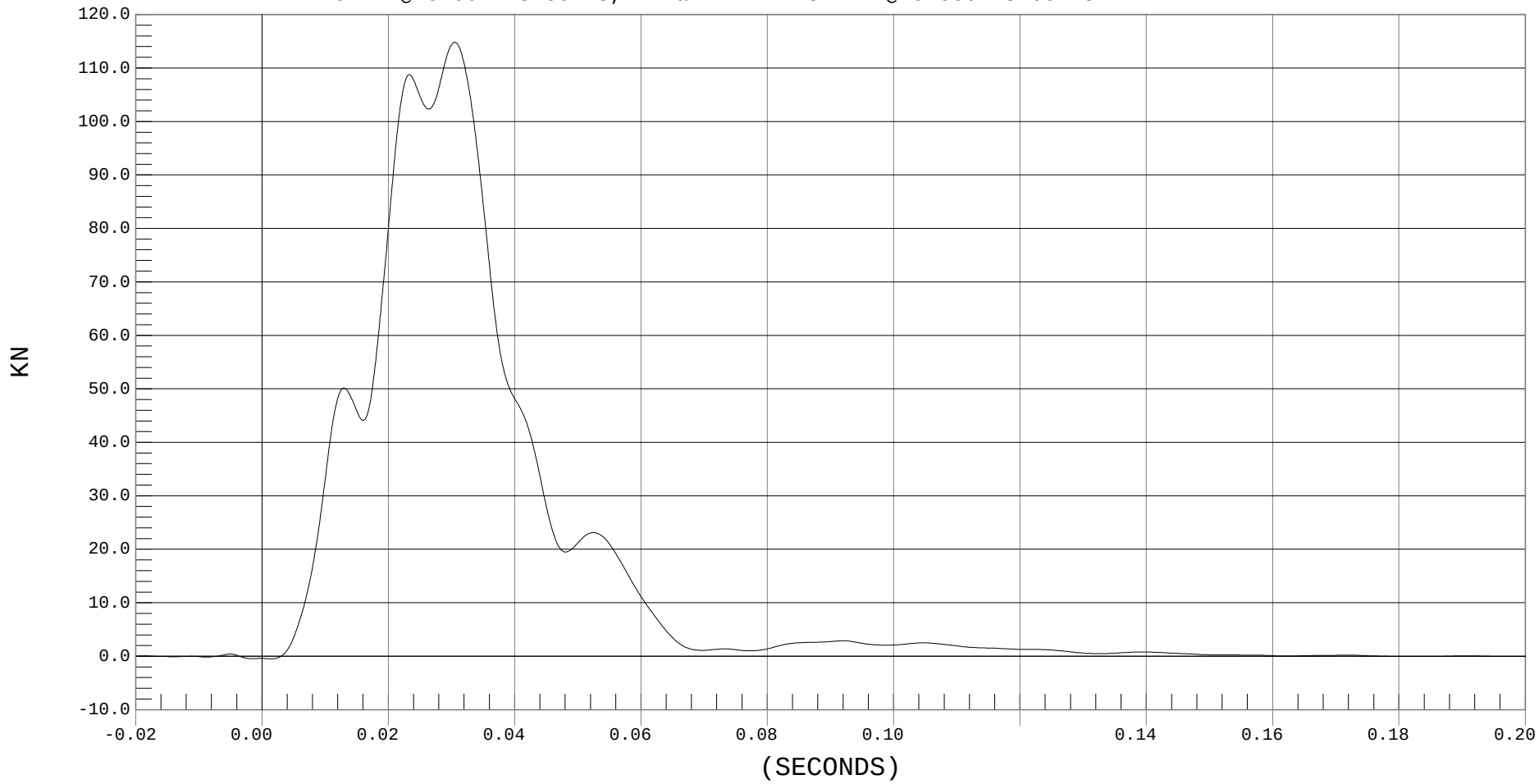
UPPER LEFT BARRIER FORCE

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 BARRIER UPPER LEFT, B01031FF.F02

Ymin = -.49 KN @ 0.0014 SECONDS, Ymax = 114.81 KN @ 0.0304 SECONDS



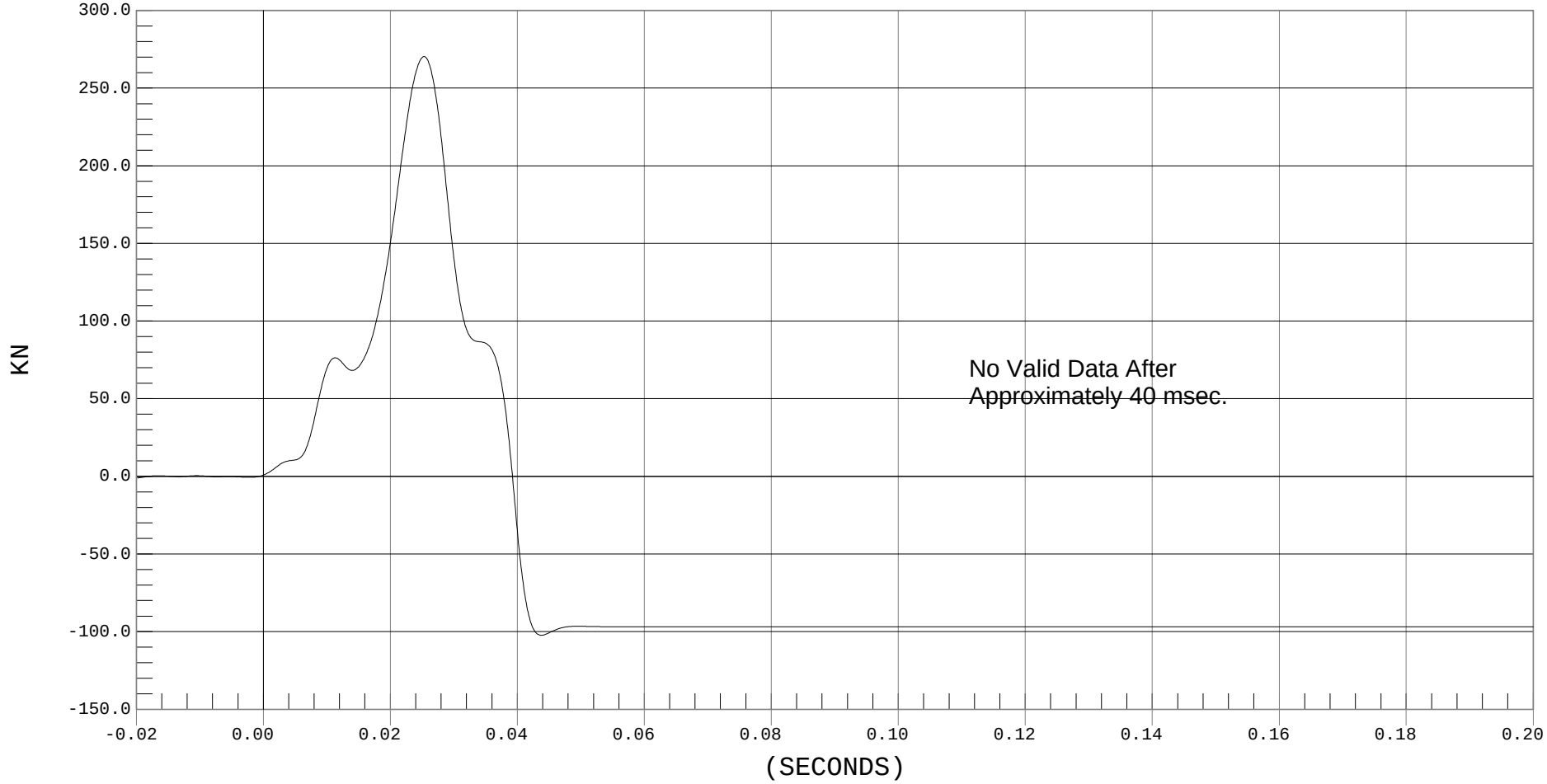
UPPER CENTER BARRIER FORCE

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 BARRIER UPPER CENTER, B01031FF.F03

Ymin = -102.34 KN @ 0.0437 SECONDS, Ymax = 270.38 KN @ 0.0252 SECONDS



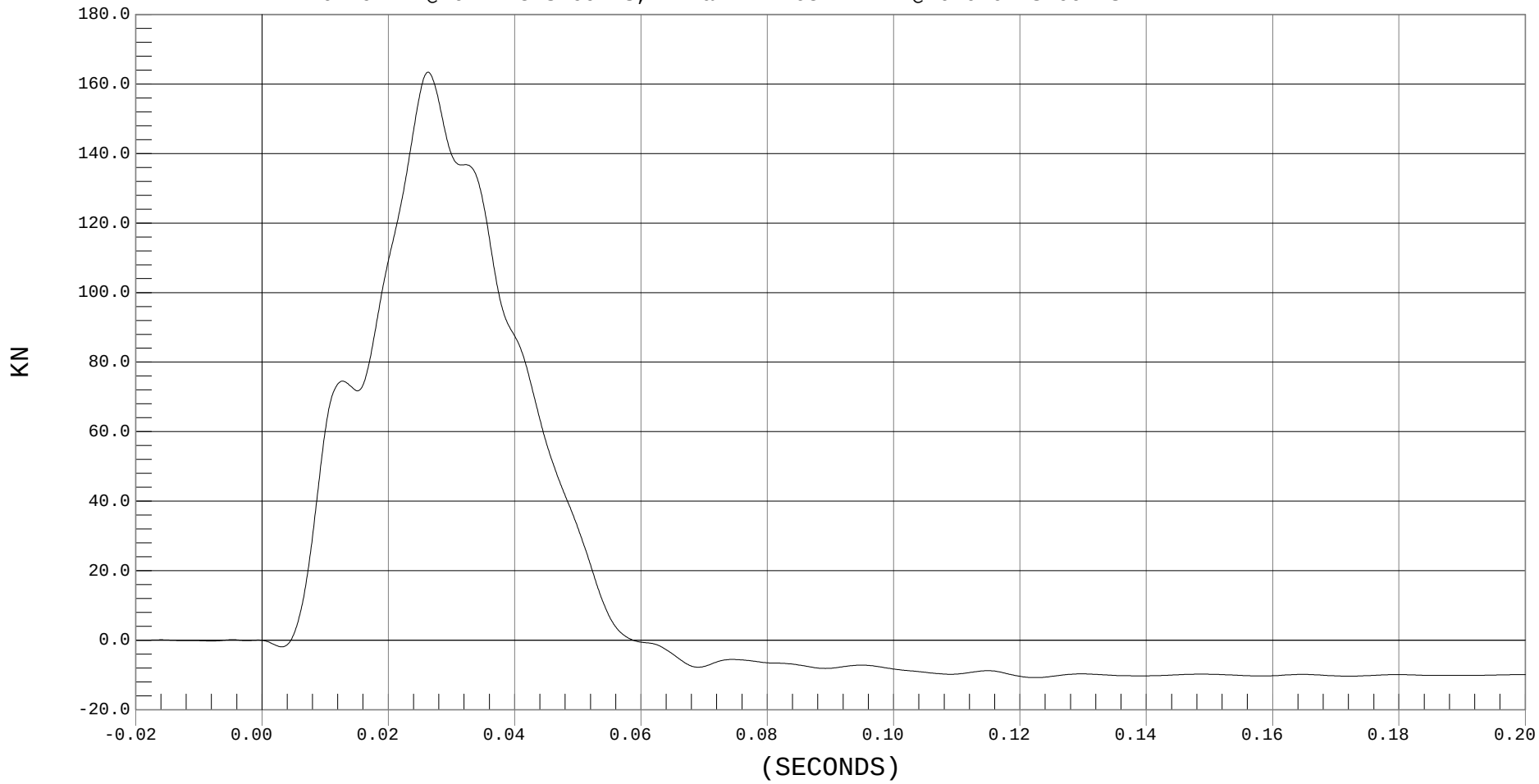
UPPER RIGHT BARRIER FORCE

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 BARRIER UPPER RIGHT, B01031FF.F04

Ymin = -10.79 KN @ 0.1223 SECONDS, Ymax = 163.42 KN @ 0.0262 SECONDS



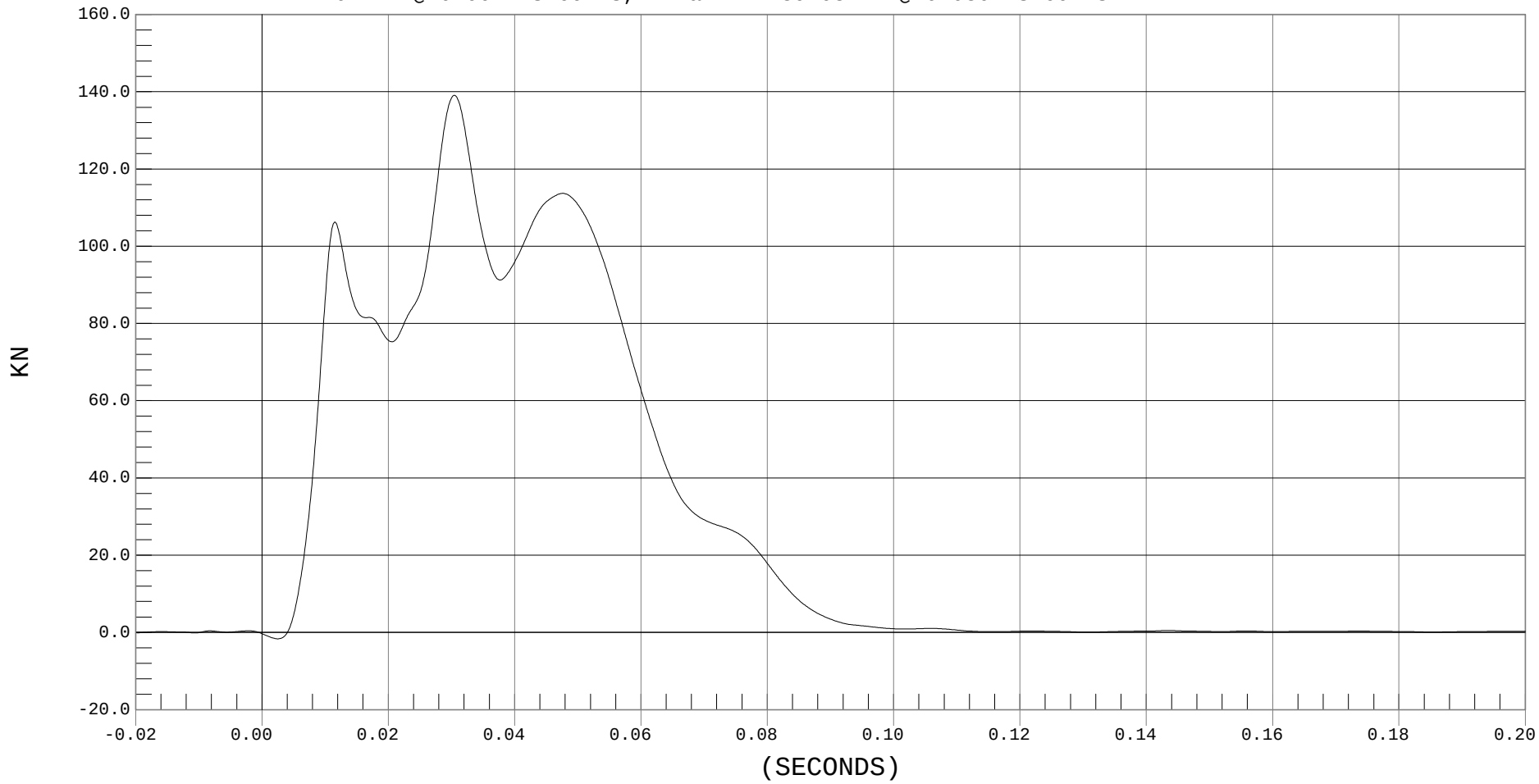
LOWER LEFT BARRIER FORCE

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 BARRIER LOWER LEFT, B01031FF.F05

Ymin = -1.64 KN @ 0.0024 SECONDS, Ymax = 139.08 KN @ 0.0304 SECONDS



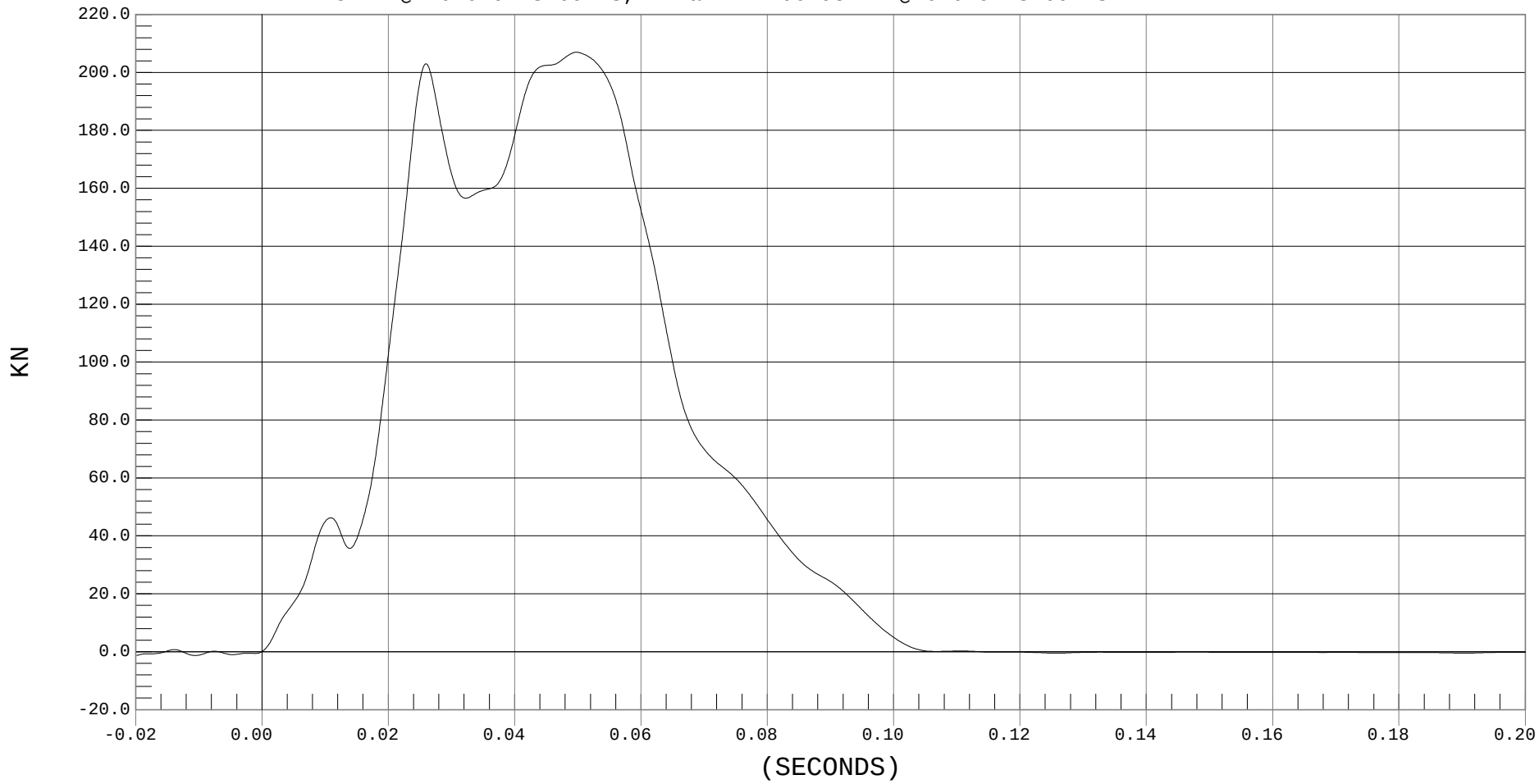
LOWER CENTER BARRIER FORCE

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 BARRIER LOWER CENTER, B01031FF.F06

Ymin = -1.3 KN @ -0.0107 SECONDS, Ymax = 206.98 KN @ 0.0497 SECONDS



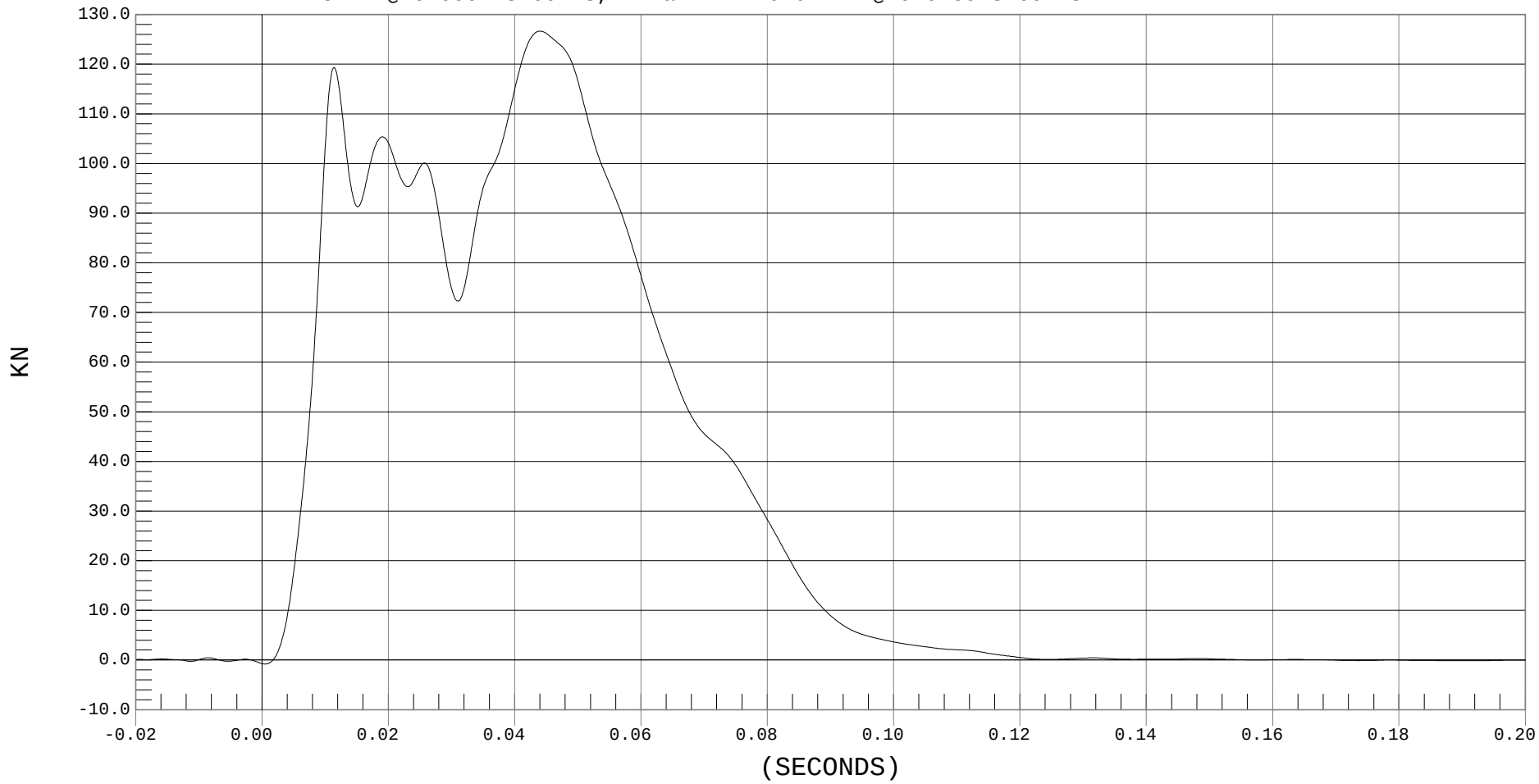
LOWER RIGHT BARRIER FORCE

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 BARRIER LOWER RIGHT, B01031FF.F07

Ymin = -.8 KN @ 0.0004 SECONDS, Ymax = 126.67 KN @ 0.0439 SECONDS



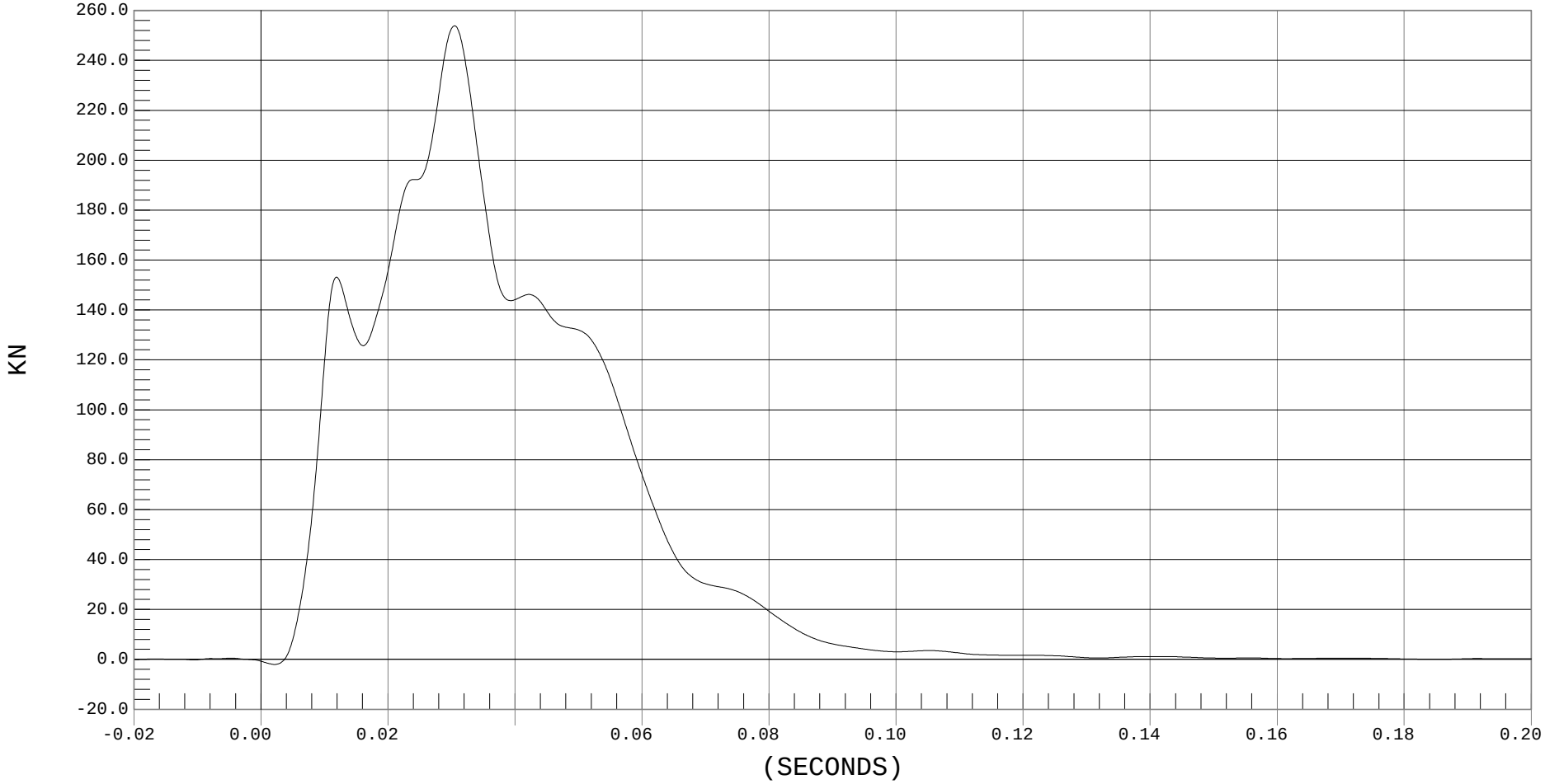
SUM OF LEFT BARRIER FORCES

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 SUM OF LEFT BARRIER FORCES, B01031FU.F02

Ymin = -2.02 KN @ 0.0021 SECONDS, Ymax = 253.89 KN @ 0.0304 SECONDS



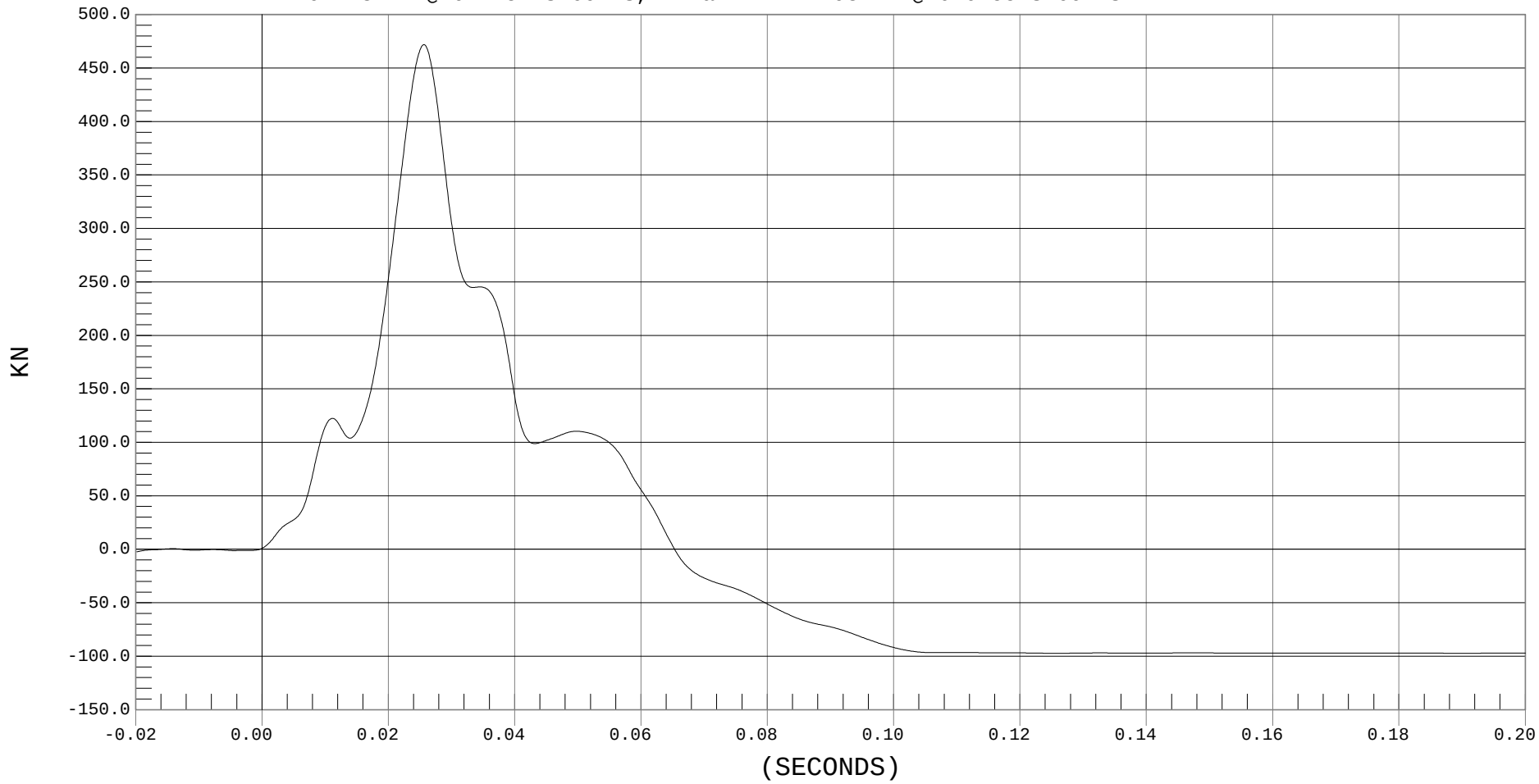
SUM OF CENTER BARRIER FORCES

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 SUM OF CENTER BARRIER FORCES, B01031FU.F03

Ymin = -97.28 KN @ 0.1257 SECONDS, Ymax = 471.93 KN @ 0.0255 SECONDS



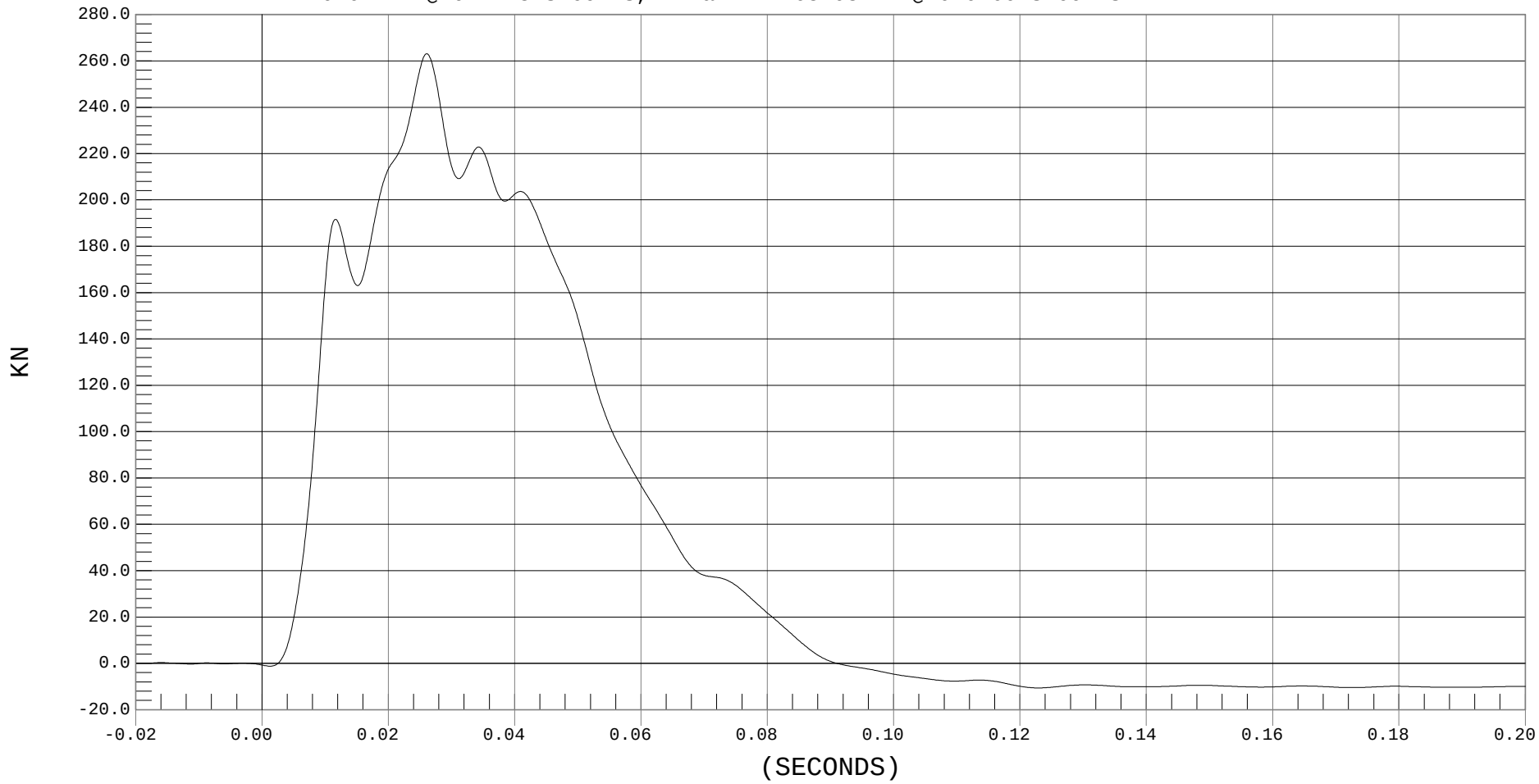
SUM OF RIGHT BARRIER FORCES

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 SUM OF RIGHT BARRIER FORCES, B01031FU.F04

Ymin = -10.62 KN @ 0.1228 SECONDS, Ymax = 263.08 KN @ 0.0260 SECONDS



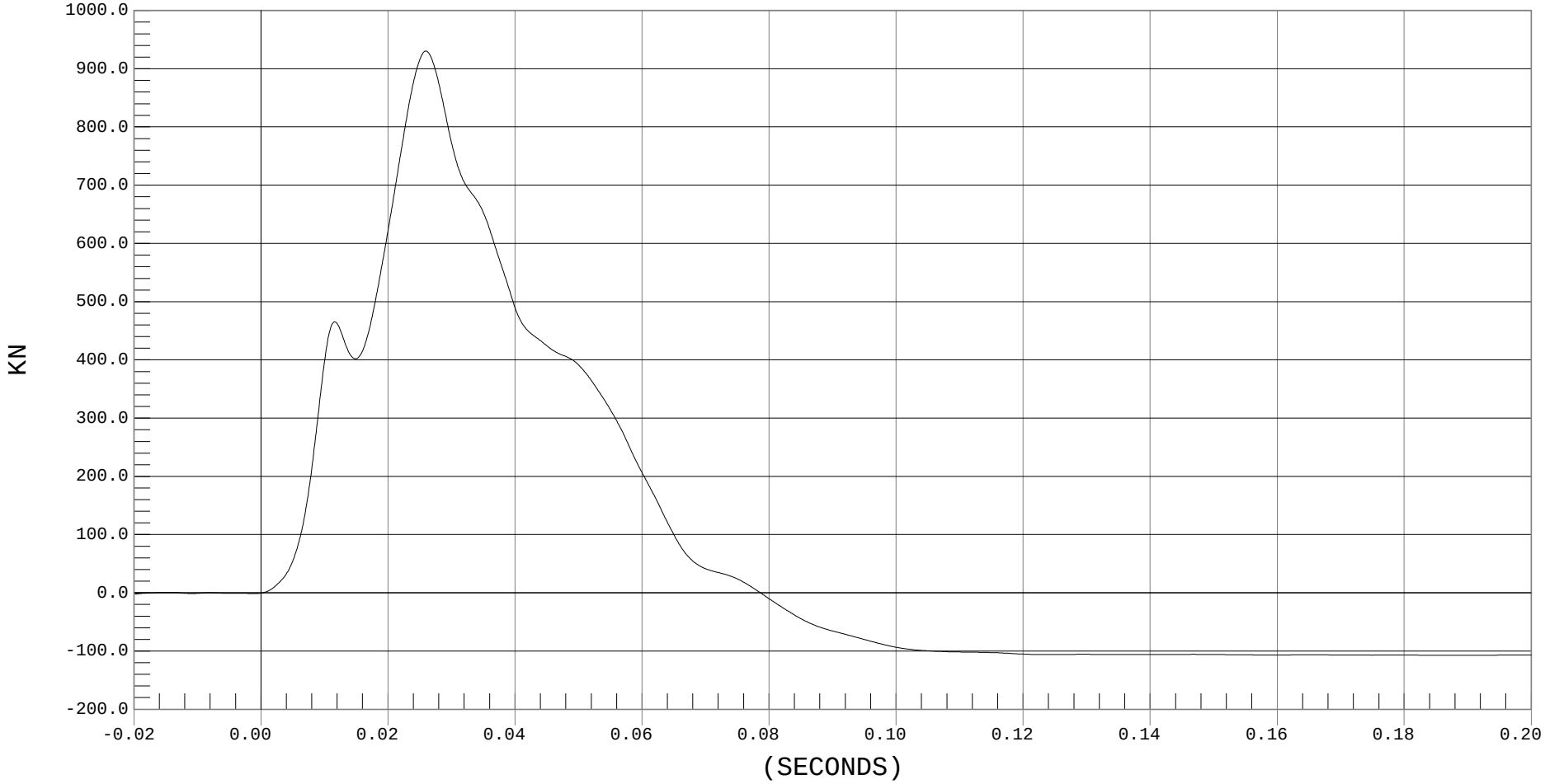
SUM OF BARRIER FORCES

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 SUM OF BARRIER FORCES, B01031FU.F05

Ymin = -107.34 KN @ 0.1858 SECONDS, Ymax = 930.4 KN @ 0.0259 SECONDS



APPENDIX C

DUMMY CALIBRATION DATA TRACES AND TABLES

Hybrid III Calibration Data Sheet

50th Percentile Male

Left Knee Impact Test

ATD Serial No.: 142 Test I.D.: D01316

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.3	Pass
Laboratory Relative Humidity	%	10 to 70	25	Pass
Probe Velocity	m/s	2.07 to 2.13	2.12	Pass
Peak Probe Force	Newtons	4715 to 5782	5255	Pass
		Overall Test Results		Pass

Laboratory Technician

3/7/01
Test Date

Approved By

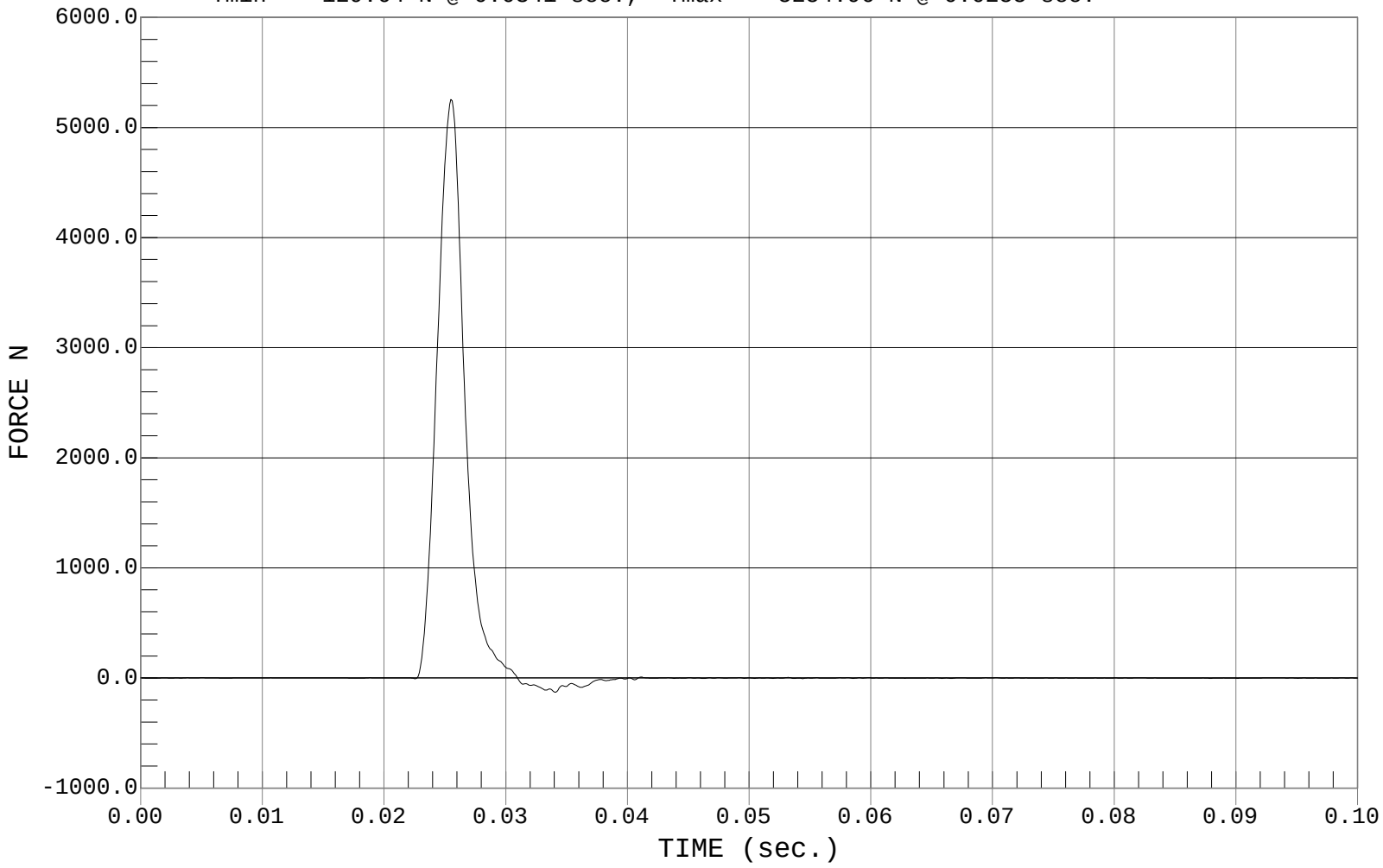
LEFT KNEE IMPACT

Test Desc.: Dummy Calibration - Left Knee Impact
Component: Dummy #142

Test Date: 03-07-01
Speed: 6.95 FT/SEC, 2.12 M/SEC

1 FORCE, D01316FF.F09

Ymin = -129.64 N @ 0.0341 sec., Ymax = 5254.96 N @ 0.0255 sec.



Hybrid III Calibration Data Sheet

50th Percentile Male

Right Knee Impact Test

ATD Serial No.: 142 Test I.D.: D01315

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.3	Pass
Laboratory Relative Humidity	%	10 to 70	25	Pass
Probe Velocity	m/s	2.07 to 2.13	2.12	Pass
Peak Probe Force	Newtons	4715 to 5782	5204	Pass
		Overall Test Results		Pass

Laboratory Technician

3/7/01
Test Date

Approved By

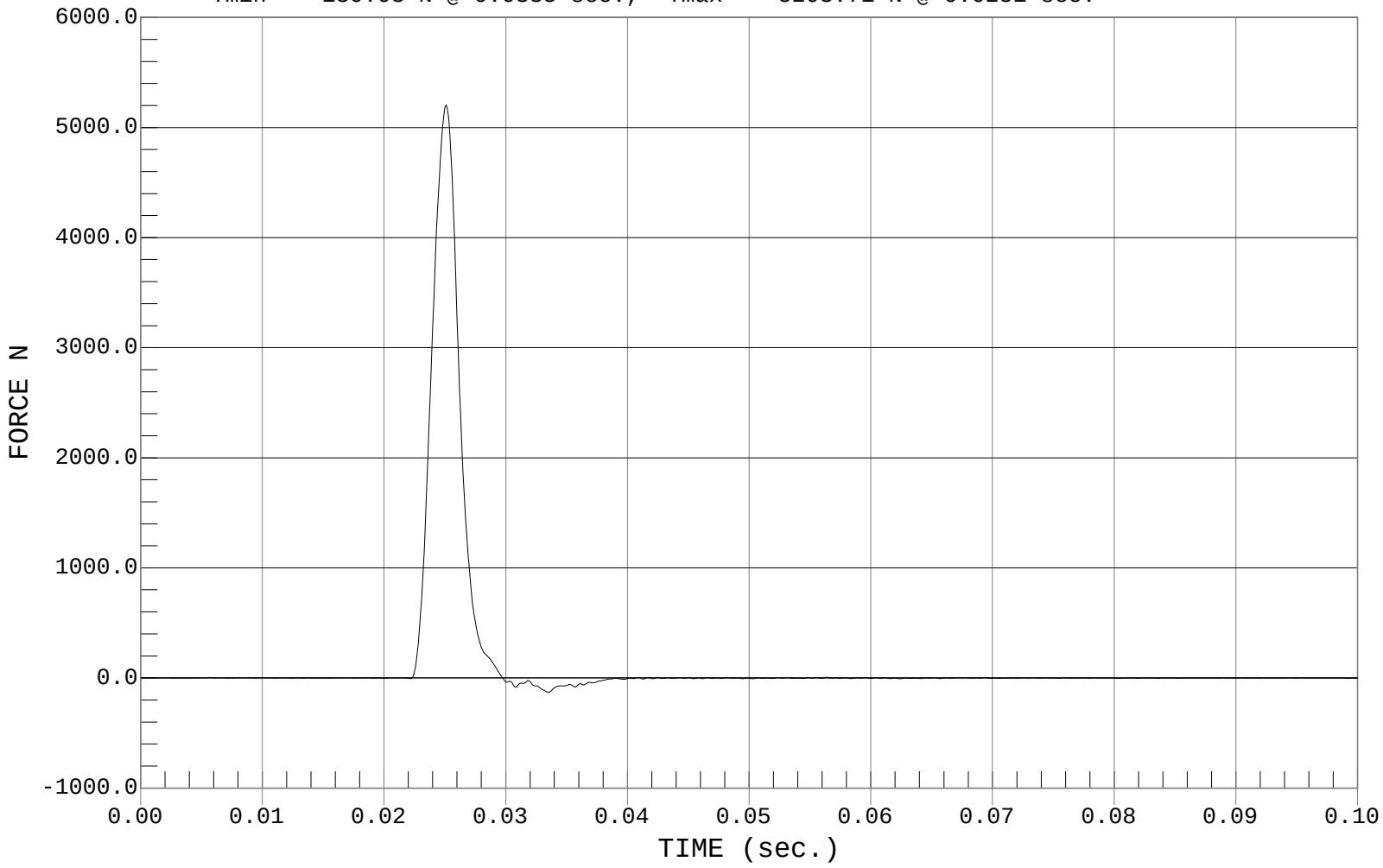
RIGHT KNEE IMPACT

Test Desc.: Dummy Calibration - Right Knee Impact
Component: Dummy #142

Test Date: 03-07-01
Speed: 6.97 FT/SEC, 2.12 M/SEC

1 FORCE, D01315FF.F09

Ymin = -130.03 N @ 0.0335 sec., Ymax = 5203.71 N @ 0.0251 sec.



Hybrid III Calibration Data Sheet

50th Percentile Male

Head Drop Calibration

ATD Serial No.: 142 Test I.D.: D01311

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.5	Pass
Laboratory Relative Humidity	%	10 to 70	25	Pass
Peak Resultant Acceleration	G's	225.0 to 275.0	267.1	Pass
Peak Lateral Acceleration	G's	≤ ±15.0	5.9	Pass
Is Acceleration Unimodal?	Yes/No	< 10% Peak	Yes	Pass
		Overall Test Results		Pass

Laboratory Technician

3/12/01
Test Date

Approved By

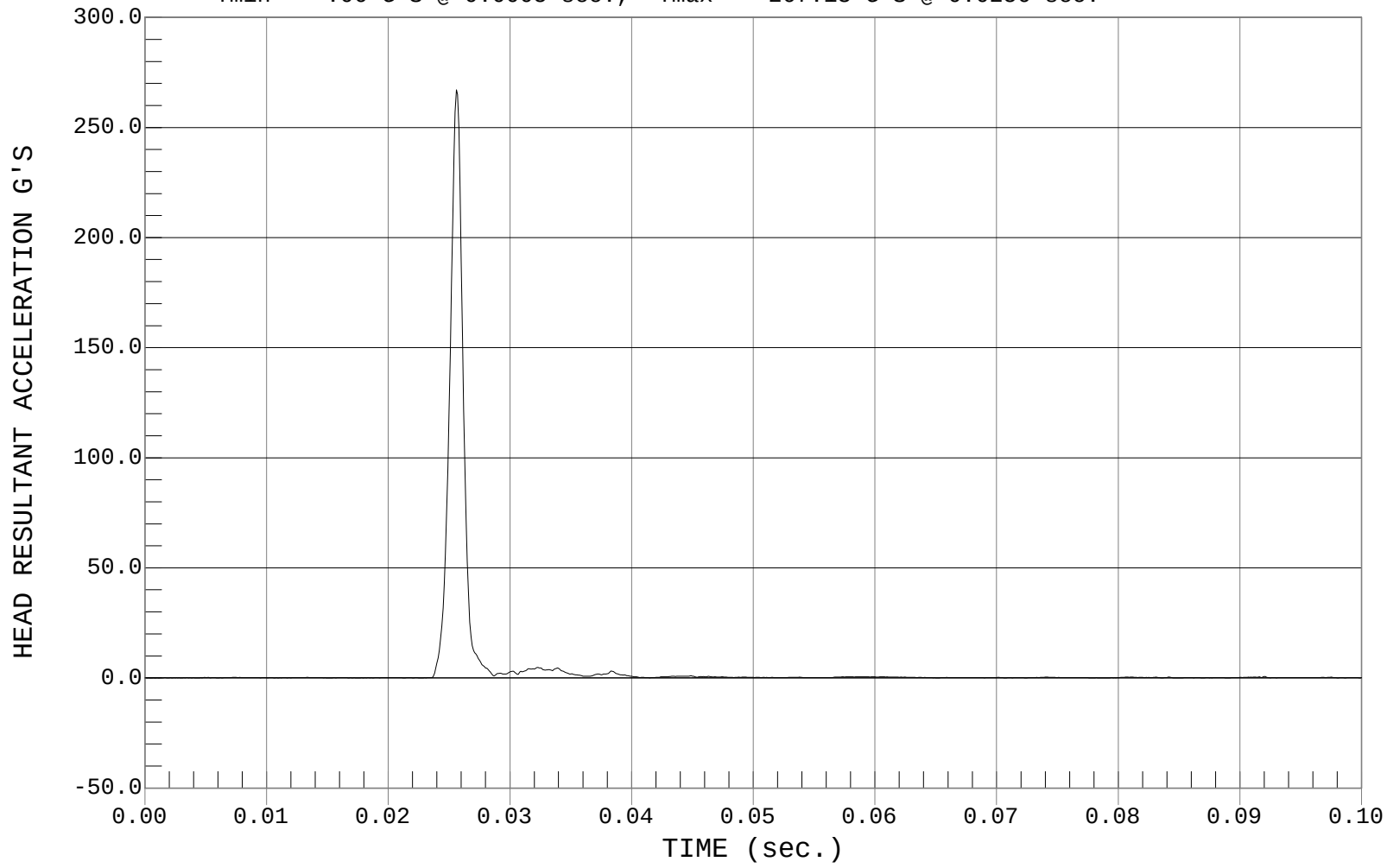
PEAK RESULTANT ACCELERATION

Test Desc.: Dummy Calibration - Head Drop
Component: Dummy #142

Test Date: 03-12-01
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 HEAD RESULTANT ACCELERATION, D01311AV.A01

Ymin = .06 G'S @ 0.0005 sec., Ymax = 267.13 G'S @ 0.0256 sec.



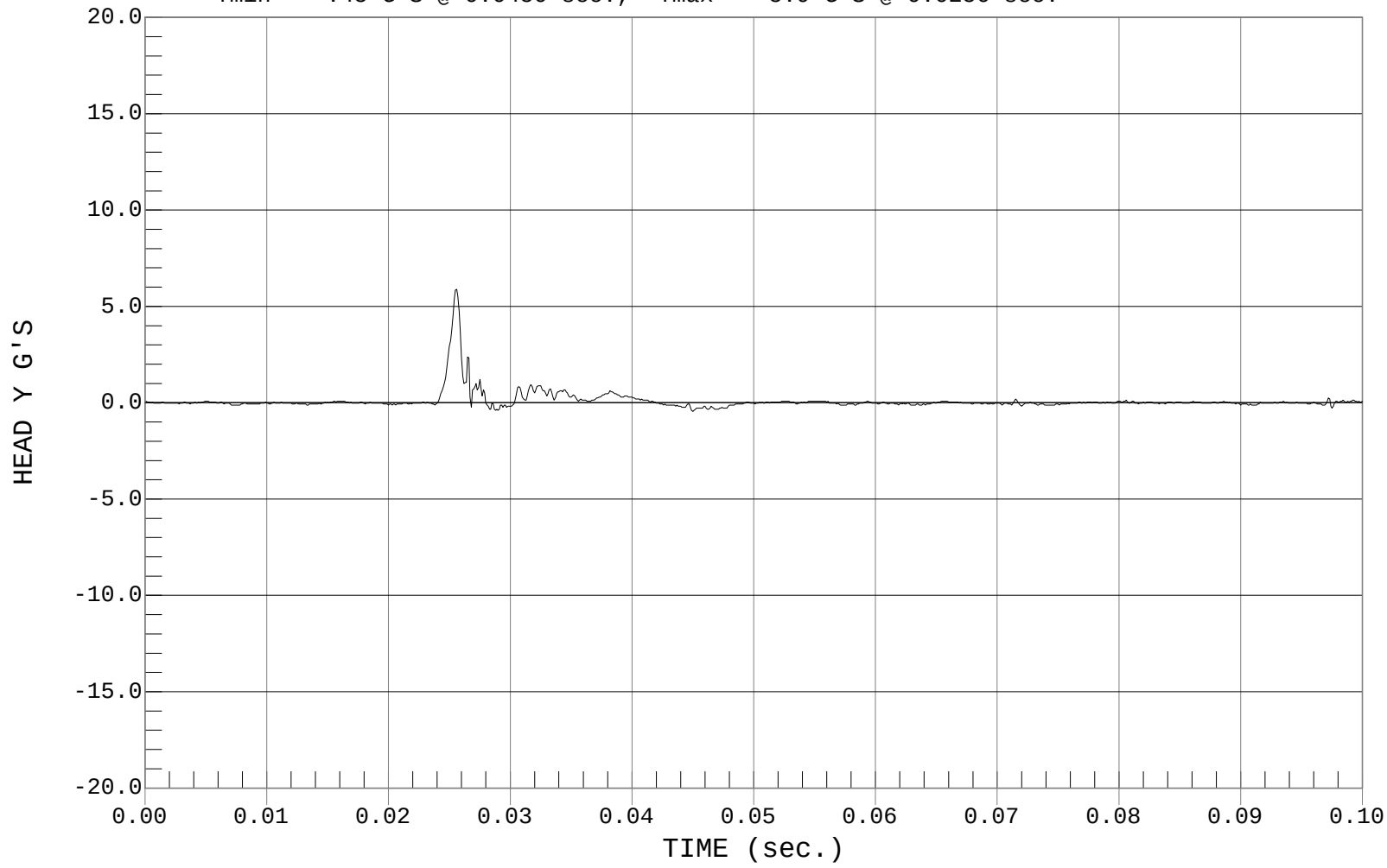
PEAK LATERAL ACCELRATION

Test Desc.: Dummy Calibration - Head Drop
Component: Dummy #142

Test Date: 03-12-01
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 HEAD Y, D01311AR.A02

Ymin = -.45 G'S @ 0.0450 sec., Ymax = 5.9 G'S @ 0.0256 sec.



Hybrid III Calibration Data Sheet

50th Percentile Male

Thorax Impact Test

ATD Serial No.: 142 Test I.D.: D01314

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.3	Pass
Laboratory Relative Humidity	%	10 to 70	17	Pass
Probe Velocity	m/s	6.58 to 6.82	6.64	Pass
Peak Probe Force	Newtons	5159 to 5893	5454	Pass
Peak Sternum Displacement	CM	6.35 to 7.26	6.62	Pass
Internal Hysteresis	%	69 to 85	76	Pass
		Overall Test Results		Pass

Laboratory Technician

3/7/01
Test Date

Approved By

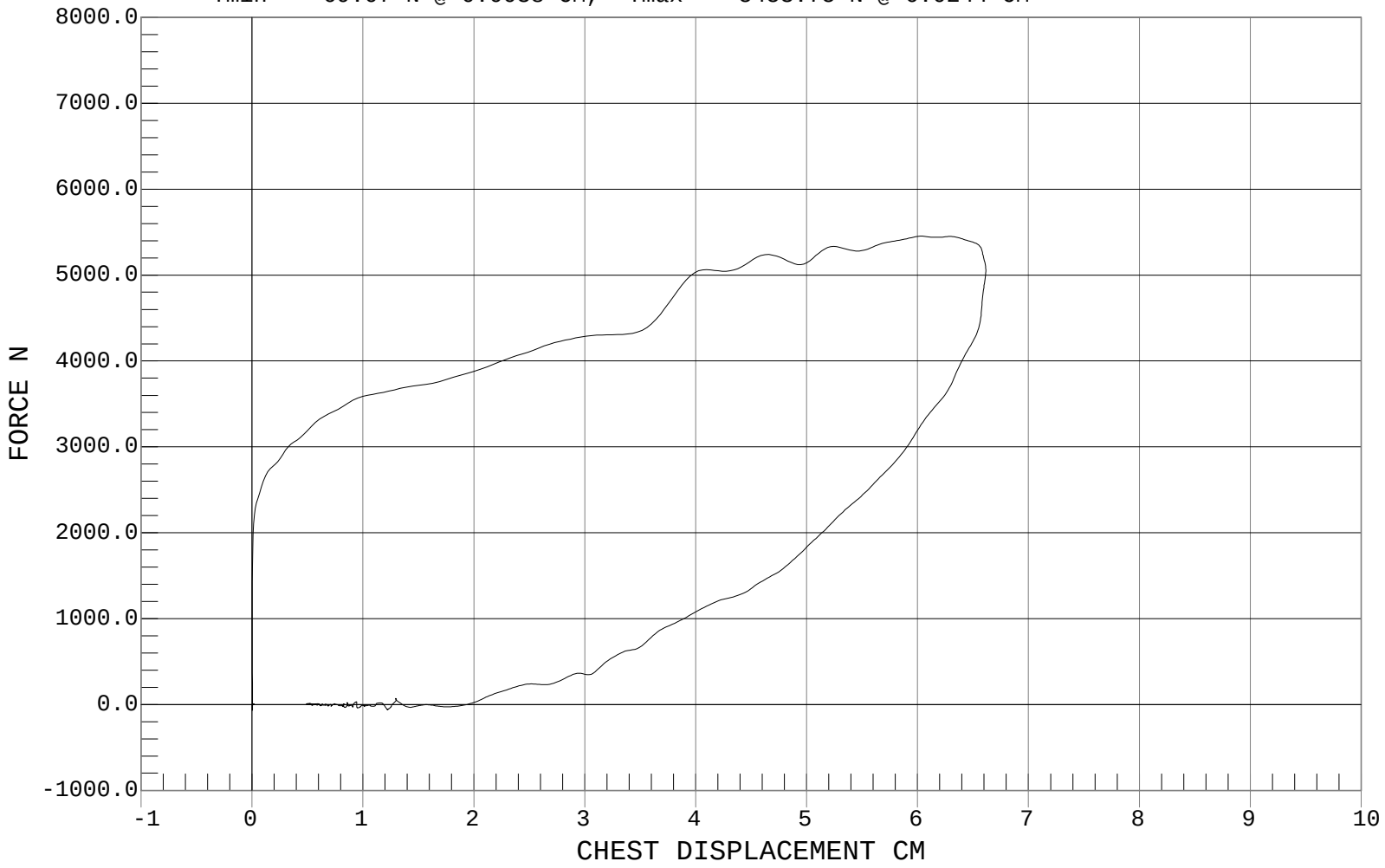
THORAX IMPACT

Test Desc.: Dummy Calibration - Chest Impact
Component: Dummy #142

Test Date: 03-07-01
Speed: 21.79 FT/SEC, 6.64 M/SEC

1 FORCE, D01314CH.FVD

Ymin = -69.07 N @ 0.0038 CM, Ymax = 5453.75 N @ 6.0244 CM



Hybrid III Calibration Data Sheet

50th Percentile Male

Neck Flexion Test

ATD Serial No.: 142 Test I.D.: D01312

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.6	Pass
Laboratory Relative Humidity		%	10 to 70	28	Pass
Pendulum Velocity		m/s	6.89 to 7.13	7.07	Pass
Pendulum Deceleration	10 Msec.	G's	22.50 to 27.50	23.02	Pass
	20 Msec.	G's	17.60 to 22.60	20.79	Pass
	30 Msec.	G's	12.50 to 18.50	16.32	Pass
Peak Pendulum Deceleration After 30 Msec.		G's	≤29.0	16.3	Pass
Deceleration Decay Time to Cross 5 G's		Msec.	34.0 to 42.0	36.4	Pass
Maximum "D" Plane Rotation	Maximum	Degrees	64.0 to 78.0	71.7	Pass
	Time	Msec.	57.0 to 64.0	58.2	Pass
"D" Plane Rotation Decay Time To Zero Crossing		Msec.	113.0 to 128.0	113.1	Pass
Moment About Occipital Condyle	Maximum	N· m	84.1 to 108.5	90.5	Pass
	Time	Msec.	47.0 to 58.0	51.2	Pass
Positive Moment Decay Time To Zero Crossing		Msec.	97.0 to 107.0	97.3	Pass
			Overall Test Results		Pass

Laboratory Technician

3/12/01
Test Date

Approved By

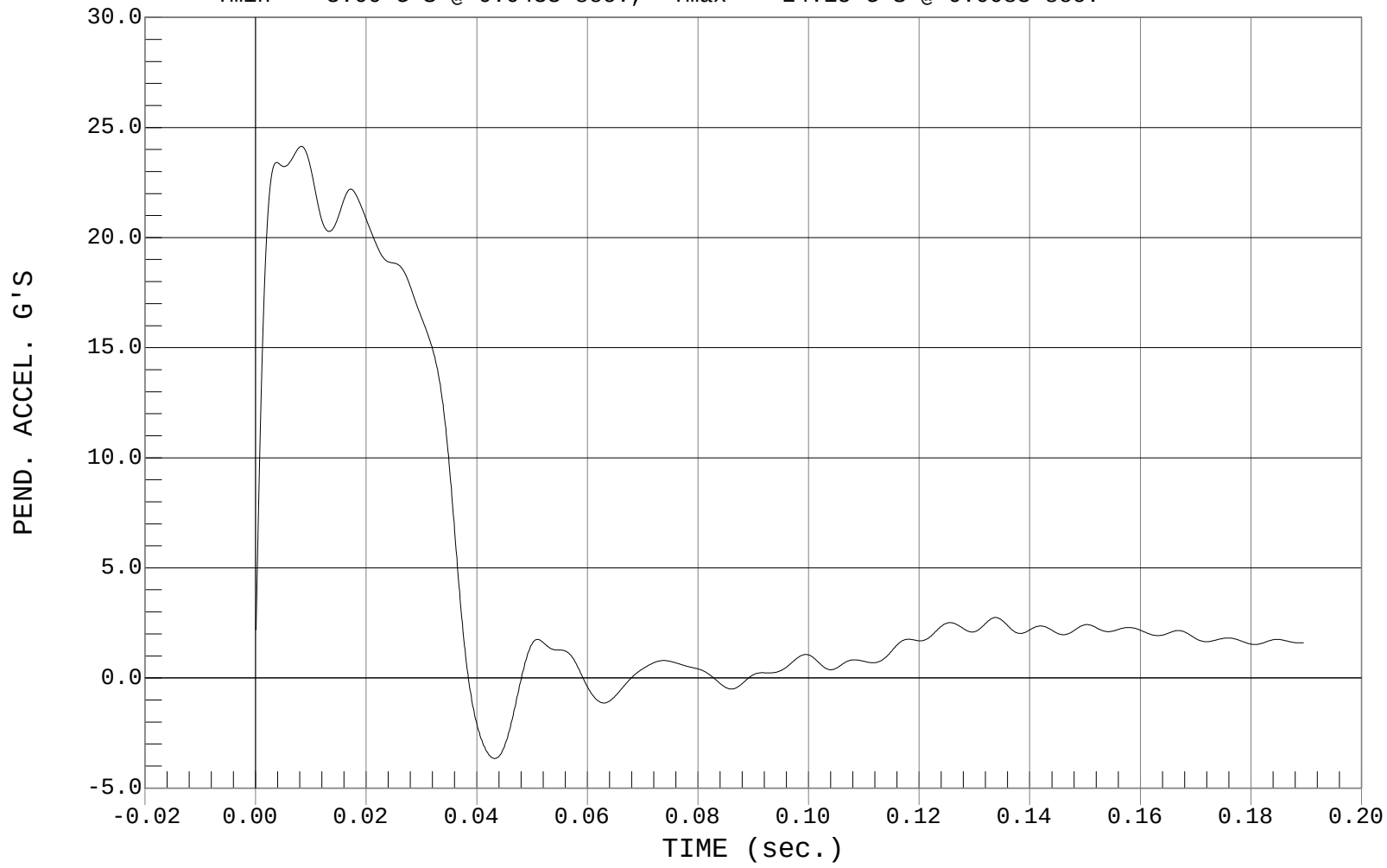
PENDULUM DECELERATION

Test Desc.: Dummy Calibration - Neck Flexion
Component: Dummy #142

Test Date: 03-12-01
Speed: 23.19 FT/SEC, 7.07 M/SEC

1 PEND. ACCEL., D01312AF.A04

Ymin = -3.66 G'S @ 0.0433 sec., Ymax = 24.15 G'S @ 0.0083 sec.



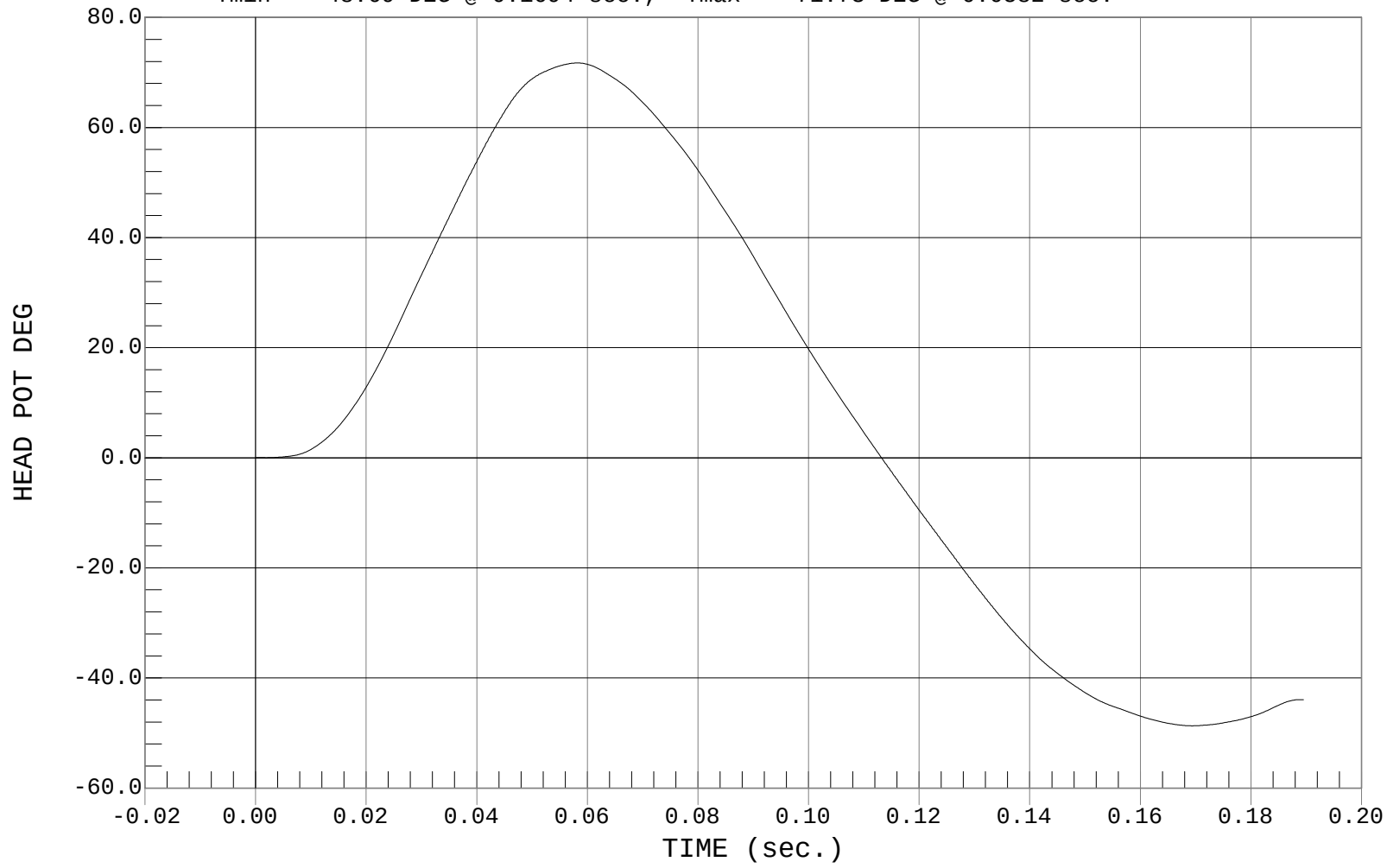
NECK ROTATION

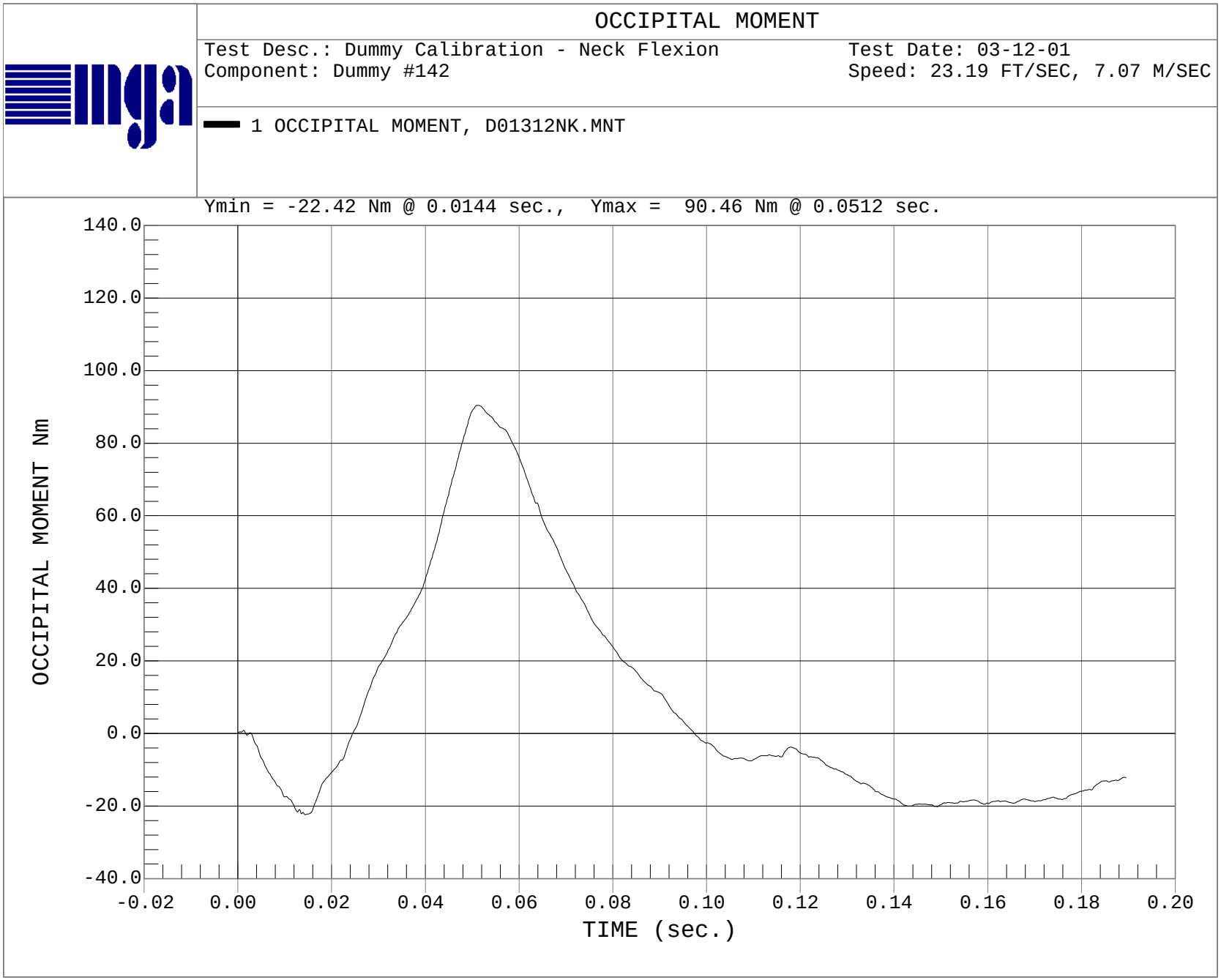
Test Desc.: Dummy Calibration - Neck Flexion
Component: Dummy #142

Test Date: 03-12-01
Speed: 23.19 FT/SEC, 7.07 M/SEC

1 HEAD POT, D01312DU.D05

Ymin = -48.69 DEG @ 0.1694 sec., Ymax = 71.73 DEG @ 0.0582 sec.




OCCIPITAL MOMENT
Test Desc.: Dummy Calibration - Neck Flexion
Test Date: 03-12-01
Component: Dummy #142
Speed: 23.19 FT/SEC, 7.07 M/SEC
1 OCCIPITAL MOMENT, D01312NK.MNT
Ymin = -22.42 Nm @ 0.0144 sec., Ymax = 90.46 Nm @ 0.0512 sec.
OCCIPITAL MOMENT Nm
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
-20.0
-40.0
-0.02
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
0.16
0.18
0.20
TIME (sec.)

Hybrid III Calibration Data Sheet

50th Percentile Male

Neck Extension Test

ATD Serial No.: 142 Test I.D.: D01313

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.6	Pass
Laboratory Relative Humidity		%	10 to 70	28	Pass
Pendulum Velocity		m/s	5.95 to 6.19	6.06	Pass
Pendulum Deceleration	10 Msec.	G's	17.20 to 21.20	19.09	Pass
	20 Msec.	G's	14.00 to 19.00	16.83	Pass
	30 Msec.	G's	11.00 to 16.00	12.73	Pass
Peak Pendulum Deceleration After 30 Msec.		G's	≤22.0	12.7	Pass
Deceleration Decay Time to Cross 5 G's		Msec.	38.0 to 46.0	39.8	Pass
Maximum "D" Plane Rotation	Maximum	Degrees	81.0 to 106.0	95.4	Pass
	Time	Msec.	72.0 to 82.0	73.8	Pass
"D" Plane Rotation Decay Time To Zero Crossing		Msec.	147.0 to 174.0	150.6	Pass
Moment About Occipital Condyle	Minimum	N· m	-52.9 to –79.9	-66.2	Pass
	Time	Msec.	65.0 to 79.0	71.8	Pass
Negative Moment Decay Time To Zero Crossing		Msec.	120.0 to 148.0	134.7	Pass
			Overall Test Results		Pass

Laboratory Technician

3/12/01
Test Date

Approved By

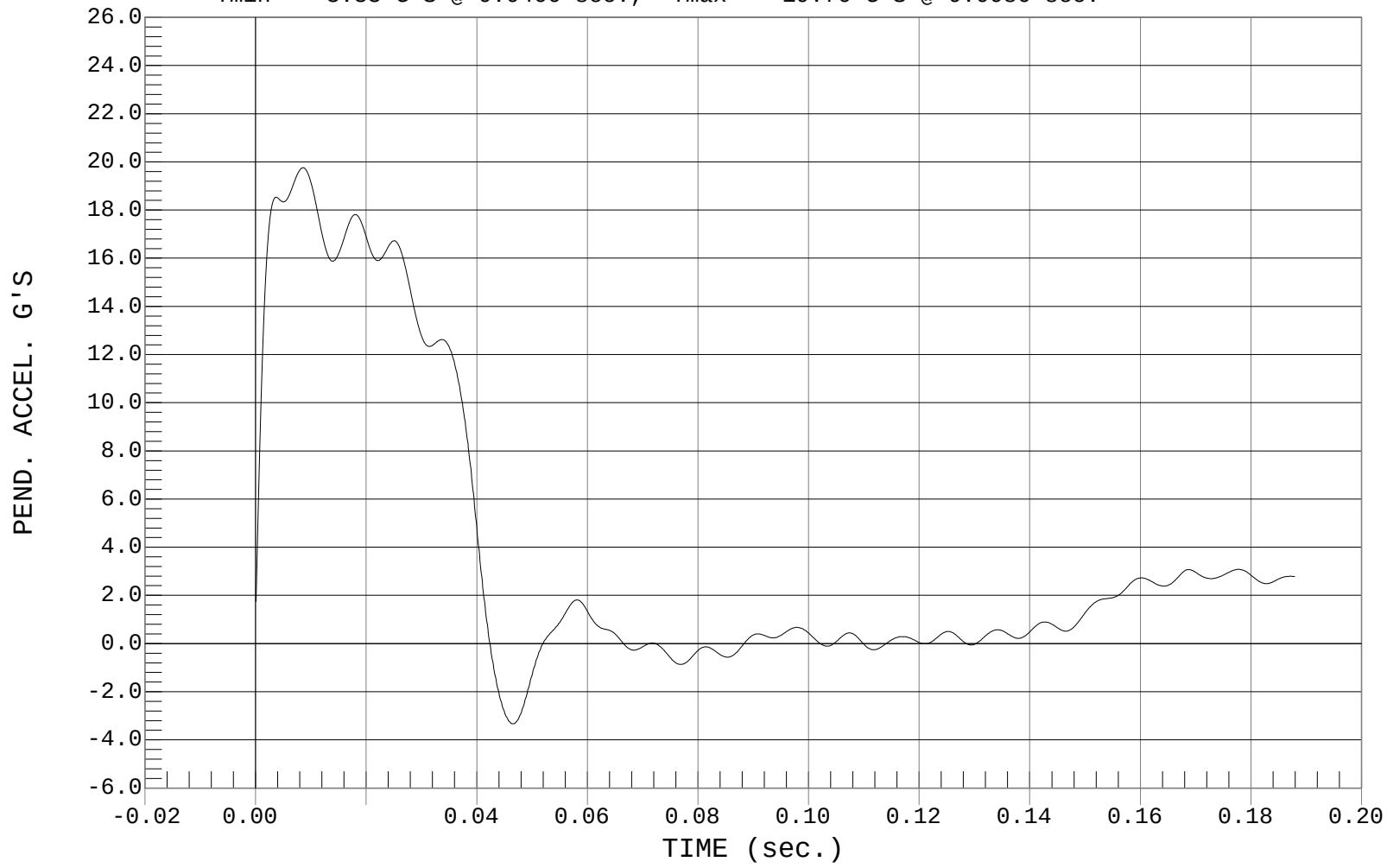
PENDULUM DECELERATION

Test Desc.: Dummy Calibration - Neck Extension
Component: Dummy #142

Test Date: 03-12-01
Speed: 19.89 FT/SEC, 6.06 M/SEC

1 PEND. ACCEL., D01313AF.A04

Ymin = -3.33 G'S @ 0.0466 sec., Ymax = 19.76 G'S @ 0.0086 sec.



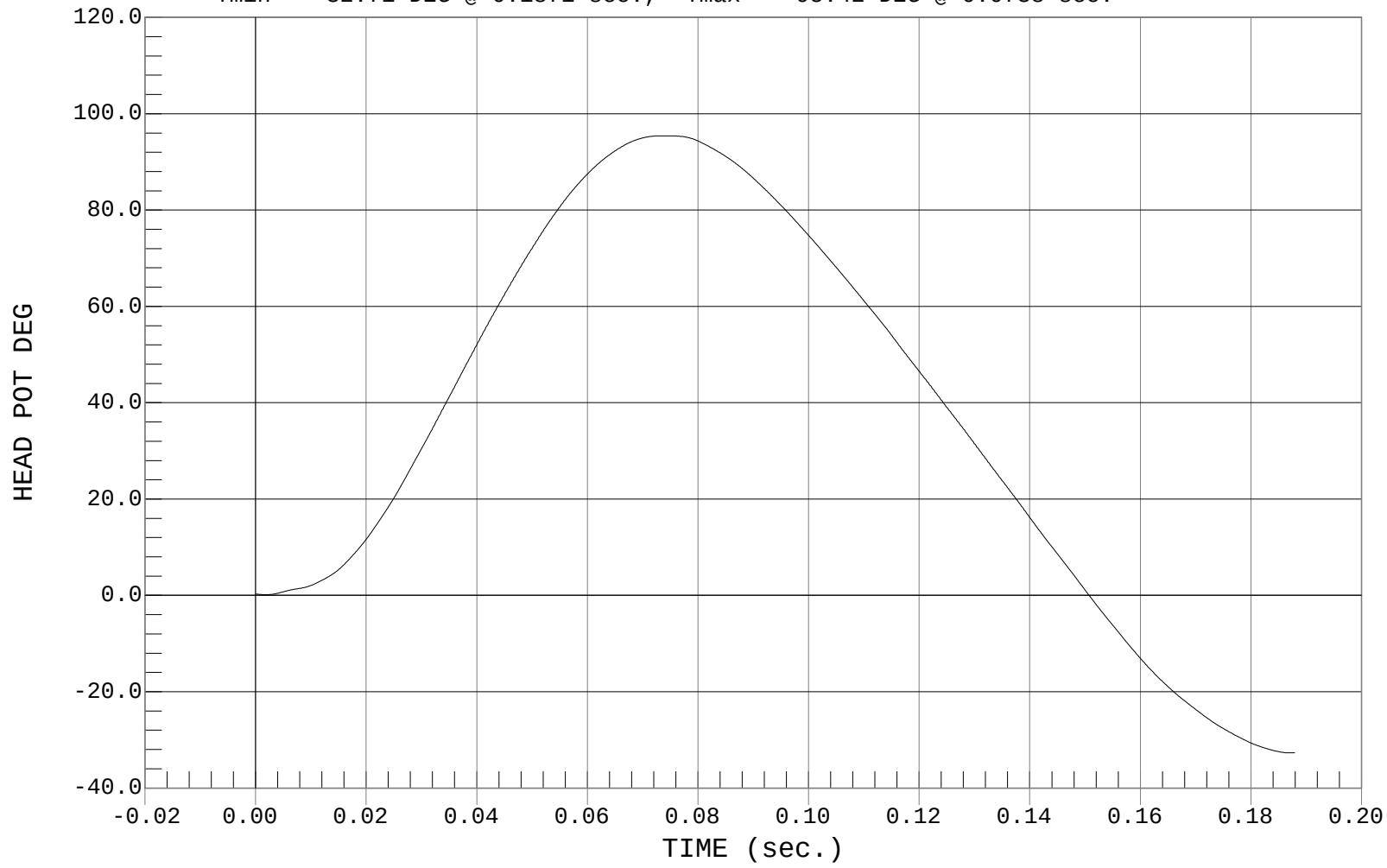
NECK ROTATION

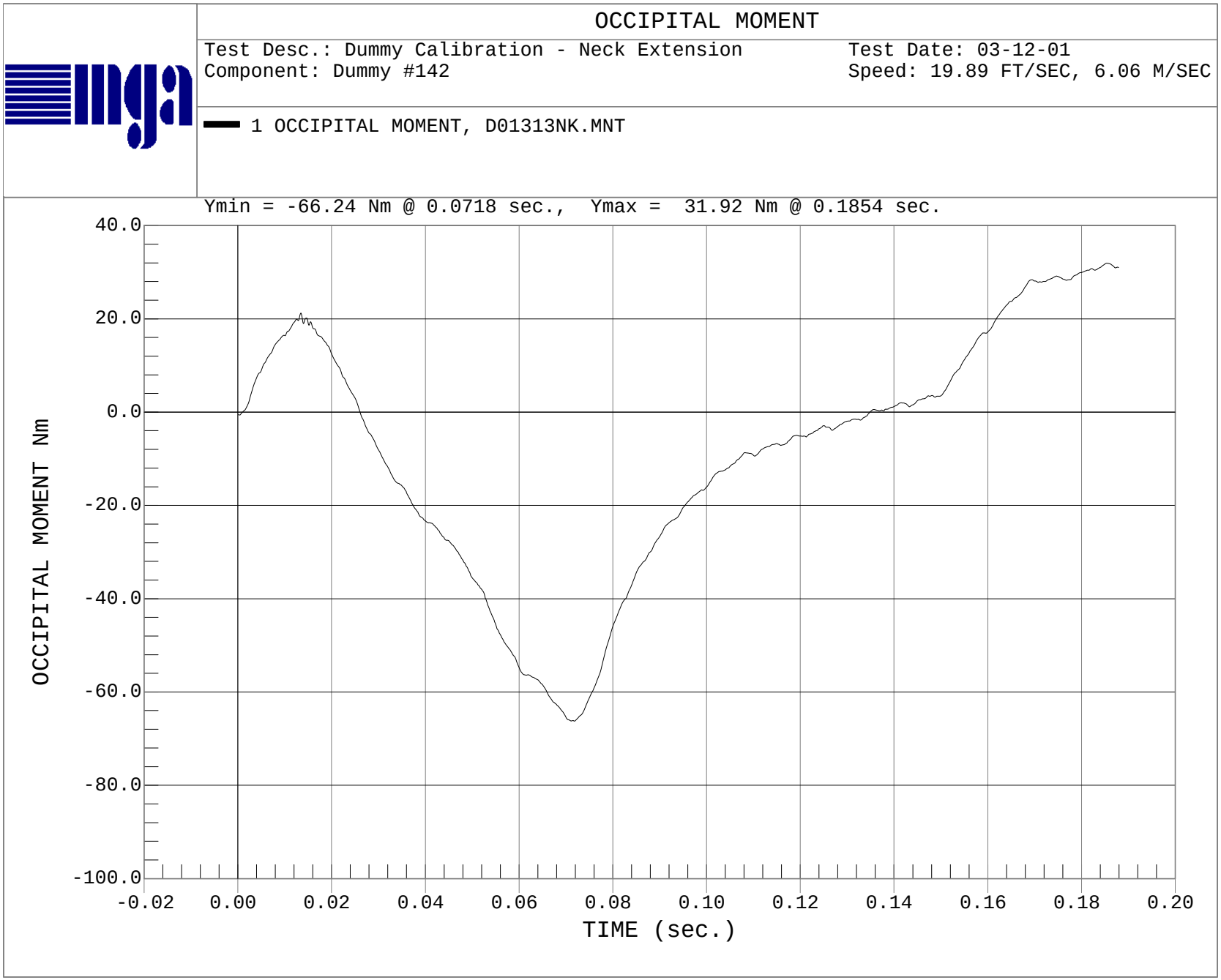
Test Desc.: Dummy Calibration - Neck Extension
Component: Dummy #142

Test Date: 03-12-01
Speed: 19.89 FT/SEC, 6.06 M/SEC

1 HEAD POT, D01313DU.D05

Ymin = -32.71 DEG @ 0.1871 sec., Ymax = 95.42 DEG @ 0.0738 sec.




OCCIPITAL MOMENT
Test Desc.: Dummy Calibration - Neck Extension
Test Date: 03-12-01
Component: Dummy #142
Speed: 19.89 FT/SEC, 6.06 M/SEC
1 OCCIPITAL MOMENT, D01313NK.MNT
Ymin = -66.24 Nm @ 0.0718 sec., Ymax = 31.92 Nm @ 0.1854 sec.
OCCIPITAL MOMENT Nm
40.0
20.0
0.0
-20.0
-40.0
-60.0
-80.0
-100.0
-0.02
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
0.16
0.18
0.20
TIME (sec.)

Hybrid III Calibration Data Sheet

50th Percentile Male

Hip-Femur Flexion Test

ATD Serial No.: 142 Test I.D.: D01319/0

Tested Parameter	Units	Specification	Result		Pass/Fail
			Right	Left	
Temperature	°C	18.9 to 25.6	21.5	21.5	Pass
Relative Humidity	%	10 to 70	31	31	Pass
Rotation Rate	deg/sec	5 – 10	Yes	Yes	Pass
30 Degrees	Nm	94.9 Nm Max.	70.3	68.0	Pass
150 ft-lbf / 203.4 Nm	Deg	40 – 50 Degree Max. rotation	46	44	Pass
		Overall Test Results			Pass

Laboratory Technician

3/12/01
Test Date

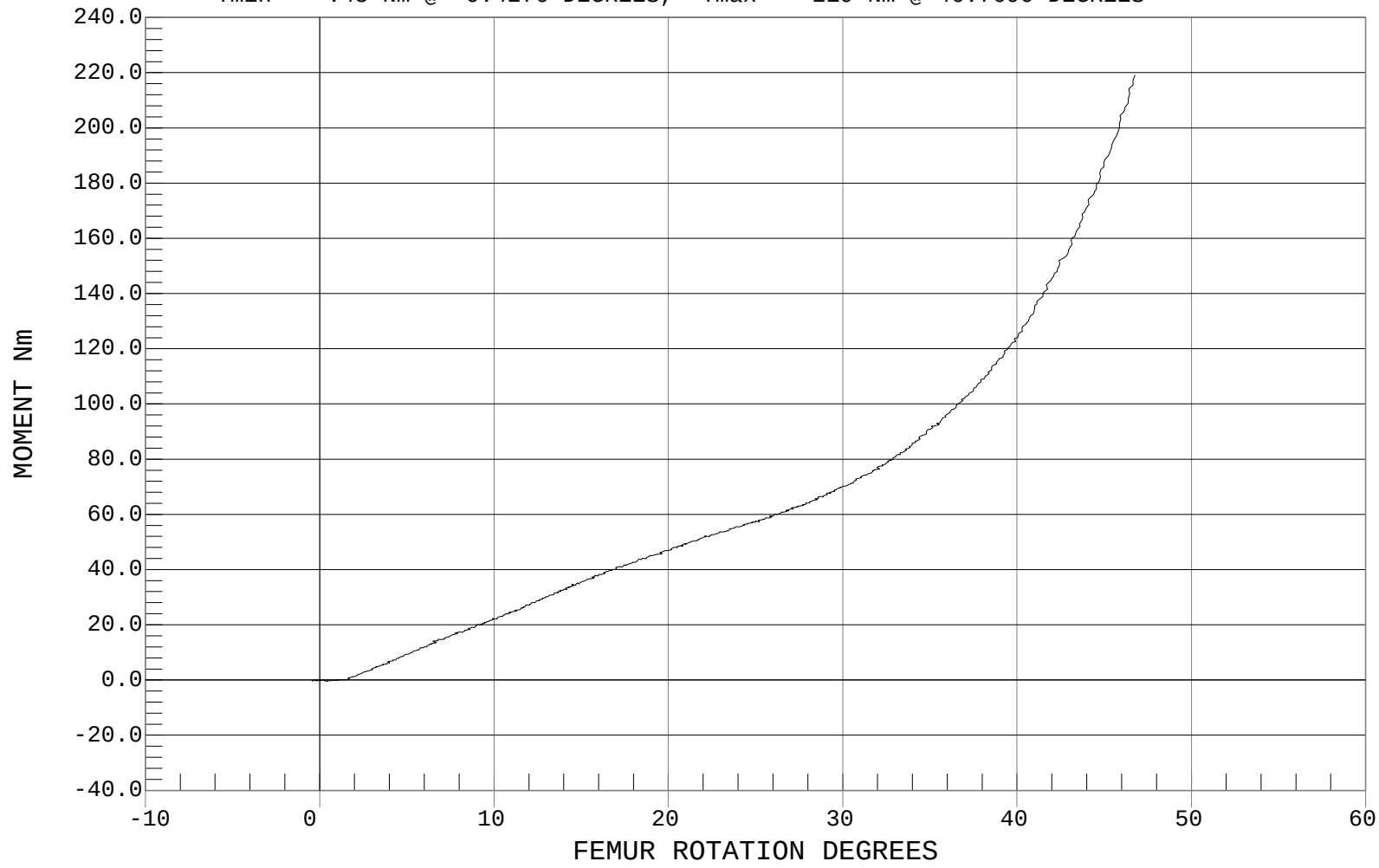
Approved By

HIP-FEMUR FLEXION

Test Desc.: DUMMY CALIBRATION - HIP-FEMUR FLEXION
Test Date: 03-12-01
Component: DUMMY # 142 RIGHT FEMUR
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 MOMENT, D01319FC.F14

Ymin = -.45 Nm @ -0.4276 DEGREES, Ymax = 219 Nm @ 46.7690 DEGREES

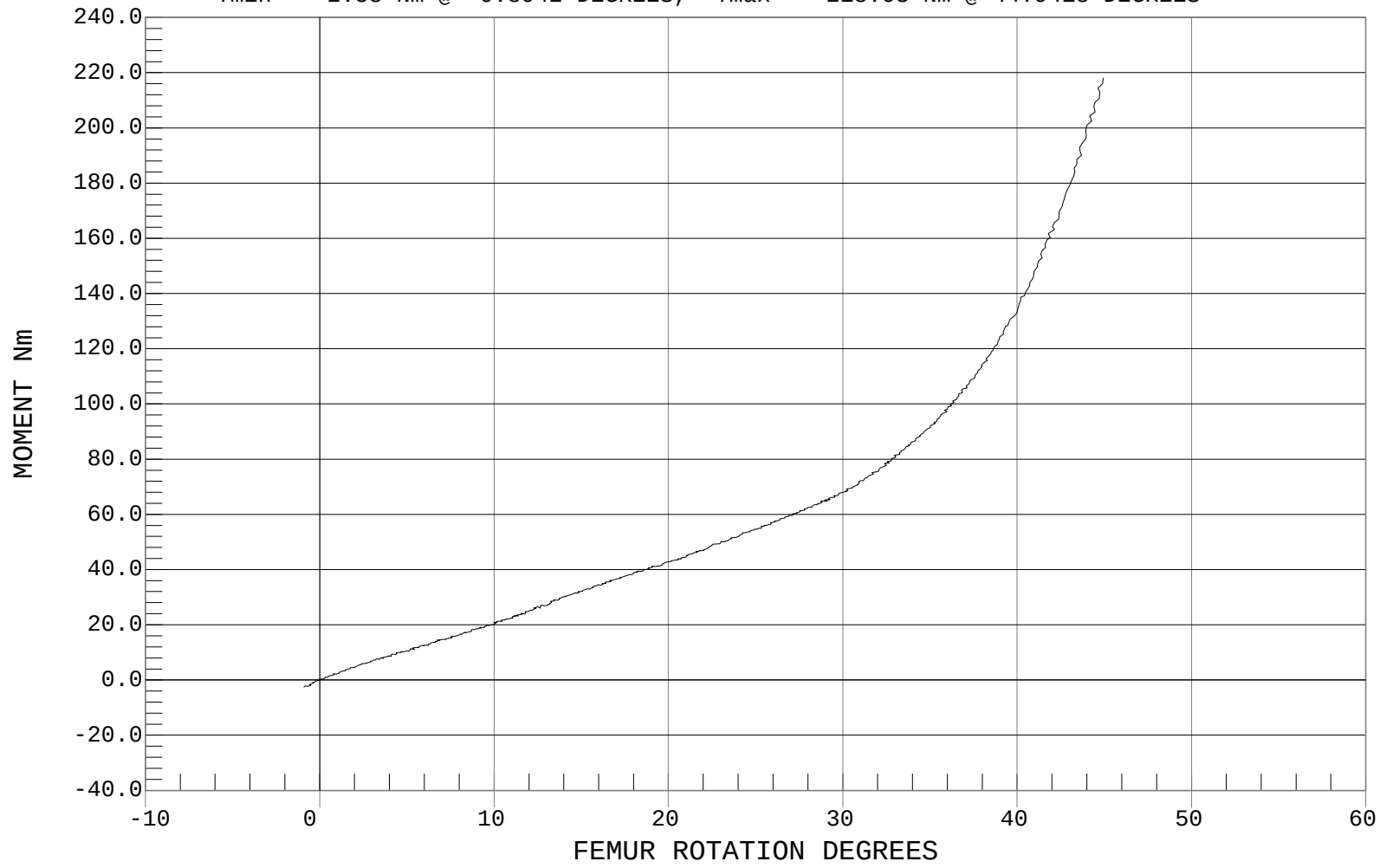


HIP-FEMUR FLEXION

Test Desc.: DUMMY CALIBRATION - HIP-FEMUR FLEXION
Test Date: 03-12-01
Component: DUMMY # 142 LEFT FEMUR
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 MOMENT, D01310FC.F14

Ymin = -2.58 Nm @ -0.8942 DEGREES, Ymax = 218.03 Nm @ 44.9418 DEGREES



Hybrid III Calibration Data Sheet

50th Percentile Male

External Measurements

ATD Serial No.: 142 Test I.D.: D0131

External Measurement Data				
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.4 to 22.1	21.5	Pass
Laboratory Relative Humidity	%	10 to 70	25	Pass
A – Total sitting height	mm	879 to 889	884	Pass
B – Shoulder pivot height	mm	506 to 521	514	Pass
C – "H" point height	mm	84 to 89	86	Pass
D – "H" point from seat back	mm	135 to 140	138	Pass
E – Shoulder pivot from back	mm	84 to 94	88	Pass
F – Thigh clearance	mm	140 to 155	144	Pass
G – Elbow back to wrist pivot	mm	290 to 305	296	Pass
H – Skull cap to back line	mm	41 to 46	44	Pass
I – Shoulder to elbow length	mm	330 to 345	339	Pass
J – Elbow rest height	mm	191 to 211	198	Pass
K – Buttock to knee length	mm	579 to 605	585	Pass
L – Popliteal length	mm	429 to 455	444	Pass
M – Knee pivot height	mm	485 to 500	492	Pass
N – Buttock popliteal length	mm	452 to 478	462	Pass
O – Chest depth	mm	213 to 229	219	Pass
P – Foot breadth	mm	252 to 267	261	Pass
V – Shoulder breadth	mm	422 to 437	432	Pass
W – Foot length	mm	91 to 107	102	Pass
Y – Chest circumference	mm	970 to 1001	990	Pass
Z – Waist circumference	mm	836 to 866	852	Pass
AA – Location for chest circumference	mm	429 to 434	432	Pass
BB – Location for waist circumference	mm	226 to 231	229	Pass
		Overall Test Results		Pass

3/12/01

Laboratory Technician

Test Date

Approved By

Hybrid III Calibration Data Sheet

50th Percentile Male

Left Knee Impact Test

ATD Serial No.: 192 Test I.D.: D01326

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.3	Pass
Laboratory Relative Humidity	%	10 to 70	26	Pass
Probe Velocity	m/s	2.07 to 2.13	2.09	Pass
Peak Probe Force	Newtons	4715 to 5782	5272	Pass
		Overall Test Results		Pass

Laboratory Technician

3/7/01
Test Date

Approved By

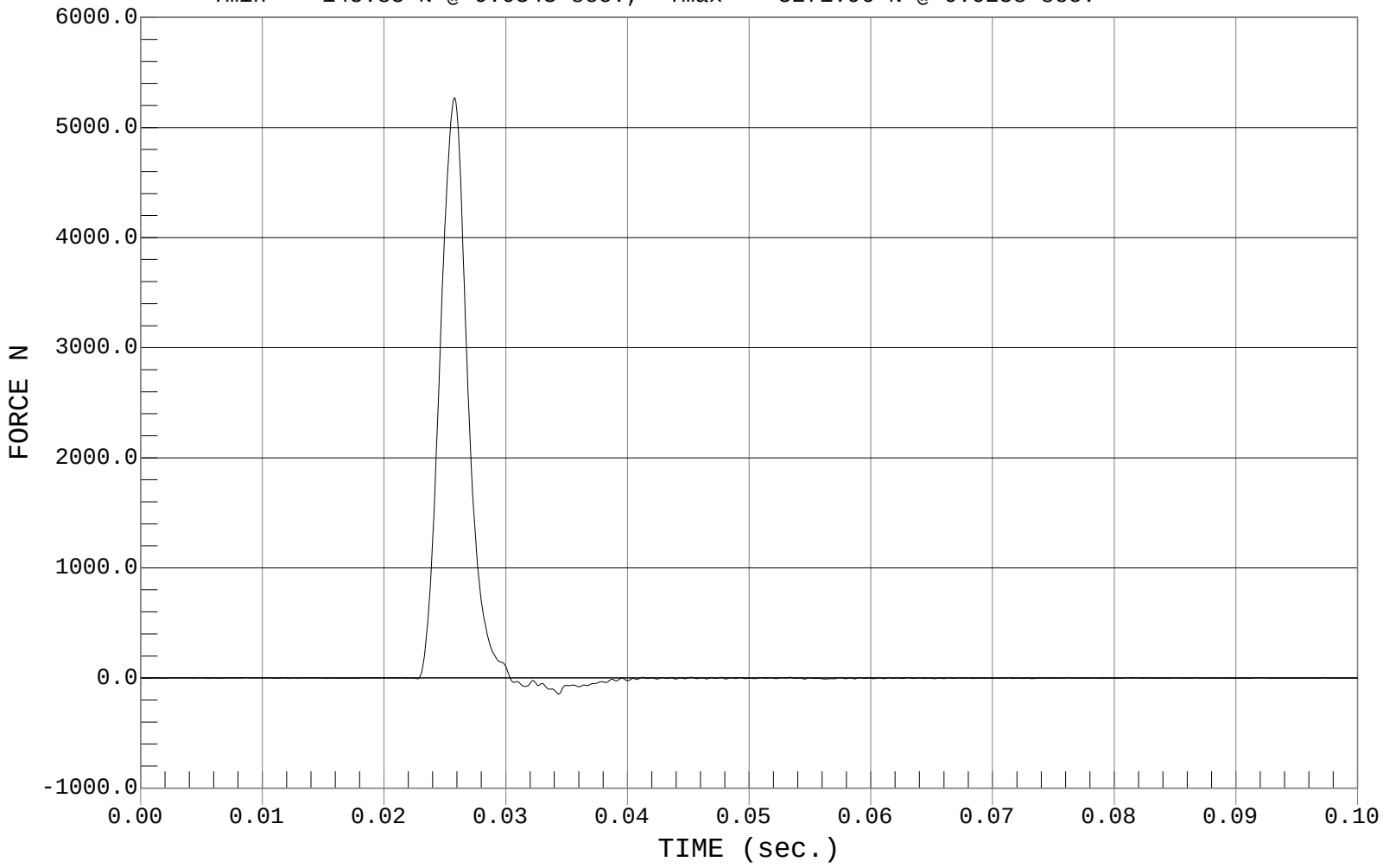
LEFT KNEE IMPACT

Test Desc.: Dummy Calibration - Left Knee Impact
Component: Dummy #192

Test Date: 03-07-01
Speed: 6.87 FT/SEC, 2.09 M/SEC

1 FORCE, D01326FF.F09

Ymin = -145.85 N @ 0.0343 sec., Ymax = 5271.96 N @ 0.0258 sec.



Hybrid III Calibration Data Sheet

50th Percentile Male

Right Knee Impact Test

ATD Serial No.: 192 Test I.D.: D01325

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.3	Pass
Laboratory Relative Humidity	%	10 to 70	25	Pass
Probe Velocity	m/s	2.07 to 2.13	2.10	Pass
Peak Probe Force	Newtons	4715 to 5782	5207	Pass
		Overall Test Results		Pass

Laboratory Technician

3/7/01
Test Date

Approved By

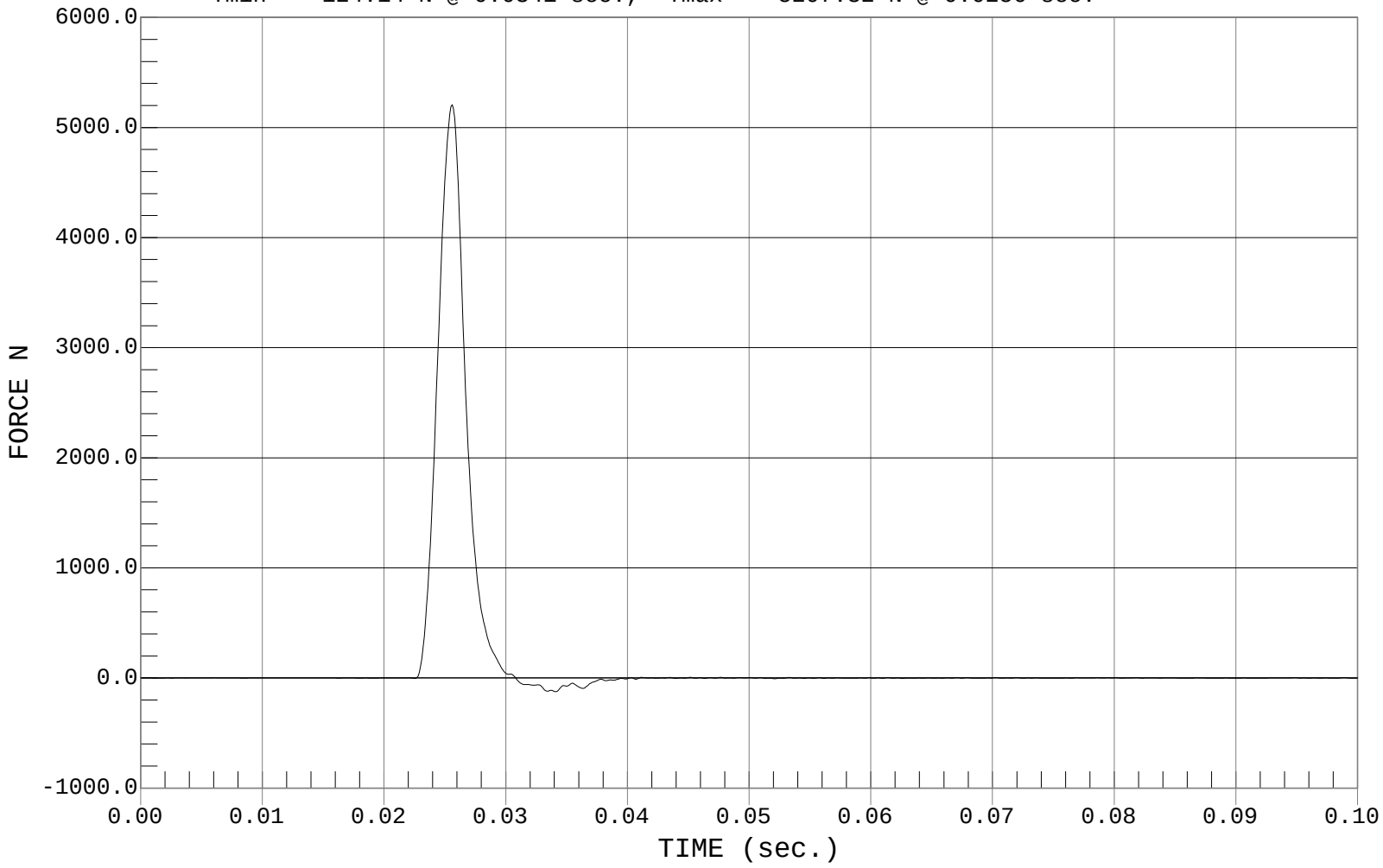
RIGHT KNEE IMPACT

Test Desc.: Dummy Calibration - Right Knee Impact
Component: Dummy #192

Test Date: 03-07-01
Speed: 6.88 FT/SEC, 2.10 M/SEC

1 FORCE, D01325FF.F09

Ymin = -124.14 N @ 0.0341 sec., Ymax = 5207.32 N @ 0.0256 sec.



Hybrid III Calibration Data Sheet

50th Percentile Male

Head Drop Calibration

ATD Serial No.: 192 Test I.D.: D01321

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.5	Pass
Laboratory Relative Humidity	%	10 to 70	25	Pass
Peak Resultant Acceleration	G's	225.0 to 275.0	242.6	Pass
Peak Probe Force	G's	≤ ±15.0	-4.9	Pass
Is Acceleration Unimodal?	Yes/No	< 10% Peak	Yes	Pass
		Overall Test Results		Pass

3/12/01

Laboratory Technician

Test Date

Approved By

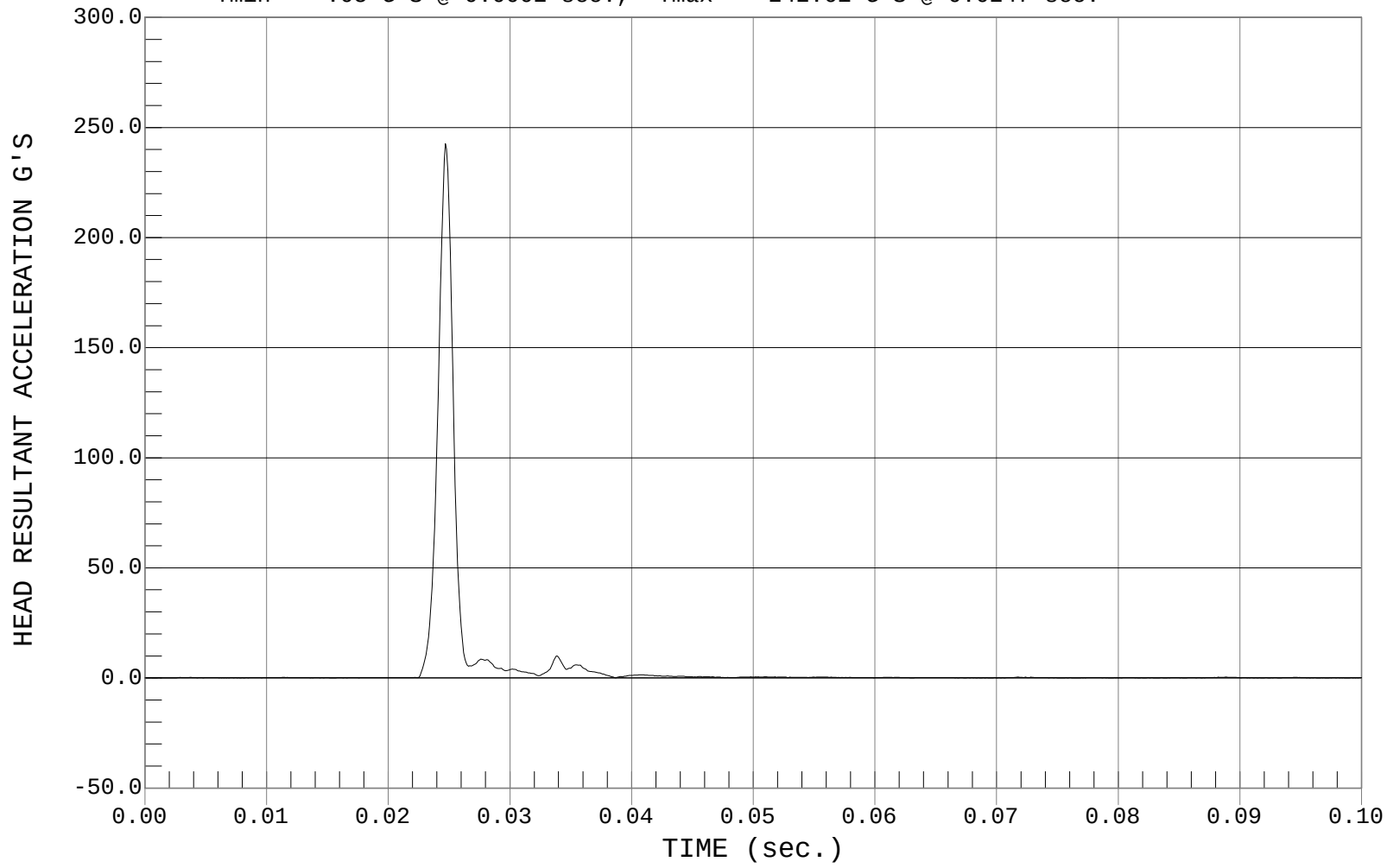
PEAK RESULTANT ACCELERATION

Test Desc.: Dummy Calibration - Head Drop
Component: Dummy #192

Test Date: 03-12-01
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 HEAD RSULTANT ACCELERATION, D01321AV.A01

Ymin = .05 G'S @ 0.0002 sec., Ymax = 242.61 G'S @ 0.0247 sec.



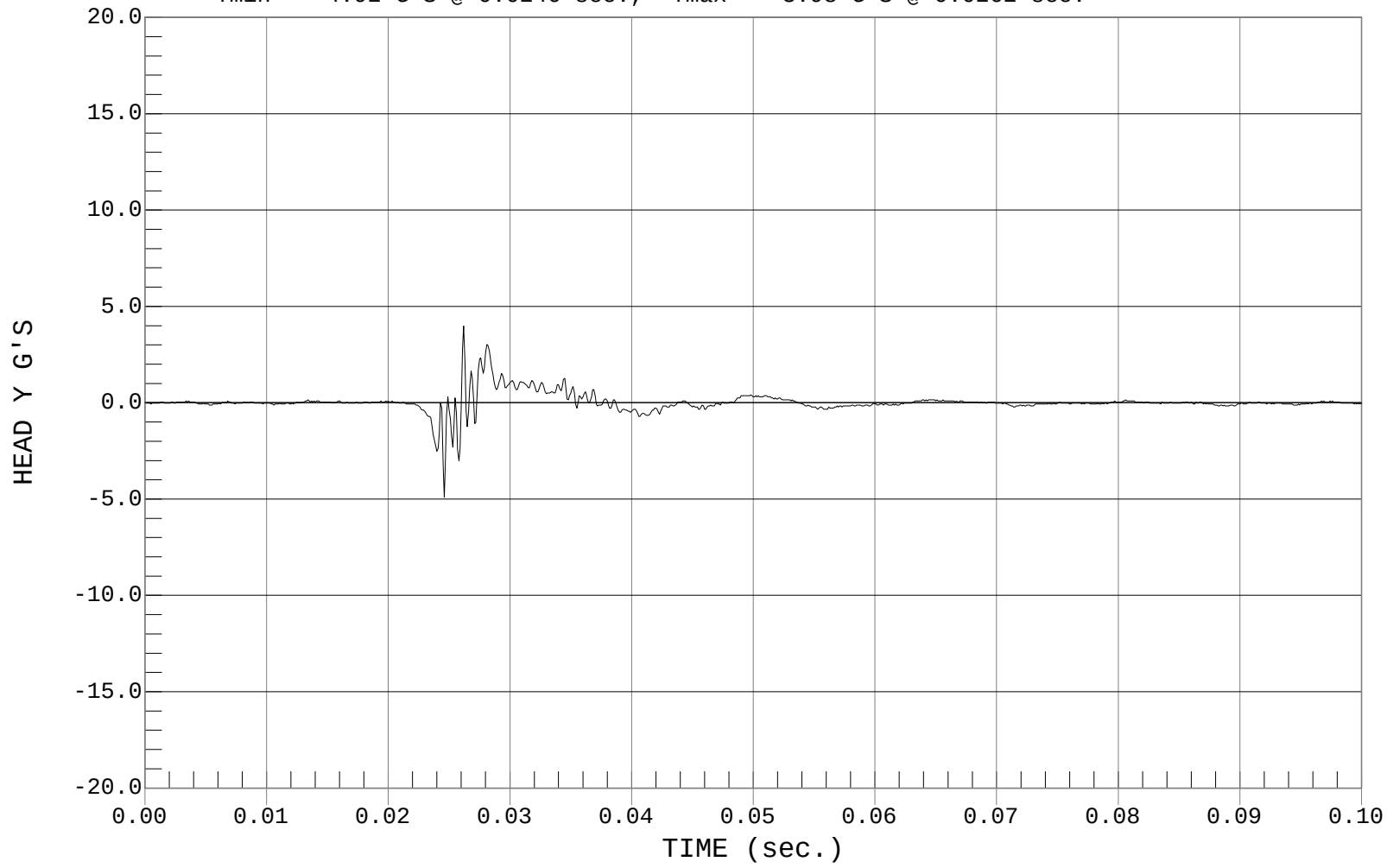
PEAK LATERAL ACCELRATION

Test Desc.: Dummy Calibration - Head Drop
Component: Dummy #192

Test Date: 03-12-01
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 HEAD Y, D01321AR.A02

Ymin = -4.92 G'S @ 0.0246 sec., Ymax = 3.98 G'S @ 0.0262 sec.



Hybrid III Calibration Data Sheet

50th Percentile Male

Thorax Impact Test

ATD Serial No.: 192 Test I.D.: D01324

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.3	Pass
Laboratory Relative Humidity	%	10 to 70	26	Pass
Probe Velocity	m/s	6.58 to 6.82	6.67	Pass
Peak Probe Force	Newtons	5159 to 5893	5469	Pass
Peak Sternum Displacement	CM	6.35 to 7.26	6.88	Pass
Internal Hysteresis	%	69 to 85	75	Pass
		Overall Test Results		Pass

Laboratory Technician

3/7/01
Test Date

Approved By

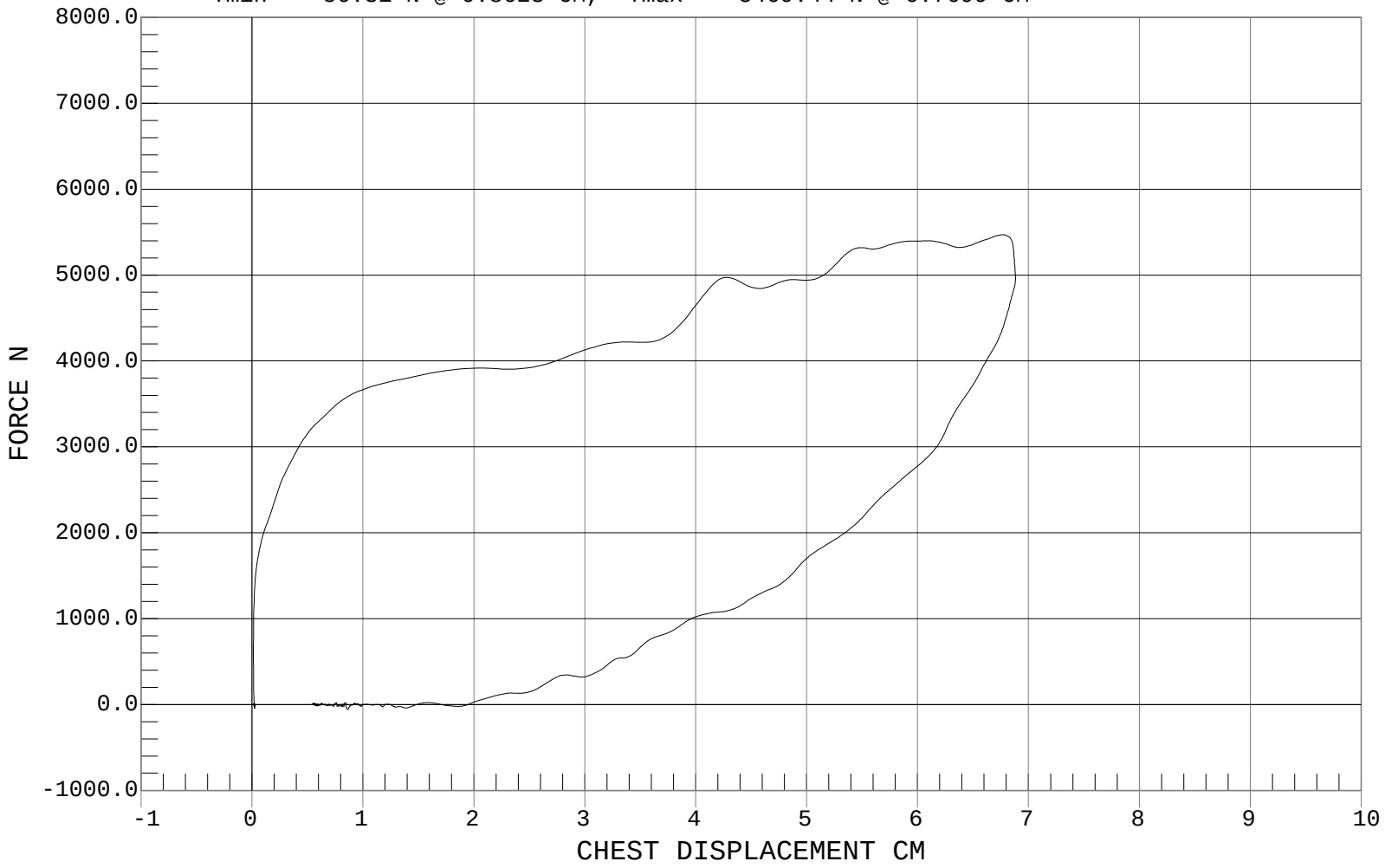
THORAX IMPACT

Test Desc.: Dummy Calibration - Chest Impact
Component: Dummy #192

Test Date: 03-07-01
Speed: 21.89 FT/SEC, 6.67 M/SEC

1 FORCE, D01324CH.FVD

Ymin = -56.31 N @ 0.8623 CM, Ymax = 5469.44 N @ 6.7699 CM



Hybrid III Calibration Data Sheet

50th Percentile Male

Neck Flexion Test

ATD Serial No.: 192 Test I.D.: D01322

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.7	Pass
Laboratory Relative Humidity		%	10 to 70	29	Pass
Pendulum Velocity		m/s	6.89 to 7.13	7.05	Pass
Pendulum Deceleration	10 Msec.	G's	22.50 to 27.50	23.26	Pass
	20 Msec.	G's	17.60 to 22.60	20.09	Pass
	30 Msec.	G's	12.50 to 18.50	15.95	Pass
Peak Pendulum Decel. After 30 Msec.		G's	≤29.0	16.0	Pass
Deceleration Decay, Time to Cross 5 G's		Msec.	34.0 to 42.0	37.2	Pass
Maximum "D" Plane Rotation	Maximum	Degrees	64.0 to 78.0	73.0	Pass
	Time	Msec.	57.0 to 64.0	57.3	Pass
"D" Plane Rotation Decay Time To Zero Crossing		Msec.	113.0 to 128.0	113.8	Pass
Moment About Occipital Condyle	Maximum	N· m	84.1 to 108.5	92.7	Pass
	Time	Msec.	47.0 to 58.0	50.9	Pass
Positive Moment Decay Time To Zero Crossing		Msec.	97.0 to 107.0	97.0	Pass
			Overall Test Results		Pass

Laboratory Technician

3/12/01
Test Date

Approved By

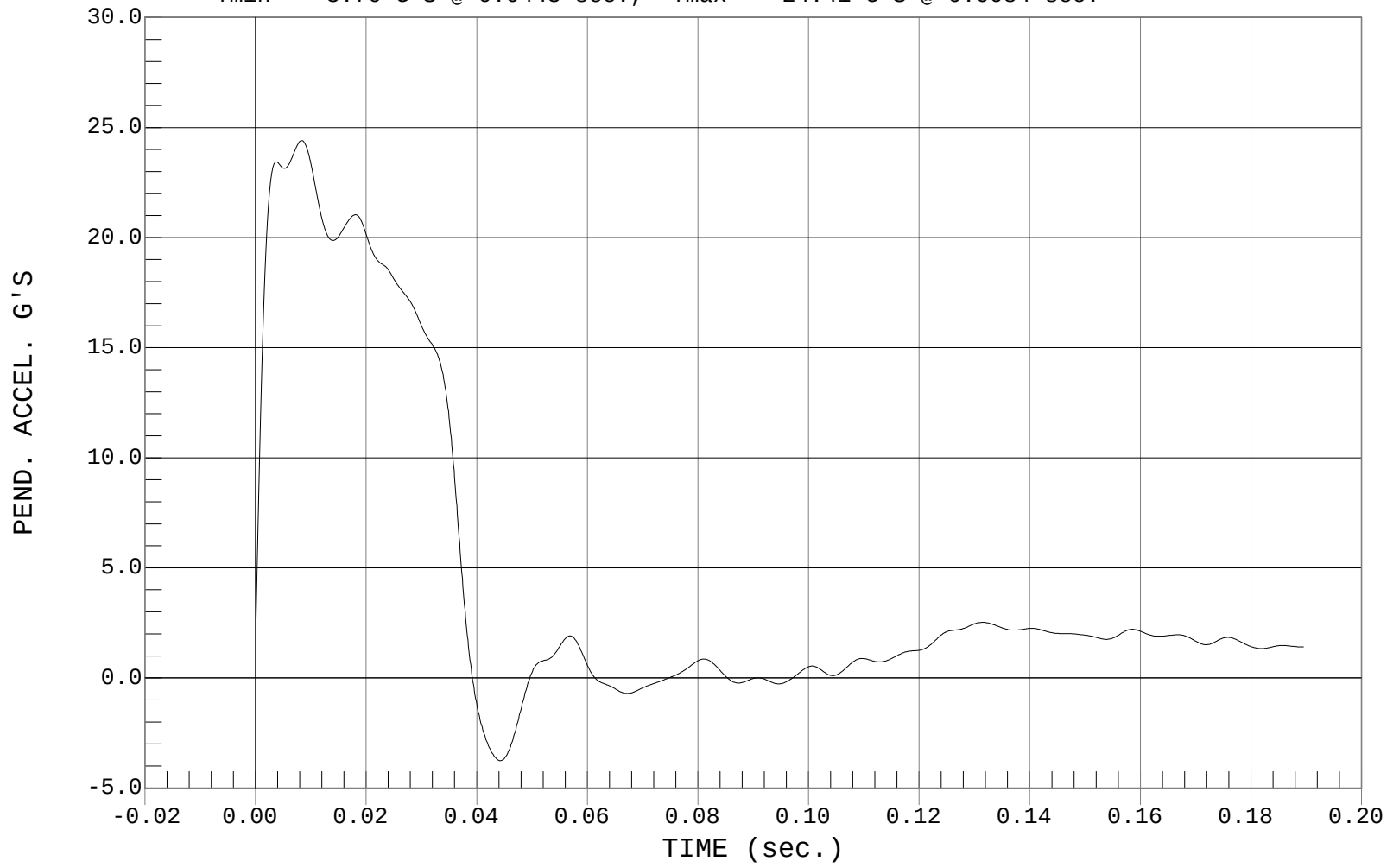
PENDULUM DECELERATION

Test Desc.: Dummy Calibration - Neck Flexion
Component: Dummy #192

Test Date: 03-12-01
Speed: 23.12 FT/SEC, 7.05 M/SEC

1 PEND. ACCEL., D01322AF.A04

Ymin = -3.76 G'S @ 0.0443 sec., Ymax = 24.41 G'S @ 0.0084 sec.



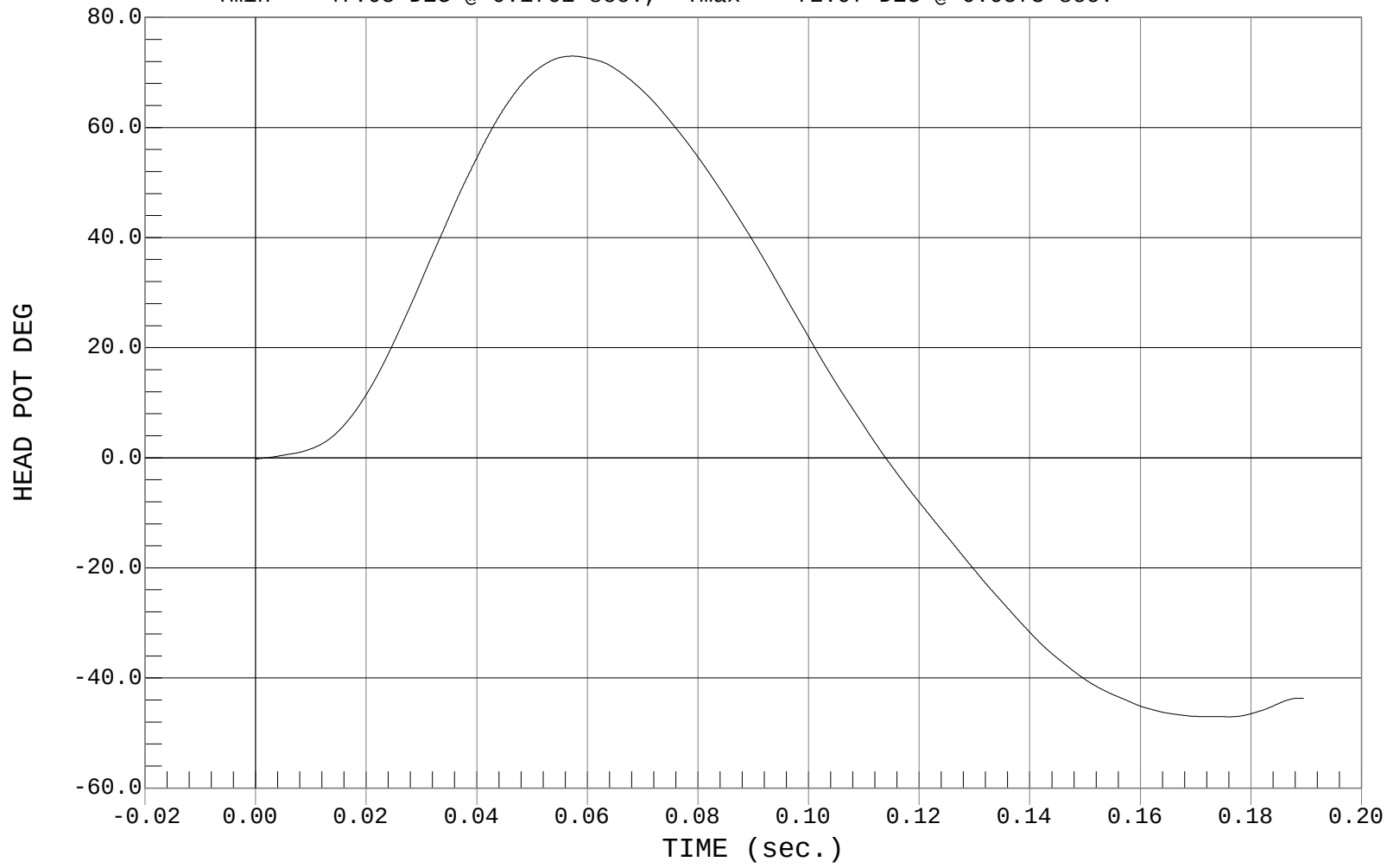
NECK ROTATION

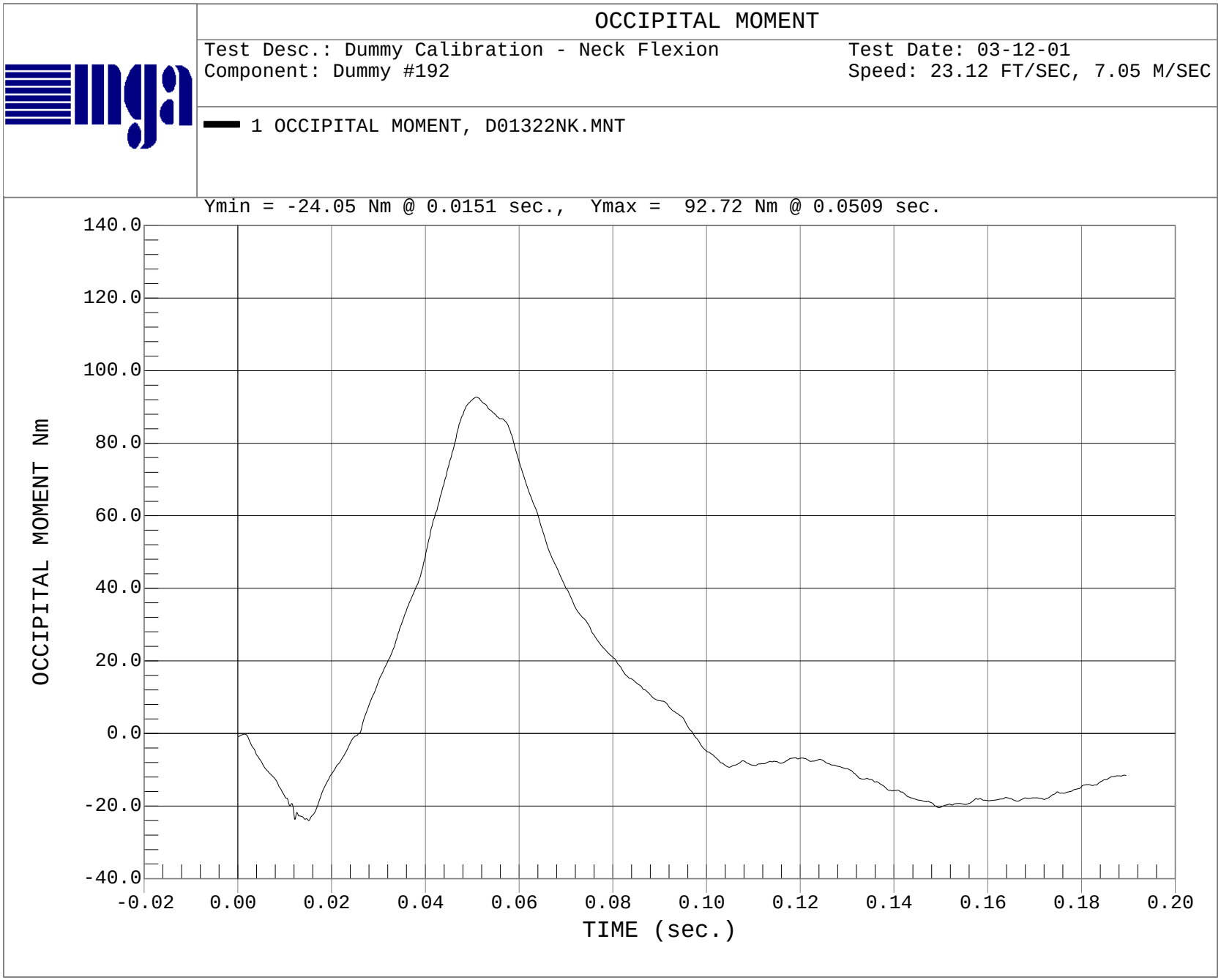
Test Desc.: Dummy Calibration - Neck Flexion
Component: Dummy #192

Test Date: 03-12-01
Speed: 23.12 FT/SEC, 7.05 M/SEC

1 HEAD POT, D01322DU.D05

Ymin = -47.05 DEG @ 0.1761 sec., Ymax = 72.97 DEG @ 0.0573 sec.




OCCIPITAL MOMENT
Test Desc.: Dummy Calibration - Neck Flexion
Test Date: 03-12-01
Component: Dummy #192
Speed: 23.12 FT/SEC, 7.05 M/SEC
1 OCCIPITAL MOMENT, D01322NK.MNT
Ymin = -24.05 Nm @ 0.0151 sec., Ymax = 92.72 Nm @ 0.0509 sec.
OCCIPITAL MOMENT Nm
140.0
120.0
100.0
80.0
60.0
40.0
20.0
0.0
-20.0
-40.0
-0.02
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
0.16
0.18
0.20
TIME (sec.)

Hybrid III Calibration Data Sheet

50th Percentile Male

Neck Extension Test

ATD Serial No.: 192 Test I.D.: D01323

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.7	Pass
Laboratory Relative Humidity		%	10 to 70	29	Pass
Pendulum Velocity		m/s	5.95 to 6.19	6.1	Pass
Pendulum Deceleration	10 Msec.	G's	17.20 to 21.20	18.14	Pass
	20 Msec.	G's	14.00 to 19.00	16.43	Pass
	30 Msec.	G's	11.00 to 16.00	13.69	Pass
Peak Pendulum Deceleration After 30 Msec.		G's	≤22.0	13.7	Pass
Deceleration Decay Time to Cross 5 G's		Msec.	38.0 to 46.0	40.4	Pass
Maximum "D" Plane Rotation	Maximum	Degrees	81.0 to 106.0	95.7	Pass
	Time	Msec.	72.0 to 82.0	77.3	Pass
"D" Plane Rotation Decay Time To Zero Crossing		Msec.	147.0 to 174.0	157.4	Pass
Moment About Occipital Condyle	Minimum	N· m	-52.9 to –79.9	-59.0	Pass
	Time	Msec.	65.0 to 79.0	74.3	Pass
Negative Moment Decay Time To Zero Crossing		Msec.	120.0 to 148.0	137.6	Pass
			Overall Test Results		Pass

Laboratory Technician

3/12/01
Test Date

Approved By

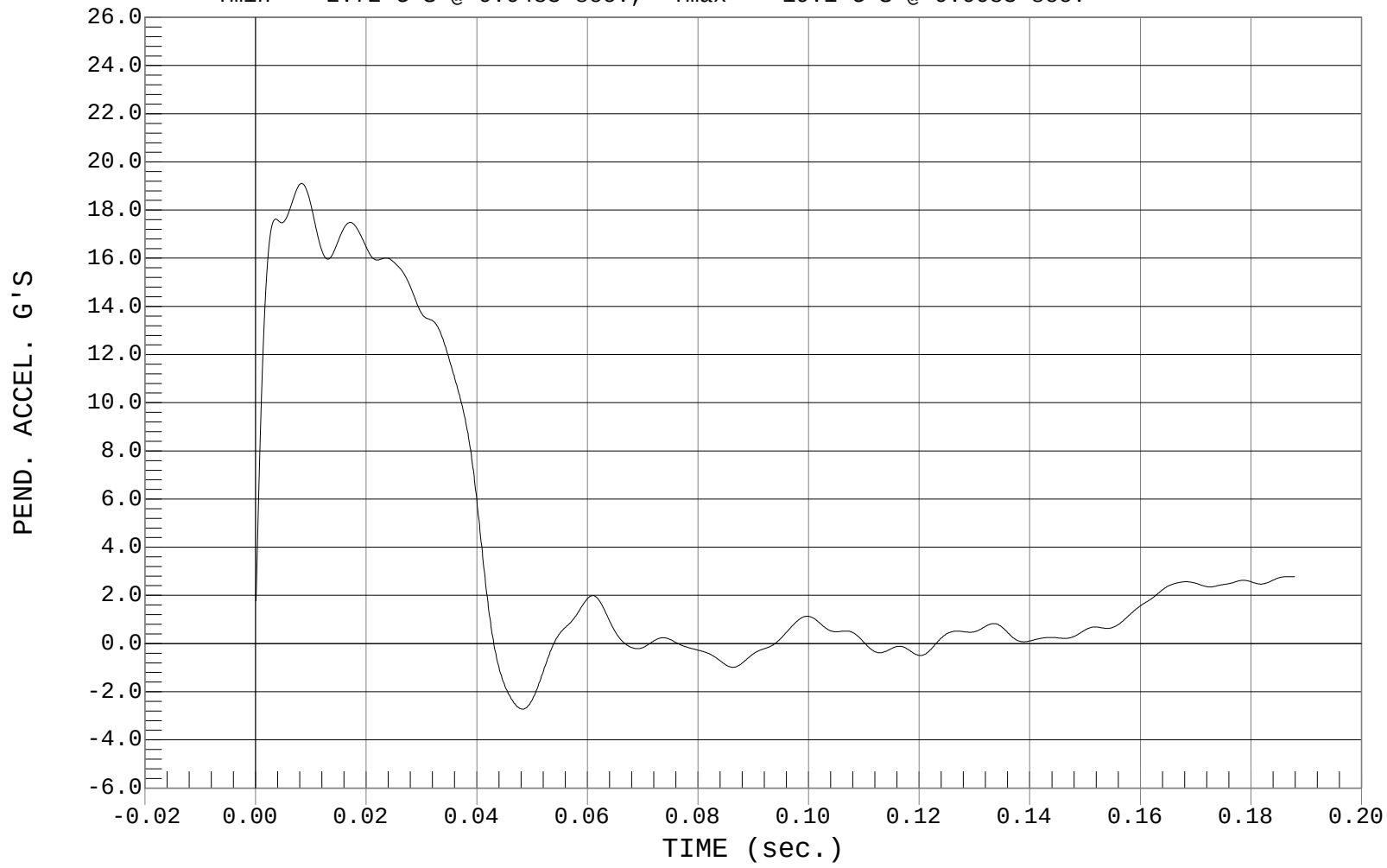
PENDULUM DECELERATION

Test Desc.: Dummy Calibration - Neck Extension
Component: Dummy #192

Test Date: 03-12-01
Speed: 20.05 FT/SEC, 6.11 M/SEC

1 PEND. ACCEL., D01323AF.A04

Ymin = -2.72 G'S @ 0.0483 sec., Ymax = 19.1 G'S @ 0.0083 sec.



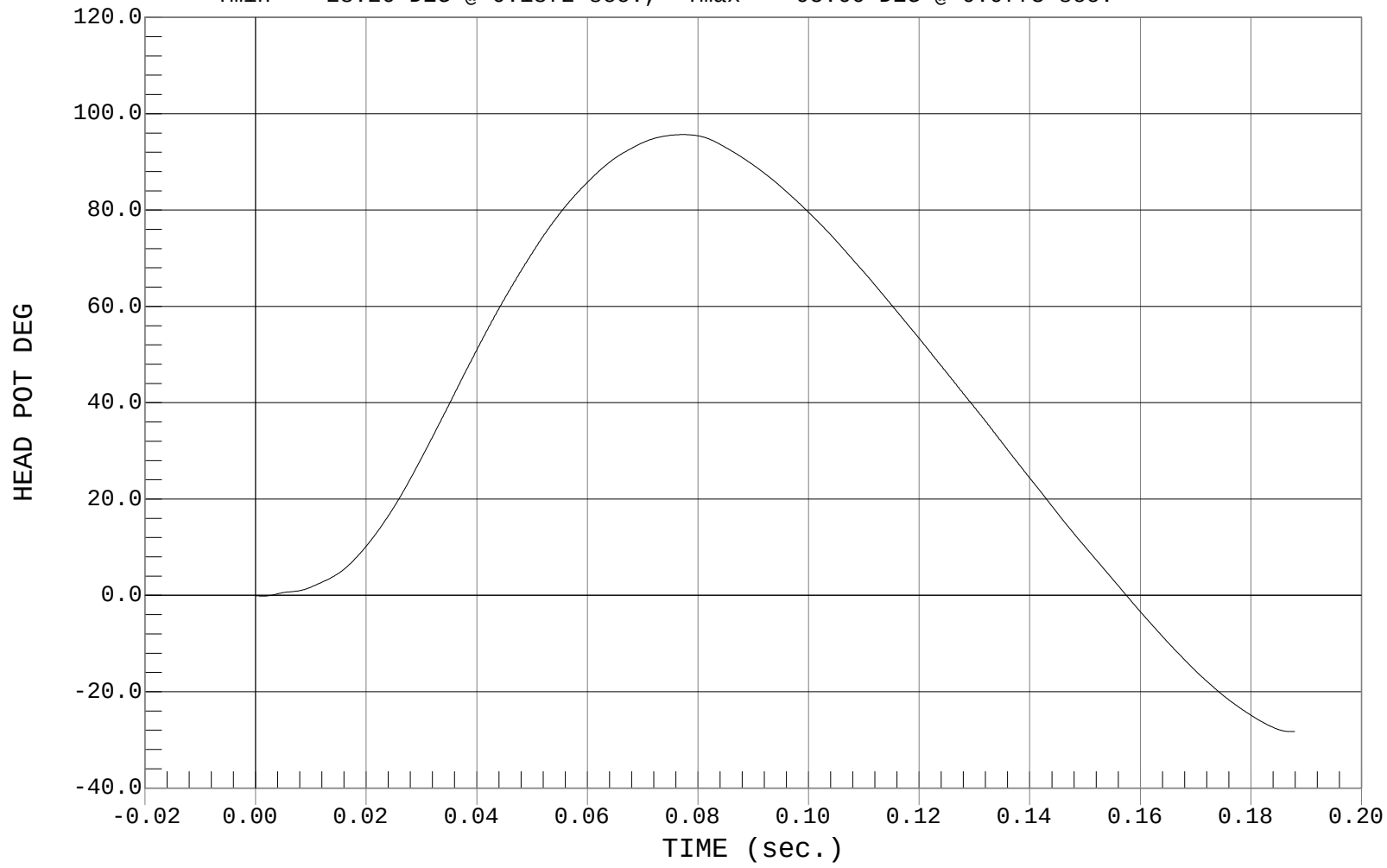
NECK ROTATION

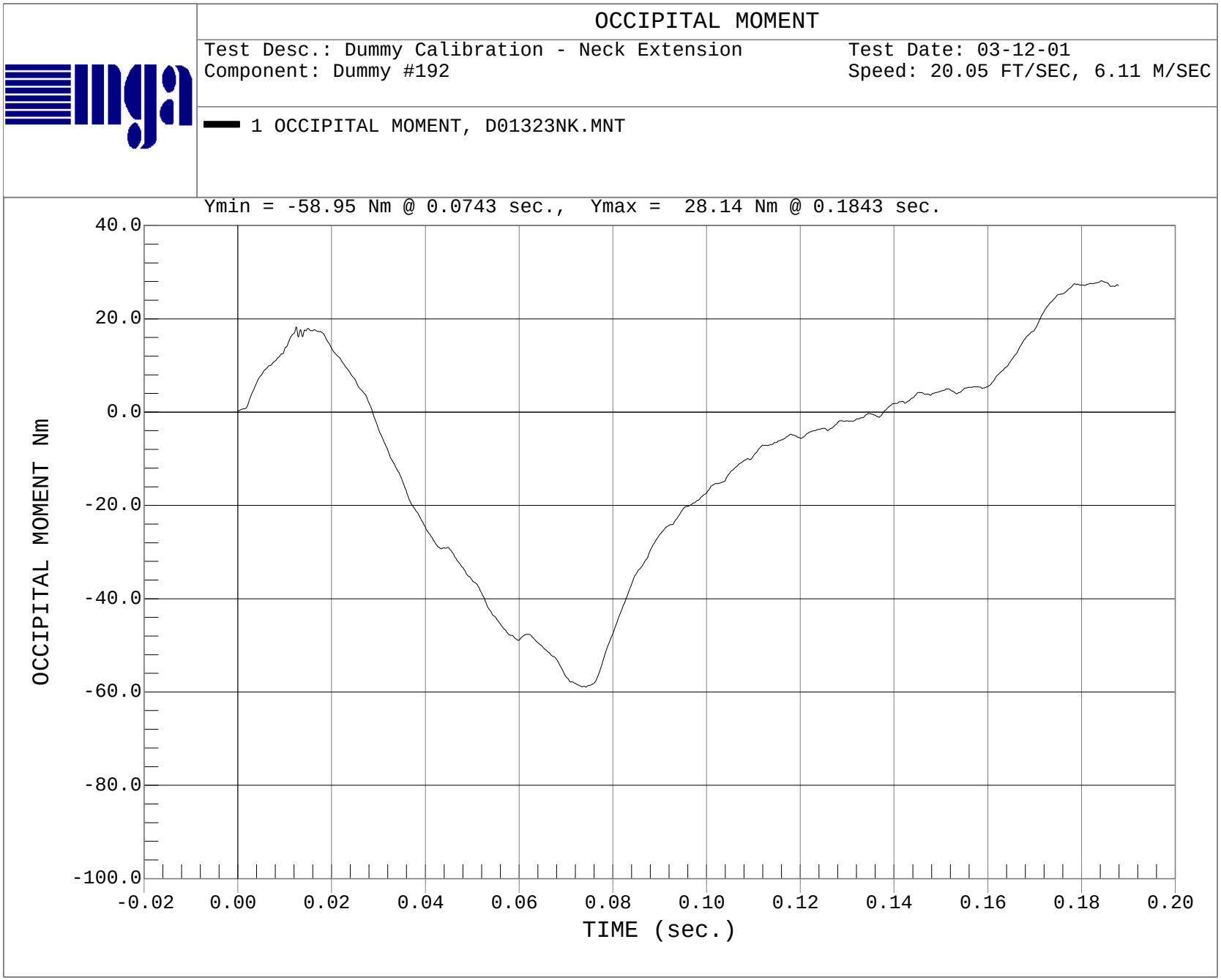
Test Desc.: Dummy Calibration - Neck Extension
Component: Dummy #192

Test Date: 03-12-01
Speed: 20.05 FT/SEC, 6.11 M/SEC

1 HEAD POT, D01323DU.D05

Ymin = -28.26 DEG @ 0.1872 sec., Ymax = 95.66 DEG @ 0.0773 sec.




OCCIPITAL MOMENT
Test Desc.: Dummy Calibration - Neck Extension
Test Date: 03-12-01
Component: Dummy #192
Speed: 20.05 FT/SEC, 6.11 M/SEC
1 OCCIPITAL MOMENT, D01323NK.MNT
Ymin = -58.95 Nm @ 0.0743 sec., Ymax = 28.14 Nm @ 0.1843 sec.
OCCIPITAL MOMENT Nm
40.0
20.0
0.0
-20.0
-40.0
-60.0
-80.0
-100.0
-0.02
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
0.16
0.18
0.20
TIME (sec.)

Hybrid III Calibration Data Sheet

50th Percentile Male

Hip-Femur Flexion Test

ATD Serial No.: 192 Test I.D.: D01329/0

Tested Parameter	Units	Specification	Result		Pass/Fail
			Right	Left	
Temperature	°C	18.9 to 25.6	21.5	21.5	Pass
Relative Humidity	%	10 to 70	31	31	Pass
Rotation Rate	deg/sec	5 – 10	Yes	Yes	Pass
30 Degrees	Nm	94.9 Nm Max.	92.4	80.5	Pass
150 ft-lbf / 203.4 Nm	Deg	40 – 50 Degree Max. rotation	44	42	Pass
		Overall Test Results			Pass

Laboratory Technician

3/12/01
Test Date

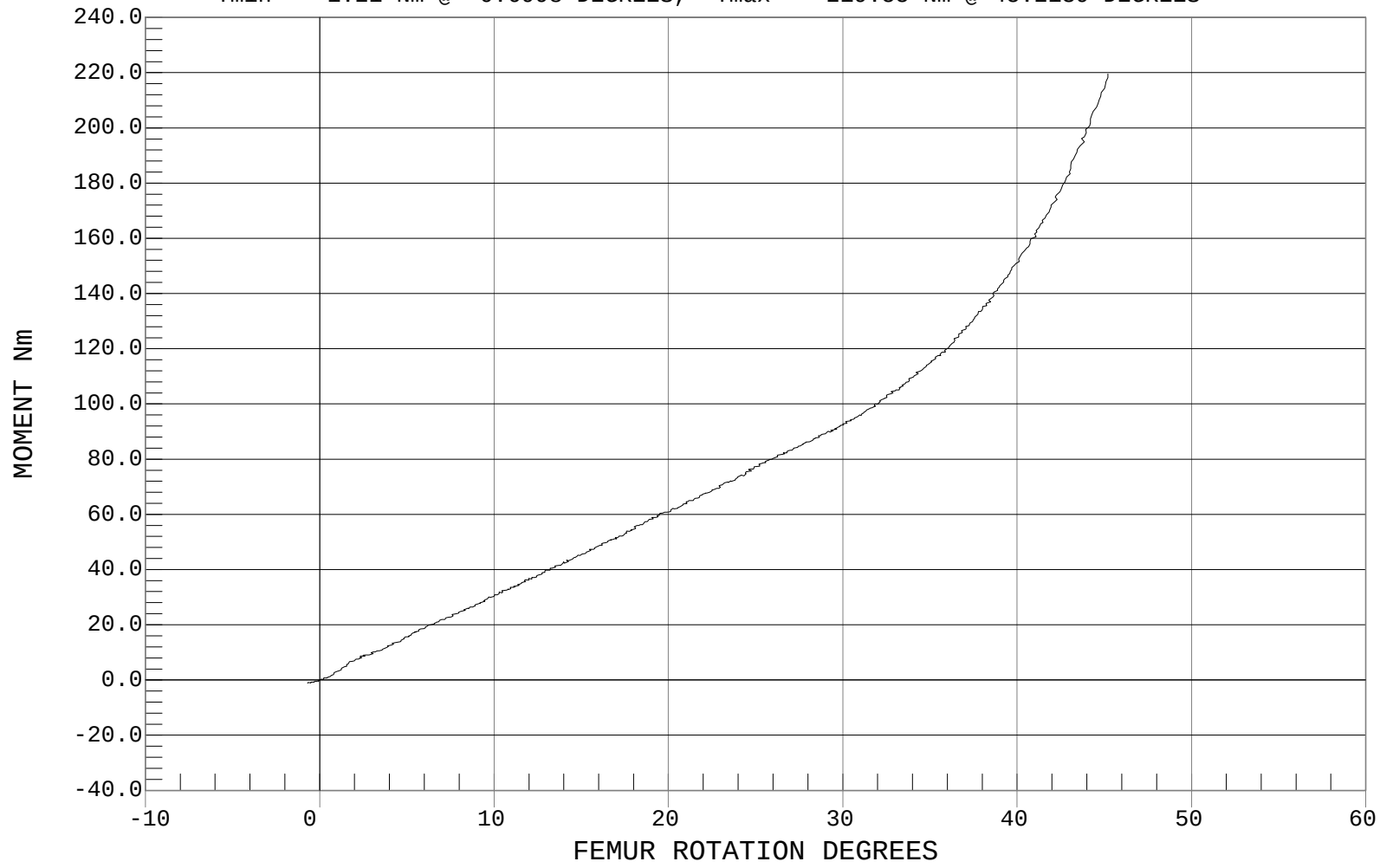
Approved By

HIP-FEMUR FLEXION

Test Desc.: DUMMY CALIBRATION - HIP-FEMUR FLEXION
Test Date: 03-12-01
Component: DUMMY # 192 RIGHT FEMUR
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 MOMENT, D01329FC.F14

Ymin = -1.21 Nm @ -0.6998 DEGREES, Ymax = 219.55 Nm @ 45.2139 DEGREES

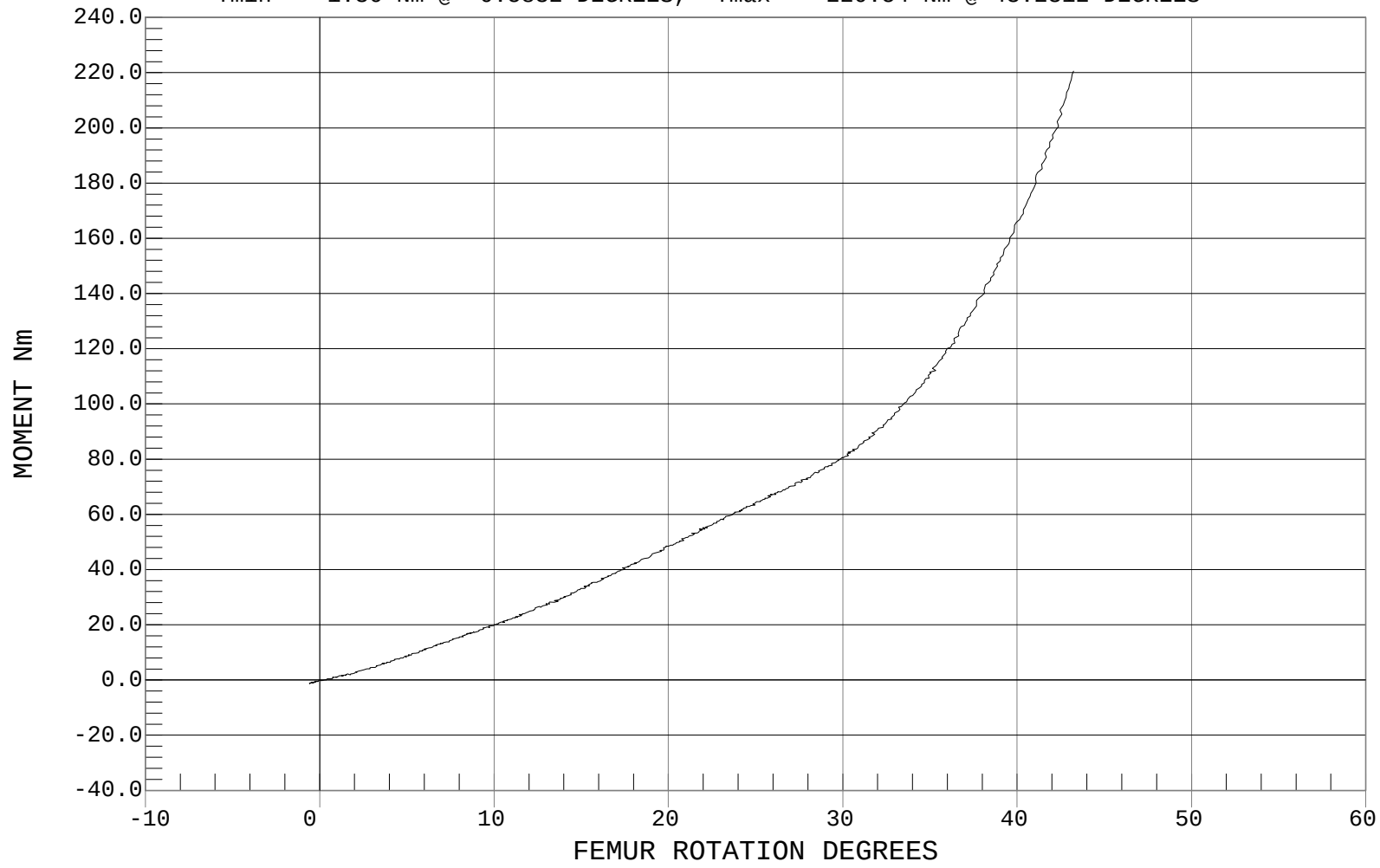


HIP-FEMUR FLEXION

Test Desc.: DUMMY CALIBRATION - HIP-FEMUR FLEXION
Test Date: 03-12-01
Component: DUMMY # 192 LEFT FEMUR
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 MOMENT, D01320FC.F14

Ymin = -1.36 Nm @ -0.5832 DEGREES, Ymax = 220.54 Nm @ 43.2312 DEGREES



Hybrid III Calibration Data Sheet

50th Percentile Male

External Measurements

ATD Serial No.: 192 Test I.D.: D0132

External Measurement Data				
Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.4 to 22.1	21.5	Pass
Laboratory Relative Humidity	%	10 to 70	25	Pass
A – Total sitting height	mm	879 to 889	885	Pass
B – Shoulder pivot height	mm	506 to 521	512	Pass
C – "H" point height	mm	84 to 89	87	Pass
D – "H" point from seat back	mm	135 to 140	138	Pass
E – Shoulder pivot from back	mm	84 to 94	90	Pass
F – Thigh clearance	mm	140 to 156	146	Pass
G – Elbow back to wrist pivot	mm	290 to 305	298	Pass
H – Skull cap to back line	mm	41 to 46	44	Pass
I – Shoulder to elbow length	mm	330 to 345	338	Pass
J – Elbow rest height	mm	191 to 211	201	Pass
K – Buttock to knee length	mm	579 to 605	591	Pass
L – Popliteal length	mm	429 to 455	439	Pass
M – Knee pivot height	mm	485 to 500	492	Pass
N – Buttock popliteal length	mm	452 to 478	463	Pass
O – Chest depth	mm	213 to 229	220	Pass
P – Foot breadth	mm	252 to 267	264	Pass
V – Shoulder breadth	mm	422 to 437	428	Pass
W – Foot length	mm	91 to 107	102	Pass
Y – Chest circumference	mm	970 to 1001	988	Pass
Z – Waist circumference	mm	836 to 866	850	Pass
AA – Location for chest circumference	mm	429 to 434	432	Pass
BB – Location for waist circumference	mm	226 to 231	229	Pass
		Overall Test Results		Pass

3/12/01

Laboratory Technician

Test Date

Approved By

APPENDIX D

TEST EQUIPMENT AND INSTRUMENTATION CALIBRATION

DUMMY, VEHICLE, AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR DUMMY NO. 142

	INSTRUMENTS FOR DRIVER DUMMY NO. 142		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	J27523	Endevco	11/15/00
Head Y	J29023	Endevco	11/15/00
Head Z	J29006	Endevco	11/15/00
Head X Redundant	J35562	Endevco	11/15/00
Head Y Redundant	J27461	Endevco	11/15/00
Head Z Redundant	J27457	Endevco	11/15/00
Chest X	J27466	Endevco	11/15/00
Chest Y	J17470	Endevco	11/15/00
Chest Z	J17509	Endevco	11/15/00
Chest X Redundant	AAL32	Endevco	11/15/00
Chest Y Redundant	AGT82	Endevco	11/15/00
Chest Z Redundant	AGR67	Endevco	11/15/00
Right Femur Load Cell	F257FZ	Denton	9/20/00
Left Femur Load Cell	F258FZ	Denton	9/20/00
Pelvis X	AAKA1	Endevco	11/15/00
Pelvis Y	AF9Y5	Endevco	11/15/00
Pelvis Z	AAKA2	Endevco	11/15/00
Neck Force X	N442FX	Denton	1/3/01
Neck Force Y	N442FY	Denton	1/3/01
Neck Force Z	N442FZ	Denton	1/3/01
Neck Moment X	N442MX	Denton	1/3/01
Neck Moment Y	N442MY	Denton	1/3/01
Neck Moment Z	N442MZ	Denton	1/3/01
Chest Deflection Gauge	142	Servo	11/10/00
Lap Belt Load Cell	192	Denton	10/6/00
Shoulder Belt Load Cell	191	Denton	10/6/00

DUMMY, VEHICLE, AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR DUMMY NO. 142

	INSTRUMENTS FOR DRIVER DUMMY NO. 142		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Upper Right Tibia Moment X	T107MX	Denton	9/21/00
Upper Right Tibia Moment Y	T107MY	Denton	9/21/00
Upper Right Tibia Force Z	T107FZ	Denton	9/21/00
Lower Right Tibia Moment X	A136MX	Denton	9/21/00
Lower Right Tibia Moment Y	A136MY	Denton	9/21/00
Lower Right Tibia Force Z	A136FZ	Denton	9/21/00
Upper Left Tibia Moment X	T108MX	Denton	9/21/00
Upper Left Tibia Moment Y	T108MY	Denton	9/21/00
Upper Left Tibia Force Z	T108FZ	Denton	9/21/00
Lower Left Tibia Moment X	A137MX	Denton	9/21/00
Lower Left Tibia Moment Y	A137MY	Denton	9/21/00
Lower Left Tibia Force Z	A137FZ	Denton	9/21/00
Left Foot Ball Z Acceleration	J35564	Endevco	11/16/00
Left Heel X Acceleration	AJ507	Endevco	11/16/00
Left Heel Z Acceleration	J19925	Endevco	11/16/00
Right Foot Ball Z Acceleration	J17988	Endevco	11/16/00
Right Heel X Acceleration	J14232	Endevco	11/16/00
Right Heel Z Acceleration	AJ4R3	Endevco	11/16/00

DUMMY, VEHICLE, AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR DUMMY NO. 192

	INSTRUMENTS FOR PASSENGER DUMMY NO. 192		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	AFW91	Endevco	11/16/00
Head Y	AAKB3	Endevco	11/16/00
Head Z	AGRP4	Endevco	11/16/00
Head X Redundant	AGRY2	Endevco	11/16/00
Head Y Redundant	ACCO9	Endevco	11/16/00
Head Z Redundant	AGMY3	Endevco	11/16/00
Chest X	AAKE2	Endevco	11/16/00
Chest Y	AGAG0	Endevco	11/16/00
Chest Z	AAJY4	Endevco	11/16/00
Chest X Redundant	AF9Y3	Endevco	11/16/00
Chest Y Redundant	AF973	Endevco	11/16/00
Chest Z Redundant	AGN47	Endevco	11/16/00
Right Femur Load Cell	F263FZ	Denton	9/20/00
Left Femur Load Cell	F264FZ	Denton	9/20/00
Pelvis X	AALG2	Endevco	11/15/00
Pelvis Y	AGN47	Endevco	11/15/00
Pelvis Z	AC9P8	Endevco	11/15/00
Neck Force X	N443FX	Denton	11/11/00
Neck Force Y	N443FY	Denton	11/11/00
Neck Force Z	N443FZ	Denton	11/11/00
Neck Moment X	N443MZ	Denton	11/11/00
Neck Moment Y	N443MY	Denton	11/11/00
Neck Moment Z	N443MZ	Denton	11/11/00
Chest Deflection Gauge	192	Servo	11/10/00
Lap Belt Load Cell	196	Denton	10/6/00
Shoulder Belt Load Cell	193	Denton	10/6/00

DUMMY, VEHICLE, AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR DUMMY NO. 192

	INSTRUMENTS FOR PASSENGER DUMMY NO. 192		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Upper Right Tibia Moment X	T111MX	Denton	9/20/00
Upper Right Tibia Moment Y	T111MY	Denton	9/20/00
Upper Right Tibia Force Z	T111FZ	Denton	9/20/00
Lower Right Tibia Moment X	A142MX	Denton	9/20/00
Lower Right Tibia Moment Y	A142MY	Denton	9/20/00
Lower Right Tibia Force Z	A142FZ	Denton	9/20/00
Upper Left Tibia Moment X	T110MX	Denton	9/20/00
Upper Left Tibia Moment Y	T110MY	Denton	9/20/00
Upper Left Tibia Force Z	T110FZ	Denton	9/20/00
Lower Left Tibia Moment X	A139MX	Denton	9/21/00
Lower Left Tibia Moment Y	A139MY	Denton	9/21/00
Lower Left Tibia Force Z	A139FZ	Denton	9/21/00
Left Foot Ball Z Acceleration	J23772	Endevco	11/15/00
Left Heel X Acceleration	J19873	Endevco	11/15/00
Left Heel Z Acceleration	J19236	Endevco	11/15/00
Right Foot Ball Z Acceleration	FJ66J	Endevco	11/15/00
Right Heel X Acceleration	J23918	Endevco	11/15/00
Right Heel Z Acceleration	EH75J	Endevco	11/15/00

VEHICLE INSTRUMENT CALIBRATION

	VEHICLE ACCELEROMETERS		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Left Rear Seat Crossmember X	I25-J18	Entran	2/7/01
Right Rear Seat Crossmember X	J04-F10	Entran	2/15/01
Top of Engine Block X	A08-A12	Entran	2/8/01
Bottom of Engine X	I25-J06	Entran	2/7/01
Left Brake Caliper X	D05-R16	Entran	2/7/01
Right Brake Caliper X	D05-R11	Entran	12/13/00
Instrument Panel X	I25-F12	Entran	11/15/00
Redundant Left Rear Seat Crossmember X	I18-G02	Entran	2/15/01
Redundant Right Rear Seat Crossmember X	D05-R25	Entran	2/7/01

	LABORATORY INSTRUMENTS		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Neck Bending Pendulum Accelerometer	C12885	Endevco	1/17/01
Neck Bending Head Rotary Potentiometer	018	Spectrol	10/2/00
Neck Bending Pendulum Rotary Potentiometer	019	Spectrol	10/2/00
Chest Probe Accelerometer	J14396	Endevco	1/11/01
Knee Impact Accelerometer	J14398	Endevco	1/11/01

APPENDIX E

VEHICLE OWNER'S MANUAL OCCUPANT RESTRAINT INSTRUCTIONS

To remove the rear cushion

1. Pull the Yellow tab
2. Pull the cushion to the outboard side of the vehicle.

To install the rear cushion

1. Push the cushion to the inboard side of the vehicle.
2. Make sure that the hinges are locked into place.

SAFETY RESTRAINTS

Safety restraints precautions

⚠ Always drive and ride with your seatback upright and the lap belt snug and low across the hips.

⚠ To reduce the risk of injury, make sure children sit where they can be properly restrained.

⚠ Never let a passenger hold a child on his or her lap while the vehicle is moving. The passenger cannot protect the child from injury in a collision.

⚠ All occupants of the vehicle, including the driver, should always properly wear their safety belts, even when an air bag SRS is provided.

⚠ It is extremely dangerous to ride in a cargo area, inside or outside of a vehicle. In a collision, people riding in these areas are more likely to be seriously injured or killed. Do not allow people to ride in any area of your vehicle that is not equipped with seats and safety belts. Be sure everyone in your vehicle is in a seat and using a safety belt properly.

⚠ In a rollover crash, an unbelted person is significantly more likely to die than a person wearing a safety belt.

⚠ Each seating position in your vehicle has a specific safety belt assembly which is made up of one buckle and one tongue that are designed to be used as a pair. 1) Use the shoulder belt on the outside shoulder only. Never wear the shoulder belt under the arm. 2) Never swing the safety belt around your neck over the inside shoulder. 3) Never use a single belt for more than one person.

⚠ Always transport children 12 years old and under in the back seat and always properly use appropriate child restraints.

Energy Management Feature

- This vehicle has a safety belt system with an energy management feature at the front passenger seating position to help further reduce the risk of injury in the event of a head-on collision.
- This safety belt system has a retractor assembly that is designed to pay out webbing in a controlled manner. This feature is designed to help reduce the belt force acting on the occupant's chest.

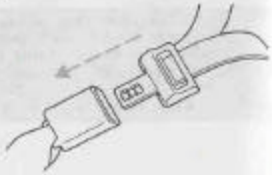
⚠ After any vehicle collision, the safety belt system at all outboard seating positions (except driver, which has no "automatic locking retractor" feature) must be checked by a qualified technician to verify that the "automatic locking retractor" feature for child seats is still functioning properly. In addition, all safety belts should be checked for proper function.

⚠ BELT AND RETRACTOR ASSEMBLY MUST BE REPLACED if the safety belt assembly "automatic locking retractor" feature or any other safety belt function is not operating properly when checked according to the procedures in Workshop Manual.

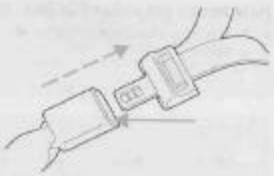
⚠ Failure to replace the Belt and Retractor assembly could increase the risk of injury in collisions.

Combination lap and shoulder belts

1. Insert the belt tongue into the proper buckle (the buckle closest to the direction the tongue is coming from) until you hear a snap and feel it latch. Make sure the tongue is securely fastened in the buckle.



2. To unfasten, push the release button and remove the tongue from the buckle.



The front and rear outboard safety restraints in the vehicle are combination lap and shoulder belts. The front passenger and rear seat outboard safety belts have two types of locking modes described below:

Vehicle sensitive mode

The vehicle sensitive mode is the normal retractor mode, allowing free shoulder belt length adjustment to your movements and locking in response to vehicle movement. For example, if the driver brakes suddenly or turns a corner sharply, or the vehicle receives an impact of approximately 8 km/h (5 mph) or more, the combination safety belts will lock to help reduce forward movement of the driver and passengers.

Automatic locking mode

In this mode, the shoulder belt is automatically pre-locked. The belt will still retract to remove any slack in the shoulder belt.

The automatic locking mode is not available on the driver safety belt.

When to use the automatic locking mode

- **Anytime** a child safety seat is installed in a passenger front or outboard rear seating position (if equipped). Children 12 years old and under should be properly restrained in the rear seat wherever possible. Refer to *Safety Restraints for Children* or *Safety Seats for Children* later in this chapter.

How to use the automatic locking mode

- Buckle the combination lap and shoulder belt.

- Grasp the shoulder portion and pull downward until the entire belt is extracted.

- Allow the belt to retract. As the belt retracts, you will hear a clicking sound. This indicates the safety belt is now in the automatic locking mode.

How to disengage the automatic locking mode

Disconnect the combination lap/shoulder belt and allow it to retract completely to disengage the automatic locking mode and activate the vehicle sensitive (emergency) locking mode.

⚠ After any vehicle collision, the front passenger outboard seat belt system must be checked by a qualified technician to verify that the "automatic locking retractor" feature for child seats is still functioning properly. In addition, all seat belts should be checked for proper function.

⚠ BELT AND RETRACTOR ASSEMBLY MUST BE REPLACED if the seat belt assembly "automatic locking retractor" feature or any other seat belt function is not operating properly when checked according to the procedures in Workshop Manual.

⚠ Failure to replace the Belt and Retractor assembly could increase the risk of injury in collisions.

Front safety belt height adjustment

Your vehicle has safety belt height adjustments for the driver and front passenger. Adjust the height of the shoulder belt so the belt rests across the middle of your shoulder.

To lower the shoulder belt height, push the button and slide the height adjuster down. To raise the height of the shoulder belt, slide the height adjuster up. Pull down on the height adjuster to make sure it is locked in place.

⚠ Position the shoulder belt height adjusters so that the belt rests across the middle of your shoulder. Failure to adjust the safety belt properly could reduce the effectiveness of the seat belt and increase the risk of injury in a collision.

Lap belts

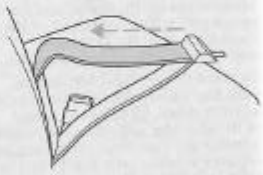
Adjusting the center lap belt

The lap belt does not adjust automatically.

⚠ The lap belt should fit snugly and as low as possible around the hips, not across the waist.

Insert the tongue into the correct buckle (the buckle closest to the direction the tongue is coming from). To lengthen the belt, turn the tongue at a right angle to the belt and pull across your lap until it reaches the buckle. To tighten the belt, pull the loose end of the belt through the tongue until it fits snugly across the hips.

Shorten and fasten the belt when not in use.



Safety belt extension assembly

If the safety belt assembly is too short for you, even when fully extended, 20 cm (8 inches) can be added to the safety belt assembly by adding a safety belt extension assembly (part number 611C22). Safety belt extension assemblies can be obtained from your dealer at no cost.

Use only extensions manufactured by the same supplier as the safety belt. Manufacturer identification is located at the end of the webbing on the label. Also, use the safety belt extension only if the safety belt is too short for you when fully extended. Do not use extensions to change the fit of the shoulder belt across the torso.

Safety belt warning light and indicator chime

The seat belt warning light illuminates in the instrument cluster and a chime sounds to remind the occupants to fasten their safety belts.

Conditions of operation

If...	Then...
The driver's safety belt is not buckled before the ignition switch is turned to the ON position...	The safety belt warning light illuminates 1 minute and the warning chime sounds 6 seconds.
The driver's safety belt is buckled while the indicator light is illuminated and the warning chime is sounding...	The safety belt warning light and warning chime turn off.
The driver's safety belt is buckled before the ignition switch is turned to the ON position...	The safety belt warning light and indicator chime remain off.

Belt minder

The Belt Minder feature is a supplemental warning to the safety belt warning function. This feature provides additional reminders to the driver that the driver's safety belt is unbuckled by intermittently sounding a chime and illuminating the safety belt warning lamp in the instrument cluster.

If...	Then...
The driver's safety belt is not buckled approximately 5 seconds after the safety belt warning light has turned off and vehicle speed exceeds 8km/h (3 mph)...	The Belt Minder feature is activated - the safety belt warning light illuminates and the warning chime sounds for 6 seconds every 30 seconds, repeating for approximately 5 minutes or until safety belt is buckled.
The driver's safety belt is buckled while the safety belt indicator light is illuminated and the safety belt warning chime is sounding...	The Belt Minder feature will not activate.
The driver's safety belt is buckled before the ignition switch is turned to the ON position...	The Belt Minder feature will not activate.

The purpose of the Belt Minder is to remind occasional wearers to wear safety belts all of the time.

The following are reasons most often given for not wearing safety belts: (All statistics based on U.S. data)

Reasons given...	Consider...
"Crashes are rare events"	**36 700 crashes occur every day.** The more we drive, the more we are exposed to "rare" events, even for good drivers. *1 in 4 of us will be seriously injured in a crash during our lifetime.*
"I'm not going far"	**3 of 4** fatal crashes occur within **25** miles of home.
"Belts are uncomfortable"	Ford designs its safety belts to enhance comfort. If you are uncomfortable - try different positions for the safety belt upper anchorage and seatback which should be as upright as possible; this can improve comfort.
"I was in a hurry"	**Prime time for an accident.** Belt Minder reminds us to take a few seconds to buckle up.
"Seat belts don't work"	**Safety belts,** when used properly, **reduce risk of death** to front seat occupants by **45% in cars,** and by **60% in light trucks.**
"Traffic is light"	**Nearly 1 of 2 deaths occur in single-vehicle crashes,** many when no other vehicles are around.
"Belts wrinkle my clothes"	Possibly, but a serious crash can do much more than wrinkle your clothes, particularly if you are unbelted.
"The people I'm with don't wear belts"	Set the example, teen deaths occur 4 times more often in vehicles with TWO or MORE people. Children and younger brothers/sisters imitate behavior they see.
"I have an air bag"	Air bags offer greater protection when used with safety belts. Frontal airbags are not designed to inflate in rear and side crashes or rollovers.
"I'd rather be thrown clear"	Not a good idea. **People** who are **ejected are 40 times more likely to DIE.** Safety belts help prevent ejection. WE CAN'T "PICK OUR CRASH".

Do not sit on top of a buckled safety belt to avoid the Belt Minder chime. Sitting on the safety belt will increase the risk of injury in an accident. To disable (one-time) or deactivate the Belt Minder feature please follow the directions stated below.

One time disable

Anytime the safety belt is buckled and then unbuckled during an ignition ON cycle, Belt Minder will be disabled for that ignition cycle only.

Deactivating/activating the belt minder feature

Read steps 1 - 9 thoroughly before proceeding with the deactivation/activation programming procedure.

The Belt Minder feature can be deactivated/activated by performing the following procedure:

Before following the procedure, make sure that:

- the parking brake is set
- the gearshift is in P (Park) (automatic transmission) or the neutral position (manual transmission).
- the ignition switch is in the OFF position
- all vehicle doors are closed
- the driver's safety belt is unbuckled
- the parklamps/headlamps are in OFF position (If vehicle is equipped with Autolamps, this will not affect the procedure.)

To reduce the risk of injury, do not deactivate/activate the Belt Minder feature while driving the vehicle.

1. Turn the ignition switch to the RUN (or ON) position. (DO NOT START THE ENGINE)
2. Wait until the safety belt warning light turns off. (Approximately 1–2 minutes)
   - Steps 3–5 must be completed within 60 seconds or the procedure will have to be repeated.
3. Uncoil then retract the safety belt three times, ending with the safety belt retracted. This can be done before or during Belt Minder warning activation.

4. Turn on the parklamps/headlamps, turn off the parklamps/headlamps.
5. Uncoil then retract the safety belt three times, ending with the safety belt retracted.
   - After step 5 the safety belt warning light will be turned on for three seconds.
6. Within seven seconds of the safety belt warning light turning off, uncoil then retract the safety belt.
   - This will disable Belt Minder if it is currently enabled, or enable Belt Minder if it is currently disabled.
7. Confirmation of disabling Belt Minder is provided by flashing the safety belt warning light four times per second for three seconds.
8. Confirmation of enabling Belt Minder is provided by flashing the safety belt warning light four times per second for three seconds, followed by three seconds with the safety belt warning light off, then followed by flashing the safety belt warning light four times per second for three seconds again.
9. After receiving confirmation, the deactivation/activation procedure is complete.

Safety belt maintenance

Inspect the safety belt systems periodically to make sure they work properly and are not damaged. Inspect the safety belts to make sure there are no nicks, wears or cuts, replacing if necessary. All safety belt assemblies, including retractors, buckles, front seat belt buckle assemblies, buckle support assemblies (slide bar if equipped), shoulder belt height adjusters (if equipped), shoulder belt guide on seatback (if equipped), child safety seat tether bracket assemblies (if equipped), and attaching hardware, should be inspected after a collision. Ford recommends that all safety belt assemblies used in vehicles involved in a collision be replaced. However, if the collision was minor and a qualified technician finds that the belts do not show damage and continue to operate properly, they do not need to be replaced. Safety belt assemblies not in use during a collision should also be inspected and replaced if either damage or improper operation is noted.

Failure to inspect and if necessary replace the safety belt assembly under the above conditions could result in severe personal injuries in the event of a collision.

Refer to *Cleaning and maintaining the safety belts* in the *Maintenance and care* section.

AIR BAG SUPPLEMENTAL RESTRAINT SYSTEM (SRS)

Your vehicle is equipped with a crash sensing and diagnostic module which records information about the air bag and sensor systems. In the event of a collision this module may save information related to the collision including information about the air bag system and impact severity. This information will assist Ford in the servicing of your vehicle and may help Ford better understand real world collisions and further improve the safety of future vehicles.

Important supplemental restraint system (SRS) precautions

The supplemental restraint system is designed to work with the safety belt to help protect the driver and right front passenger from certain upper body injuries.

Air bags DO NOT inflate slowly or gently and the risk of injury from a deploying air bag is greatest close to the trim covering the air bag module.

All occupants of the vehicle, including the driver, should always properly wear their safety belts, even when an air bag SRS is provided.

Always transport children 12 years old and under in the back seat and always properly use appropriate child restraints.

National Highway Traffic Safety Administration (NHTSA) recommends a minimum distance of at least 25 cm (10 inches) between an occupant's chest and the driver air bag module.

Never place your arm over the air bag module as a deploying air bag can result in serious arm fractures or other injuries.

Steps you can take to properly position yourself away from the air bag:

- Move your seat to the rear as far as you can while still reaching the pedals comfortably.
- Recline the seat slightly (one or two degrees) from the upright position.

Do not put anything on or over the air bag module. Placing objects on or over the air bag inflation area may cause those objects to be propelled by the air bag into your face and torso causing serious injury.

Do not attempt to service, repair, or modify the Air Bag Supplemental Restraint System or its fuses. See your Ford or Lincoln Mercury dealer.

Modifications to the front end of the vehicle, including frame, bumper, front end body structure and tow hooks may effect the performance of the air bag sensors increasing the risk of injury. Do not modify the front end of the vehicle.

Additional equipment may effect the performance of the air bag sensors increasing the risk of injury. Please refer to the Body Builders Layout Book for instructions about the appropriate installation of additional equipment.

Children and air bags

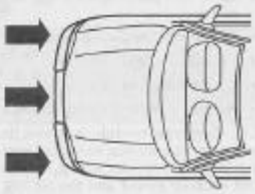
For additional important safety information, read all information on safety restraints in this guide.

Children must always be properly restrained. Accident statistics suggest that children are safer when properly restrained in the rear seating positions than in the front seating position. Failure to follow these instructions may increase the risk of injury in a collision.

Air bags can kill or injure a child in a child seat. **NEVER** place a rear-facing child seat in front of an active air bag. If you must use a forward-facing child seat in the front seat, move the seat all the way back.

How does the air bag supplemental restraint system work?

The air bag SRS is designed to activate when the vehicle sustains longitudinal deceleration sufficient to cause the sensors to close an electrical circuit that initiates air bag inflation.



The fact that the air bags did not inflate in a collision does not mean that something is wrong with the system. Rather, it means the forces were not of the type sufficient to

cause activation. Air bags are designed to inflate in frontal and near-frontal collisions, not rollover, side-impact, or rear-impacts unless the collision causes sufficient longitudinal deceleration.

The air bags inflate and deflate rapidly upon activation. After air bag deployment, it is normal to notice a smoke-like, powdery residue or smell the burnt propellant. This may consist of cornstarch, talcum powder (to lubricate the bag) or sodium compounds (e.g., baking soda) that result from the combustion process that inflates the air bag. Small amounts of sodium hydroxide may be present which may irritate the skin and eyes, but none of the residue is toxic.

While the system is designed to help reduce serious injuries, contact with a deploying air bag may also cause abrasions, swelling or temporary hearing loss. Because air bags must inflate rapidly and with considerable force, there is the risk of death or serious injuries such as fractures, facial and eye injuries or internal injuries, particularly to occupants who are not properly restrained or are otherwise out of position at the time of air bag deployment. Thus, it is extremely important that occupants be properly restrained as far away from the air bag module as possible while maintaining vehicle control.

The SRS consists of:

- driver and passenger air bag modules (which include the inflators and air bags),
- one or more impact and safing sensors,
- a readiness light and tone
- a diagnostic module
- and the electrical wiring which connects the components.

The diagnostic module monitors its own internal circuits and the supplemental air bag electrical system warning (including the impact sensors), the system wiring, the air bag system readiness light, the air bag back up power and the air bag igniters.

Several air bag system components get hot after inflation. Do not touch them after inflation.

If the air bag has deployed, **the air bag will not function again and must be replaced immediately.** If the air bag is not replaced, the unrepaired area will increase the risk of injury in a collision.

Determining if the system is operational

The SRS uses a readiness light in the instrument cluster or a tone to indicate the condition of the system. Refer to the *Air bag readiness* section in the *Instrumentation* chapter. Routine maintenance of the air bag is not required.

A difficulty with the system is indicated by one or more of the following:

- The readiness light will either flash or stay lit.
- The readiness light will not illuminate immediately after ignition is turned on.
- A series of five beeps will be heard. The tone pattern will repeat periodically until the problem and/or light are repaired.

If any of these things happen, even intermittently, have the SRS serviced at your dealership or by a qualified technician immediately. Unless serviced, the system may not function properly in the event of a collision.

Side air bag system (if equipped)

Do not place objects or mount equipment on or near the air bag cover on the side of the seatbacks of the front seats or in front seat areas that may come into contact with a deploying air bag. Failure to follow these instructions may increase the risk of personal injury in the event of a collision.

Do not use accessory seat covers. The use of accessory seat covers may prevent the deployment of the side air bags and increase the risk of injury in an accident.

Do not lean your head on the door. The side air bag could injure you as it deploys from the side of the seatback.

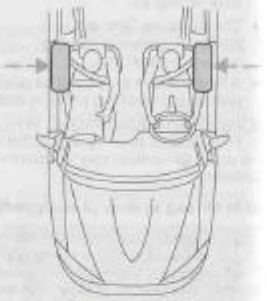
Do not attempt to service, repair, or modify the air bag Supplemental Restraint System, its fuses or the seat cover on a seat containing an air bag. See your Ford or Lincoln Mercury dealer.

All occupants of the vehicle including the driver should always wear their safety belts even when an air bag SRS is provided.

How does the side air bag system work?

The side air bag system consists of the following:

- An inflatable nylon bag (air bag) with a gas generator concealed behind the outboard bolster of the driver and front passenger seatbacks.
- A special seat cover designed to allow airbag deployment.
- The same warning light, electronic control and diagnostic unit as used for the front air bags.
- The two side sensors are located on the lower portion of the b-pillar.



Side air bags, in combination with seat belts, can help reduce the risk of severe injuries in the event of a significant side impact collision.

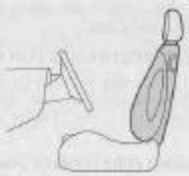
The side air bags are fitted on the outboard side of the seatbacks of the front seats. In certain lateral collisions, the air bag on the side affected by the collision will be inflated, even if the respective seat is not

occupied. The air bag was designed to inflate between the door panel and occupant to further enhance the protection provided occupants in side impact collisions.

The air bag SRS is designed to activate when the vehicle sustains lateral deceleration sufficient to cause the sensors to close an electrical circuit that initiates air bag inflation.

The fact that the air bags did not inflate in a collision does not mean that something is wrong with the system. Rather, it means the forces were not of the type sufficient to cause activation. Side air bags are designed to inflate in side-impact collisions, not roll-over, rear-impact, frontal or near-frontal collisions, unless the collision causes sufficient lateral deceleration.

Several air bag system components get hot after inflation. Do not touch them after inflation.



If the side air bag has deployed, **the air bag will not function again. The side air bag system (including the seat) must be inspected and serviced by a qualified technician in accordance with the vehicle service manual.** If the air bag is not replaced, the unrepaired area will increase the risk of injury in a collision.

Determining if the system is operational

The SRS uses a readiness light in the instrument cluster or a tone to indicate the condition of the system. Refer to the *Air bag readiness* section in the *Instrumentation* chapter. Routine maintenance of the air bag is not required.

A difficulty with the system is indicated by one or more of the following:

- The readiness light (same light as for front air bag system) will either flash or stay lit.

- The readiness light will not illuminate immediately after ignition is turned on.
- A series of five beeps will be heard. The tone pattern will repeat periodically until the problem and light are repaired.

If any of these things happen, even intermittently, have the SRS serviced at your dealership or by a qualified technician immediately. Unless serviced, the system may not function properly in the event of a collision.

Disposal of air bags and air bag equipped vehicles (including pretensioners)

For disposal of air bags or air bag equipped vehicles, see your local dealership or qualified technician. Air bags MUST BE disposed of by qualified personnel.

SAFETY RESTRAINTS FOR CHILDREN

See the following sections for directions on how to properly use safety restraints for children. Also see *Air Bag Supplemental Restraint System (SRS)* in this chapter for special instructions about using air bags.

Important child restraint precautions

You are required by law to use safety restraints for children in the U.S. and Canada. If small children ride in your vehicle (generally children who are four years old or younger and who weigh 18 kg [40 lbs] or less), you must put them in safety seats made especially for children. Check your local and state or provincial laws for specific requirements regarding the safety of children in your vehicle.

Never let a passenger hold a child on his or her lap while the vehicle is moving. The passenger cannot protect the child from injury in a collision.

Always follow the instructions and warnings that come with any infant or child restraint you might use.

When possible, always place children under age 12 in the rear seat of your vehicle. Accident statistics suggest that children are safer when properly restrained in the rear seating positions than in the front seating position.

Children and safety belts

If the child is the proper size, restrain the child in a safety seat.

Children who are too large for child safety seats (as specified by your child safety seat manufacturer) should always wear safety belts.

Follow all the important safety restraint and air bag precautions that apply to adult passengers in your vehicle.

If the shoulder belt portion of a combination lap and shoulder belt can be positioned so it does not cross or rest in front of the child's face or neck, the child should wear the lap and shoulder belt. Moving the child closer to the center of the vehicle may help provide a good shoulder belt fit.

Do not leave children, unreliable adults, or pets unattended in your vehicle.

To improve the fit of lap and shoulder belts on children who have outgrown child safety seats, Ford recommends use of a belt-positioning booster seat that is labelled as conforming to all applicable Federal motor vehicle safety standards. Belt-positioning booster seats raise the child and provide a shorter, firmer seating cushion that encourages safer seating posture and better fit of lap and shoulder belts on the child.

A belt-positioning booster should be used if the shoulder belt rests in front of the child's face or neck, or if the lap belt does not fit snugly on both thighs, or if the thighs are too short to let the child sit all the way back on the seat cushion when the lower legs hang over the edge of the seat cushion. You may wish to discuss the special needs of your child with your pediatrician.

SAFETY SEATS FOR CHILDREN

Child and infant or child safety seats

Use a safety seat that is recommended for the size and weight of the child. Carefully follow all of the manufacturer's instructions with the safety seat you put in your vehicle. If you do not install and use the safety seat properly, the child may be injured in a sudden stop or collision.

When installing a child safety seat:

- Review and follow the information presented in the *Air Bag Supplemental Restraint System* section in this chapter.
- Use the correct safety belt buckle for that seating position (the buckle closest to the direction the tongue is coming from).
- Insert the belt tongue into the proper buckle until you hear a snap and feel it latch. Make sure the tongue is securely fastened in the buckle.
- Keep the buckle release button pointing up and away from the safety seat, with the tongue between the child seat and the release button, to prevent accidental unbuckling.
- Place seat back in upright position.
- Put the safety belt in the automatic locking mode. Refer to *Automatic locking mode* (passenger side front and outboard rear seating positions) (if equipped).

Ford recommends the use of a child safety seat having a top tether strap. Install the child safety seat in a seating position which is capable of providing a tether anchorage. For more information on top tether straps, refer to *Attaching safety seats with tether straps*.

⚠ Carefully follow all of the manufacturer's instructions included with the safety seat you put in your vehicle. If you do not install and use the safety seat properly, the child may be injured in a sudden stop or collision.

Installing child safety seats in combination lap and shoulder belt seating positions

The rear seat head restraints must be removed when using a child seat.

⚠ Air bags can kill or injure a child in a child seat. **NEVER** place a rear-facing child seat in front of an active air bag. If you must use a forward-facing child seat in the front seat, move the seat all the way back.

1. Position the child safety seat in a seat with a combination lap and shoulder belt.

⚠ Children 12 and under should be properly restrained in the rear seat whenever possible.

2. Pull down on the shoulder belt and then grasp the shoulder belt and lap belt together.

3. While holding the shoulder and lap belt portions together, route the tongue through the child seat according to the child seat manufacturer's instructions. Be sure the belt webbing is not twisted.

4. Insert the belt tongue into the proper buckle (the buckle closest to the direction the tongue is coming from) for that seating position until you hear a snap and feel the latch engage. Make sure the tongue is latched securely by pulling on it.

5. To put the retractor in the automatic locking mode, grasp the shoulder portion of the belt and pull downward until all of the belt is extracted and a click is heard.

6. Allow the belt to retract. The belt will click as it retracts to indicate it is in the automatic locking mode.

7. Pull the lap belt portion across the child seat toward the buckle and pull up on the shoulder belt while pushing down with your knee on the child seat.

8. Allow the safety belt to retract to remove any slack in the belt.

9. Before placing the child in the seat, forcibly tilt the seat forward and back to make sure the seat is securely held in place.

10. Try to pull the belt out of the retractor to make sure the retractor is in the automatic locking mode (you should not be able to pull more belt out). If the retractor is not locked, unbuckle the belt and repeat steps two through nine.

Check to make sure the child seat is properly secured before each use.

Attaching child safety seats with tether straps

Most new forward-facing child safety seats include a tether strap which goes over the back of the seat and hooks to an anchoring point. Tether straps are available as an accessory for many older safety seats. Contact the manufacturer of your child seat for information about ordering a tether strap.

The rear seats of your vehicle are equipped with built-in tether strap anchors located behind the seats as described below.

The tether anchors in your vehicle are located on the roof panel in the cargo area.

The tether strap anchors in your vehicle are in the following positions:

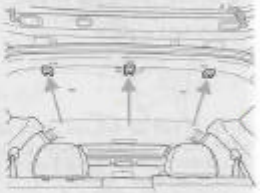
Attach the tether strap only to the appropriate tether anchor as shown. The tether strap may not work properly if attached somewhere other than the correct tether anchor.

1. Position the child safety seat on the seat cushion.
2. Route the child safety seat tether strap over the back of the seat.

For vehicles with adjustable head restraints, route the tether strap under the head restraint and between the head restraint posts, otherwise route the tether strap over the top of the seatback.

3. Locate the correct anchor for the selected seating position.

There are three tether anchors located on the headliner at the rear of the vehicle.



4. Clip the tether strap to the anchor as shown.

If the tether strap is clipped incorrectly, the child safety seat may not be retained properly in the event of a collision.

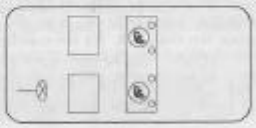
5. Refer to the *Installing child safety seats in combination lap and shoulder belt seating positions* section of this chapter for further instructions to secure the child safety seat.
6. Tighten the child safety seat tether strap according to the manufacturer's instructions.

If the safety seat is not anchored properly, the risk of a child being injured in a collision greatly increases.

Attaching child safety seats with Lower Anchor and Tethers for Children (LATCH) attachments for child seat anchors

Some child safety seats are labeled as LATCH or LATCH-compatible child seats. These seats include two rigid or webbing mounted attachments that connect to two anchors at specific seating positions in your vehicle. This type of child seat eliminates the need to use seat belts to attach the child seat. For forward-facing child seats, the tether strap must also be attached to the proper tether anchor point. For information on using tether straps with the child safety seats, refer to *Attaching safety seats with tether straps* in this chapter.

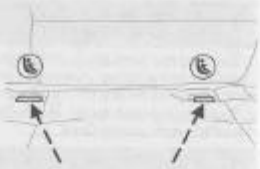
LATCH anchors for child seat installation have been provided in your vehicle at the following locations:



The anchors at the center of the rear seat are further apart than the sets of lower anchors for child seat installation at other seating positions. A child seat with rigid LATCH attachments cannot be installed at this seating position. LATCH compatible child seat (with attachments on belt webbing) can be used at this seating position only if the child seat instructions state that the child seat can be installed to anchors that are 500 mm apart. Do not attach a child seat to any lower anchor if an adjacent child seat is attached to that anchor.

Do not attach a child seat to any lower anchors used for child seat installation if an adjacent child seat is attached to that anchor. In a crash, one anchor may not be strong enough to hold two child seat attachments and may break, causing serious injury or death.

The lower anchors for child seat installation are located at the rear section of the rear seat between the cushion and seat back. Each lower anchor for child seat installation is located 2–3 inches below the locator symbols.



Follow the child seat manufacturer's instructions to properly install safety seats with LATCH lower anchors and LATCH-compatible attachments.

Attach the lower anchors for child seat installation or lower anchors for child seat installation-compatible child seat only to the appropriate locations shown.

If you install a child seat with rigid LATCH attachments, do not tighten the tether strap enough to lift the child seat off the seat when the child is seated in it. Keep the tether strap just snug without raising the front of the child seat. Keeping the child seat just touching the front of the vehicle seat gives the best protection in a severe crash. Once you have installed the lower anchors for child seat installation safety seat, assure that the seat is properly attached to the lower anchors for child seat installation and tether anchors. Also, test the safety seat before you place the child in it. Tilt the seat from side to side. Also try to tug the seat forward. Check to see if the anchors hold the seat in place.

If the safety seat is not anchored properly, the risk of a child being injured in a collision greatly increases.

PREPARING TO START YOUR VEHICLE

Engine starting is controlled by the powertrain control system. This system meets all Canadian Interference-Causing Equipment standard requirements regulating the impulse electrical field strength of radio noise.

When starting a fuel-injected engine, avoid pressing the accelerator before or during starting. Only use the accelerator when you have difficulty starting the engine. For more information on starting the vehicle, refer to *Starting the engine* in this chapter.

Extended idling at high engine speeds can produce very high temperatures in the engine and exhaust system, creating the risk of fire or other damage.

Do not park, idle, or drive your vehicle in dry grass or other dry ground cover. The emission system heats up the engine compartment and exhaust system, which can start a fire.

Do not start your vehicle in a closed garage or in other enclosed areas. Exhaust fumes can be toxic. Always open the garage door before you start the engine. See *Guarding against exhaust fumes* in this chapter for more instructions.

If you smell exhaust fumes inside your vehicle, have your dealer inspect your vehicle immediately. Do not drive if you smell exhaust fumes.

Important safety precautions

A computer system controls the engine's idle revolutions per minute (RPM). When the engine starts, the idle RPM runs faster to warm the engine. If the engine idle speed does not slow down automatically, have the vehicle checked.

Before starting the vehicle:

1. Make sure all vehicle occupants have buckled their safety belts. For more information on safety belts and their proper usage, refer to the *Seating and safety restraints* chapter.

APPENDIX F

CHILD SEAT

POST-TEST OBSERVATIONS

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

	Left Rear Passenger	Right Rear Passenger
Child Seat	Fisher Price	Fisher Price
Child Seat Mass (kg)	6.8	6.8
Belt Fraying	none	none
Stress Marks	none	none
Cracks	none	none
Buckle Stress	none	none
Latch Hooks	none	none
Contact	feet to seatback	feet to seatback

HYBRID III 3 YEAR OLD ATD INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

HEAD PRIMARY PEAK ACCELERATIONS

Location	Axis	Units	Left Rear Passenger				Right Rear Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	37.5	190	39.7	80	17.9	191	38.1	74
Head CG	Y	G's	10.0	188	2.4	89	5.0	41	5.9	189
Head CG	Z	G's	58.2	74	11.2	34	51.2	70	11.5	34
Head CG Resultant	N/A	G's	67.5	74			61.2	70		

CHEST PRIMARY PEAK ACCELERATIONS

Location	Axis	Units	Left Rear Passenger				Right Rear Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Chest CG	X	G's	13.9	178	47.9	56	6.4	221	38.3	72
Chest CG	Y	G's	6.1	70	4.3	45	2.6	73	3.3	192
Chest CG	Z	G's	9.5	180	31.0	56	8.2	192	32.4	56
Chest CG Resultant	N/A	G's	57.1	56			48.4	55		

SEAT BELT SENSOR PEAK VALUES

Location	Axis	Units	Left Rear Passenger				Right Rear Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Tether	N/A	Newtons	7494	69			6296	68		

HEAD INJURY CRITERIA (HIC)

Location	Left Rear Passenger				Right Rear Passenger			
	HIC	Avg G's	T^1	T^2	HIC	Avg G's	T^1	T^2
Head CG Primary (36 msec)	780	54.2	56.4	92.4	642	50.2	52.9	88.9
Head CG Primary (15 msec)	493	64.1	67.4	82.4	387	58.2	64.8	79.8

CHEST CLIP (3 MSEC)

Location	Left Rear Passenger			Right Rear Passenger		
	Clip	T^1	T^2	Clip	T^1	T^2
Chest CG Primary	53.2	54.3	57.4	47.4	53.0	56.1

HYBRID III 3 YEAR OLD ATD INJURY CRITERIA AND SENSOR DATA...(continued)

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

PELVIC PEAK ACCELERATIONS

Location	Axis	Units	Left Rear Passenger				Right Rear Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Pelvis	X	G's	14.4	135	53.6	57	19.3	132	53.0	62
Pelvis	Y	G's	5.0	91	5.8	51	6.9	58	5.2	87
Pelvis	Z	G's	9.9	190	30.5	62	9.4	191	32.9	63

UPPER NECK PEAK FORCES AND MOMENTS

Location	Axis	Units	Left Rear Passenger				Right Rear Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Neck Force	X	Newtons	9	233	105	80	17	13	993	75
Neck Force	Y	Newtons	53	186	44	100	35	56	43	102
Neck Force	Z	Newtons	2332	79	329	35	2085	74	246	34
Neck Moment	X	N"m	2.9	168	2.3	187	3.9	61	2.7	159
Neck Moment	Y	N"m	10.2	76	18.3	54	6.8	70	11.7	47
Neck Moment	Z	N"m	2.3	178	1.3	144	2.7	72	1.4	177

LOWER NECK PEAK FORCES AND MOMENTS

Location	Axis	Units	Left Rear Passenger				Right Rear Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Neck Force	X	Newtons	397	188	1790	80	219	187	1483	75
Neck Force	Y	Newtons	104	67	70	89	28	139	196	66
Neck Force	Z	Newtons	1080	187	387	37	512	183	314	35
Neck Moment	X	N"m	6.7	175	6.3	99	3.4	133	7.0	101
Neck Moment	Y	N"m	183.4	80	20.5	188	163.6	74	14.2	185
Neck Moment	Z	N"m	2.4	179	3.0	88	3.0	141	4.4	48

CHEST PEAK DISPLACEMENTS

Location	Axis	Units	Left Rear Passenger				Right Rear Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Chest CG	X	mm			15.4	86			15.7	85

DUMMY DIMENSIONS

Test Vehicle: 2001/Ford/Escape/4WD NHTSA No.: M10213

Test Program: NCAP Test Date: March 16, 2001

Measurement Description	Left Rear Passenger	Right Rear Passenger
	Length (mm)	Length (mm)
Head to Roof (Z)	397	396
Head to Seatback (X)	602	587
Chest to Door (Y)	447	457
Left Foot to Seatback	117	115
Right Foot to Seatback	115	112

CHILD SEAT PHOTOGRAPHS

TABLE OF PHOTOGRAPHS

Photo 1 - Pre-Test LRS 3 Year Old Left Side View

Photo 2 - Post-Test LRS 3 Year Old Left Side View

Photo 3 - Pre-Test LRS 3 Year Old Left Side View (Door Open)

Photo 4 - Post-Test LRS 3 Year Old Left Side View (Door Open)

Photo 5 - Post-Test LRS 3 Year Old Foot Contact View

Photo 6 - Pre-Test RRS 3 Year Old Right Side View

Photo 7 - Post-Test RRS 3 Year Old Right Side View

Photo 8 - Pre-Test RRS 3 Year Old Right Side View (Door Open)

Photo 9 - Post-Test RRS 3 Year Old Right Side View (Door Open)

Photo 10 - Post-Test RRS 3 Year Old Foot Contact View

Photo 11 - Post-Test RRS Child Seat View

Photo 12 - Post-Test LRS Child Seat View

Photo 13 - Post-Test Left Side Tether Strap View

Photo 14 - Post-Test Right Side Tether Strap View

CHILD DATA PLOTS

TABLE OF DATA PLOTS

TABLE OF DATA PLOTS

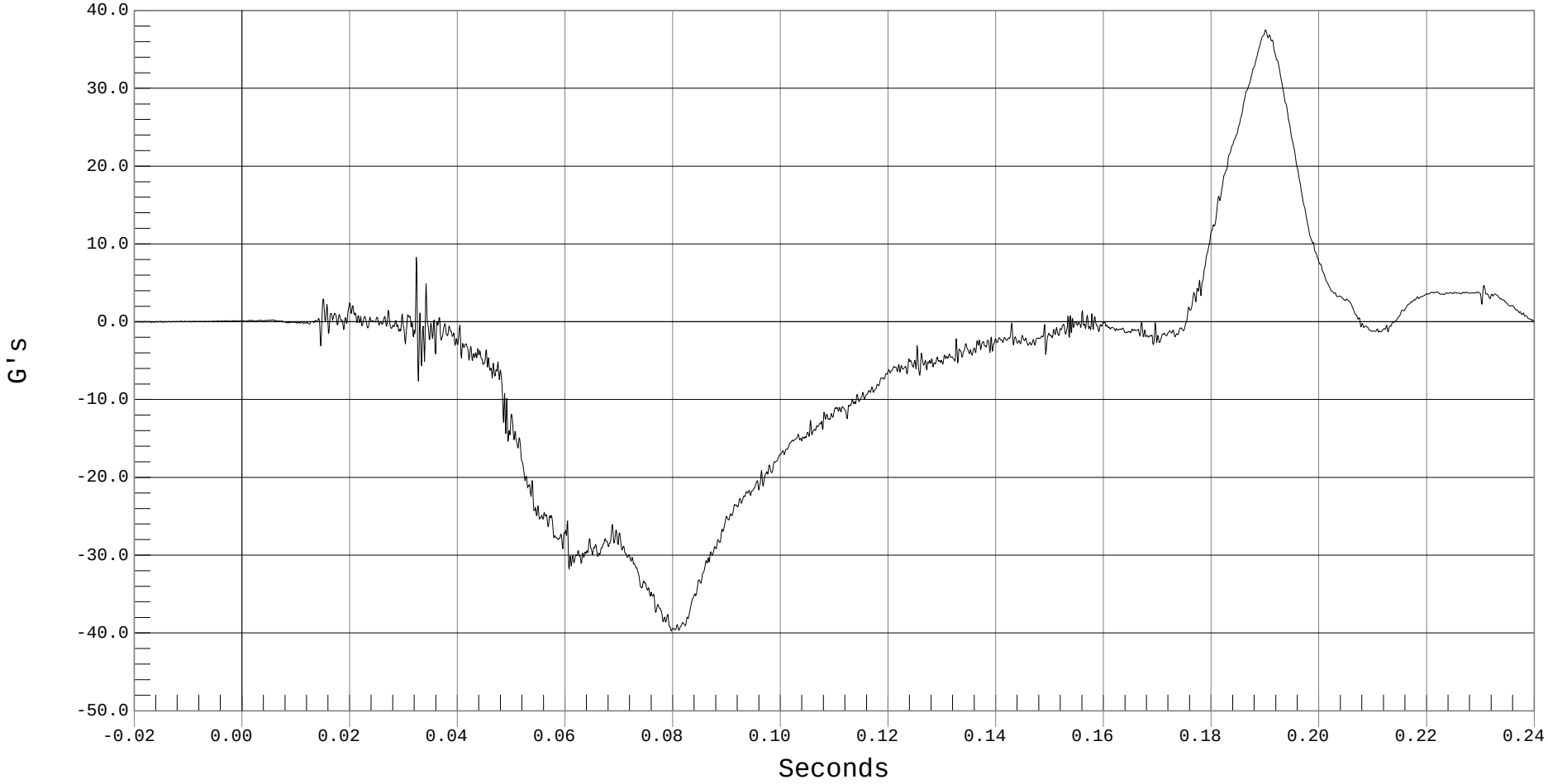
LRS 3 YR OLD HEAD X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 LRS CHILD HEAD X, B01031AT.A13

Ymin = -39.74 G's @ 0.0797 Seconds, Ymax = 37.54 G's @ 0.1900 Seconds



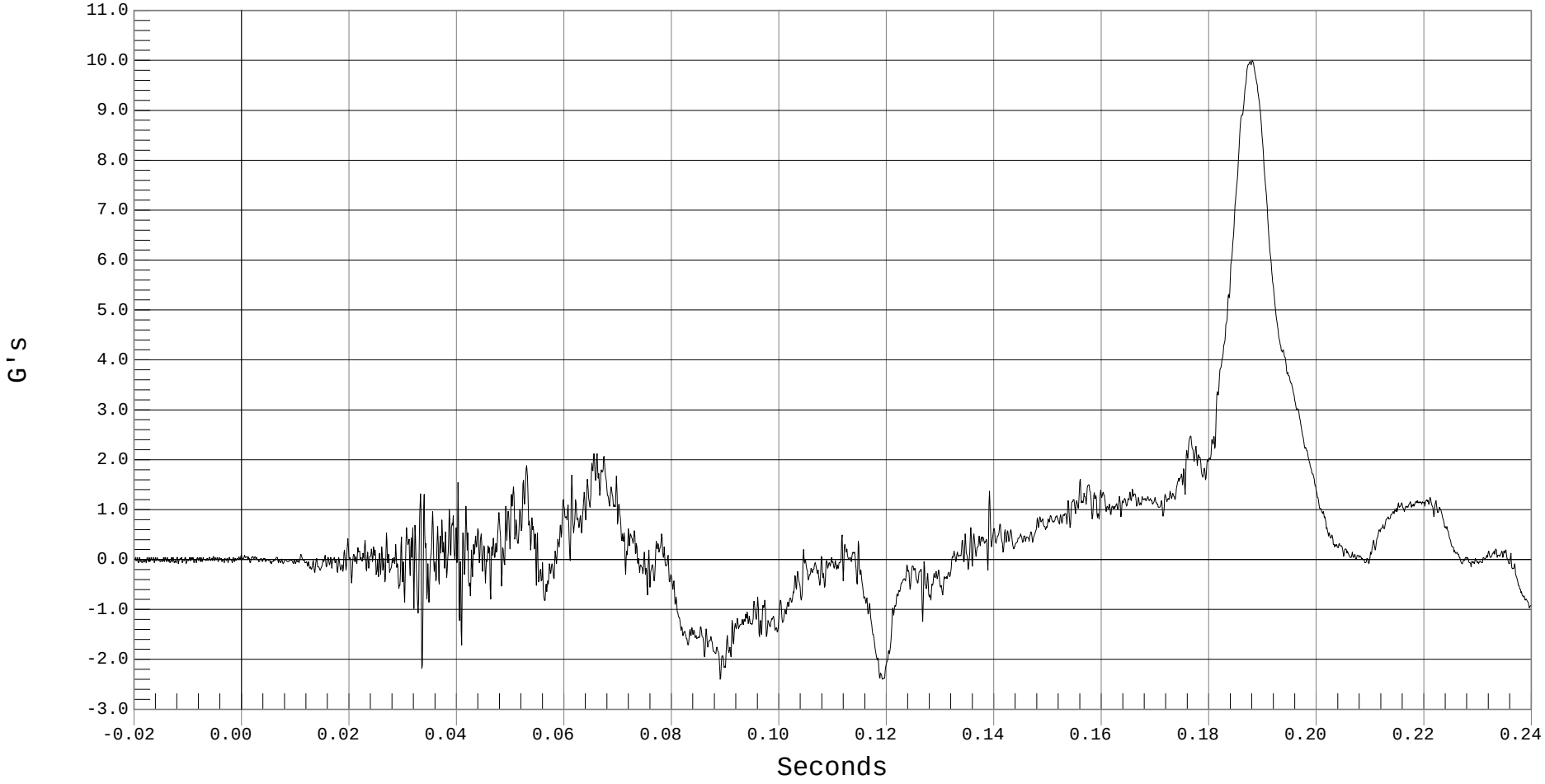
LRS 3 YR OLD HEAD Y ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 LRS CHILD HEAD Y, B01031AT.A14

Ymin = -2.4 G's @ 0.0890 Seconds, Ymax = 10 G's @ 0.1880 Seconds



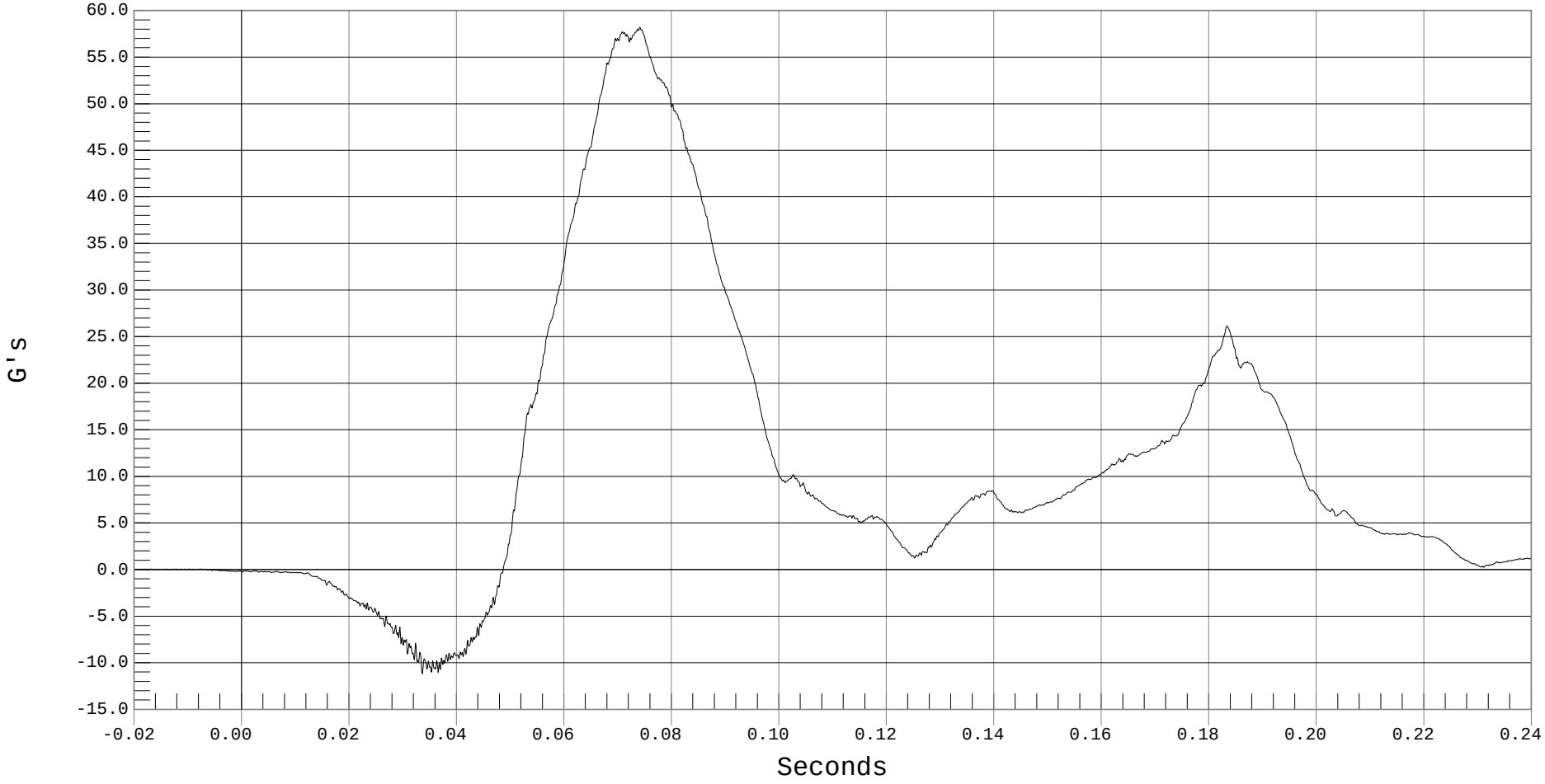
LRS 3 YR OLD HEAD Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 LRS CHILD HEAD Z, B01031AT.A15

Ymin = -11.2 G's @ 0.0336 Seconds, Ymax = 58.19 G's @ 0.0740 Seconds



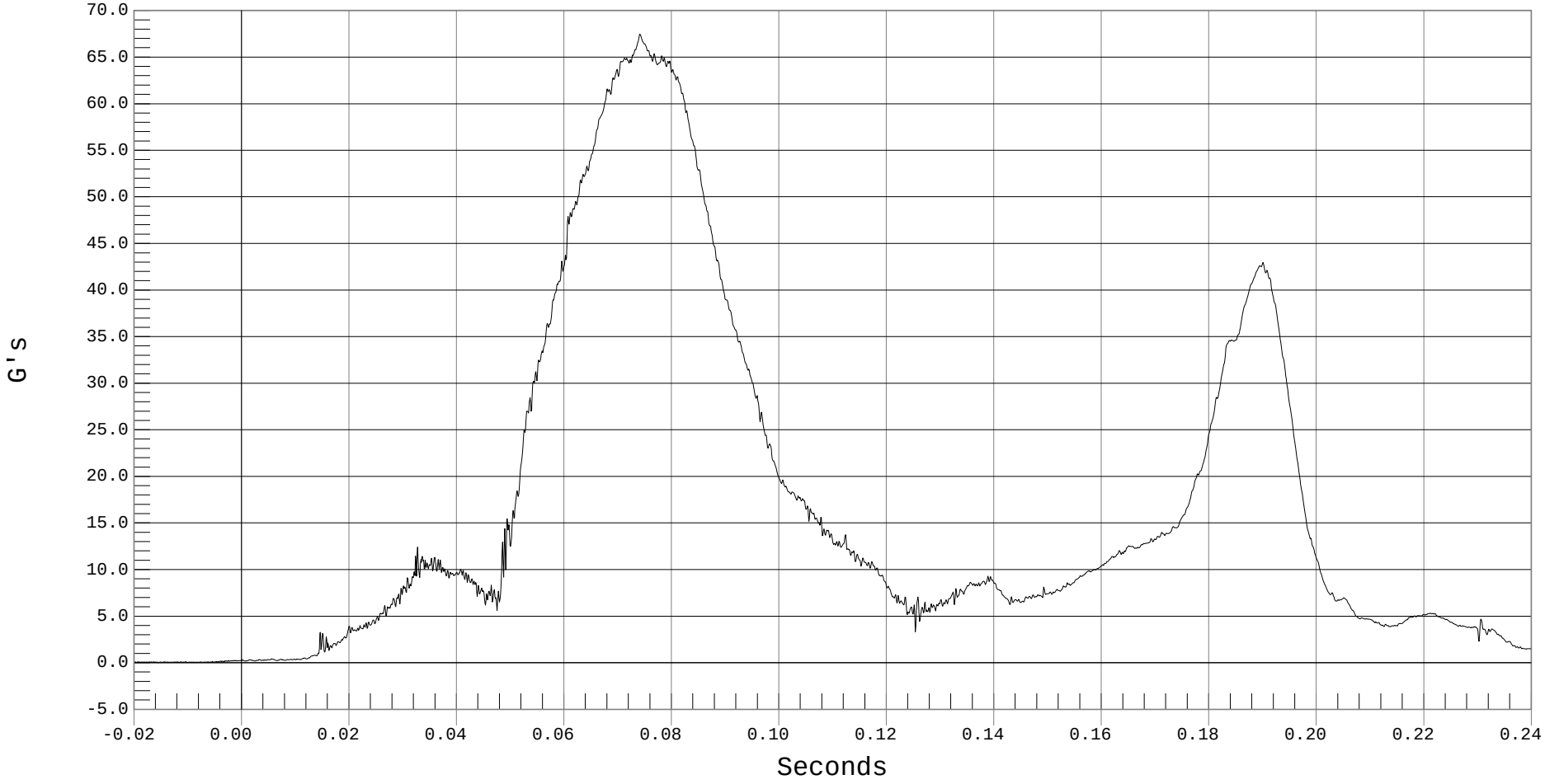
LRS 3 YR OLD HEAD RESULTANT ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 LRS 3 YR OLD HEAD RESULTANT ACCELERATION, B01031AV.A13

Ymin = .01 G's @ -0.0155 Seconds, Ymax = 67.47 G's @ 0.0740 Seconds



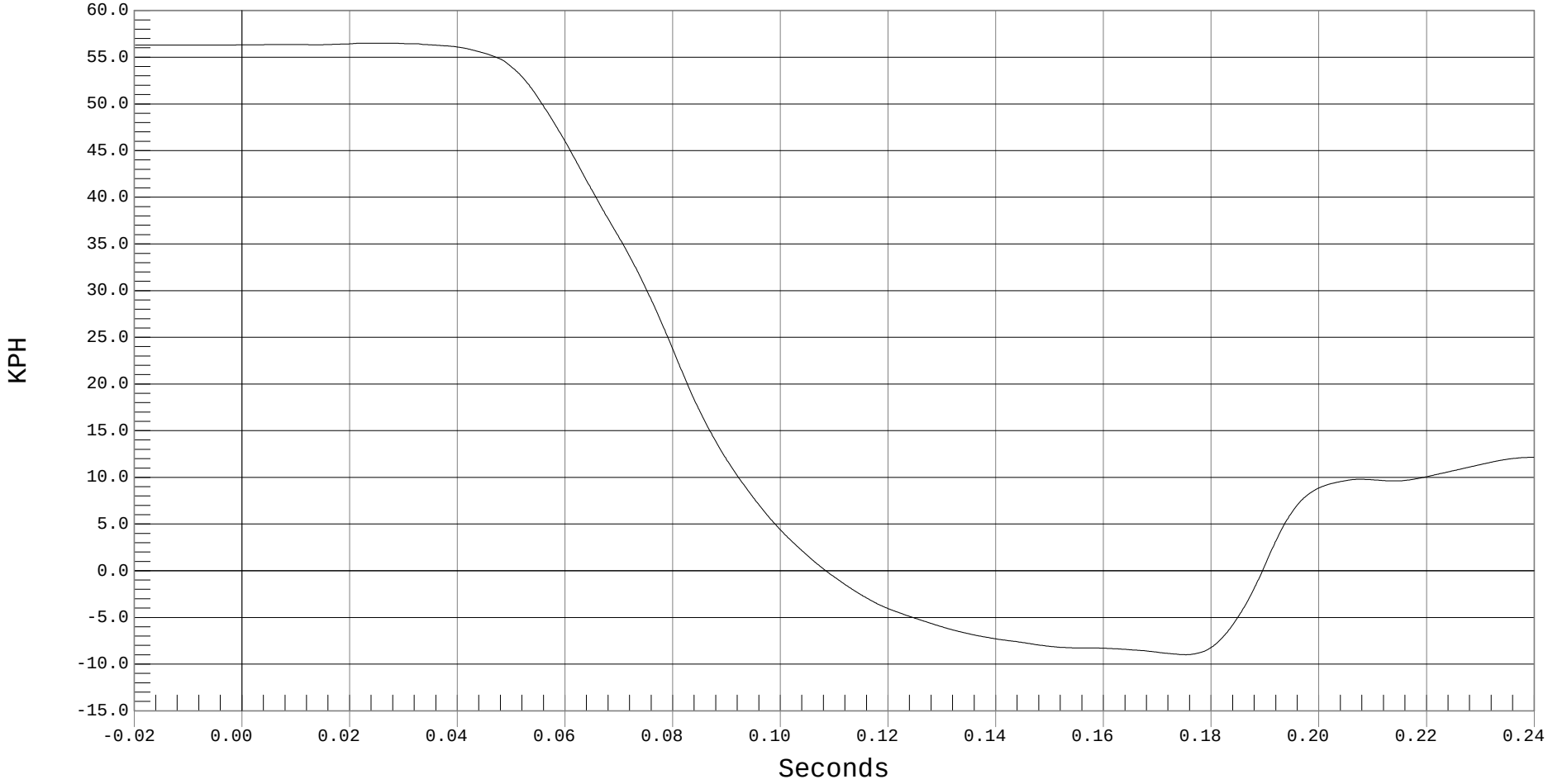
LRS 3 YR OLD HEAD X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 LRS 3 YR OLD HEAD X VELOCITY, B01031AI.V13

Ymin = -9 KPH @ 0.1752 Seconds, Ymax = 56.5 KPH @ 0.0273 Seconds



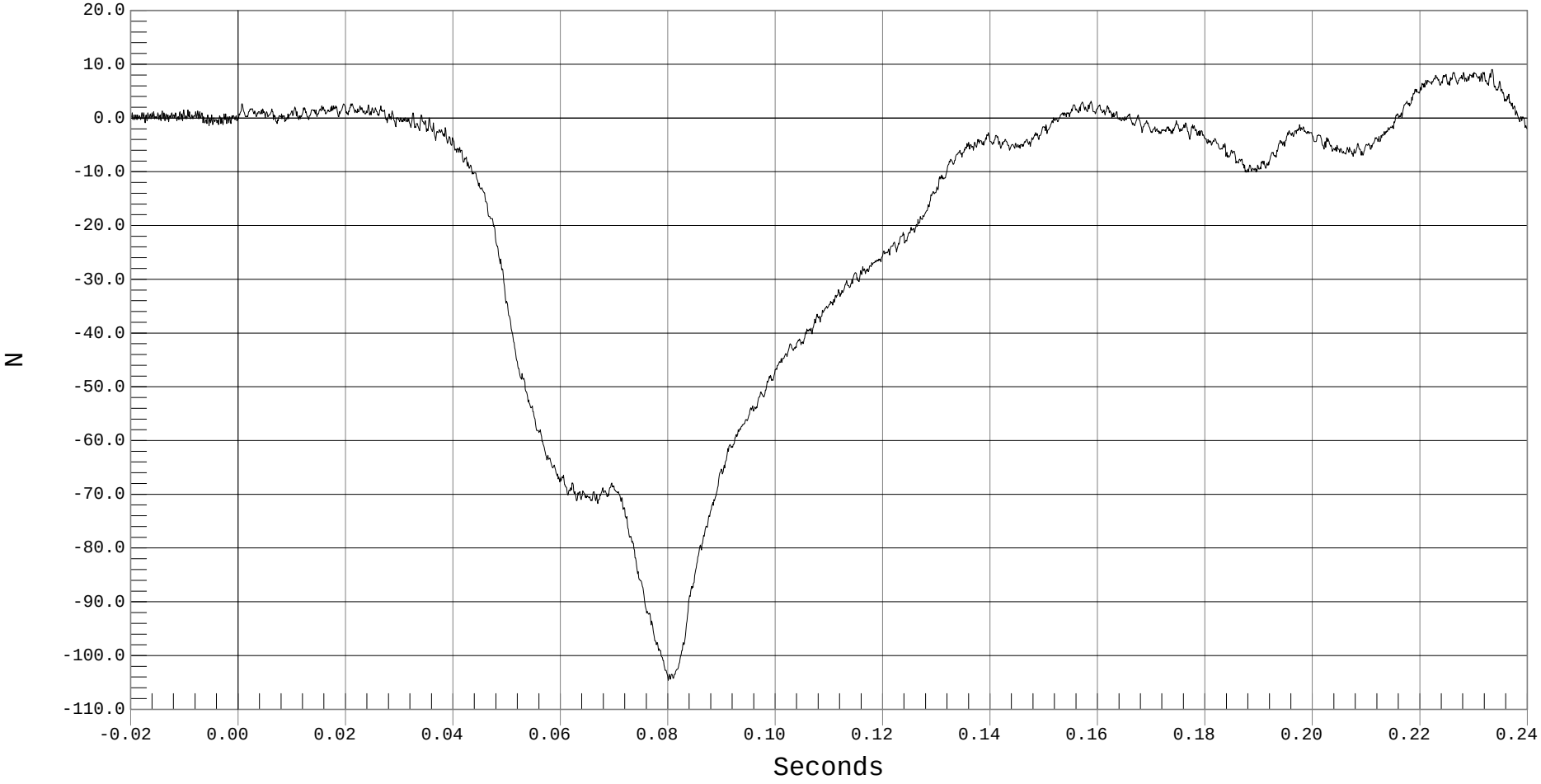
LRS 3 YR OLD UPPER NECK FORCE X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 LRS CHILD UPPER NECK FORCE X, B01031FT.F16

Ymin = -104.6 N @ 0.0800 Seconds, Ymax = 9.03 N @ 0.2333 Seconds



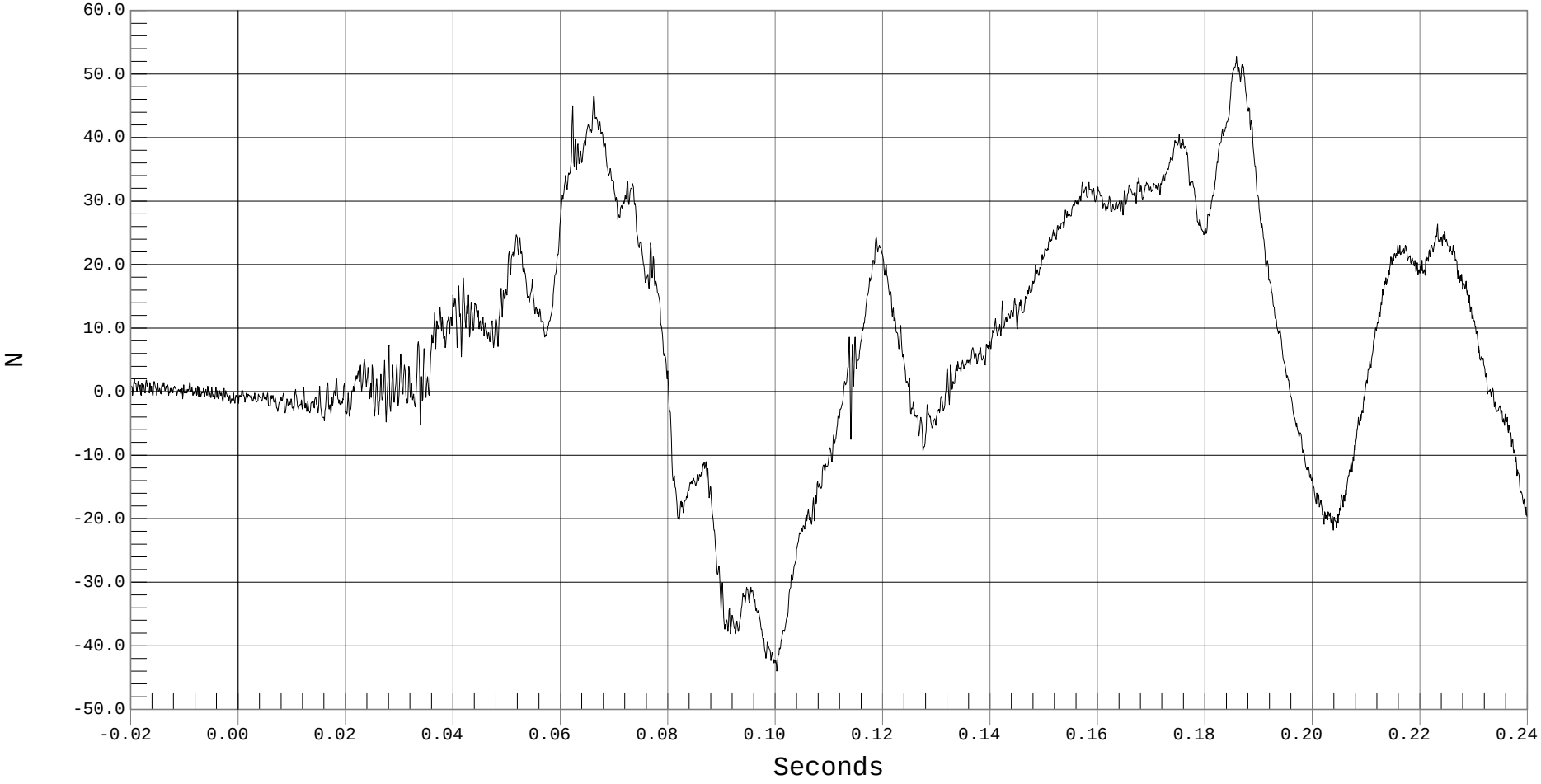
LRS 3 YR OLD UPPER NECK FORCE Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 LRS CHILD UPPER NECK FORCE Y, B01031FT.F17

Ymin = -43.98 N @ 0.1002 Seconds, Ymax = 52.73 N @ 0.1858 Seconds



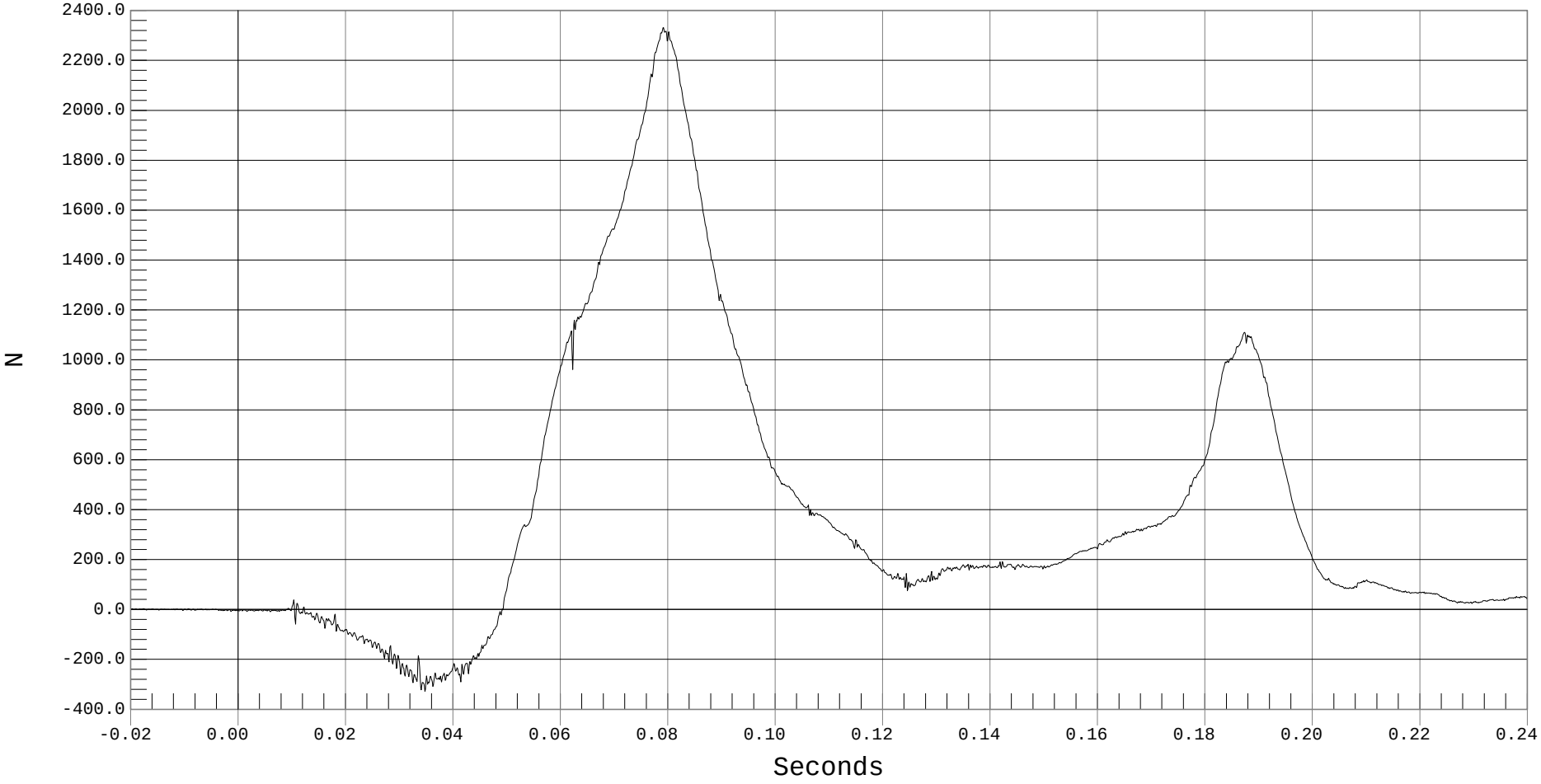
LRS 3 YR OLD UPPER NECK FORCE Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 LRS CHILD UPPER NECK FORCE Z, B01031FT.F18

Ymin = -328.96 N @ 0.0347 Seconds, Ymax = 2331.68 N @ 0.0791 Seconds



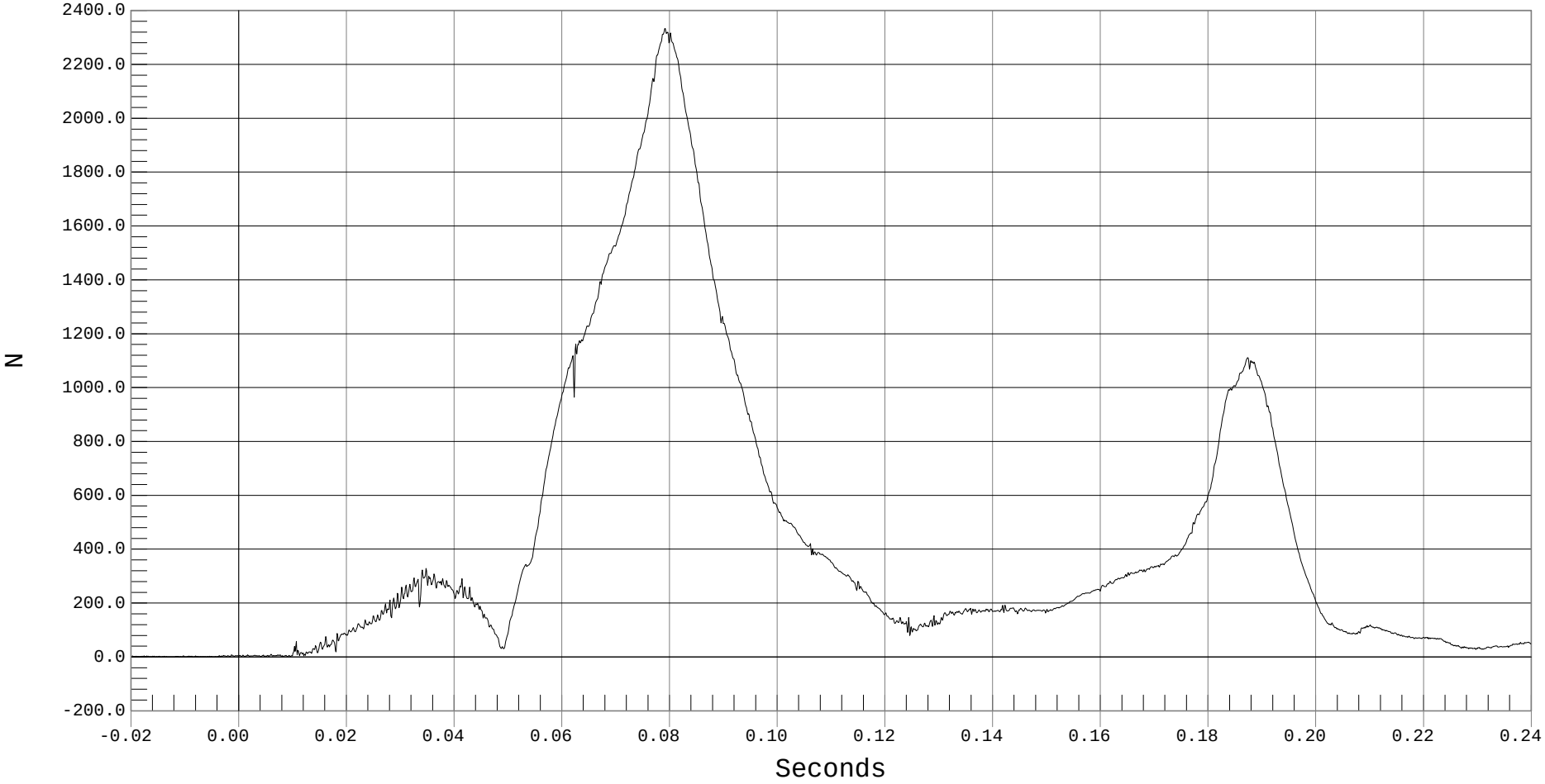
LRS 3 YR OLD UPPER NECK FORCE RESULTANT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 LRS 3 YR OLD UPPER NECK FORCE RESULTANT, B01031FV.F16

Ymin = .35 N @ -0.0178 Seconds, Ymax = 2333.87 N @ 0.0791 Seconds



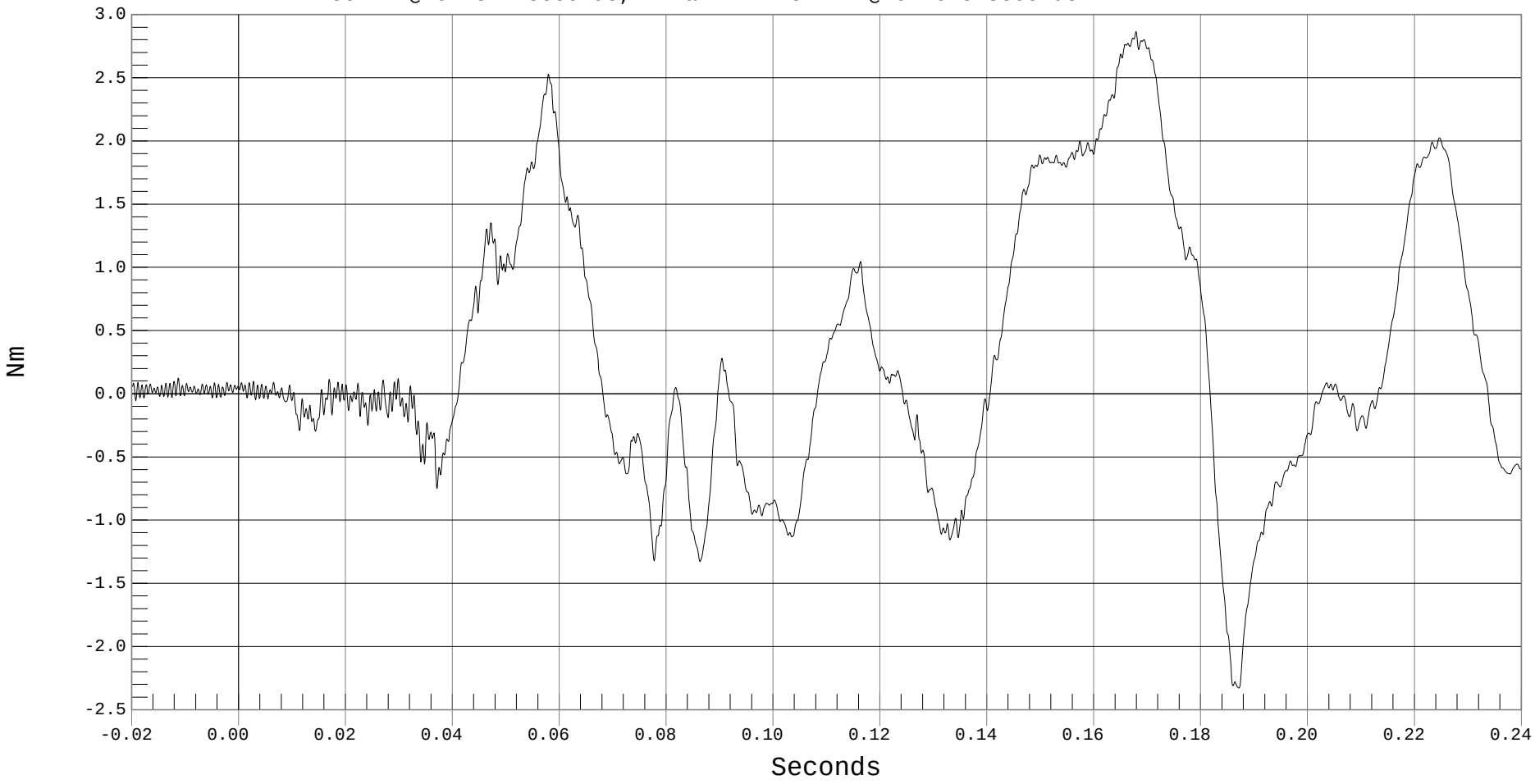
LRS 3 YR OLD UPPER NECK MOMENT X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 LRS CHILD UPPER NECK MOMENT X, B01031MF.M19

Ymin = -2.33 Nm @ 0.1871 Seconds, Ymax = 2.87 Nm @ 0.1678 Seconds



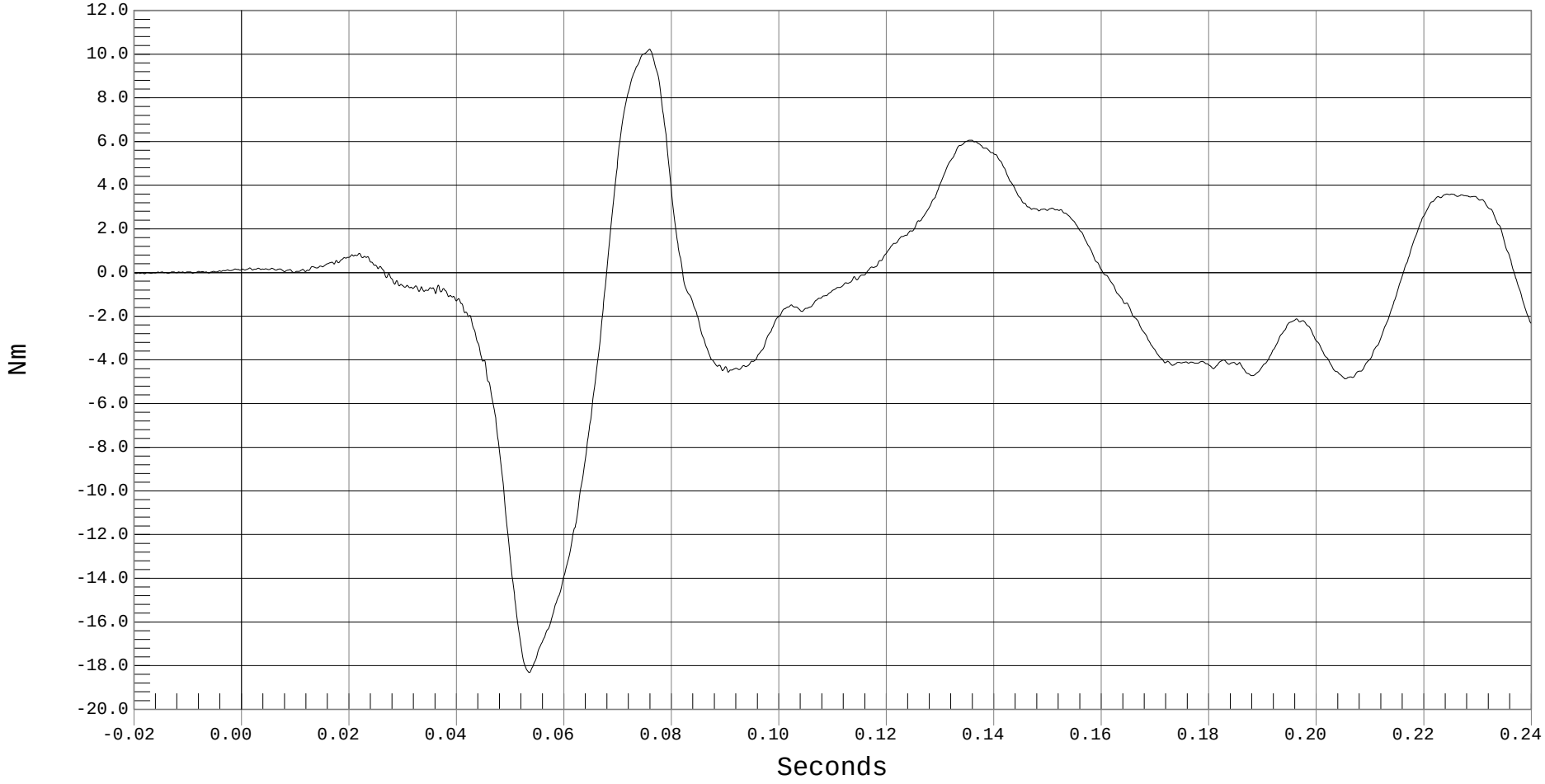
LRS 3 YR OLD UPPER NECK MOMENT Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 LRS CHILD UPPER NECK MOMENT Y, B01031MF.M20

Ymin = -18.32 Nm @ 0.0535 Seconds, Ymax = 10.23 Nm @ 0.0759 Seconds



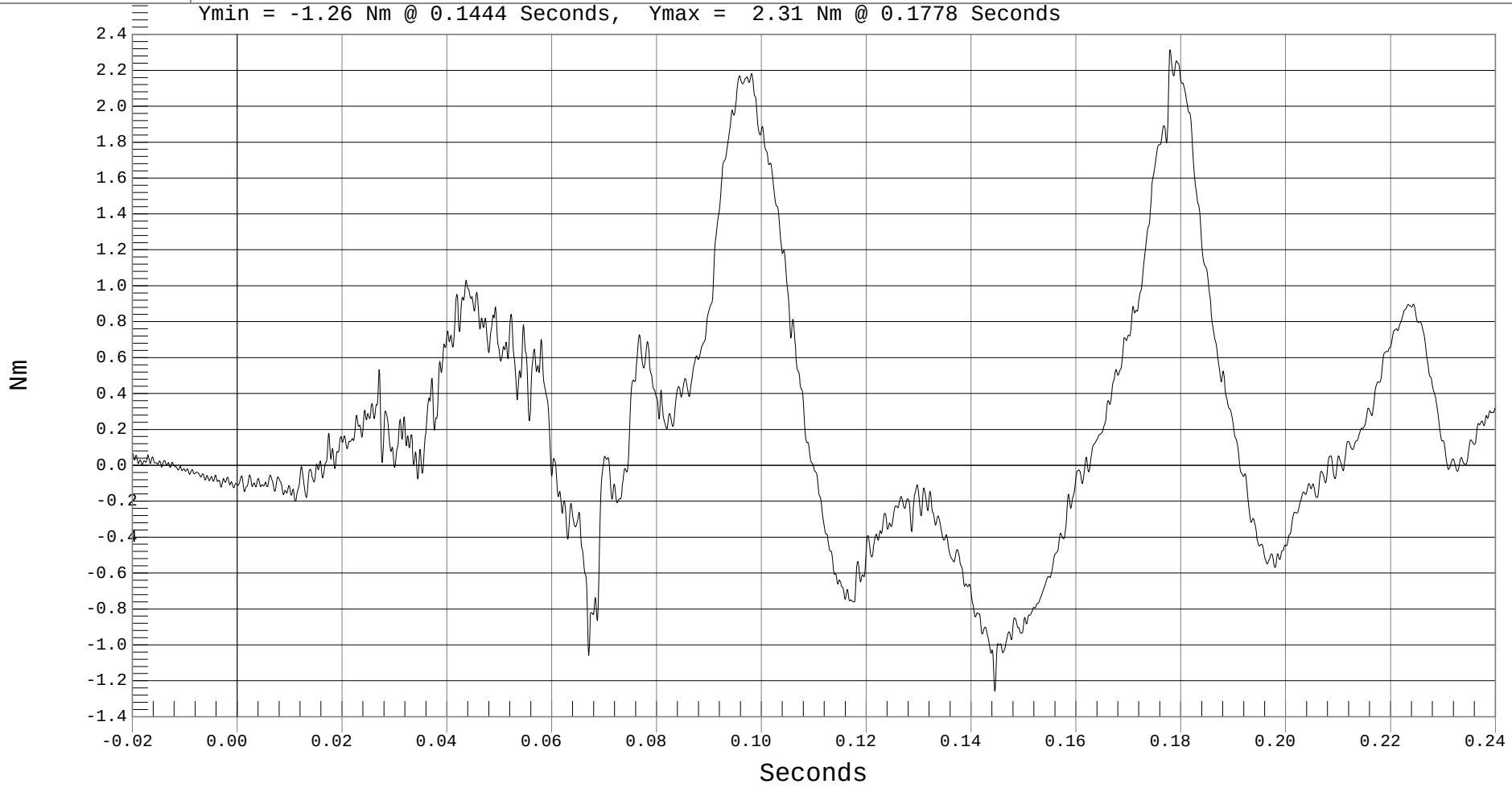
LRS 3 YR OLD UPPER NECK MOMENT Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 LRS CHILD UPPER NECK MOMENT Z, B01031MF.M21

Ymin = -1.26 Nm @ 0.1444 Seconds, Ymax = 2.31 Nm @ 0.1778 Seconds



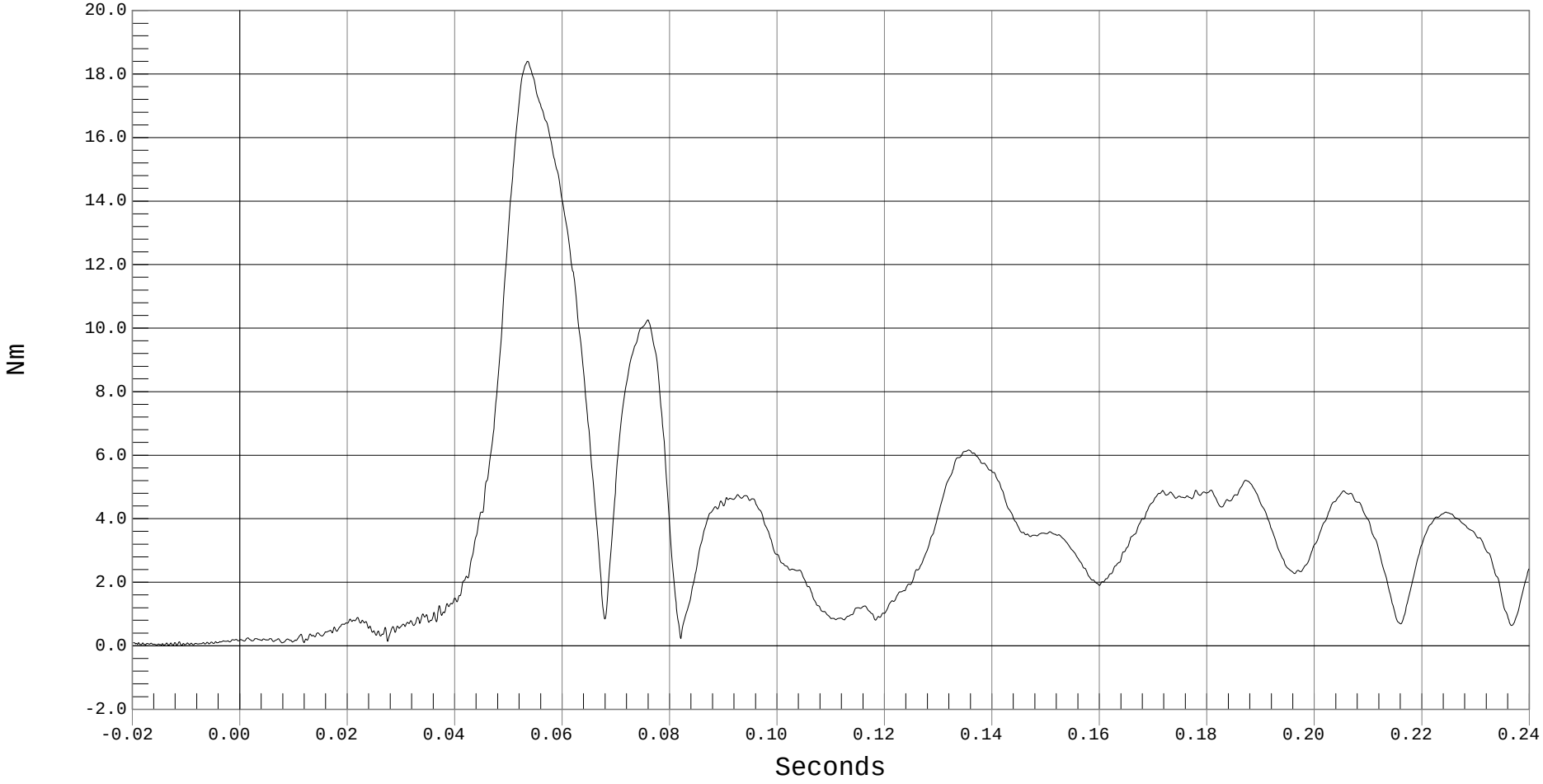
LRS 3 YR OLD UPPER NECK MOMENT RESULTANT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 LRS 3 YR OLD UPPER NECK MOMENT RESULTANT, B01031MV.M19

Ymin = .01 Nm @ -0.0134 Seconds, Ymax = 18.4 Nm @ 0.0535 Seconds



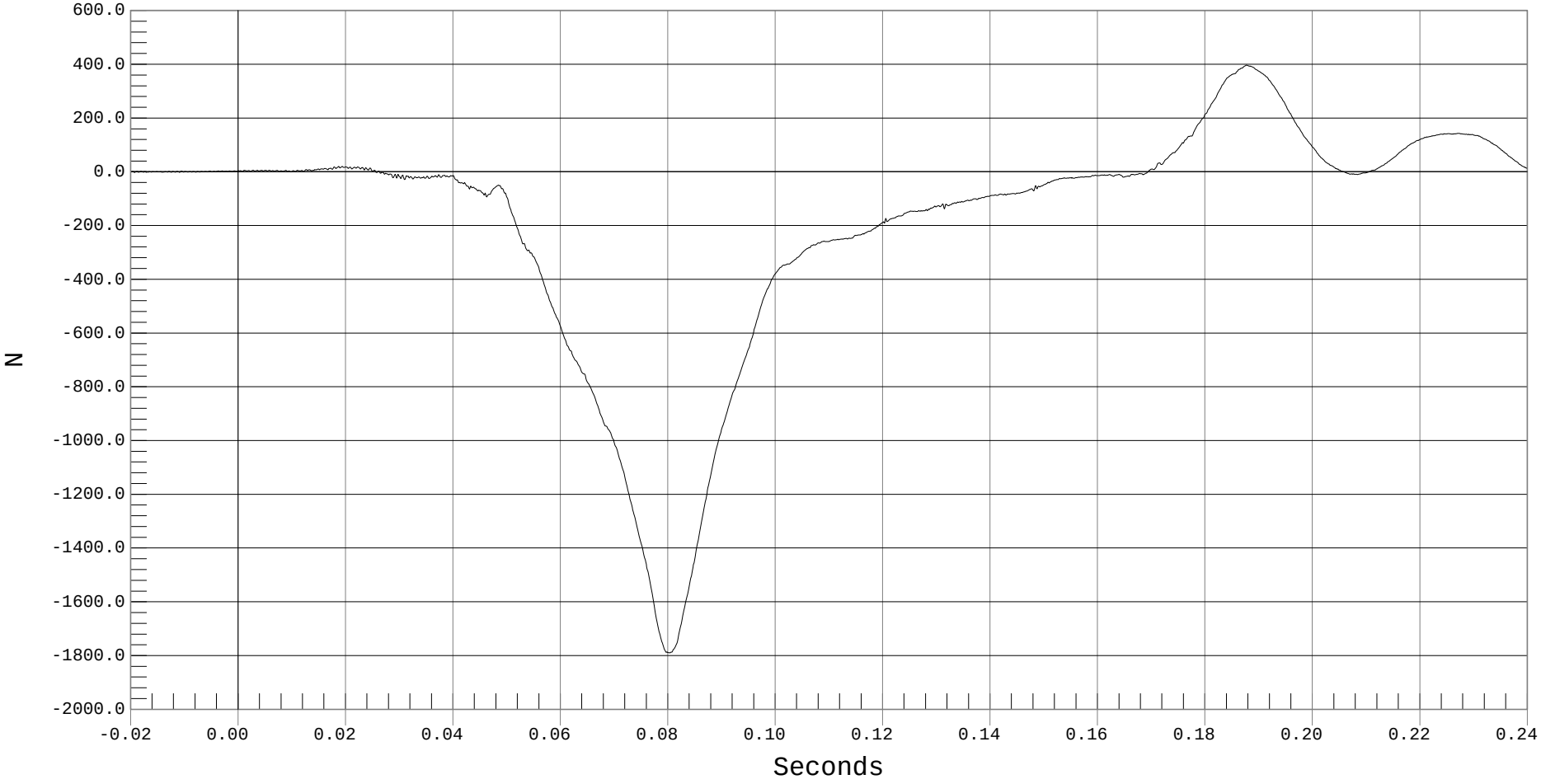
LRS 3 YR OLD LOWER NECK FORCE X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 LRS CHILD LOWER NECK FORCE X, B01031FT.F22

Ymin = -1790.37 N @ 0.0803 Seconds, Ymax = 396.68 N @ 0.1876 Seconds



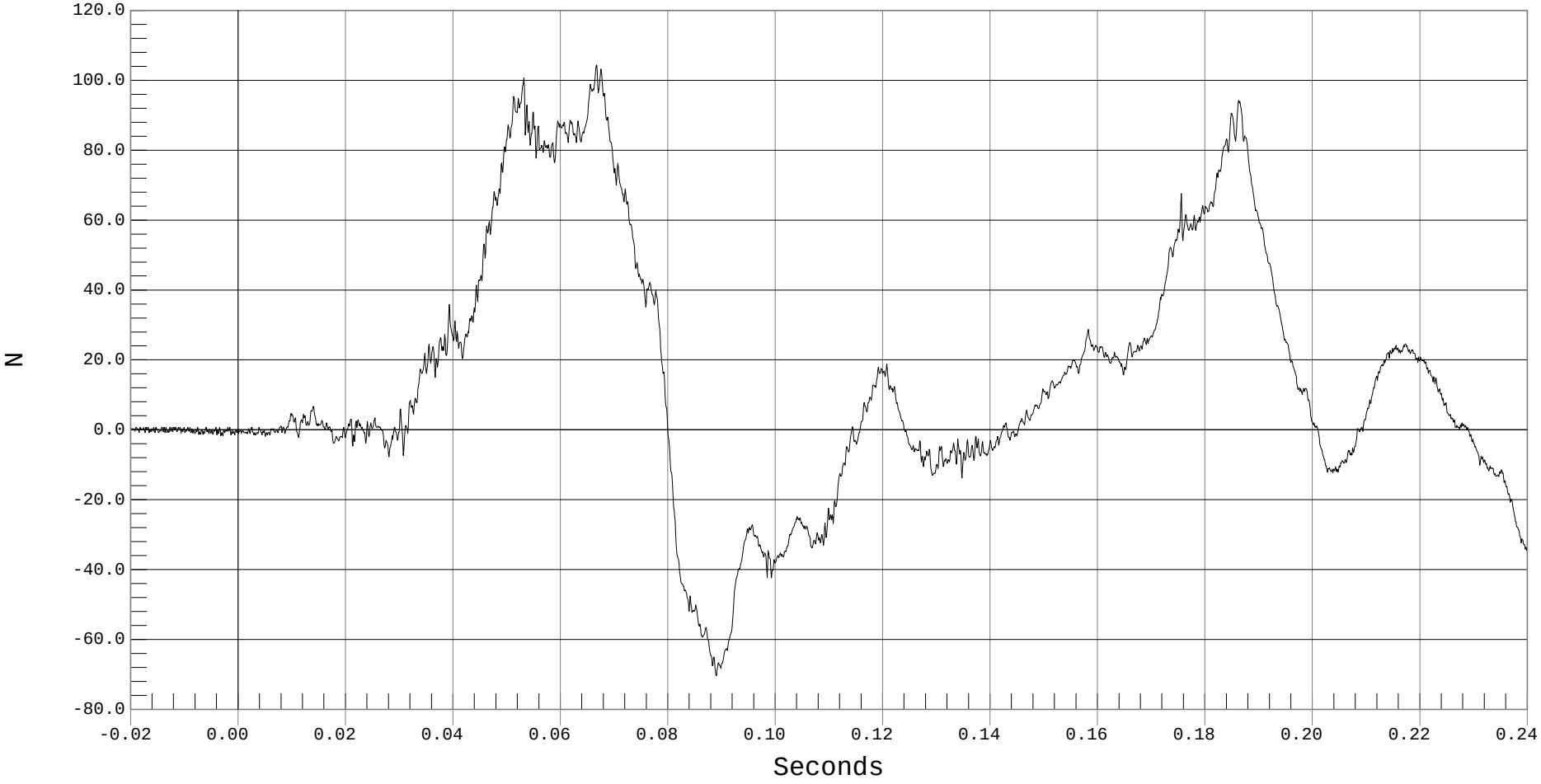
LRS 3 YR OLD LOWER NECK FORCE Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 LRS CHILD LOWER NECK FORCE Y, B01031FT.F23

Ymin = -70.32 N @ 0.0889 Seconds, Ymax = 104.35 N @ 0.0667 Seconds



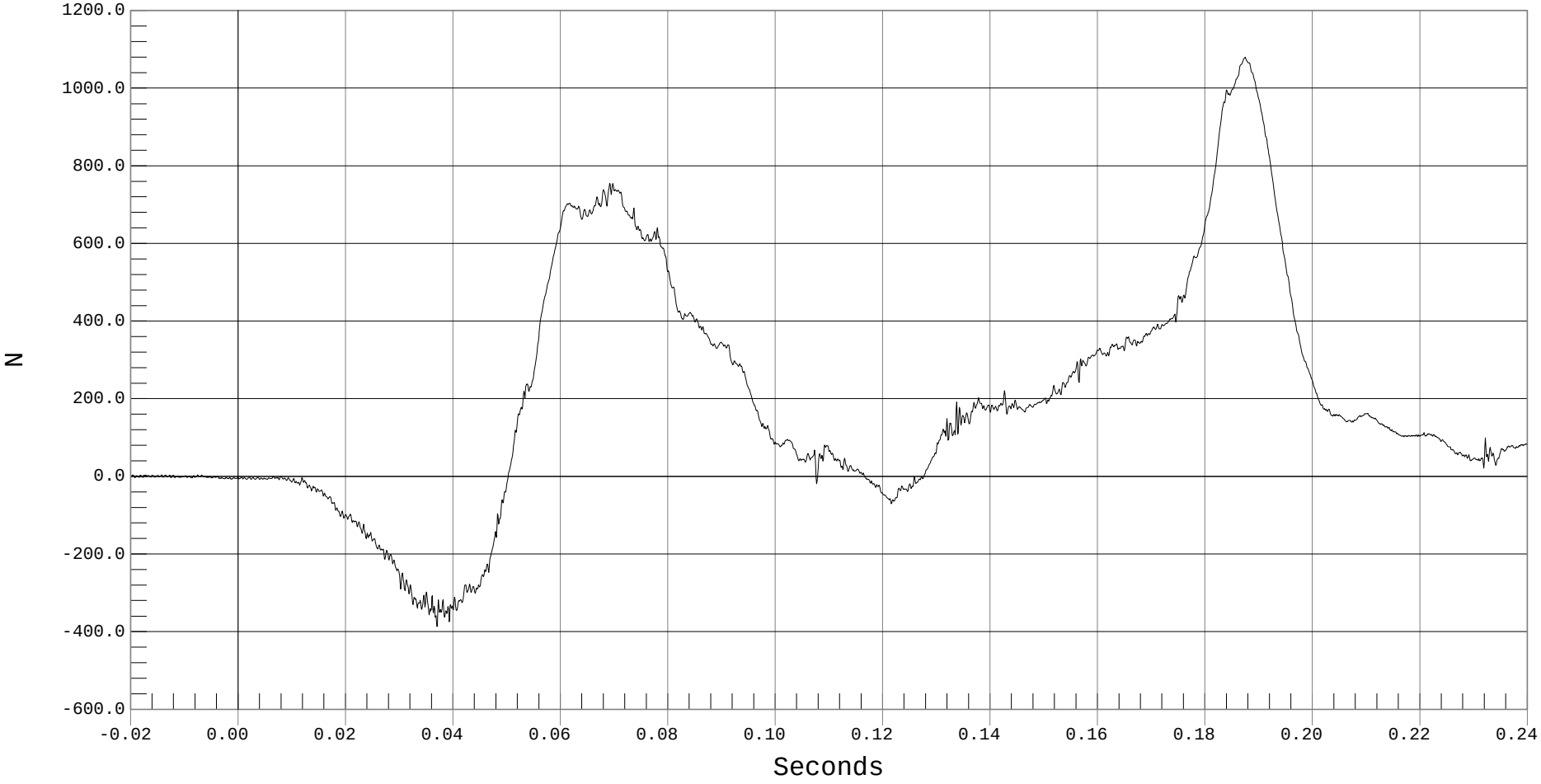
LRS 3 YR OLD LOWER NECK FORCE Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 LRS CHILD LOWER NECK FORCE Z, B01031FT.F24

Ymin = -387.04 N @ 0.0370 Seconds, Ymax = 1079.62 N @ 0.1874 Seconds



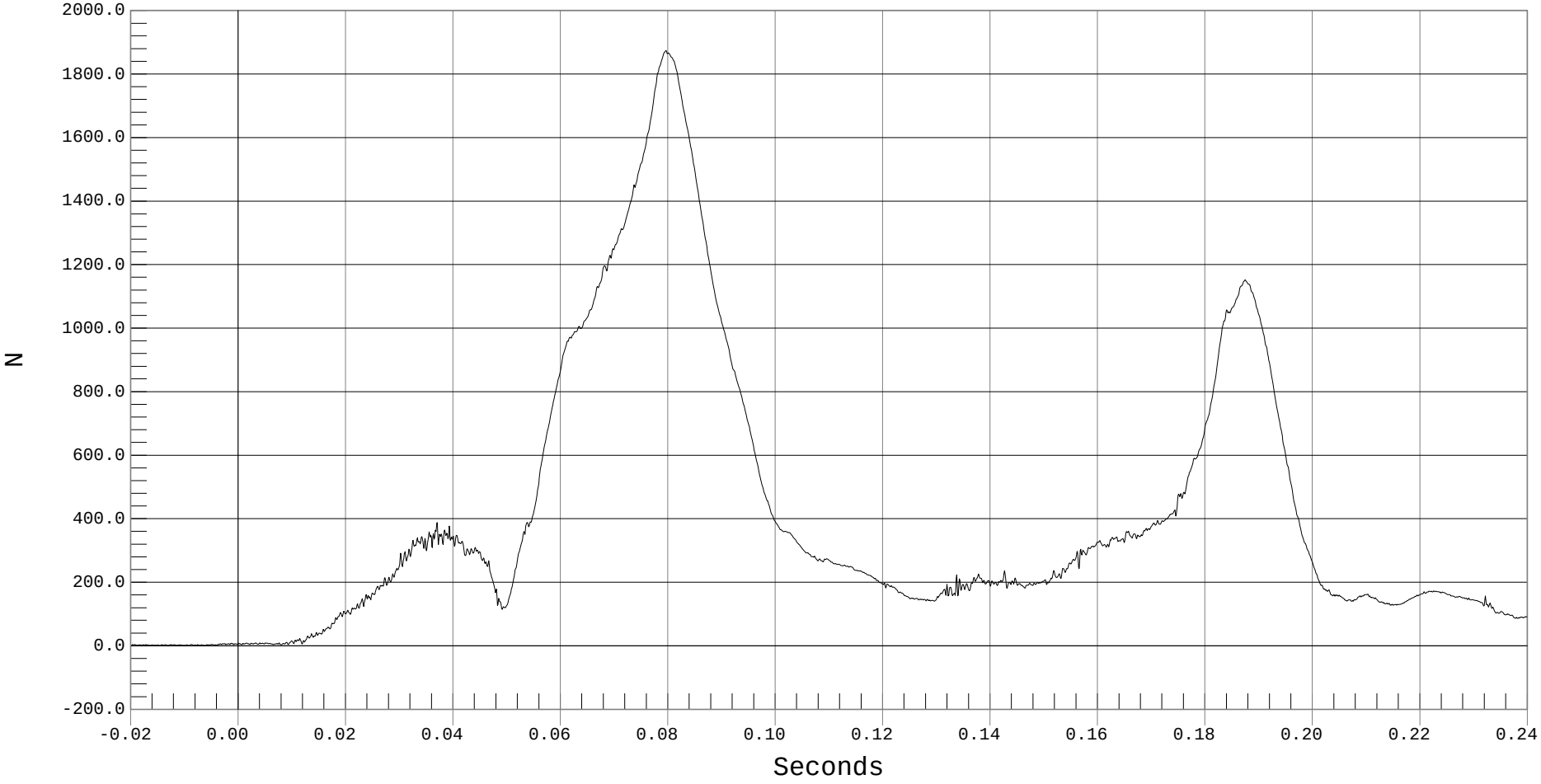
LRS 3 YR OLD LOWER NECK FORCE RESULTANT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 LRS 3 YR OLD LOWER NECK FORCE RESULTANT, B01031FV.F22

Ymin = .53 N @ -0.0097 Seconds, Ymax = 1874.03 N @ 0.0796 Seconds



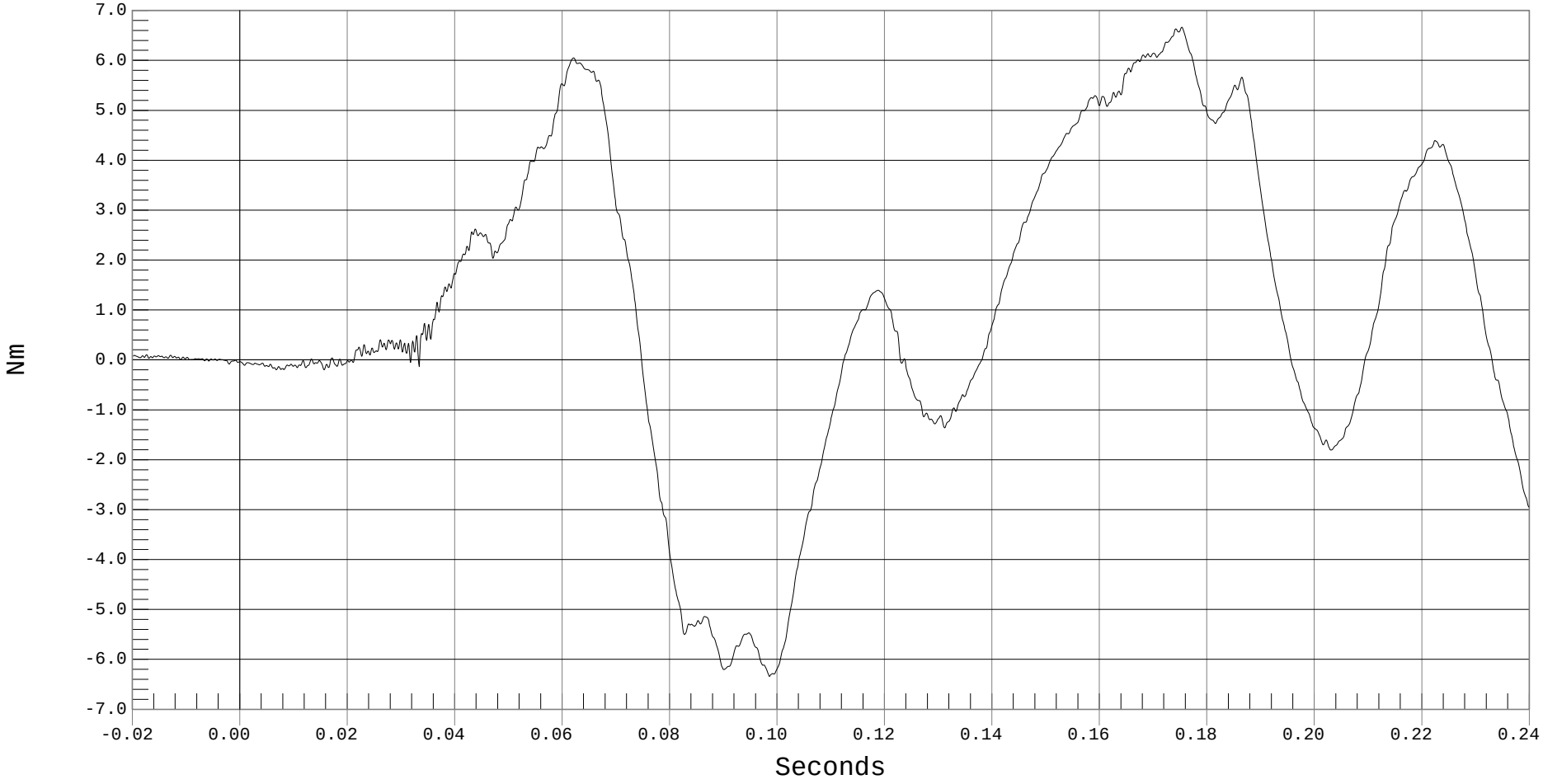
LRS 3 YR OLD LOWER NECK MOMENT X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 LRS CHILD LOWER NECK MOMENT X, B01031MF.M25

Ymin = -6.34 Nm @ 0.0985 Seconds, Ymax = 6.67 Nm @ 0.1752 Seconds



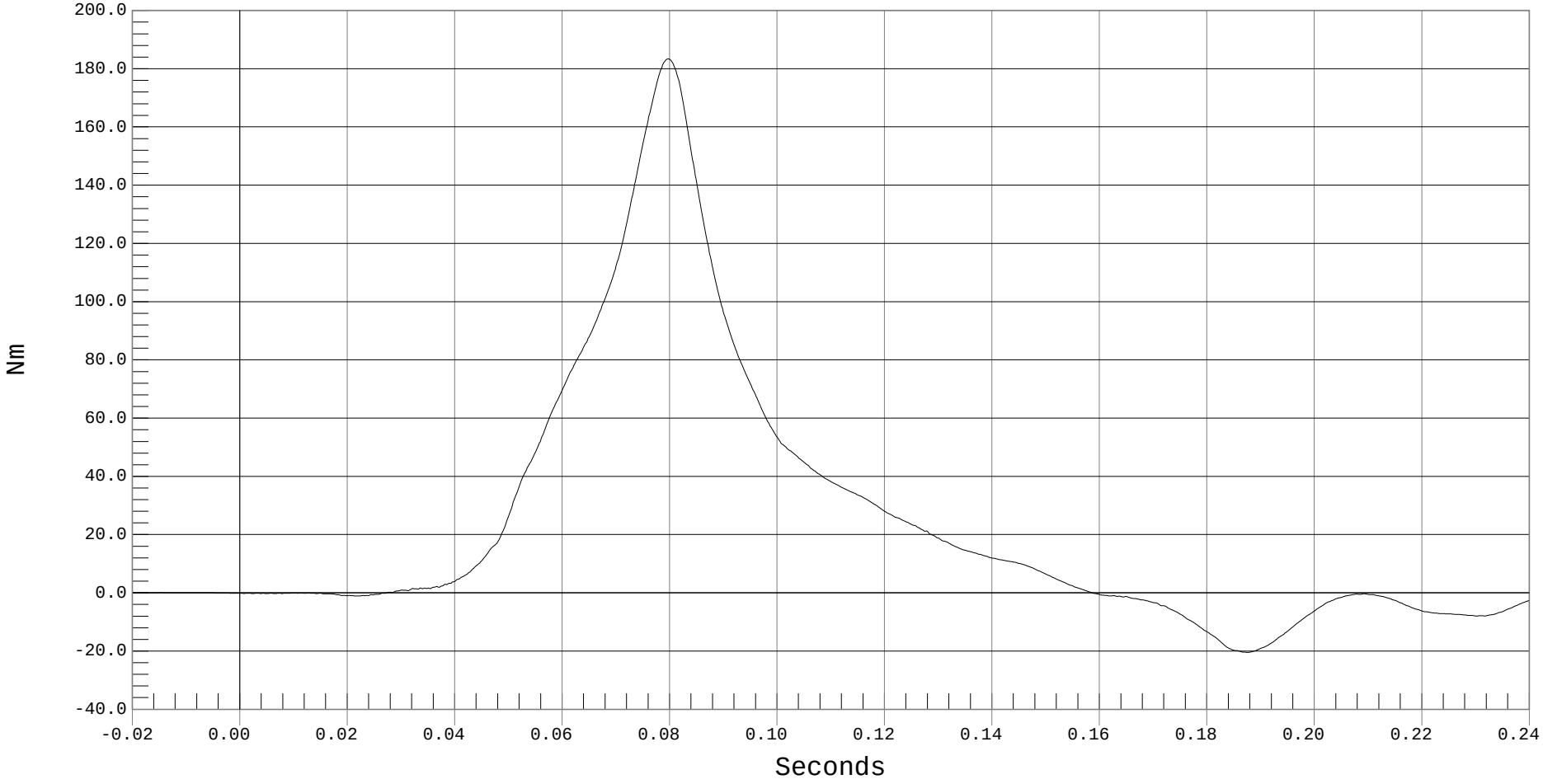
LRS 3 YR OLD LOWER NECK MOMENT Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 LRS CHILD LOWER NECK MOMENT Y, B01031MF.M26

Ymin = -20.49 Nm @ 0.1875 Seconds, Ymax = 183.39 Nm @ 0.0797 Seconds



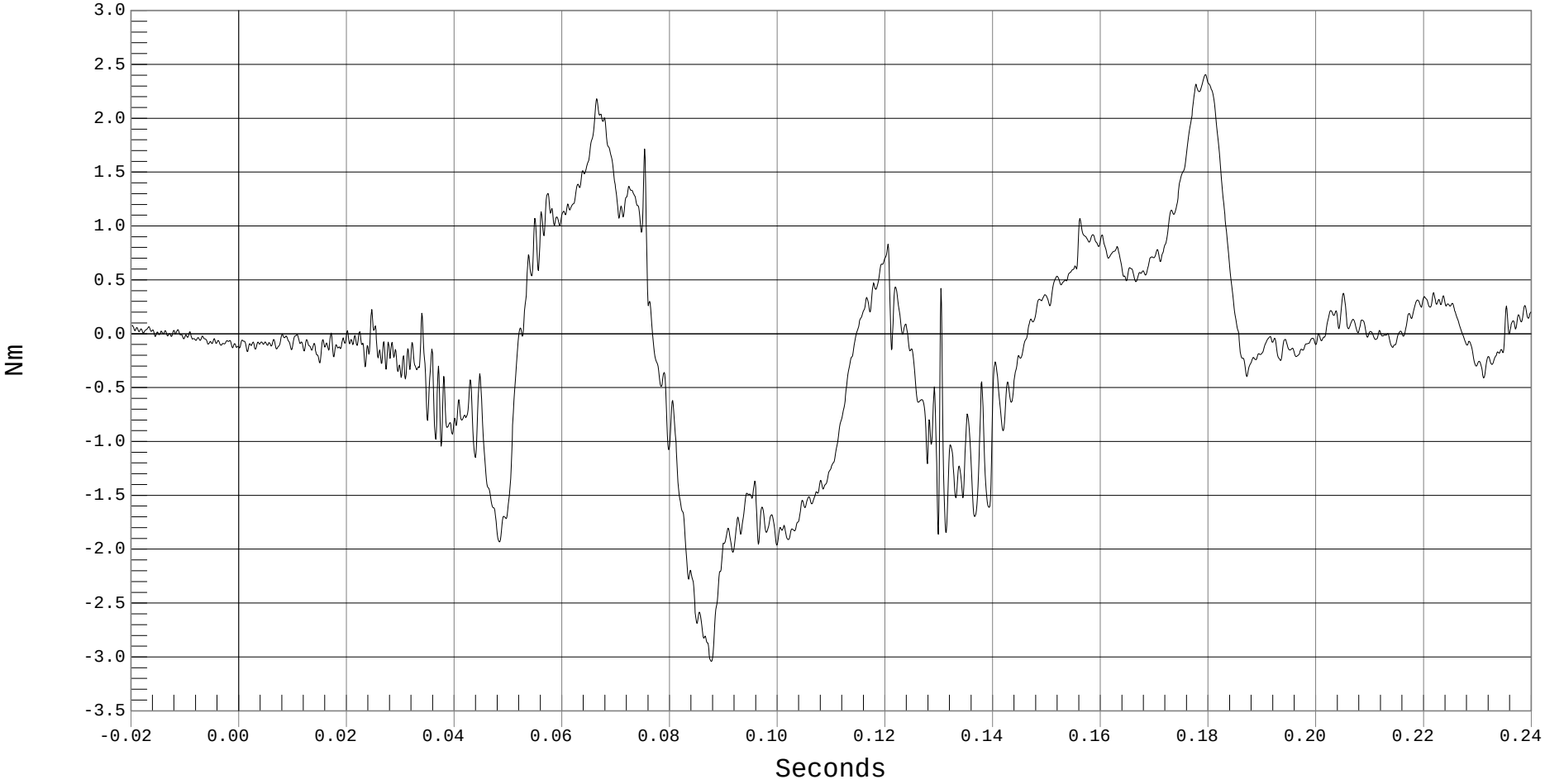
LRS 3 YR OLD LOWER NECK MOMENT Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 LRS CHILD LOWER NECK MOMENT Z, B01031MF.M27

Ymin = -3.04 Nm @ 0.0877 Seconds, Ymax = 2.41 Nm @ 0.1794 Seconds



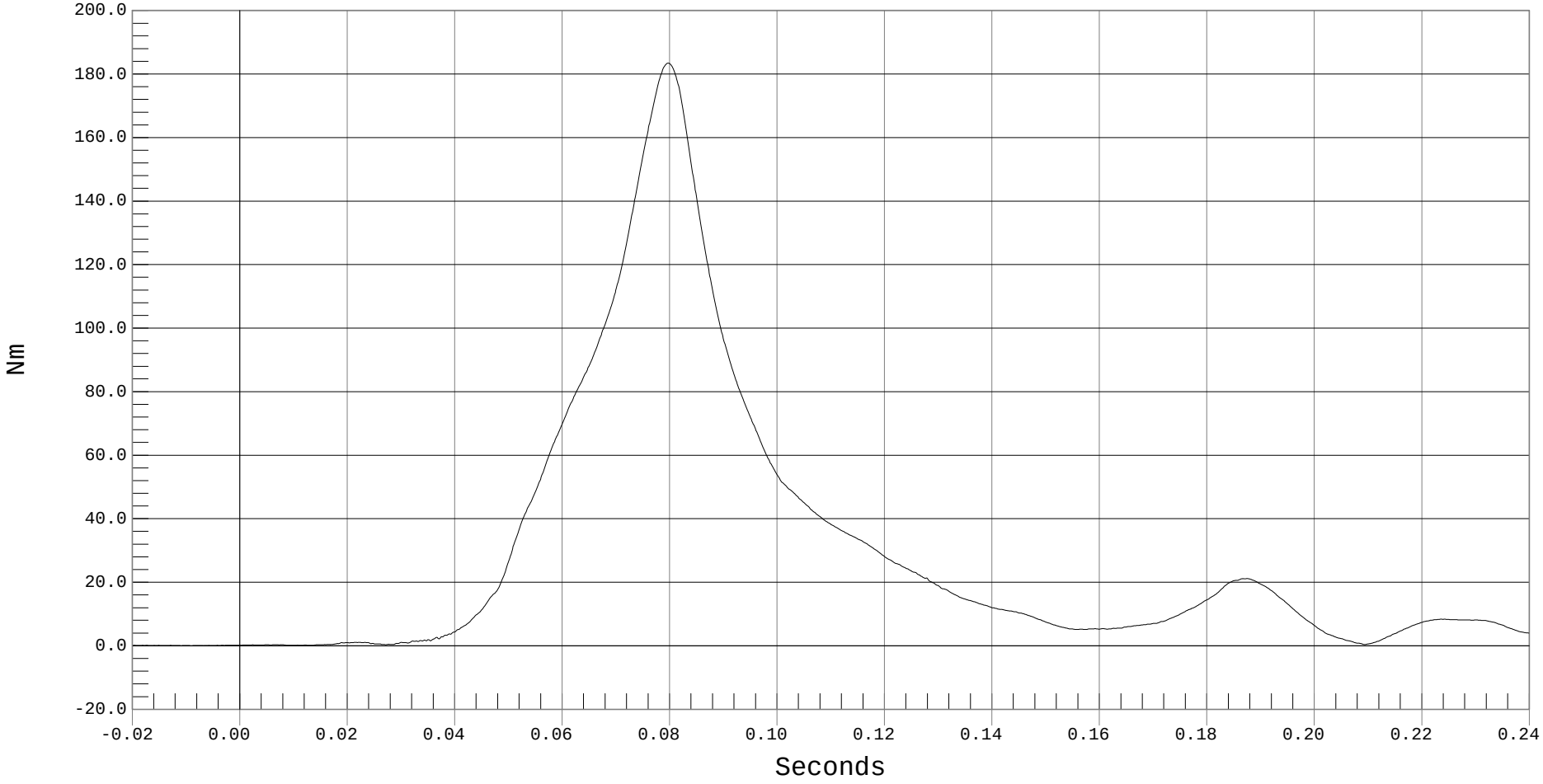
LRS 3 YR OLD LOWER NECK MOMENT RESULTANT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 LRS 3 YR OLD LOWER NECK MOMENT RESULTANT, B01031MV.M25

Ymin = .01 Nm @ -0.0090 Seconds, Ymax = 183.43 Nm @ 0.0797 Seconds



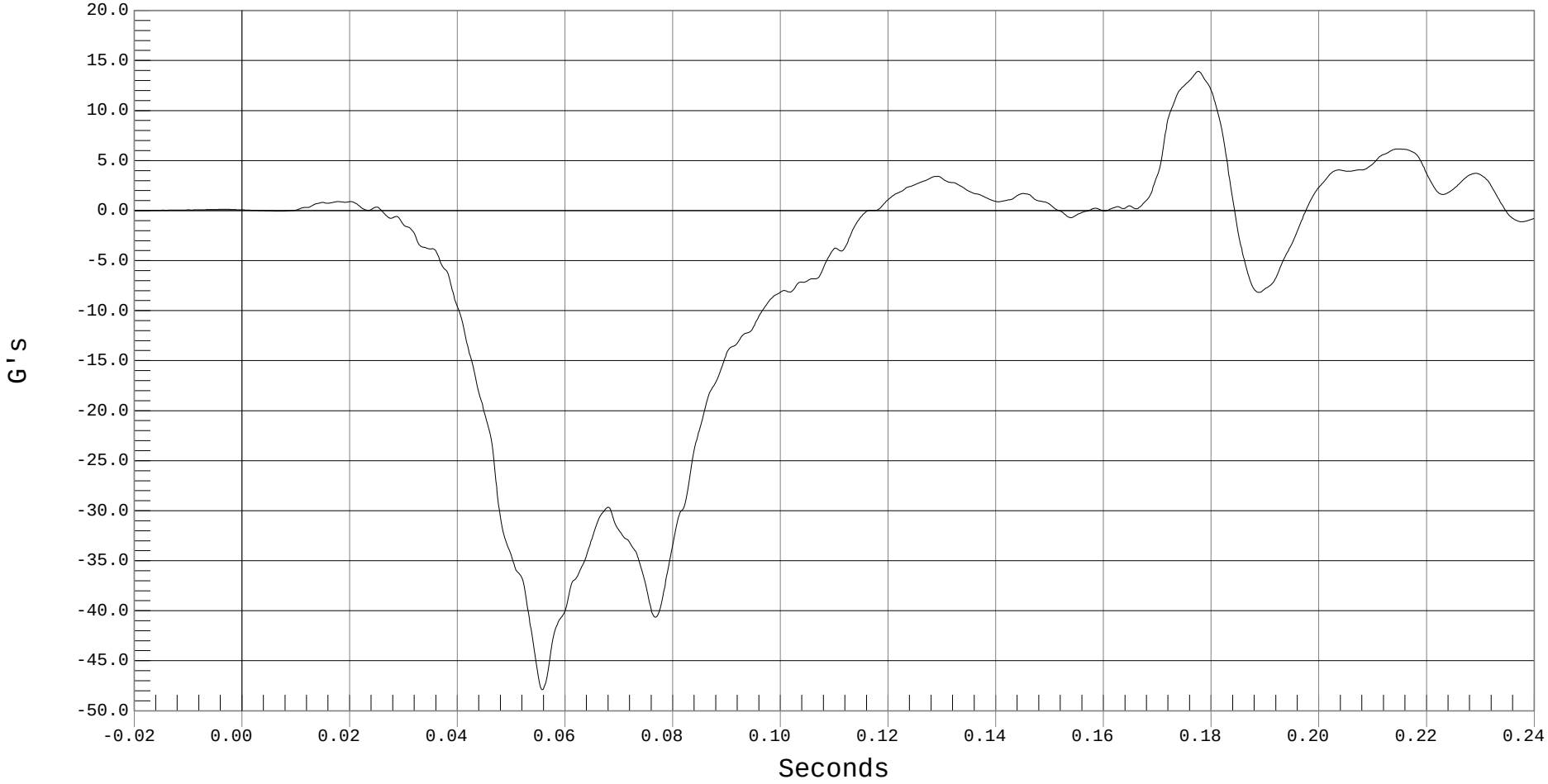
LRS 3 YR OLD CHEST X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 LRS CHILD CHEST X, B01031AF.A28

Ymin = -47.89 G's @ 0.0557 Seconds, Ymax = 13.92 G's @ 0.1775 Seconds



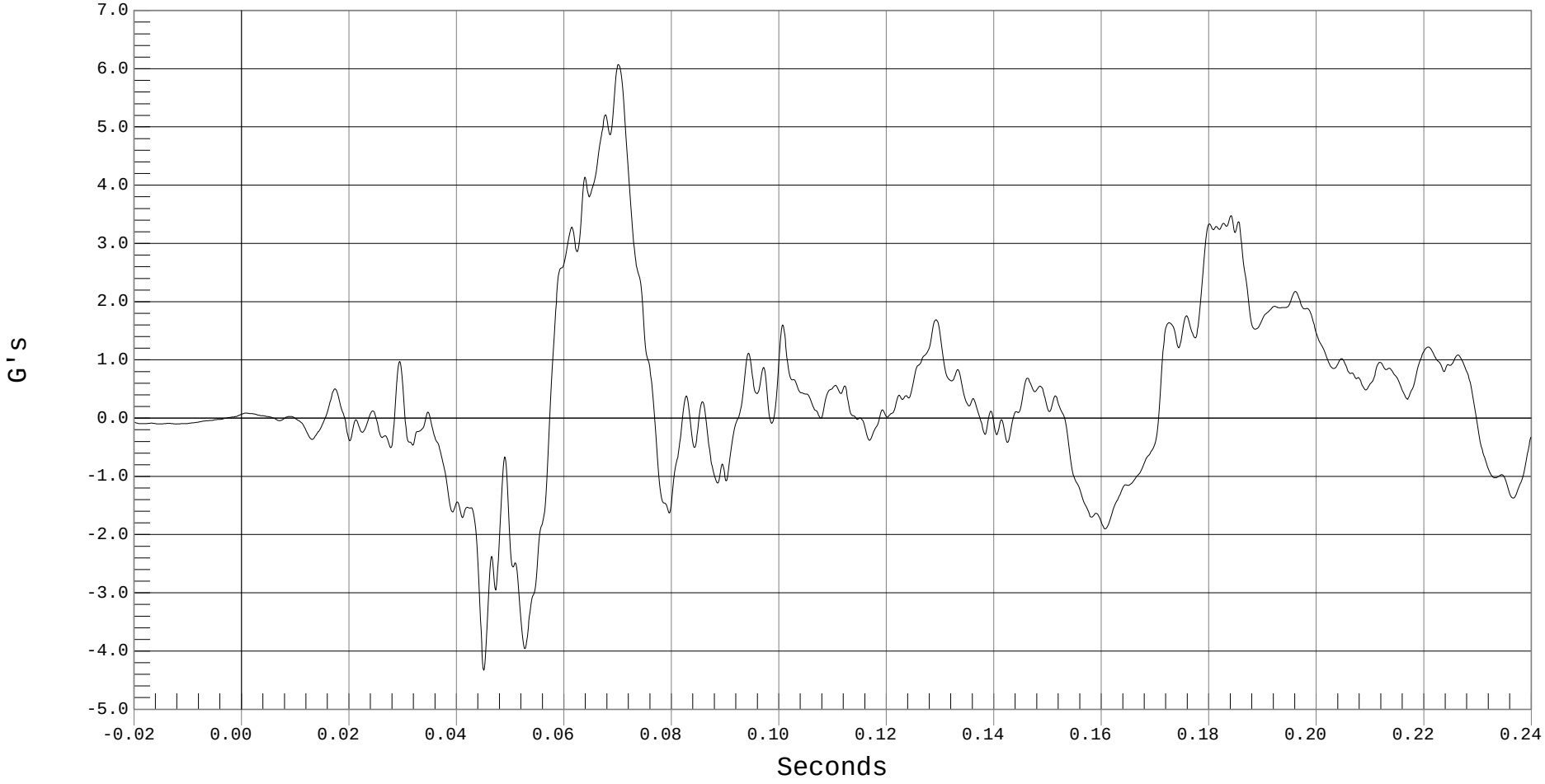
LRS 3 YR OLD CHEST Y ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 LRS CHILD CHEST Y, B01031AF.A29

Ymin = -4.33 G's @ 0.0450 Seconds, Ymax = 6.07 G's @ 0.0701 Seconds



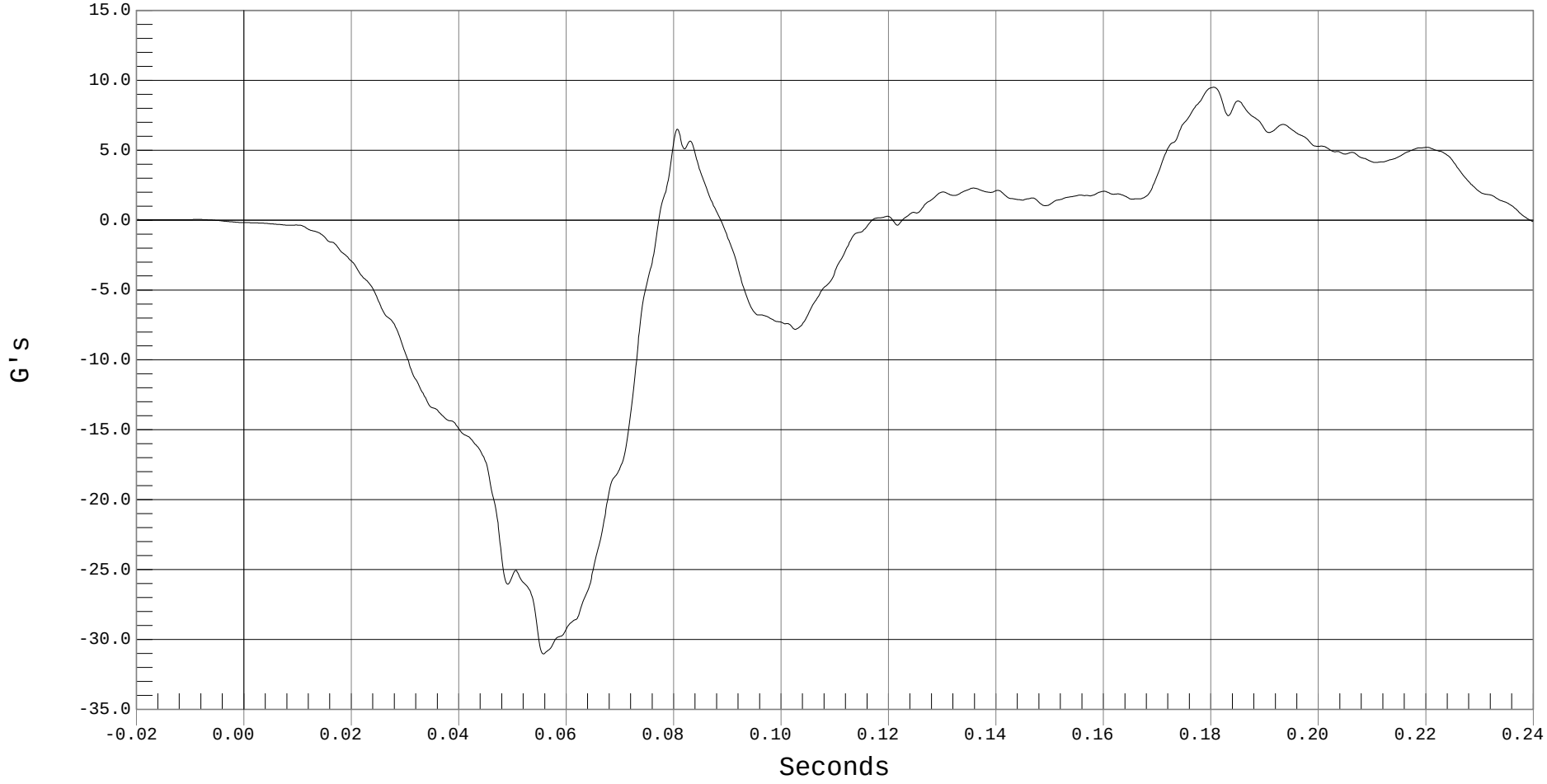
LRS 3 YR OLD CHEST Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 LRS CHILD CHEST Z, B01031AF.A30

Ymin = -31.03 G's @ 0.0557 Seconds, Ymax = 9.5 G's @ 0.1804 Seconds



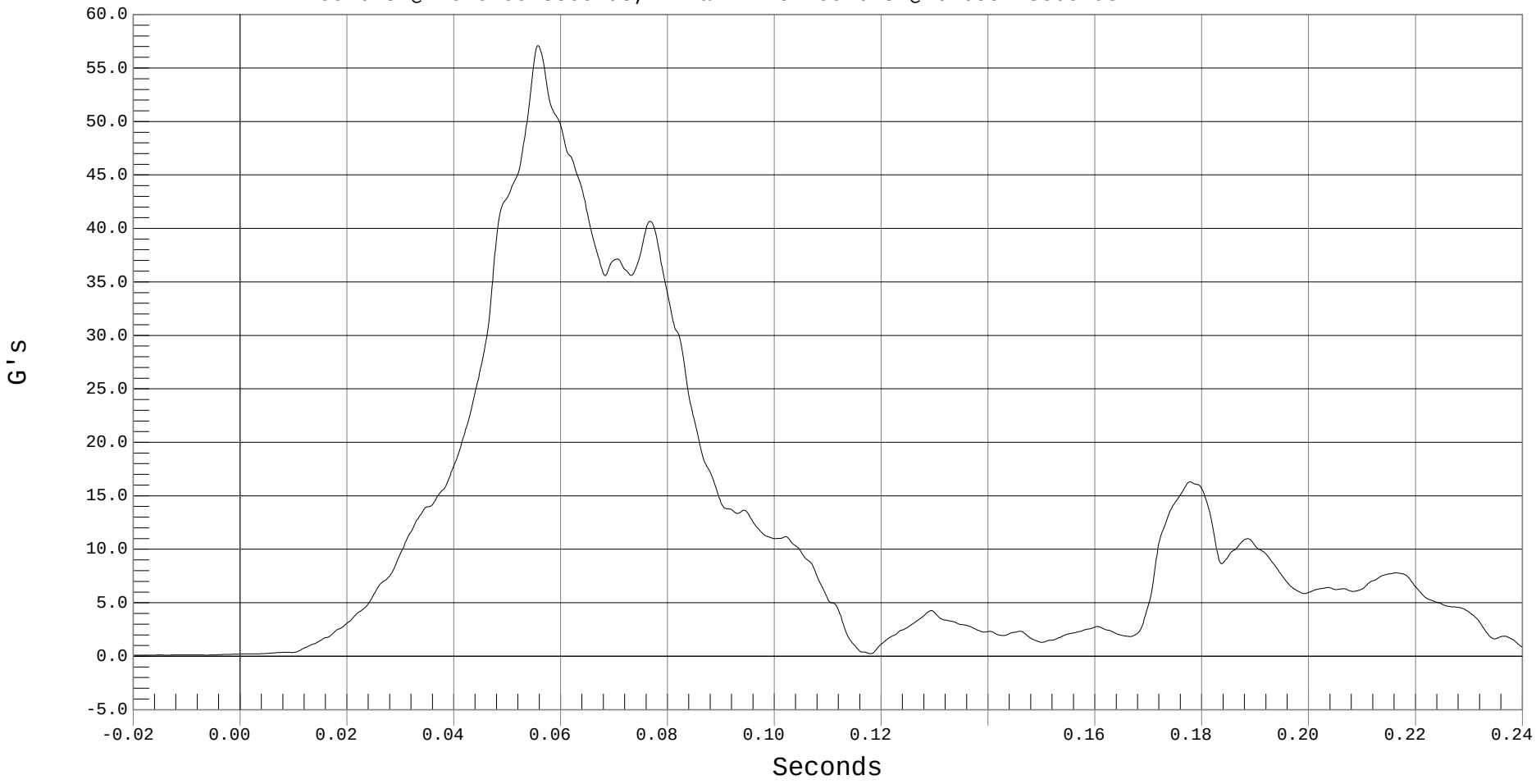
LRS 3 YR OLD CHEST RESULTANT ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 LRS 3 YR OLD CHEST RESULTANT ACCELERATION, B01031AV.A28

Ymin = .09 G's @ -0.0199 Seconds, Ymax = 57.09 G's @ 0.0557 Seconds



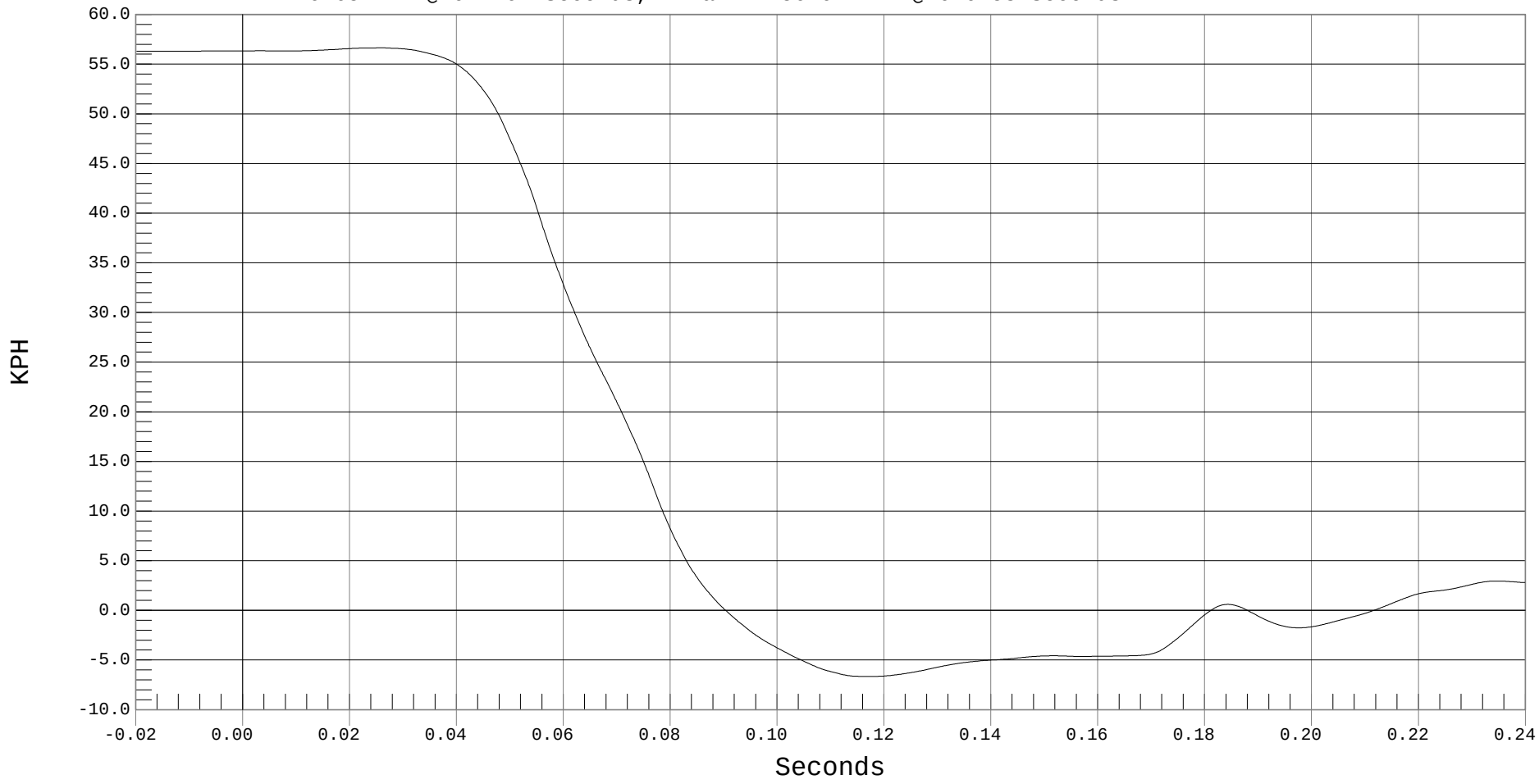
LRS 3 YR OLD CHEST X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 LRS 3 YR OLD CHEST X VELOCITY, B01031AI.V28

Ymin = -6.65 KPH @ 0.1162 Seconds, Ymax = 56.64 KPH @ 0.0258 Seconds



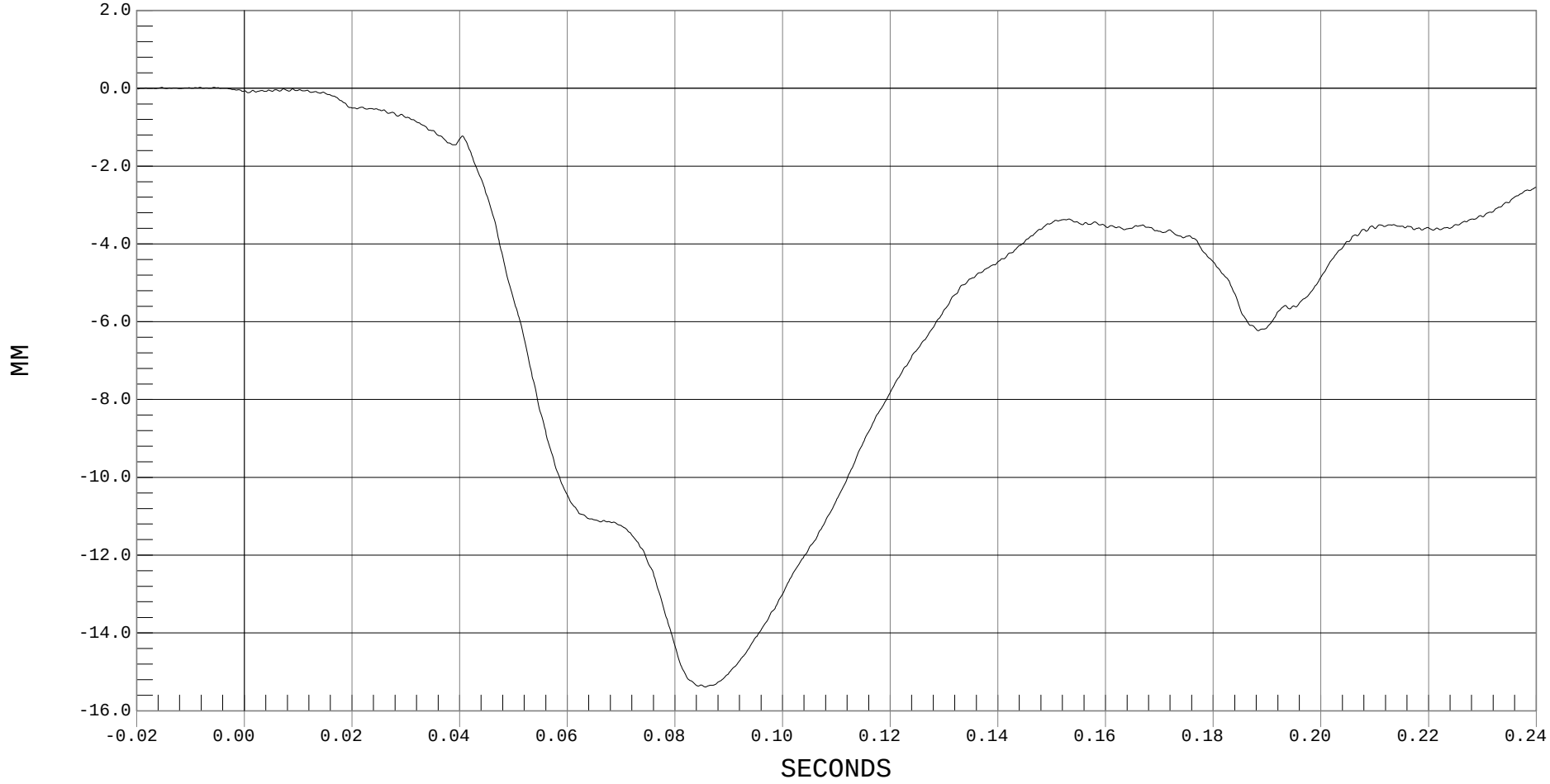
LRS 3 YR OLD CHEST COMPRESSION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DISPLACEMENT, B01031DF.D31

Ymin = -15.39 MM @ 0.0856 SECONDS, Ymax = .03 MM @ -0.0058 SECONDS



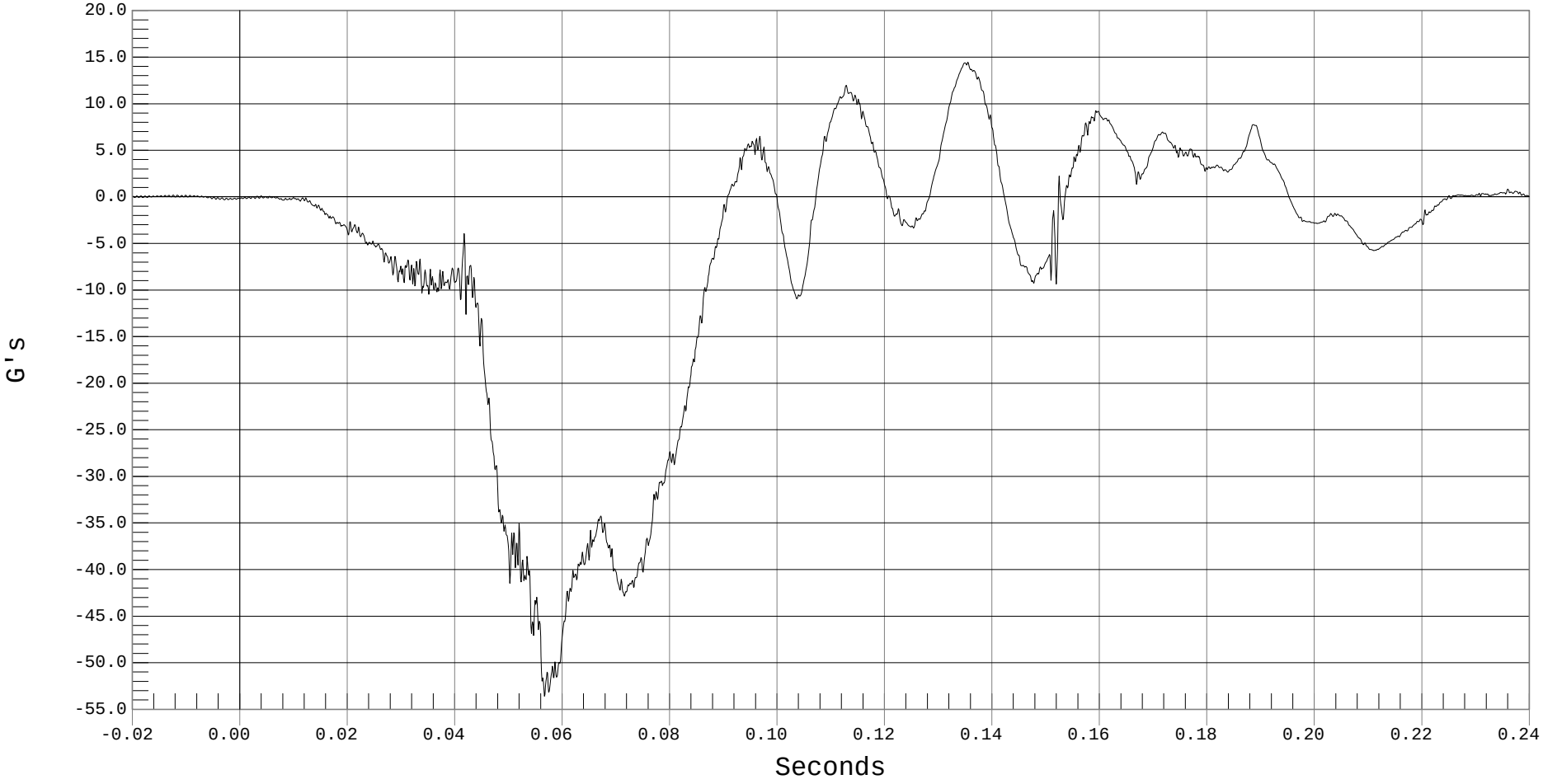
LRS 3 YR OLD PELVIS X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 LRS CHILD PELVIS X, B01031AT.A34

Ymin = -53.58 G's @ 0.0566 Seconds, Ymax = 14.44 G's @ 0.1354 Seconds



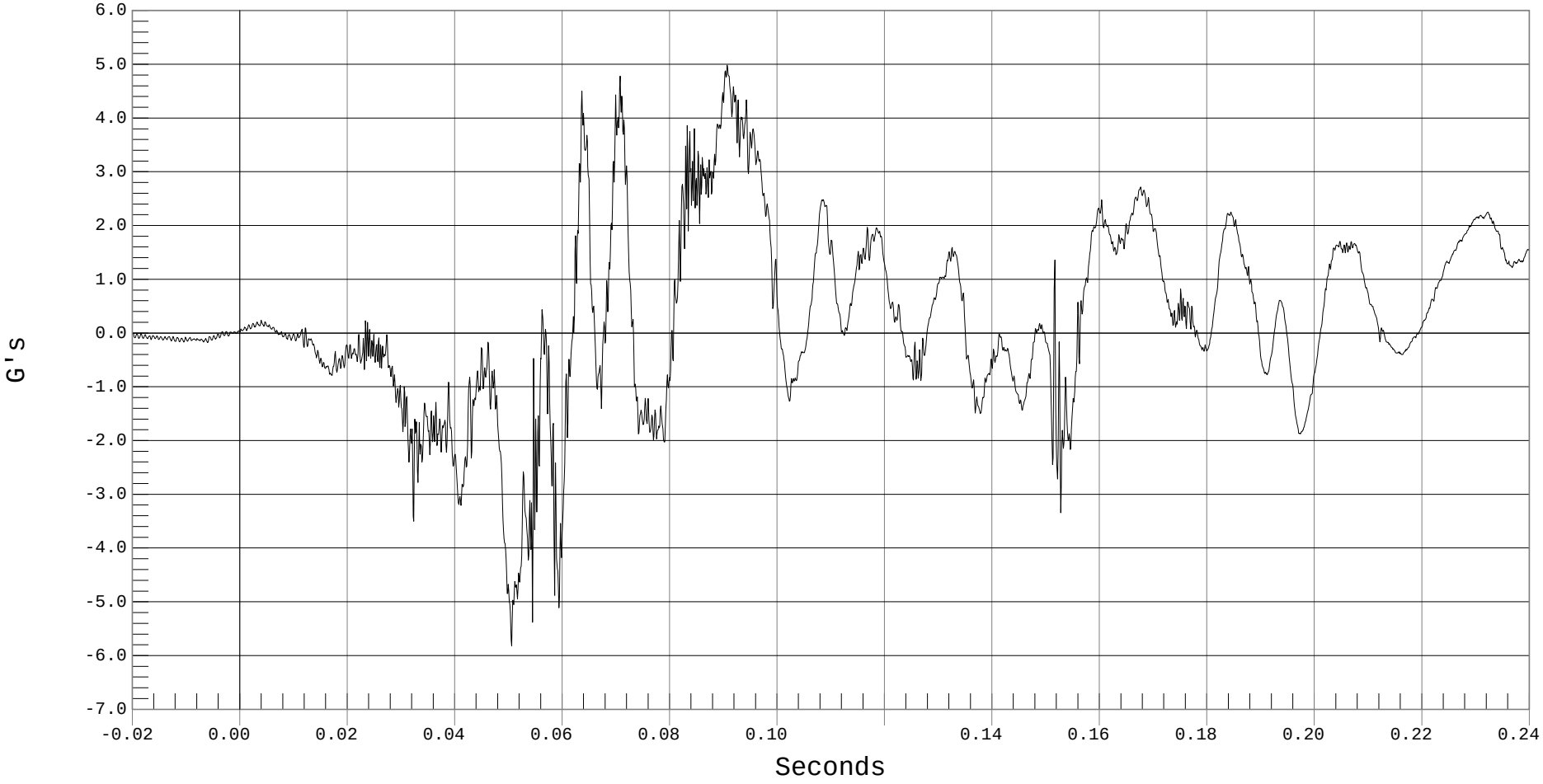
LRS 3 YR OLD PELVIS Y ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 LRS CHILD PELVIS Y, B01031AT.A35

Ymin = -5.82 G's @ 0.0505 Seconds, Ymax = 4.99 G's @ 0.0906 Seconds



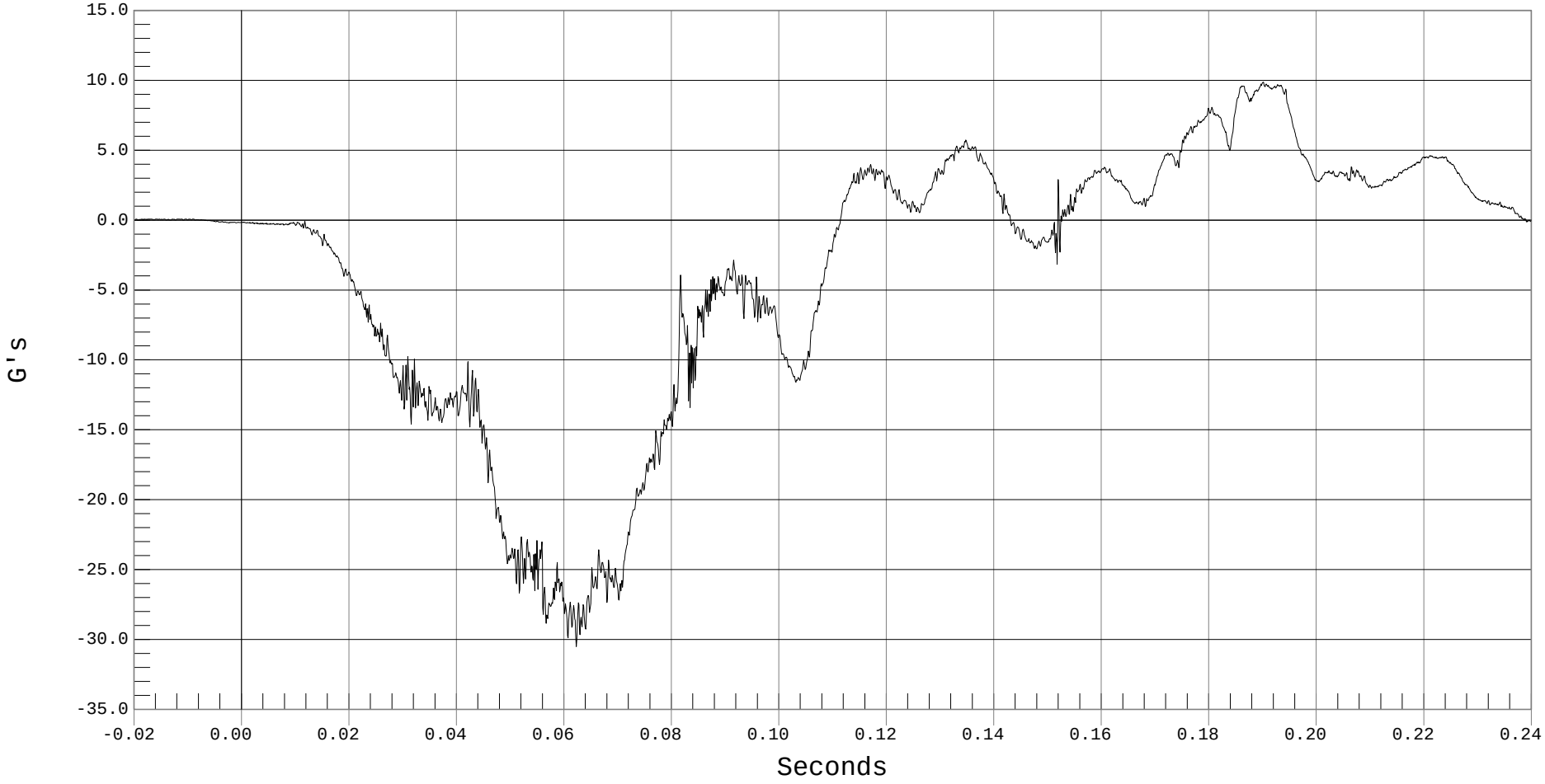
LRS 3 YR OLD PELVIS Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 LRS CHILD PELVIS Z, B01031AT.A36

Ymin = -30.52 G's @ 0.0622 Seconds, Ymax = 9.86 G's @ 0.1900 Seconds



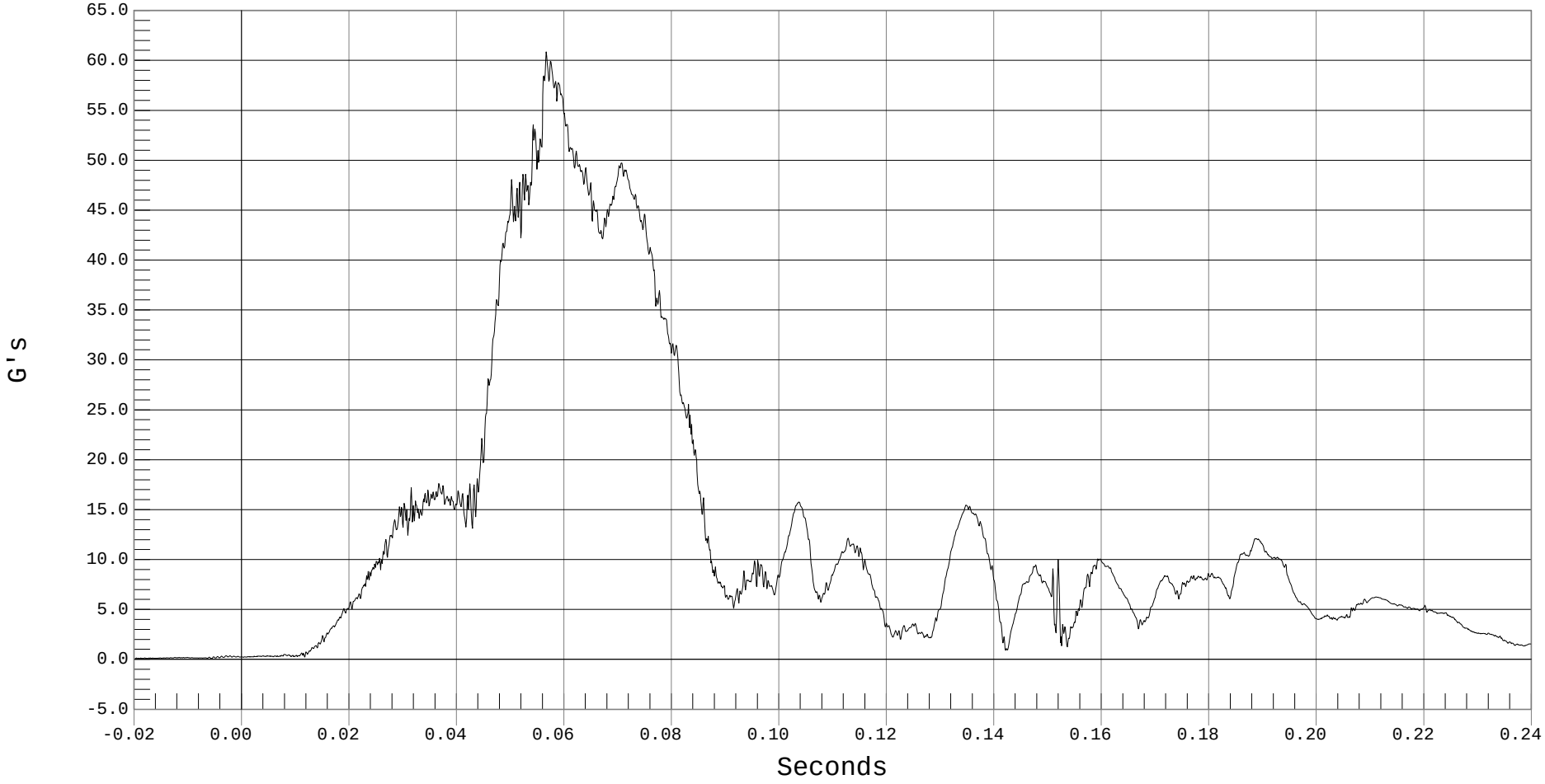
LRS 3 YR OLD PELVIS RESULTANT ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 LRS 3 YR OLD PELVIS RESULTANT ACCELERATION, B01031AV.A34

Ymin = .06 G's @ -0.0194 Seconds, Ymax = 60.86 G's @ 0.0566 Seconds



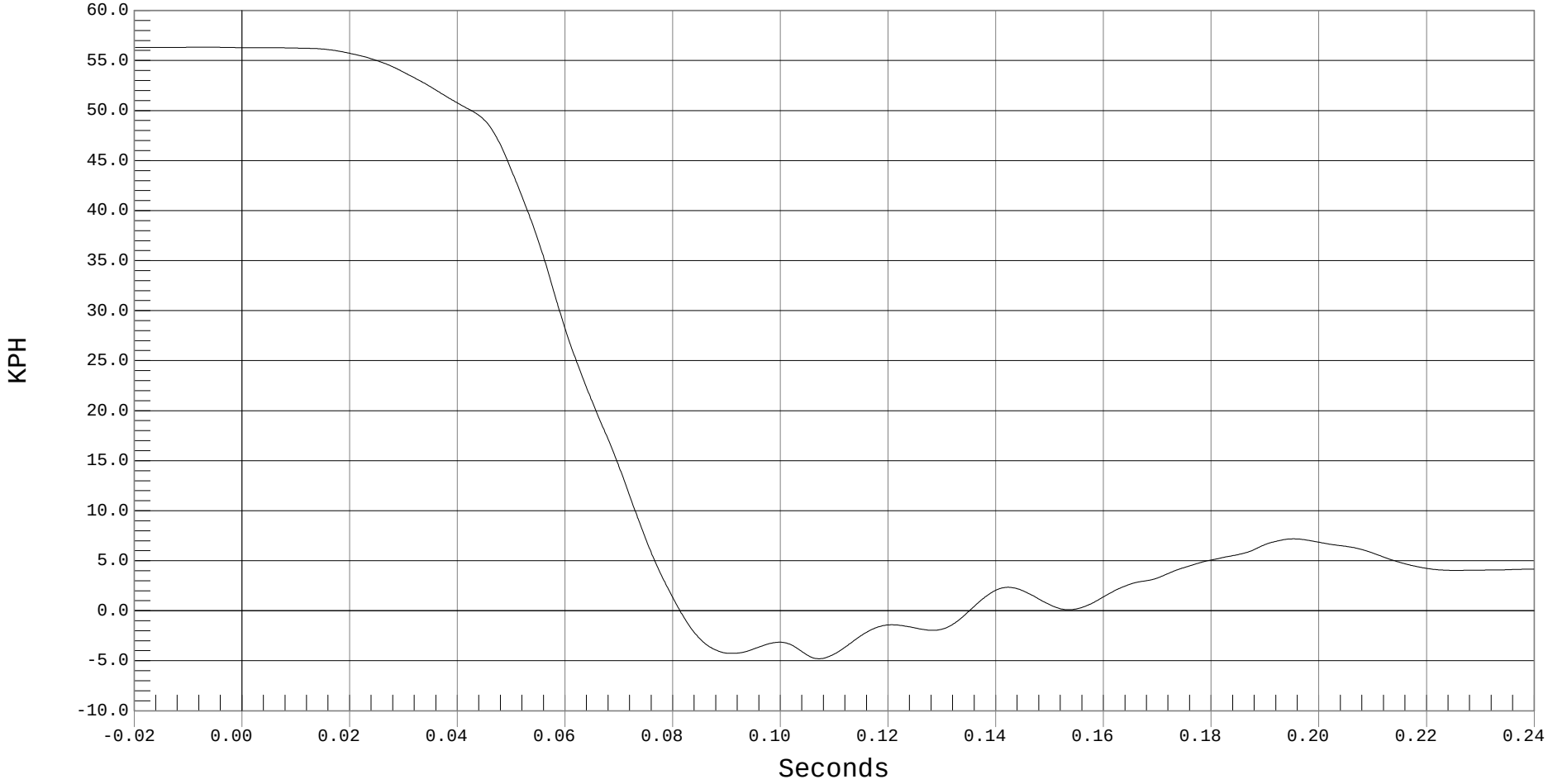
LRS 3 YR OLD PELVIS X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 3 YR OLD PELVIS X VELOCITY, B01031AI.V34

Ymin = -4.8 KPH @ 0.1071 Seconds, Ymax = 56.32 KPH @ -0.0066 Seconds



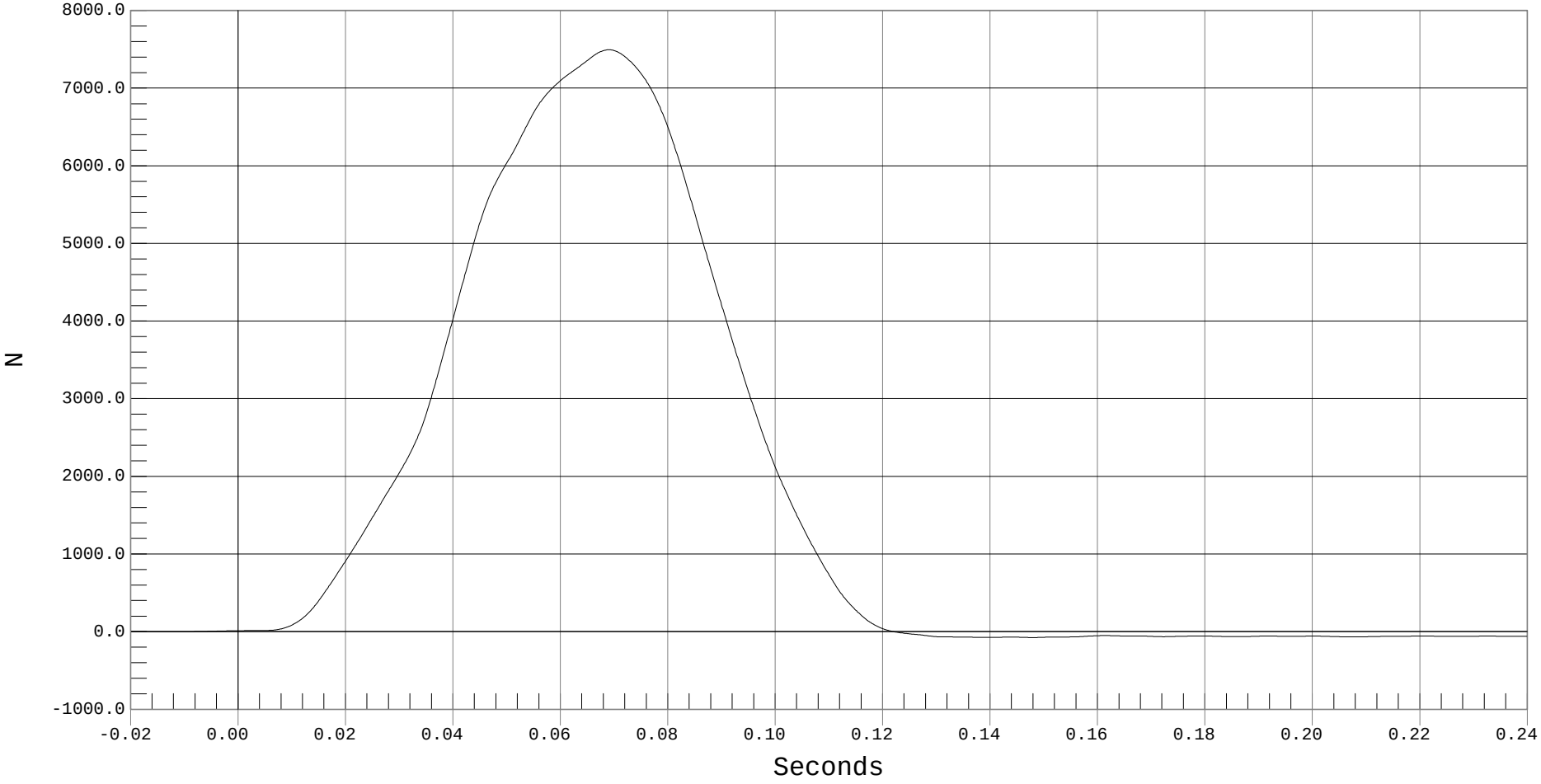
LRS TETHER FORCE

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 LRS TETHER FORCE, B01031FF.F65

Ymin = -76.52 N @ 0.1478 Seconds, Ymax = 7494.18 N @ 0.0690 Seconds



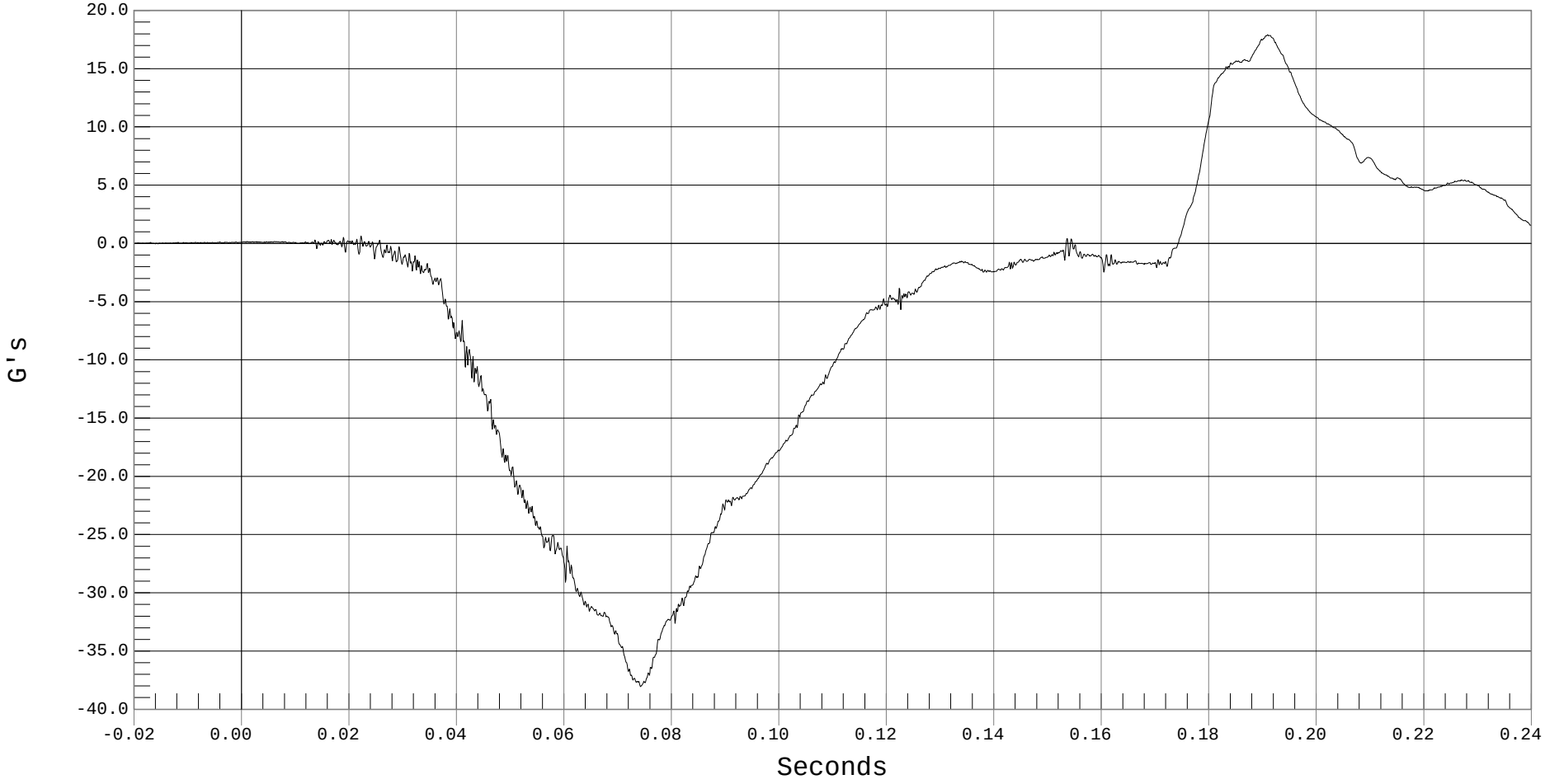
RRS 3 YR OLD HEAD X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 RRS CHILD HEAD X, B01031AT.A37

Ymin = -38.06 G's @ 0.0742 Seconds, Ymax = 17.93 G's @ 0.1909 Seconds



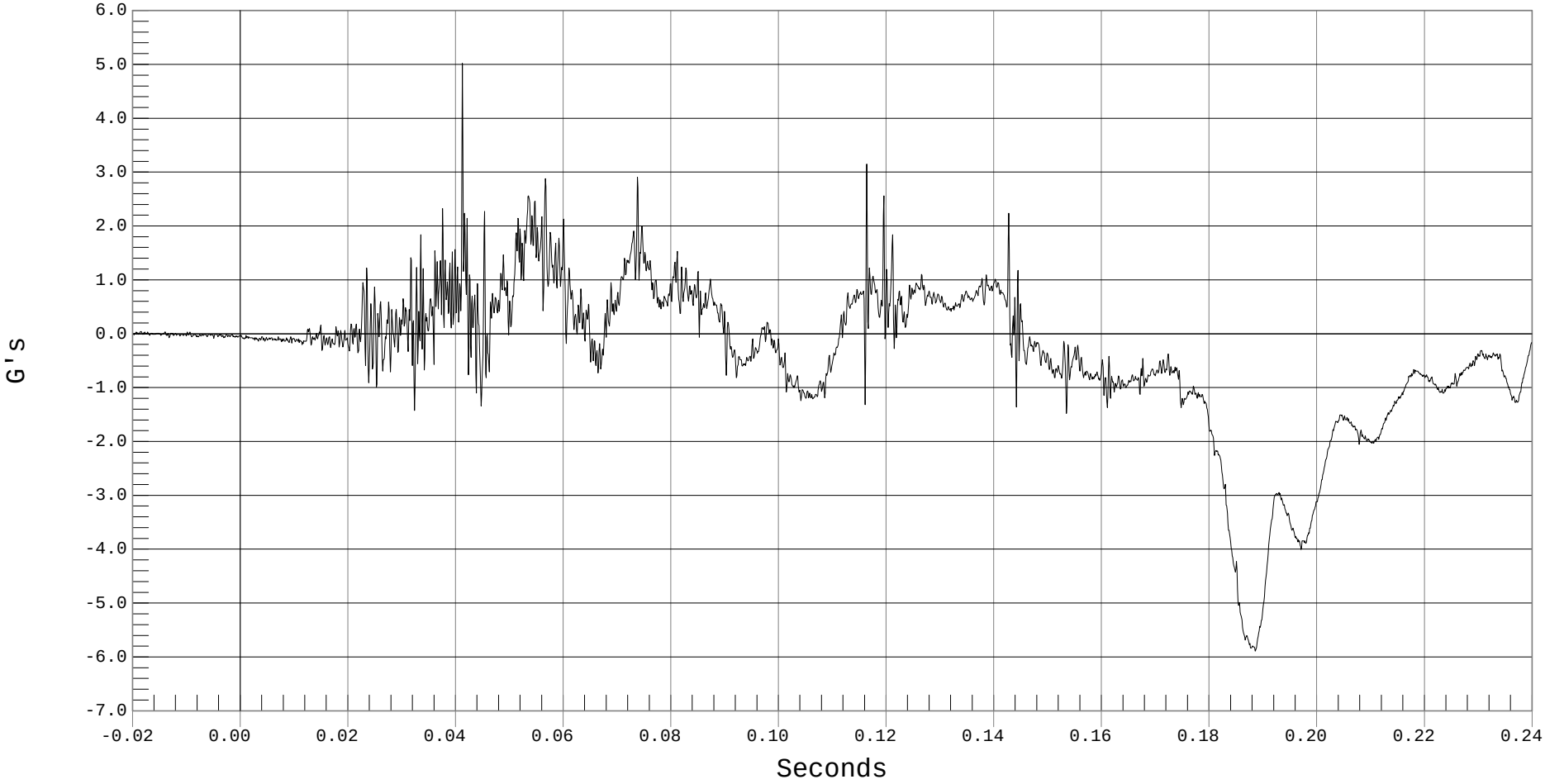
RRS 3 YR OLD HEAD Y ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 RRS CHILD HEAD Y, B01031AT.A38

Ymin = -5.89 G's @ 0.1885 Seconds, Ymax = 5.02 G's @ 0.0412 Seconds



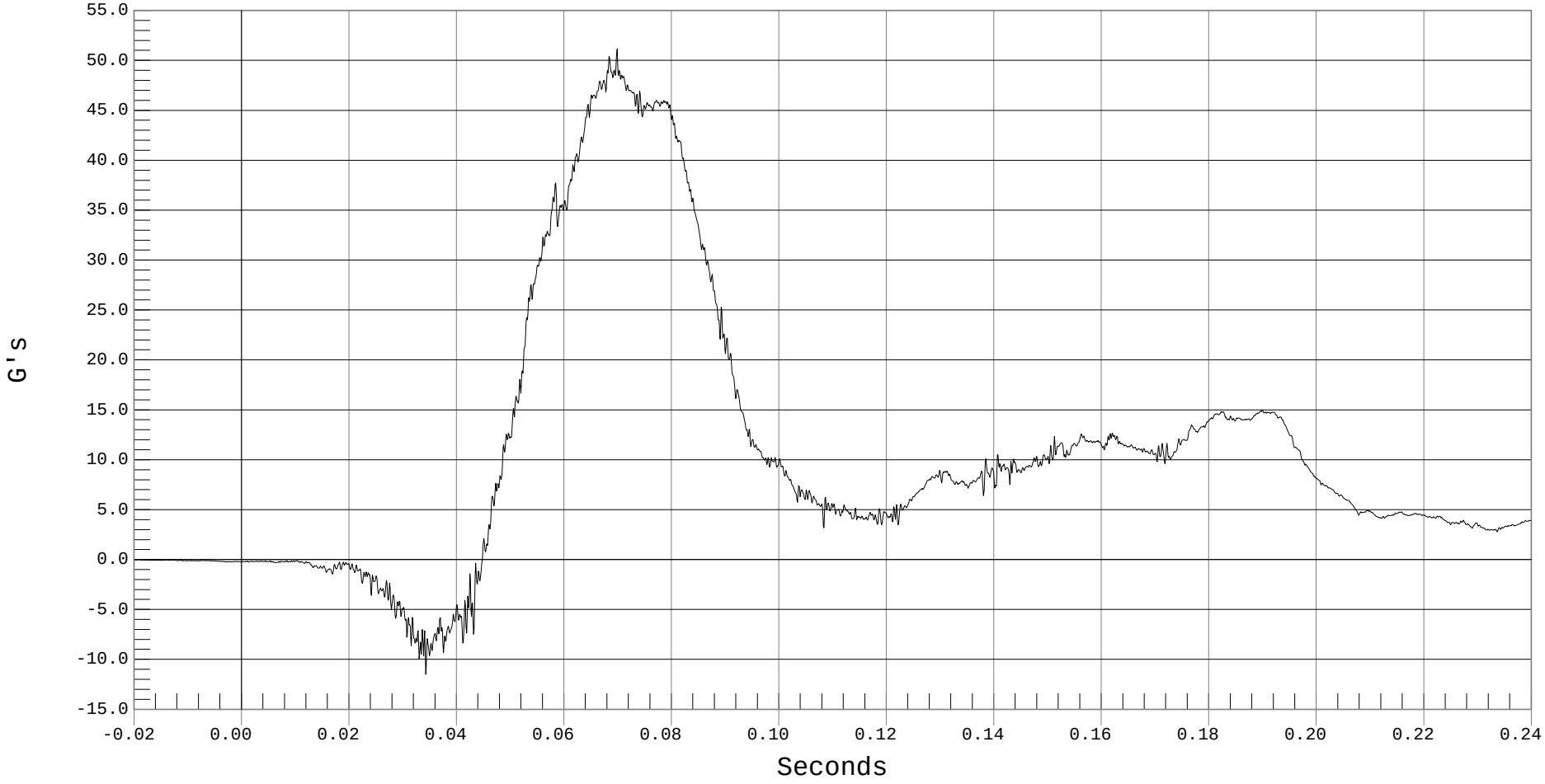
RRS 3 YR OLD HEAD Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 RRS CHILD HEAD Z, B01031AT.A64

Ymin = -11.5 G's @ 0.0342 Seconds, Ymax = 51.15 G's @ 0.0698 Seconds



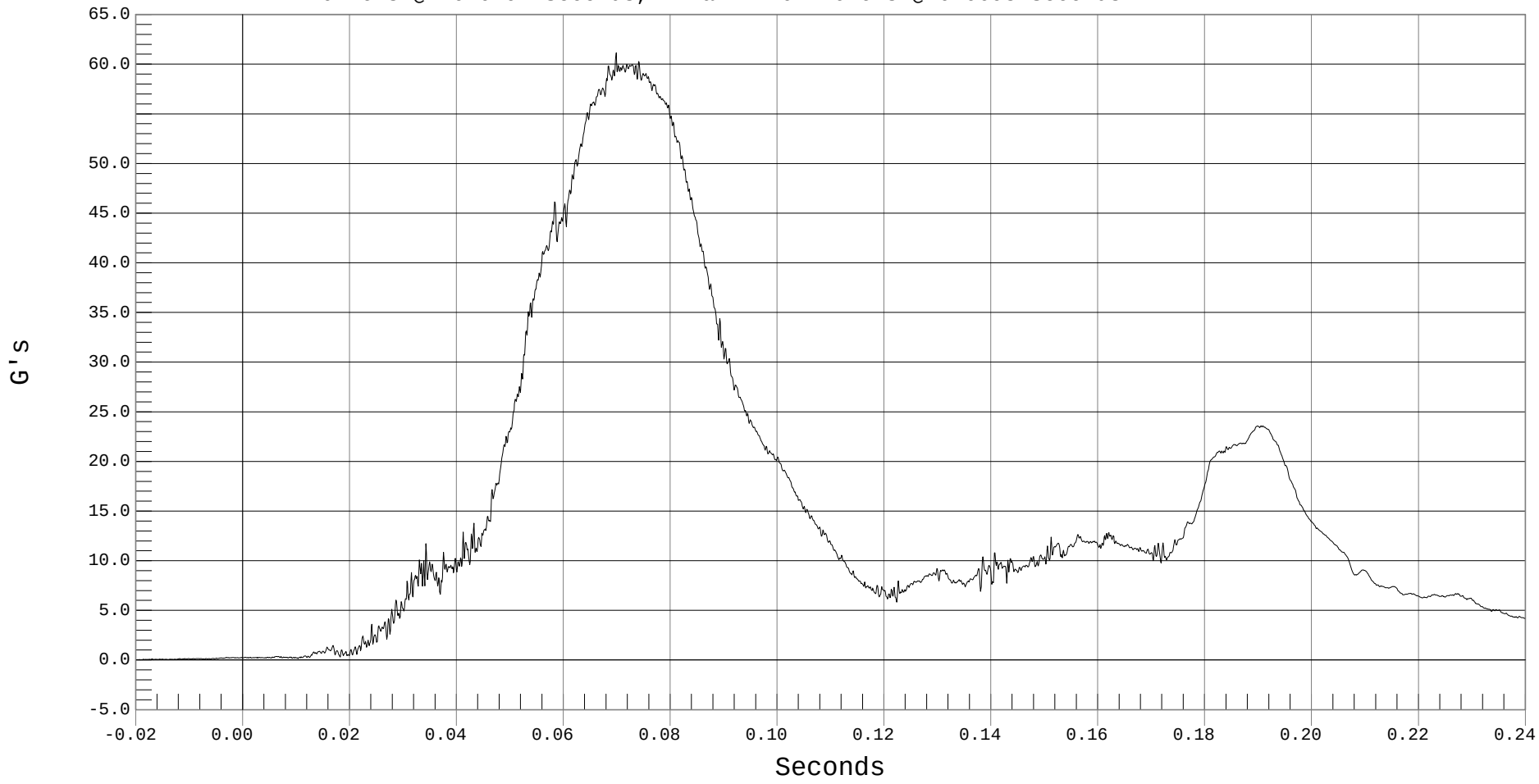
RRS 3 YR OLD HEAD RESULTANT ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 RRS 3 YR OLD HEAD RESULTANT ACCELERATION, B01031AV.A37

Ymin = .01 G's @ -0.0192 Seconds, Ymax = 61.16 G's @ 0.0698 Seconds



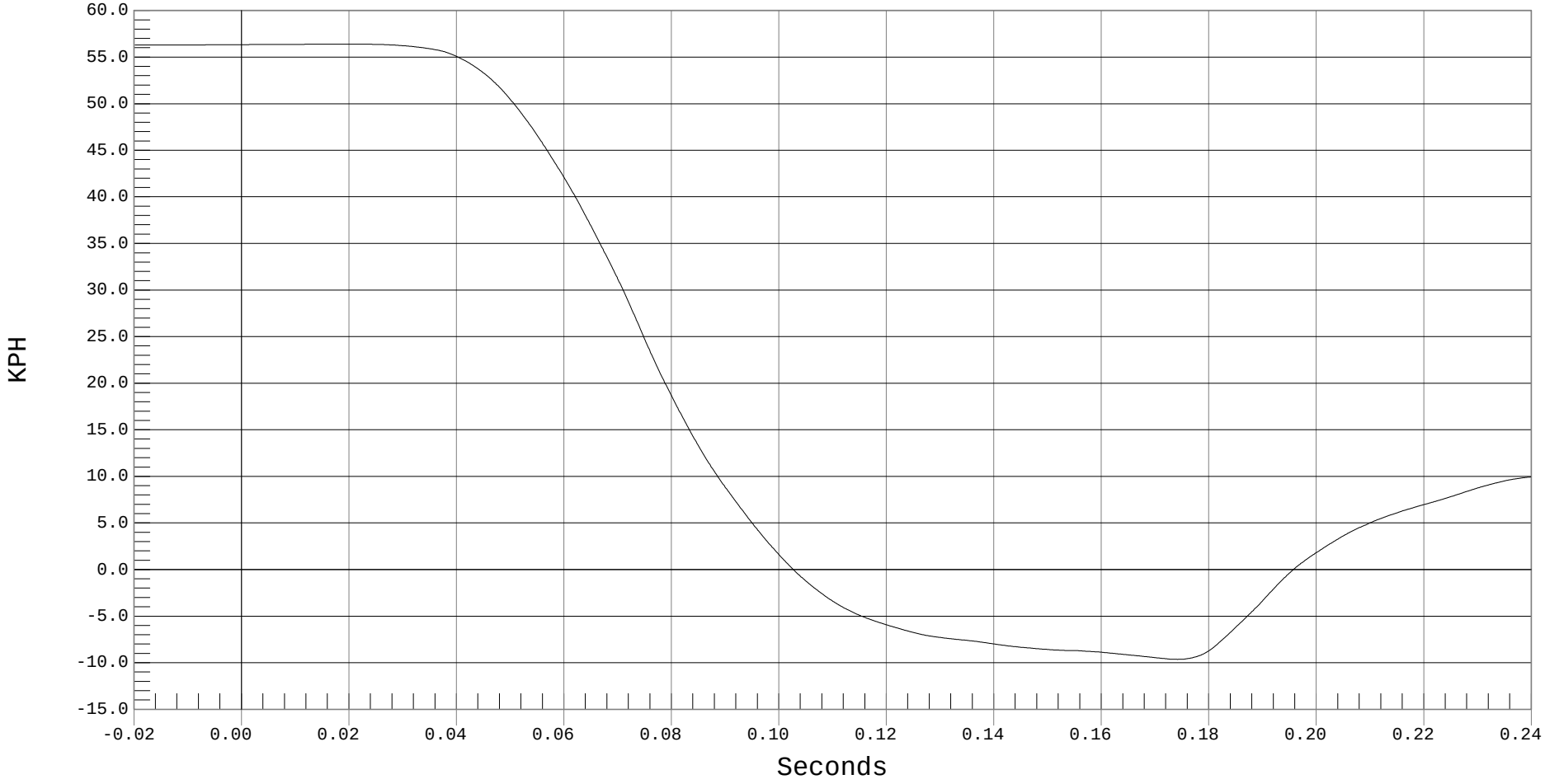
RRS 3 YR OLD HEAD X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 RRS 3 YR OLD HEAD X VELOCITY, B01031AI.V37

Ymin = -9.65 KPH @ 0.1741 Seconds, Ymax = 56.38 KPH @ 0.0209 Seconds



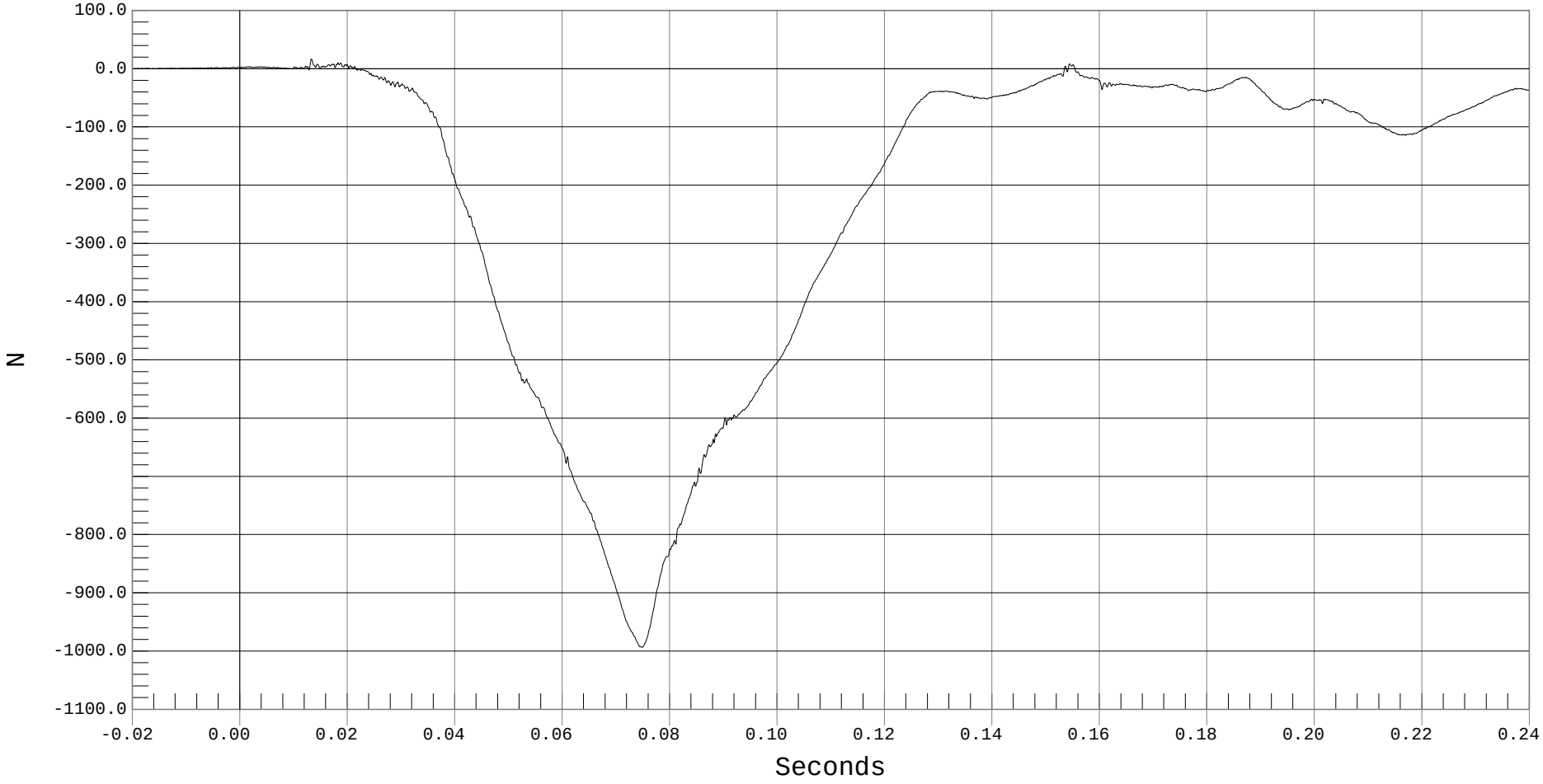
RRS 3 YR OLD UPPER NECK FORCE X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 RRS CHILD UPPER NECK FORCE X, B01031FT.F40

Ymin = -993.4 N @ 0.0748 Seconds, Ymax = 16.62 N @ 0.0133 Seconds



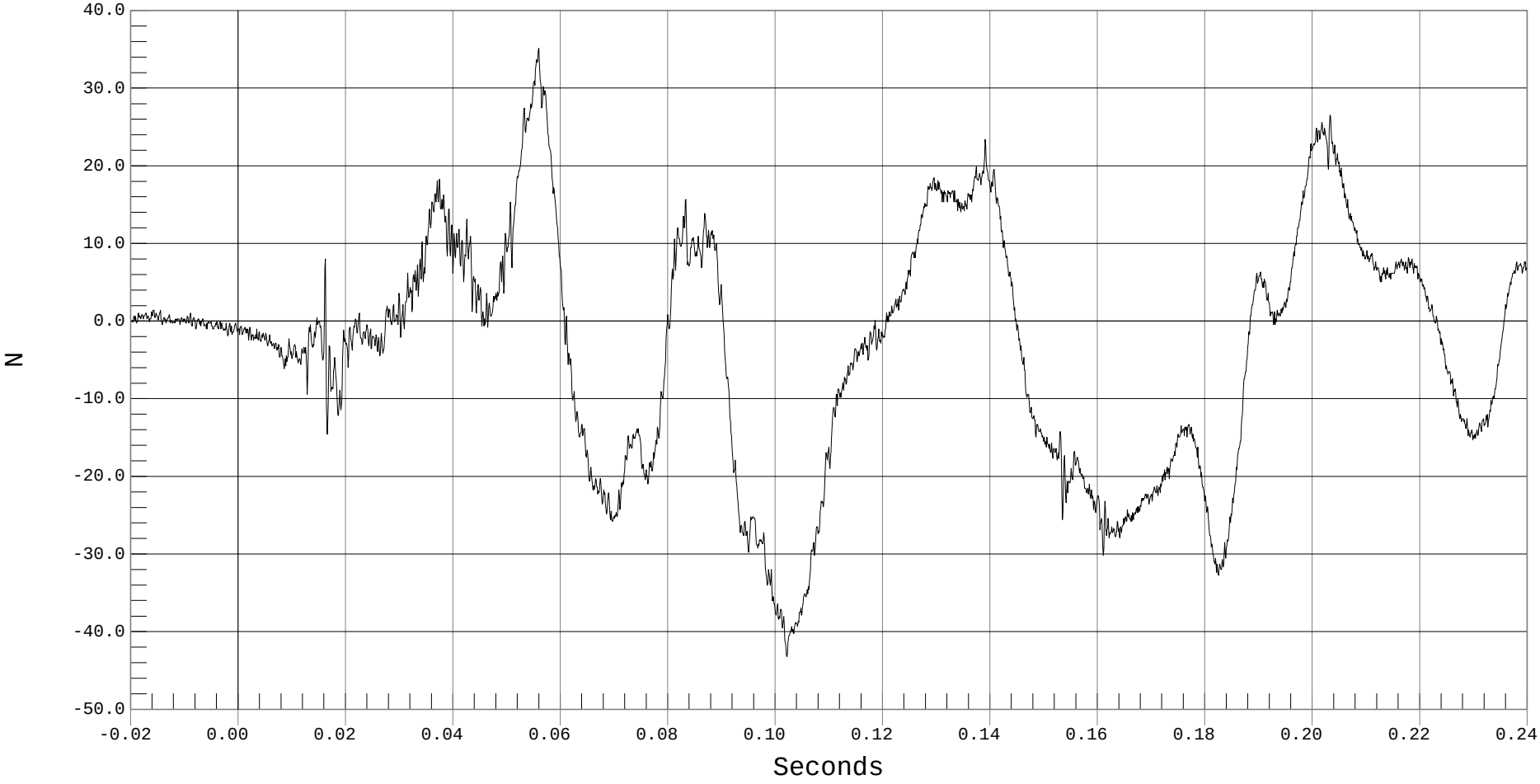
RRS 3 YR OLD UPPER NECK FORCE Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 RRS CHILD UPPER NECK FORCE Y, B01031FT.F41

Ymin = -43.2 N @ 0.1021 Seconds, Ymax = 35.14 N @ 0.0559 Seconds



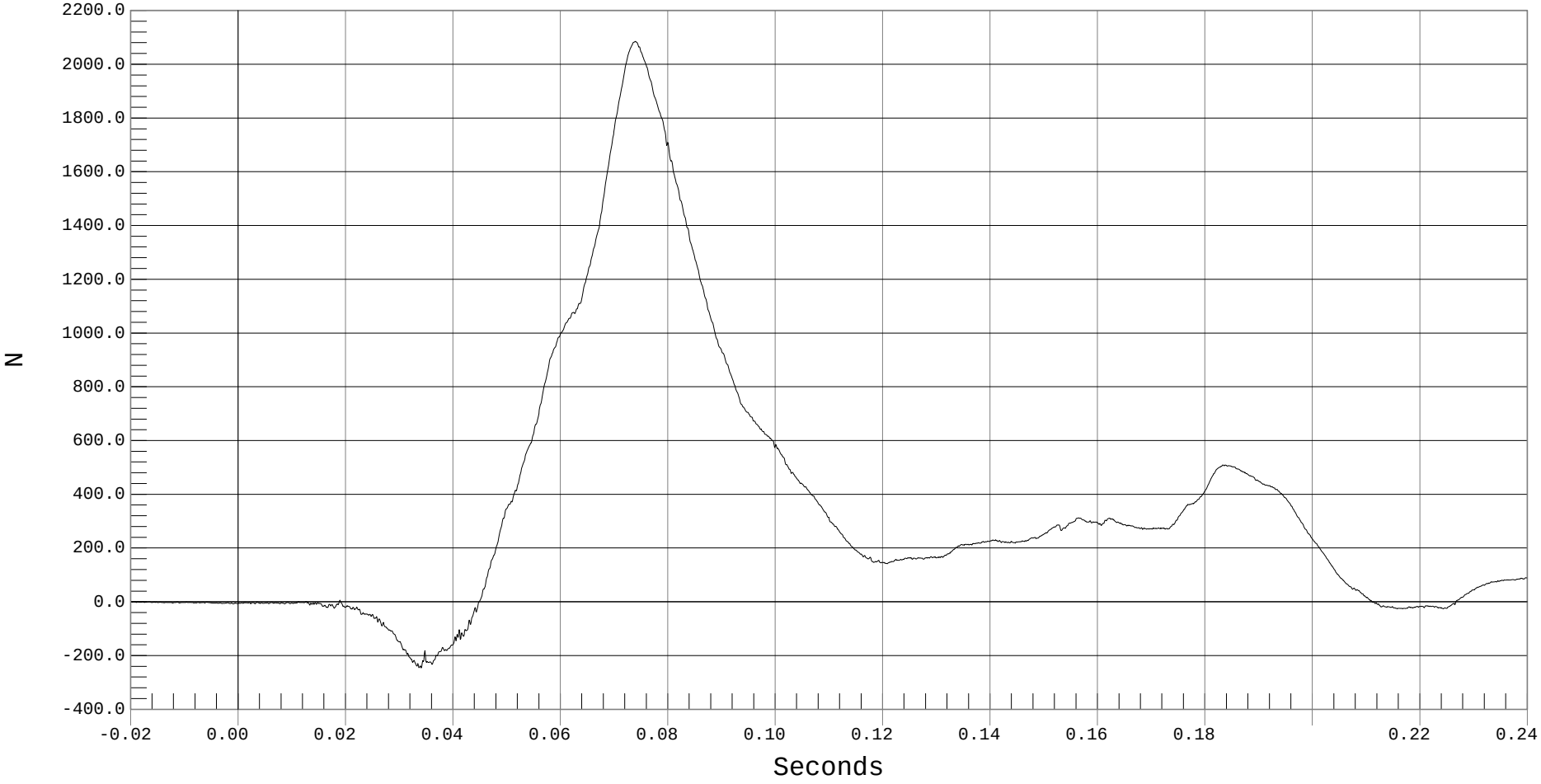
RRS 3 YR OLD UPPER NECK FORCE Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 RRS CHILD UPPER NECK FORCE Z, B01031FT.F42

Ymin = -246.12 N @ 0.0340 Seconds, Ymax = 2084.98 N @ 0.0739 Seconds



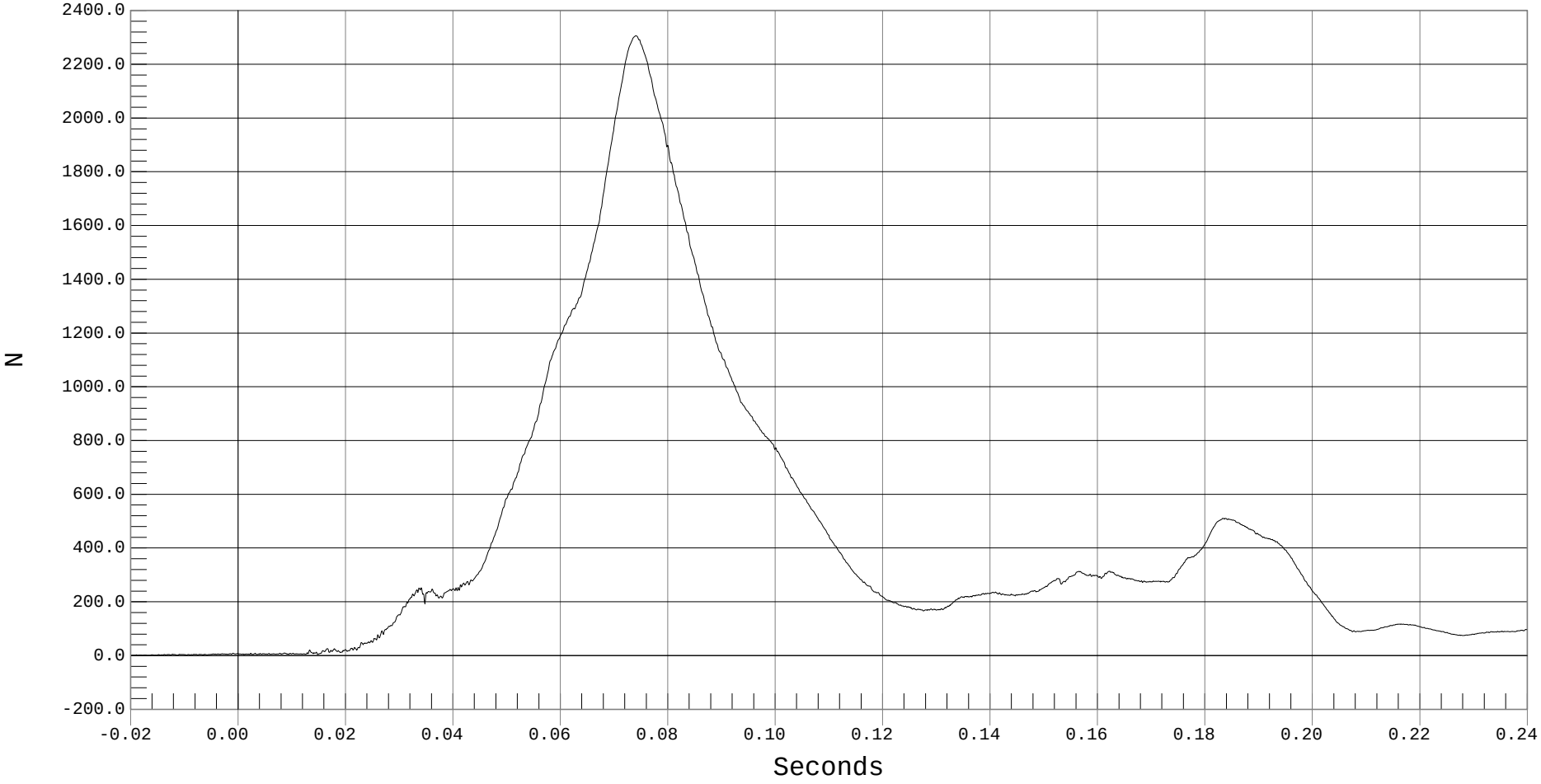
RRS 3 YR OLD UPPER NECK FORCE RESULTANT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 RRS 3 YR OLD UPPER NECK FORCE RESULTANT, B01031FV.F40

Ymin = .29 N @ -0.0177 Seconds, Ymax = 2305.73 N @ 0.0739 Seconds



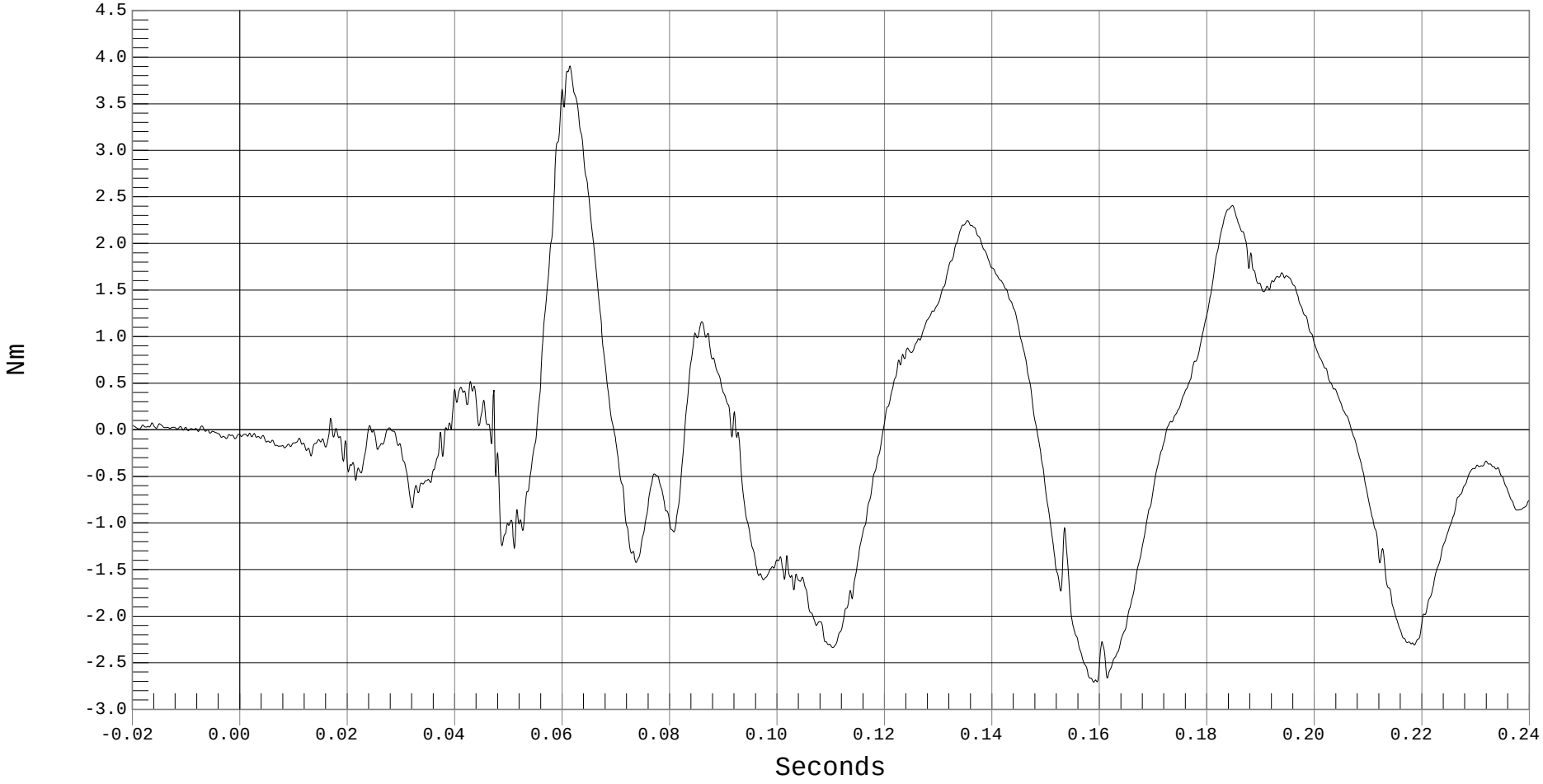
RRS 3 YR OLD UPPER NECK MOMENT X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 RRS CHILD UPPER NECK MOMENT X, B01031MF.M43

Ymin = -2.71 Nm @ 0.1588 Seconds, Ymax = 3.91 Nm @ 0.0614 Seconds



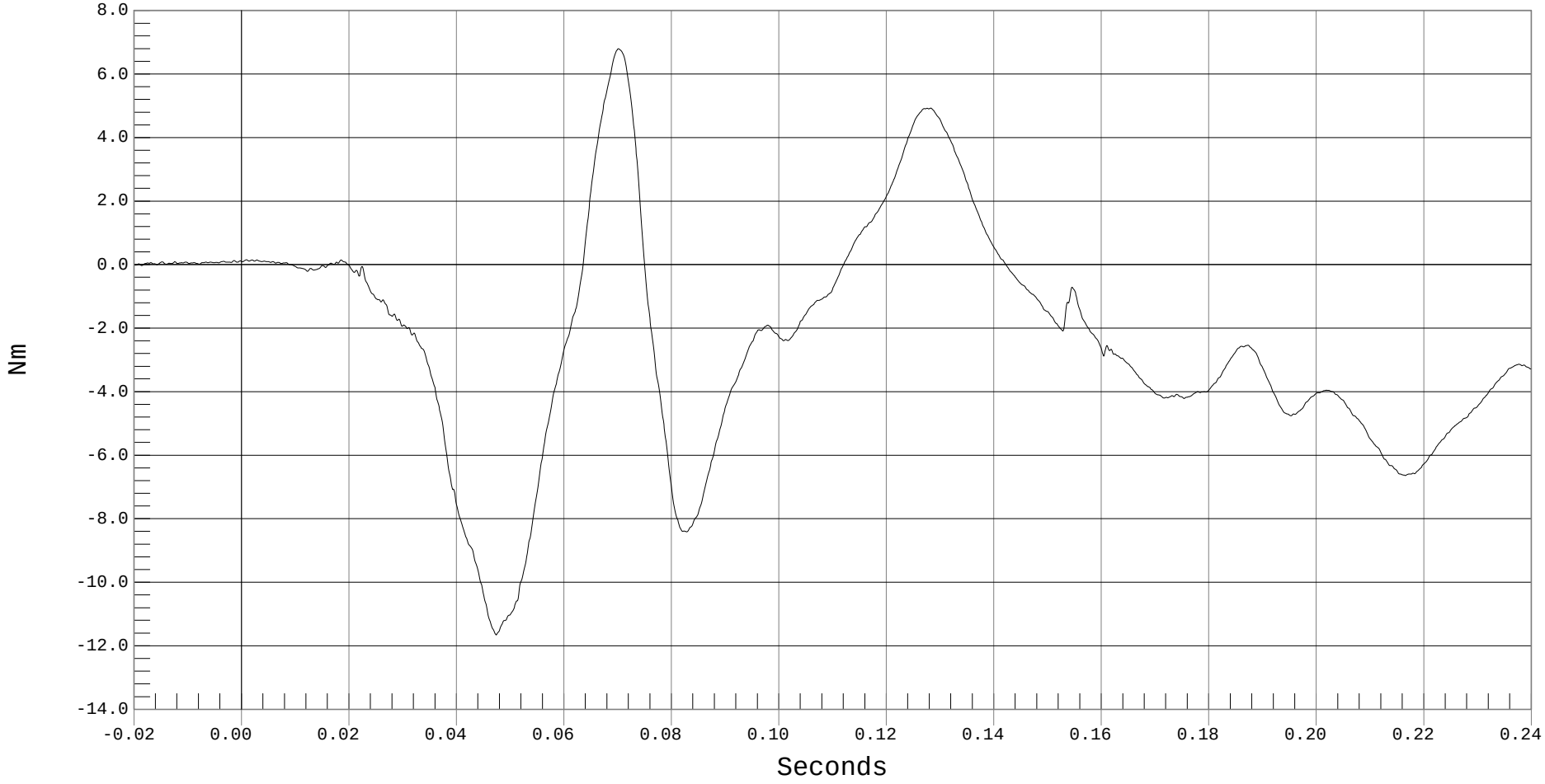
RRS 3 YR OLD UPPER NECK MOMENT Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 RRS CHILD UPPER NECK MOMENT Y, B01031MF.M44

Ymin = -11.66 Nm @ 0.0473 Seconds, Ymax = 6.79 Nm @ 0.0701 Seconds



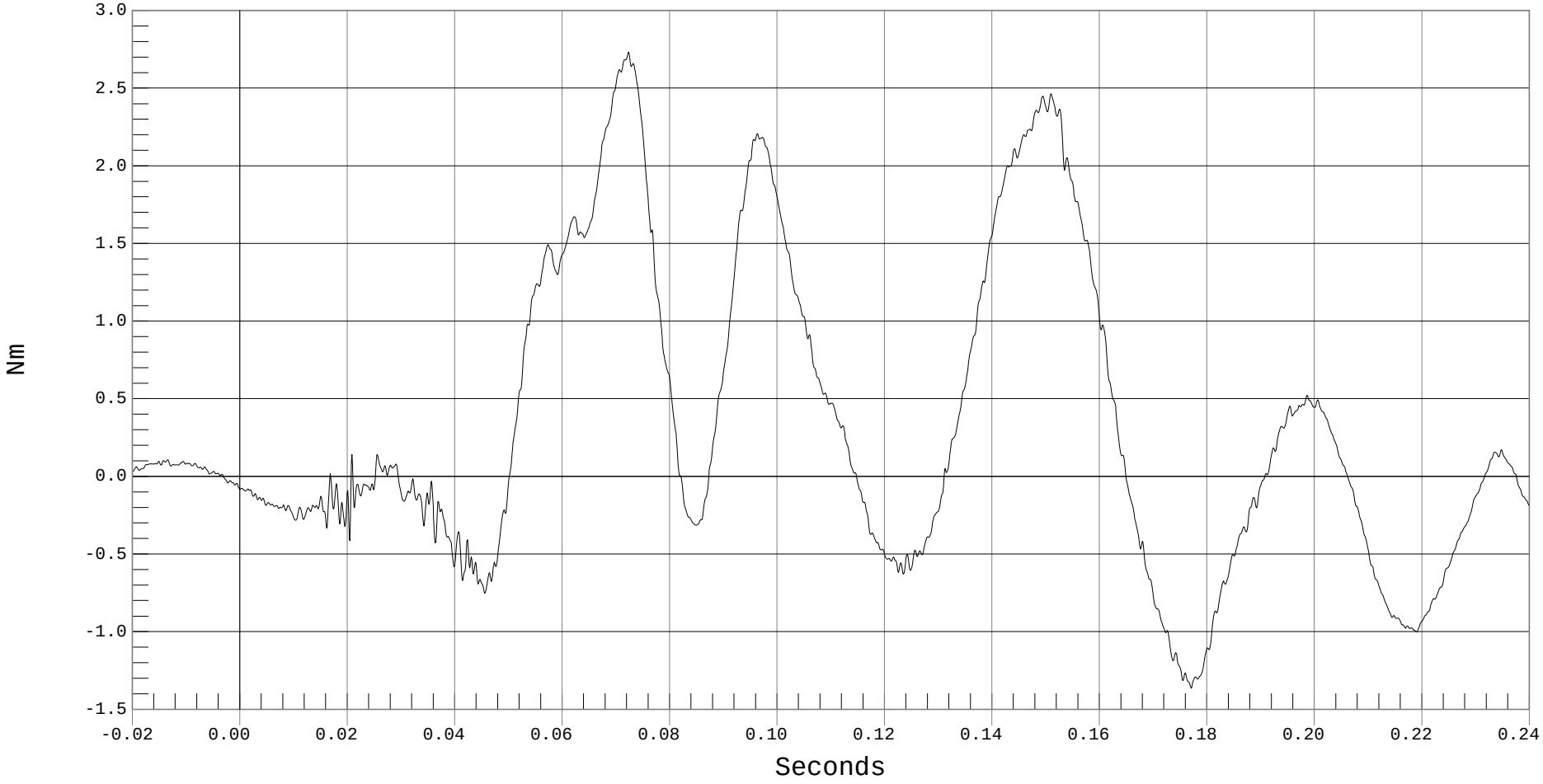
RRS 3 YR OLD UPPER NECK MOMENT Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 RRS CHILD UPPER NECK MOMENT Z, B01031MF.M63

Ymin = -1.36 Nm @ 0.1770 Seconds, Ymax = 2.73 Nm @ 0.0723 Seconds



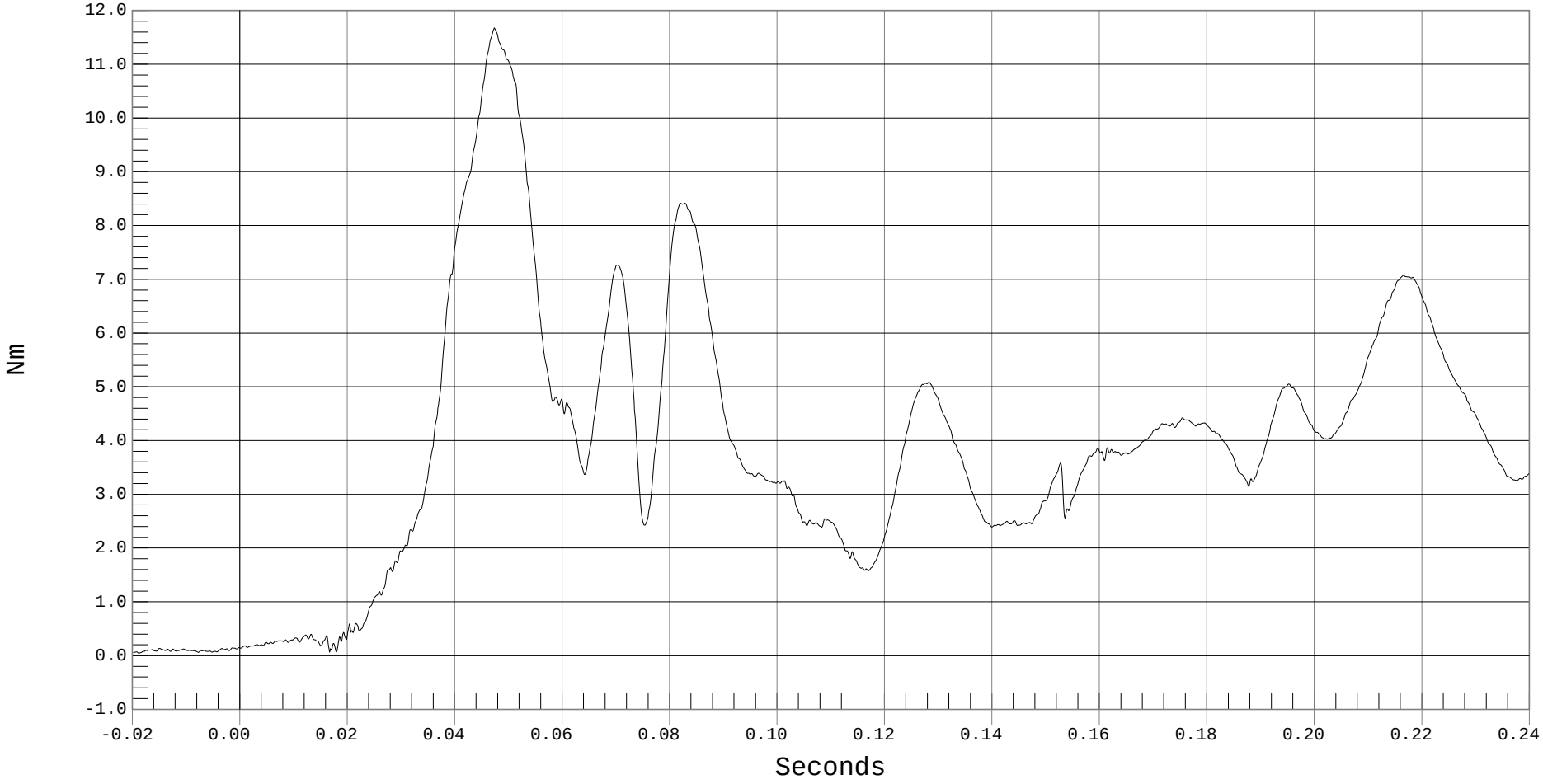
RRS 3 YR OLD UPPER NECK MOMENT RESULTANT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 RRS 3 YR OLD UPPER NECK MOMENT RESULTANT, B01031MV.M43

Ymin = .04 Nm @ -0.0189 Seconds, Ymax = 11.68 Nm @ 0.0473 Seconds



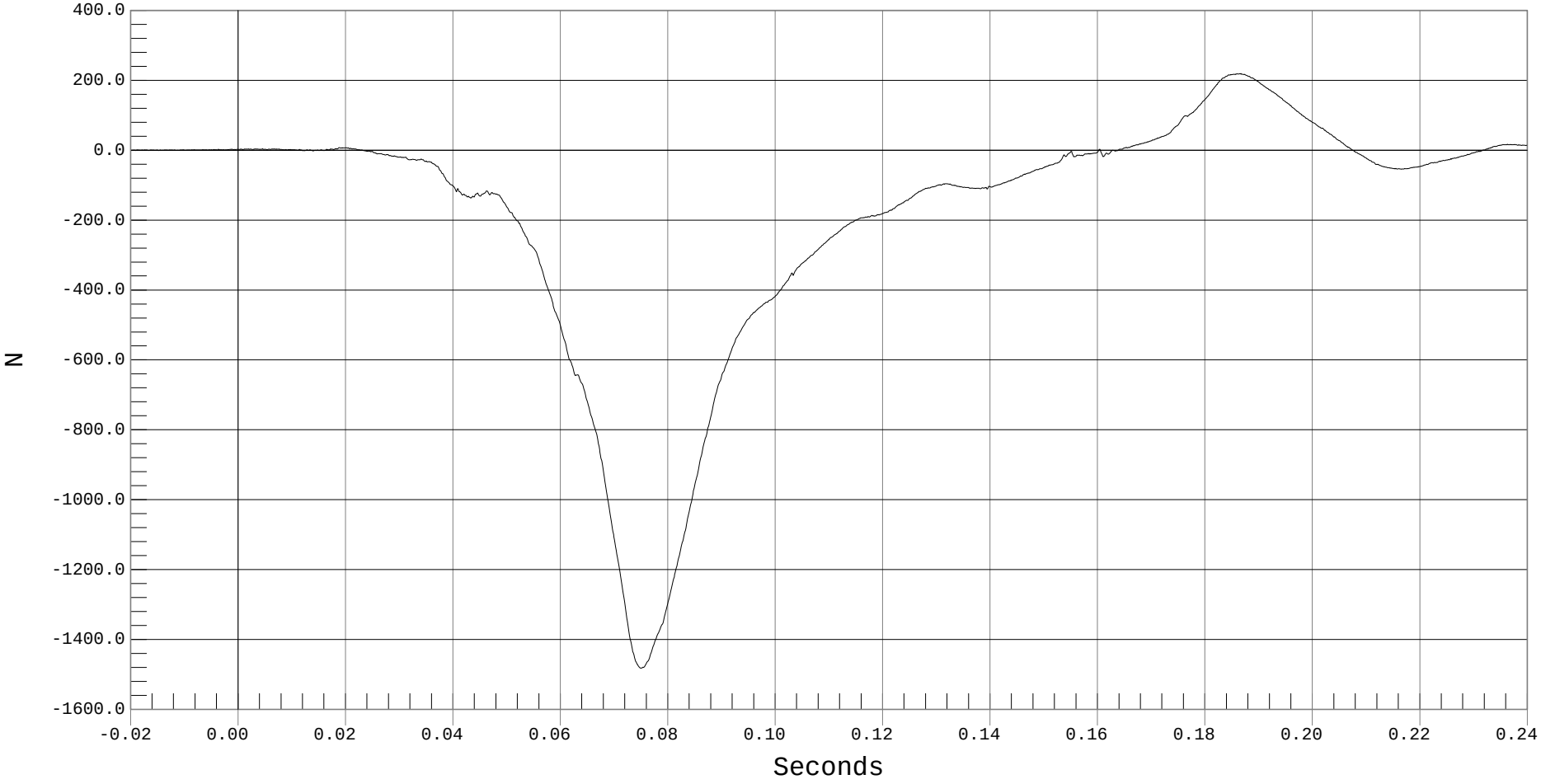
RRS 3 YR OLD LOWER NECK FORCE X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 RRS CHILD LOWER NECK FORCE X, B01031FT.F46

Ymin = -1482.59 N @ 0.0749 Seconds, Ymax = 219.41 N @ 0.1866 Seconds



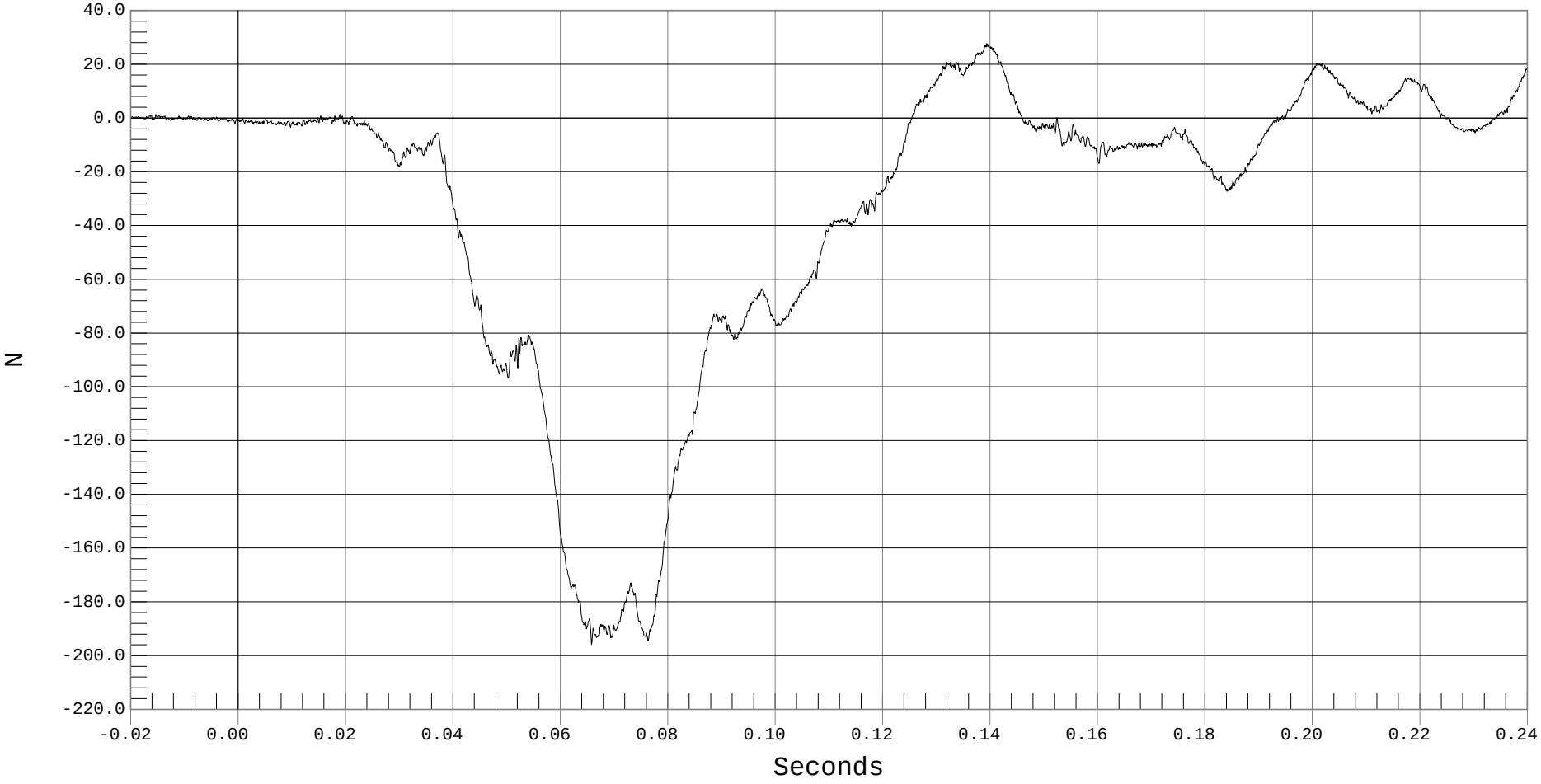
RRS 3 YR OLD LOWER NECK FORCE Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 RRS CHILD LOWER NECK FORCE Y, B01031FT.F47

Ymin = -195.84 N @ 0.0657 Seconds, Ymax = 27.79 N @ 0.1393 Seconds



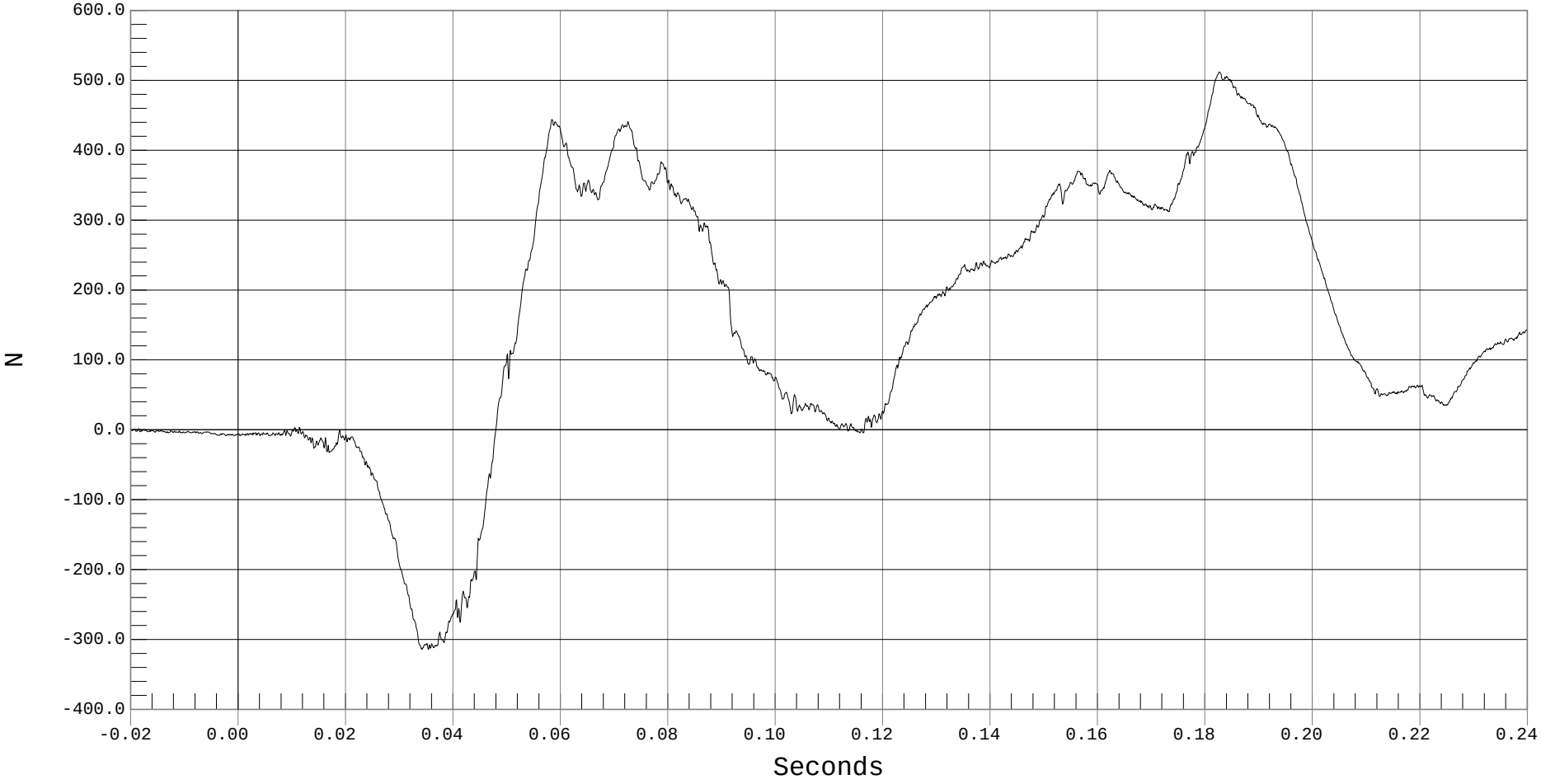
RRS 3 YR OLD LOWER NECK FORCE Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 RRS CHILD LOWER NECK FORCE Z, B01031FT.F48

Ymin = -314.39 N @ 0.0354 Seconds, Ymax = 512.26 N @ 0.1826 Seconds



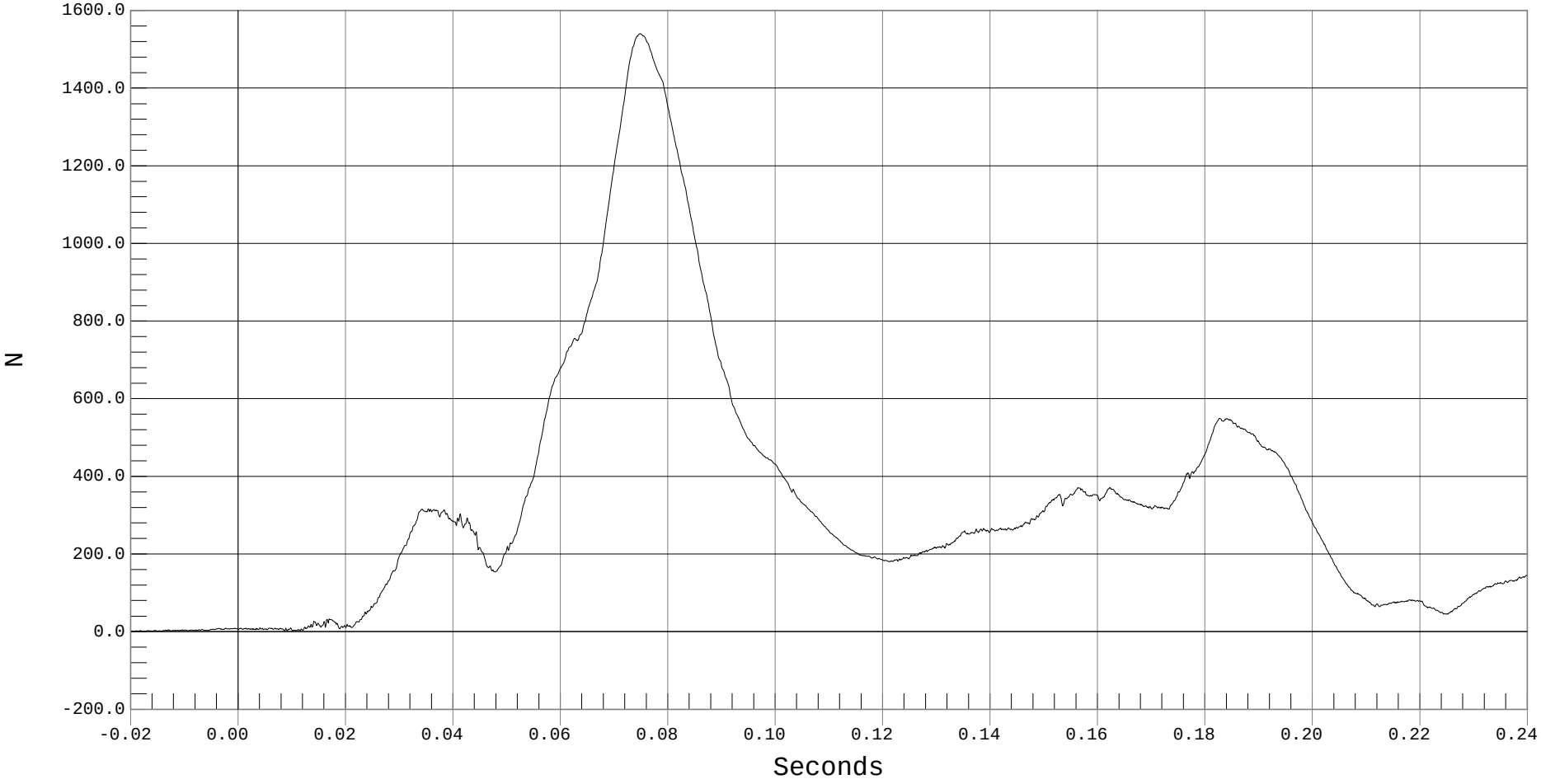
RRS 3 YR OLD LOWER NECK FORCE RESULTANT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 RRS 3 YR OLD LOWER NECK FORCE RESULTANT, B01031FV.F46

Ymin = .33 N @ -0.0178 Seconds, Ymax = 1540.15 N @ 0.0748 Seconds



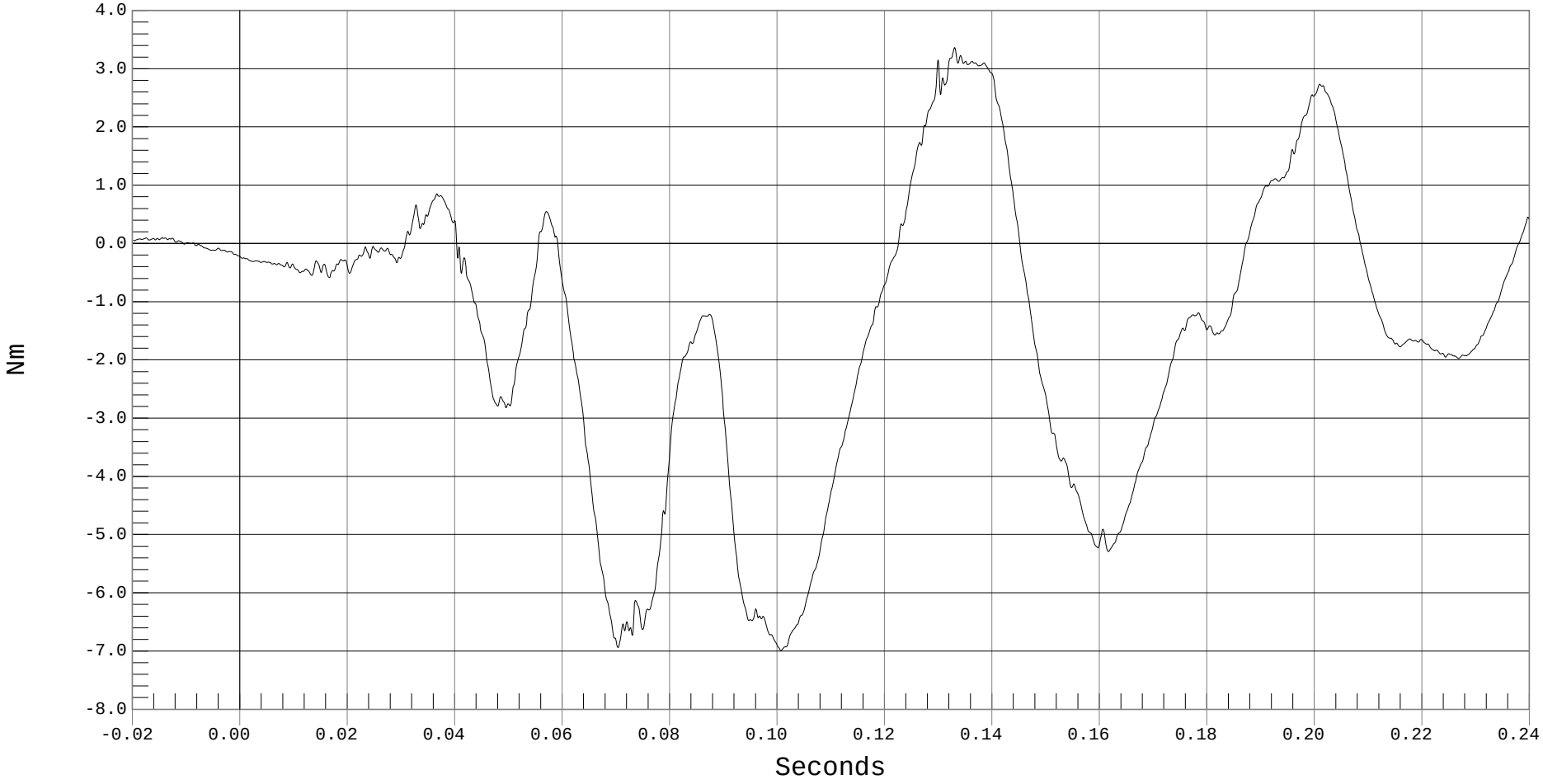
RRS 3 YR OLD LOWER NECK MOMENT X

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 RRS CHILD LOWER NECK MOMENT X, B01031MF.M49

Ymin = -7 Nm @ 0.1006 Seconds, Ymax = 3.36 Nm @ 0.1330 Seconds



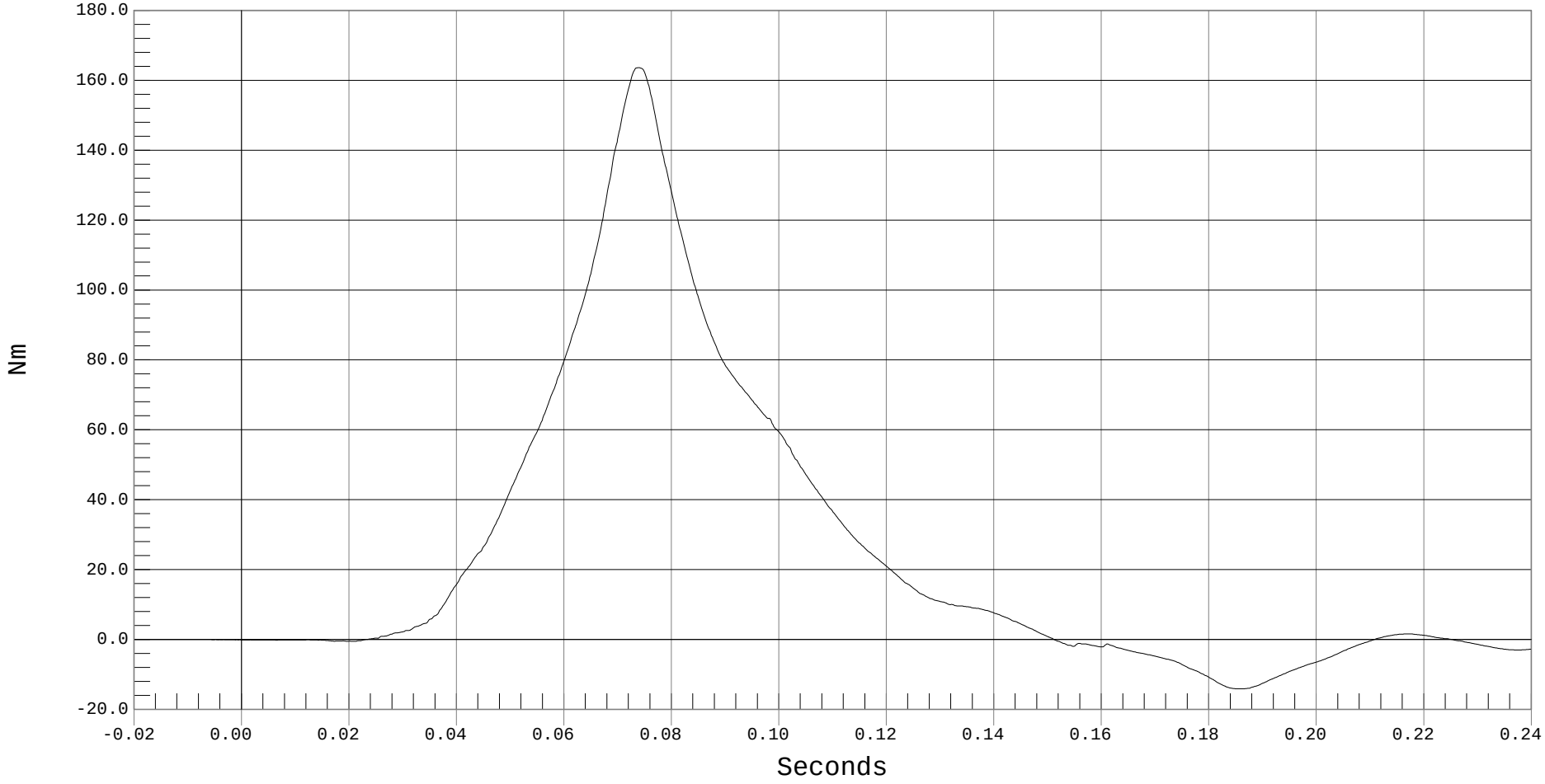
RRS 3 YR OLD LOWER NECK MOMENT Y

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 RRS CHILD LOWER NECK MOMENT Y, B01031MF.M50

Ymin = -14.18 Nm @ 0.1851 Seconds, Ymax = 163.64 Nm @ 0.0738 Seconds



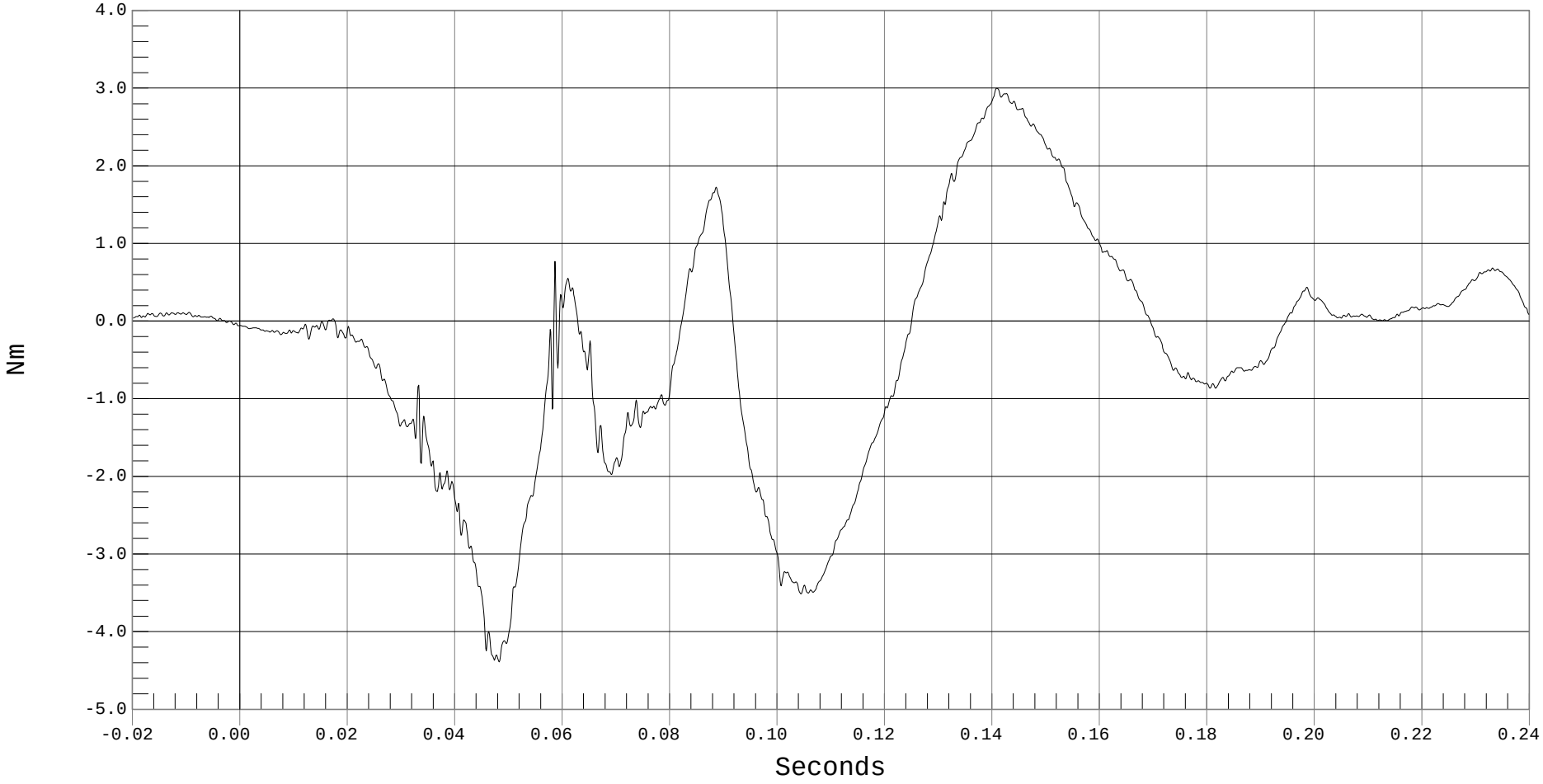
RRS 3 YR OLD LOWER NECK MOMENT Z

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 RRS CHILD LOWER NECK MOMENT Z, B01031MF.M51

Ymin = -4.39 Nm @ 0.0482 Seconds, Ymax = 3 Nm @ 0.1408 Seconds



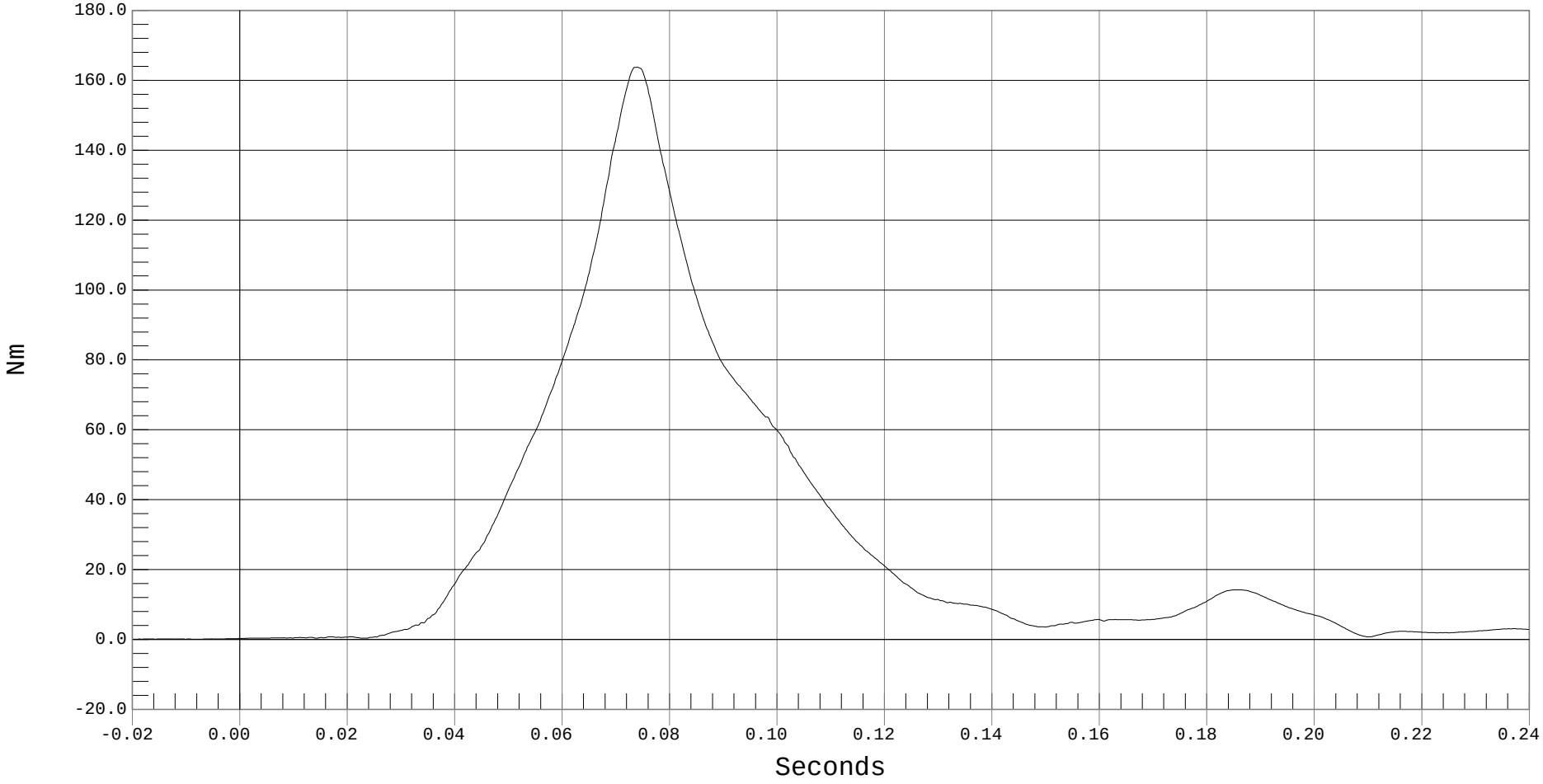
RRS 3 YR OLD LOWER NECK MOMENT RESULTANT

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 RRS 3 YR OLD LOWER NECK MOMENT RESULTANT, B01031MV.M49

Ymin = .06 Nm @ -0.0197 Seconds, Ymax = 163.76 Nm @ 0.0738 Seconds



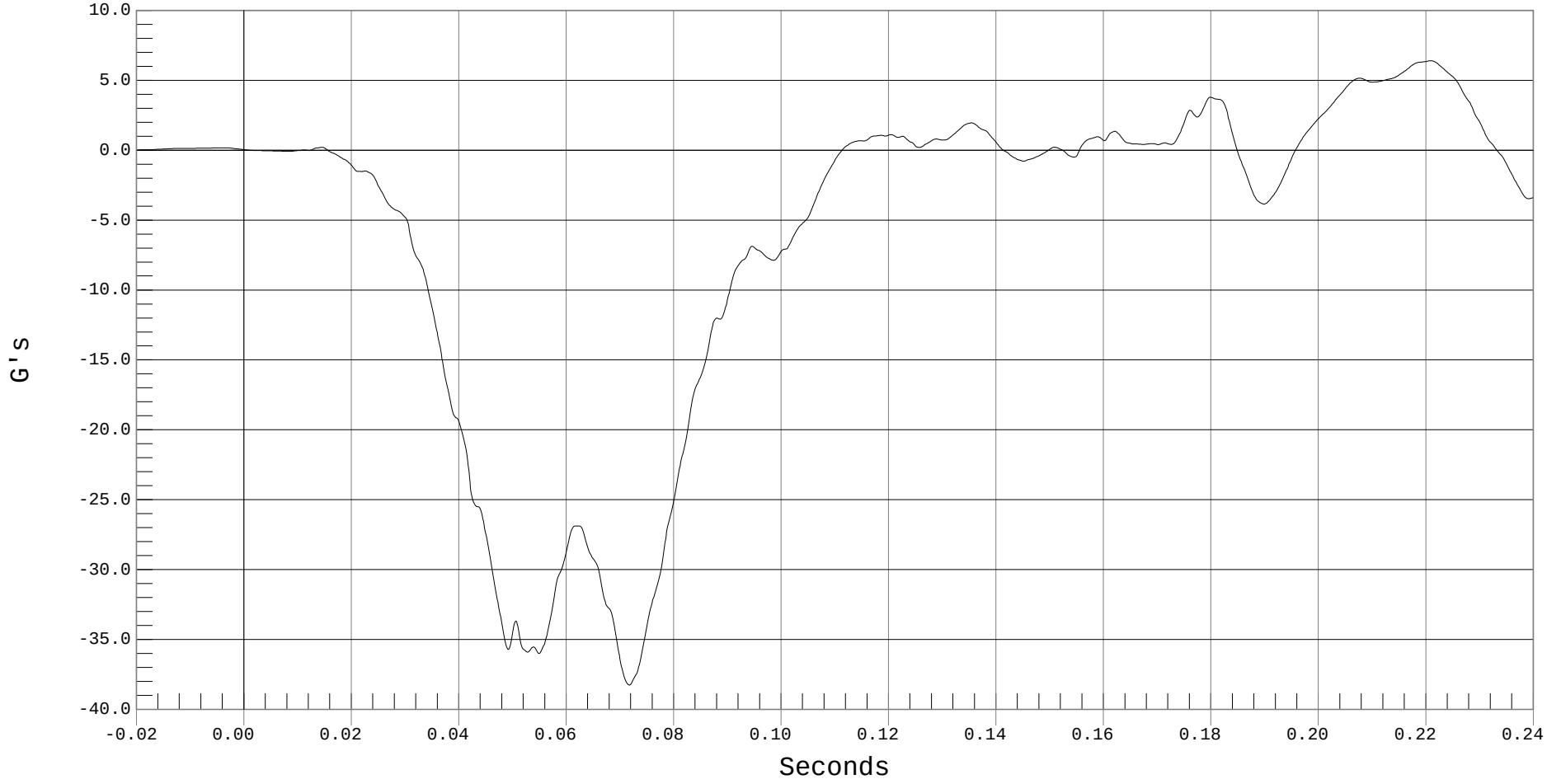
RRS 3 YR OLD CHEST X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 RRS CHILD CHEST X, B01031AF.A52

Ymin = -38.27 G's @ 0.0717 Seconds, Ymax = 6.4 G's @ 0.2208 Seconds



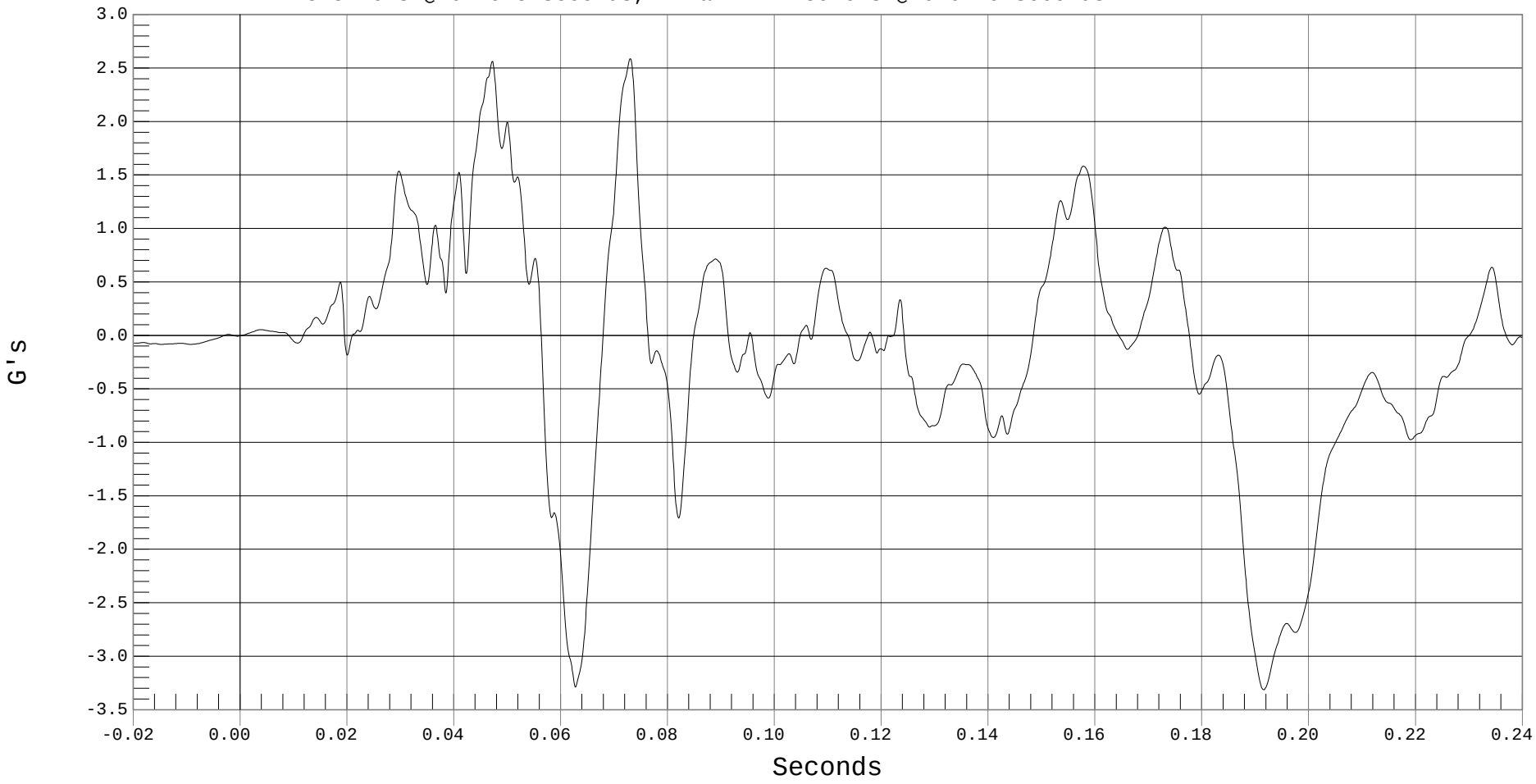
RRS 3 YR OLD CHEST Y ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 RRS CHILD CHEST Y, B01031AF.A53

Ymin = -3.31 G's @ 0.1915 Seconds, Ymax = 2.59 G's @ 0.0729 Seconds



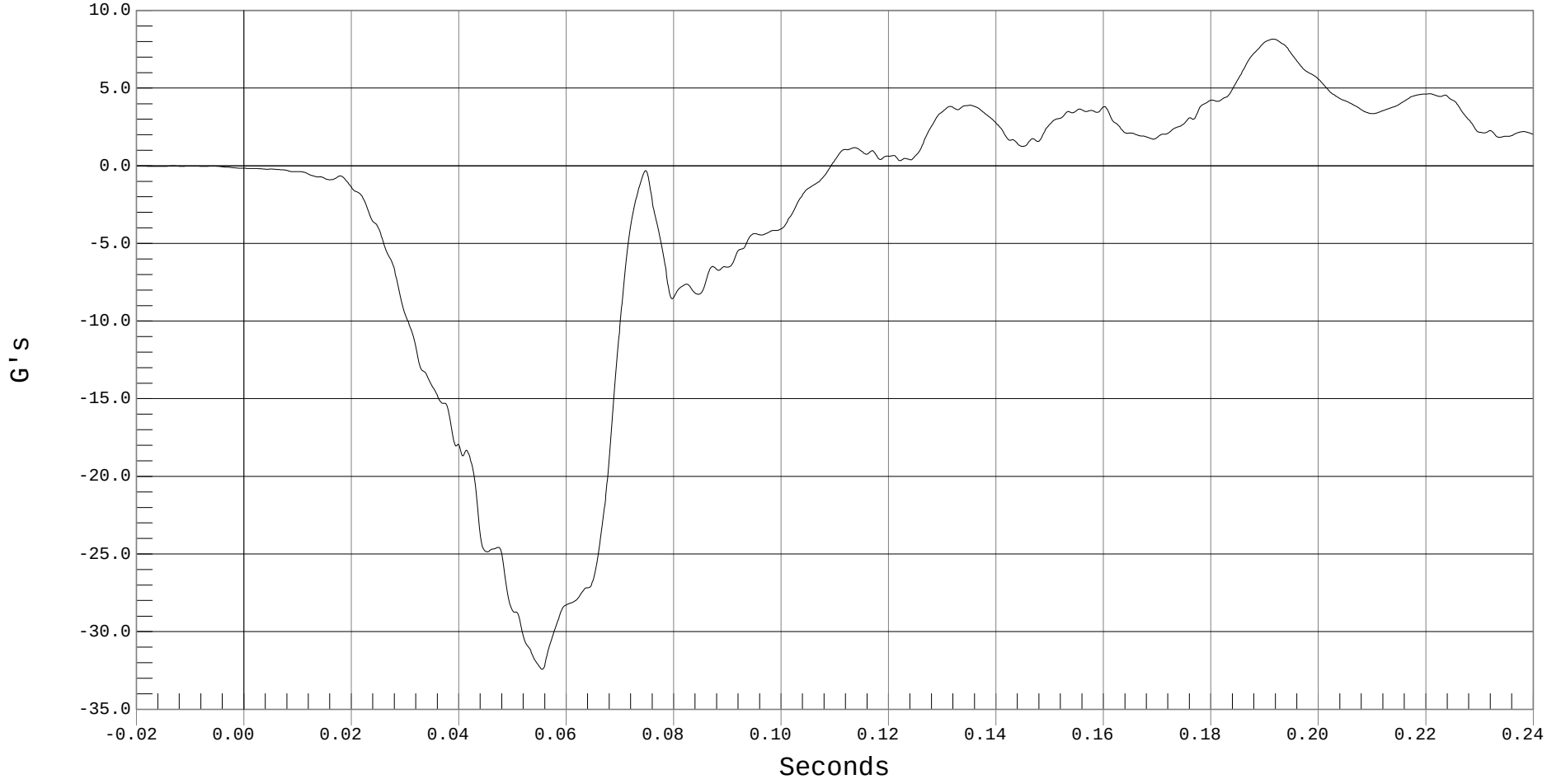
RRS 3 YR OLD CHEST Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 RRS CHILD CHEST Z, B01031AF.A54

Ymin = -32.42 G's @ 0.0555 Seconds, Ymax = 8.15 G's @ 0.1915 Seconds



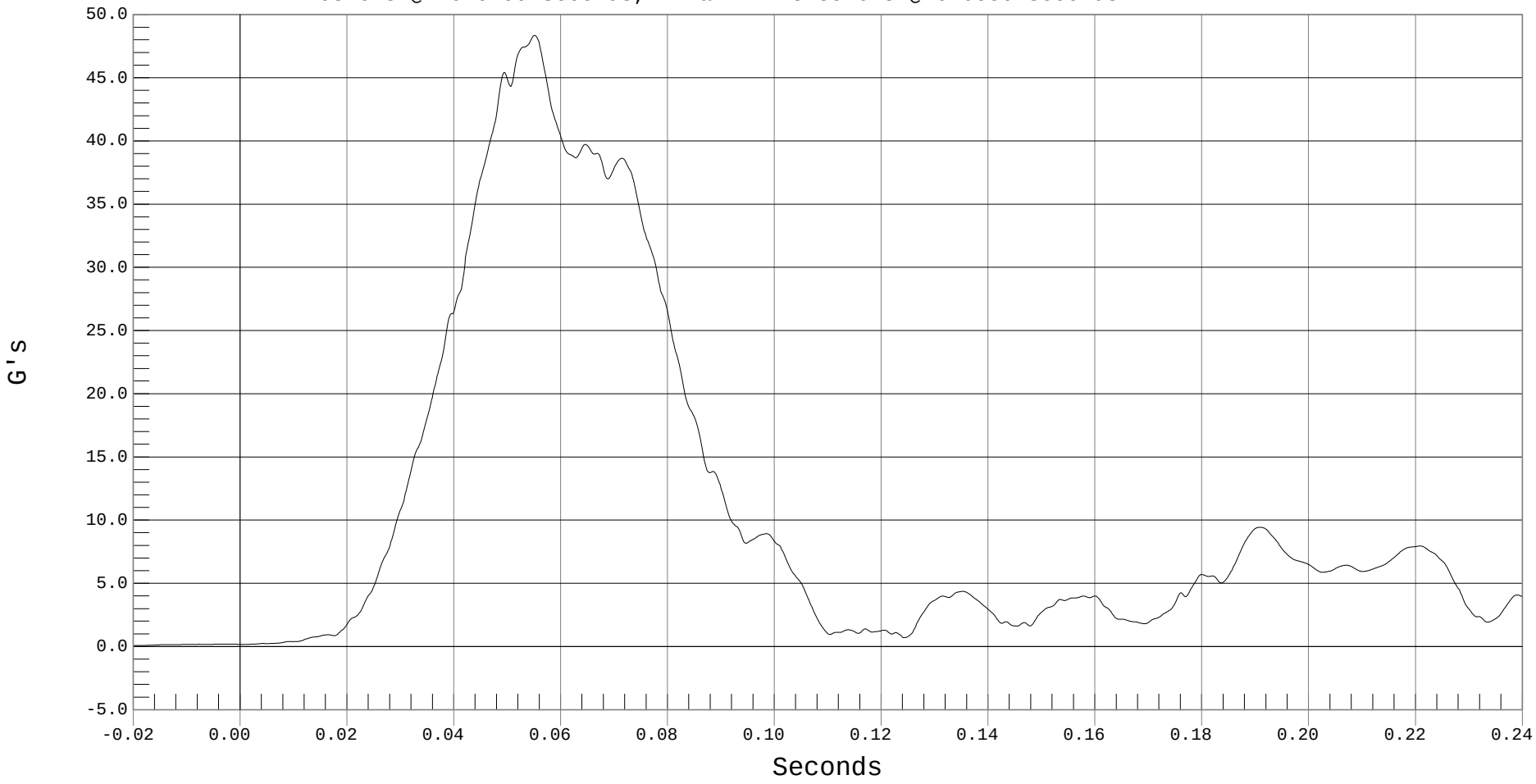
RRS 3 YR OLD CHEST RESULTANT ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 RRS 3 YR OLD CHEST RESULTANT ACCELERATION, B01031AV.A52

Ymin = .08 G's @ -0.0199 Seconds, Ymax = 48.35 G's @ 0.0550 Seconds



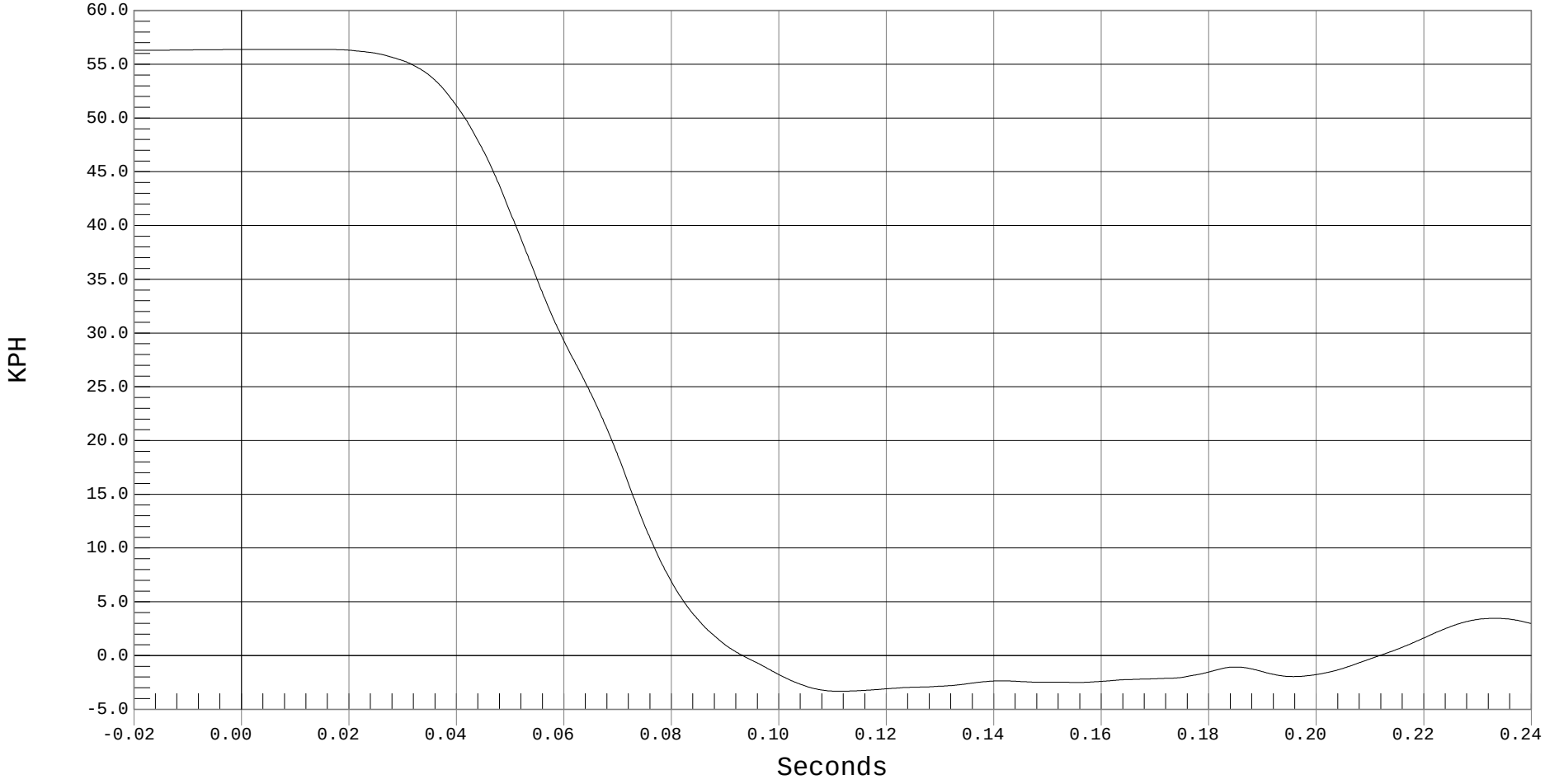
RRS 3 YR OLD CHEST X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 RRS 3 YR OLD CHEST X VELOCITY, B01031AI.V52

Ymin = -3.33 KPH @ 0.1113 Seconds, Ymax = 56.38 KPH @ 0.0155 Seconds



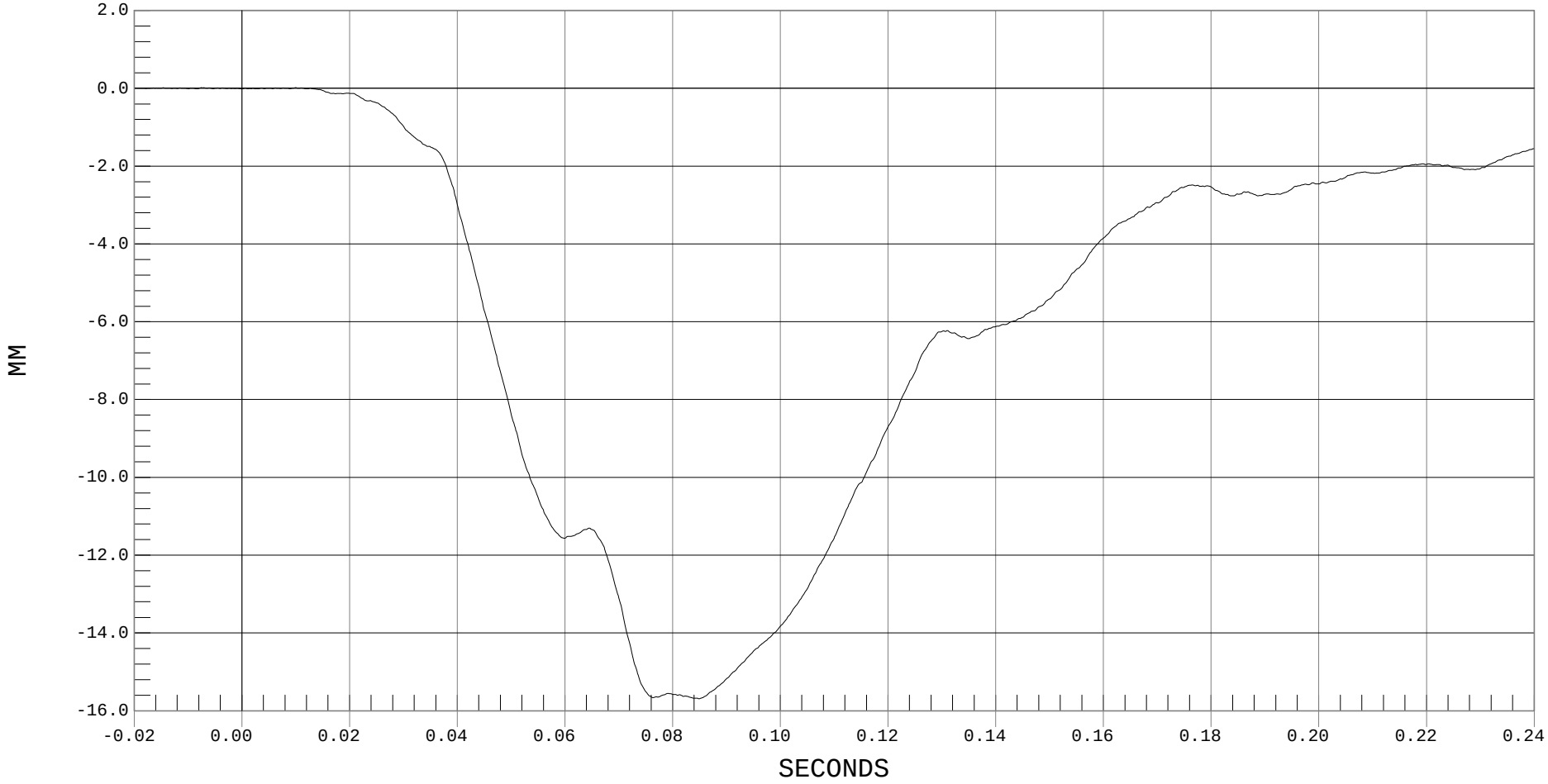
RRS 3 YR OLD CHEST COMPRESSION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 600

1 DISPLACEMENT, B01031DF.D55

Ymin = -15.69 MM @ 0.0848 SECONDS, Ymax = .02 MM @ 0.0099 SECONDS



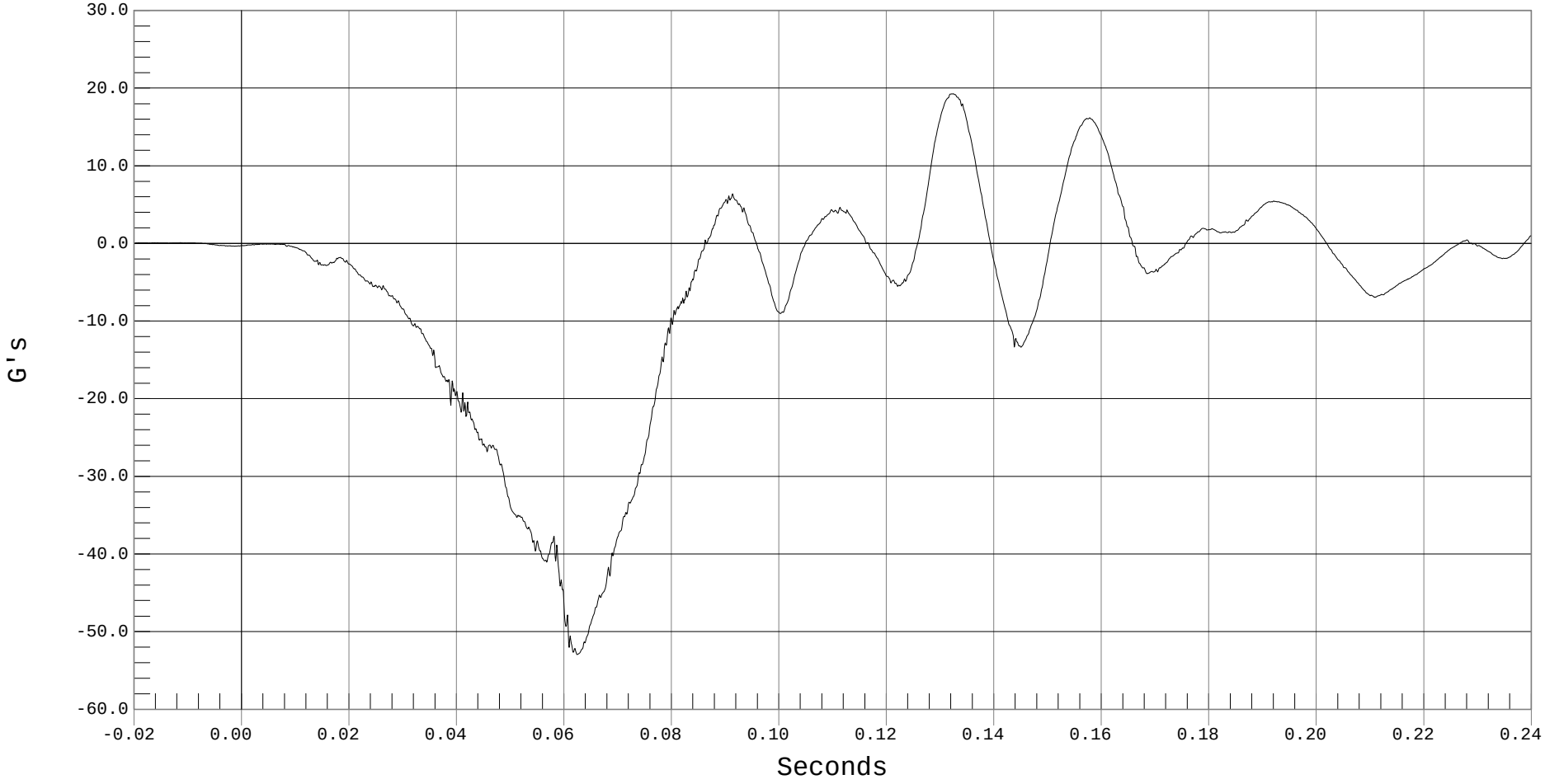
RRS 3 YR OLD PELVIS X ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 RRS CHILD PELVIS X, B01031AT.A56

Ymin = -52.95 G's @ 0.0623 Seconds, Ymax = 19.26 G's @ 0.1321 Seconds



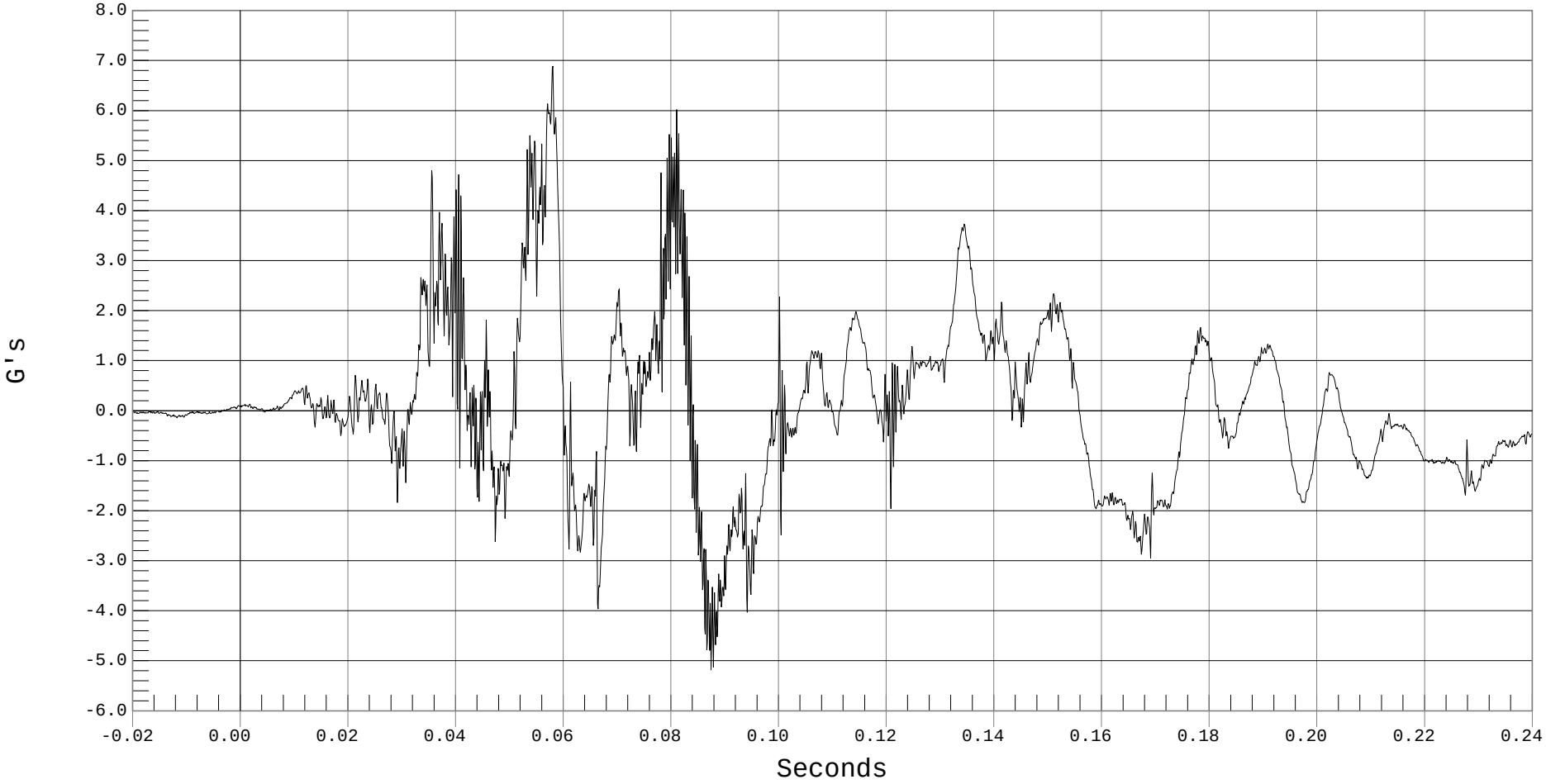
RRS 3 YR OLD PELVIS Y ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 RRS CHILD PELVIS Y, B01031AT.A57

Ymin = -5.18 G's @ 0.0874 Seconds, Ymax = 6.89 G's @ 0.0580 Seconds



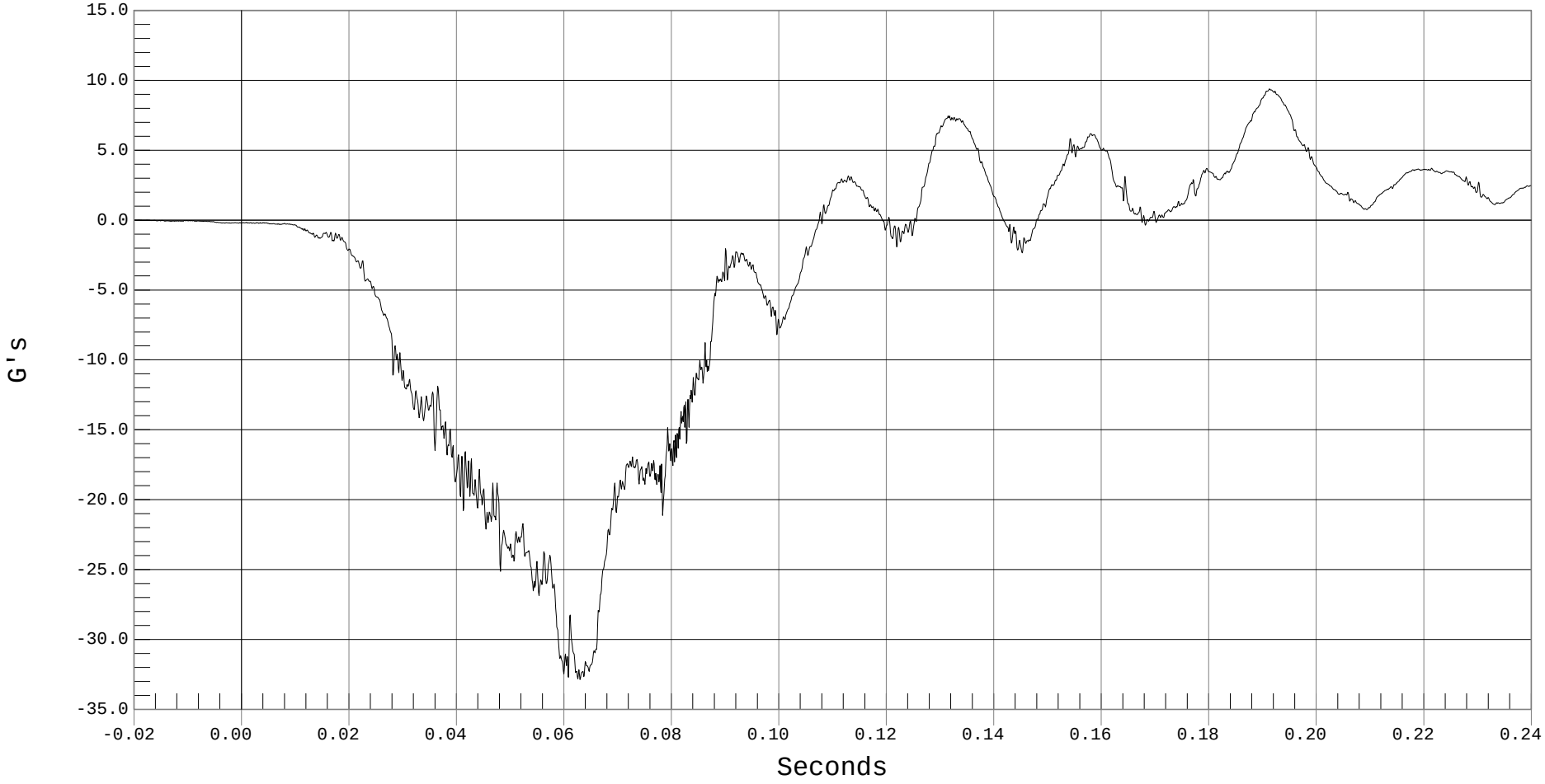
RRS 3 YR OLD PELVIS Z ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 RRS CHILD PELVIS Z, B01031AT.A58

Ymin = -32.87 G's @ 0.0629 Seconds, Ymax = 9.39 G's @ 0.1912 Seconds



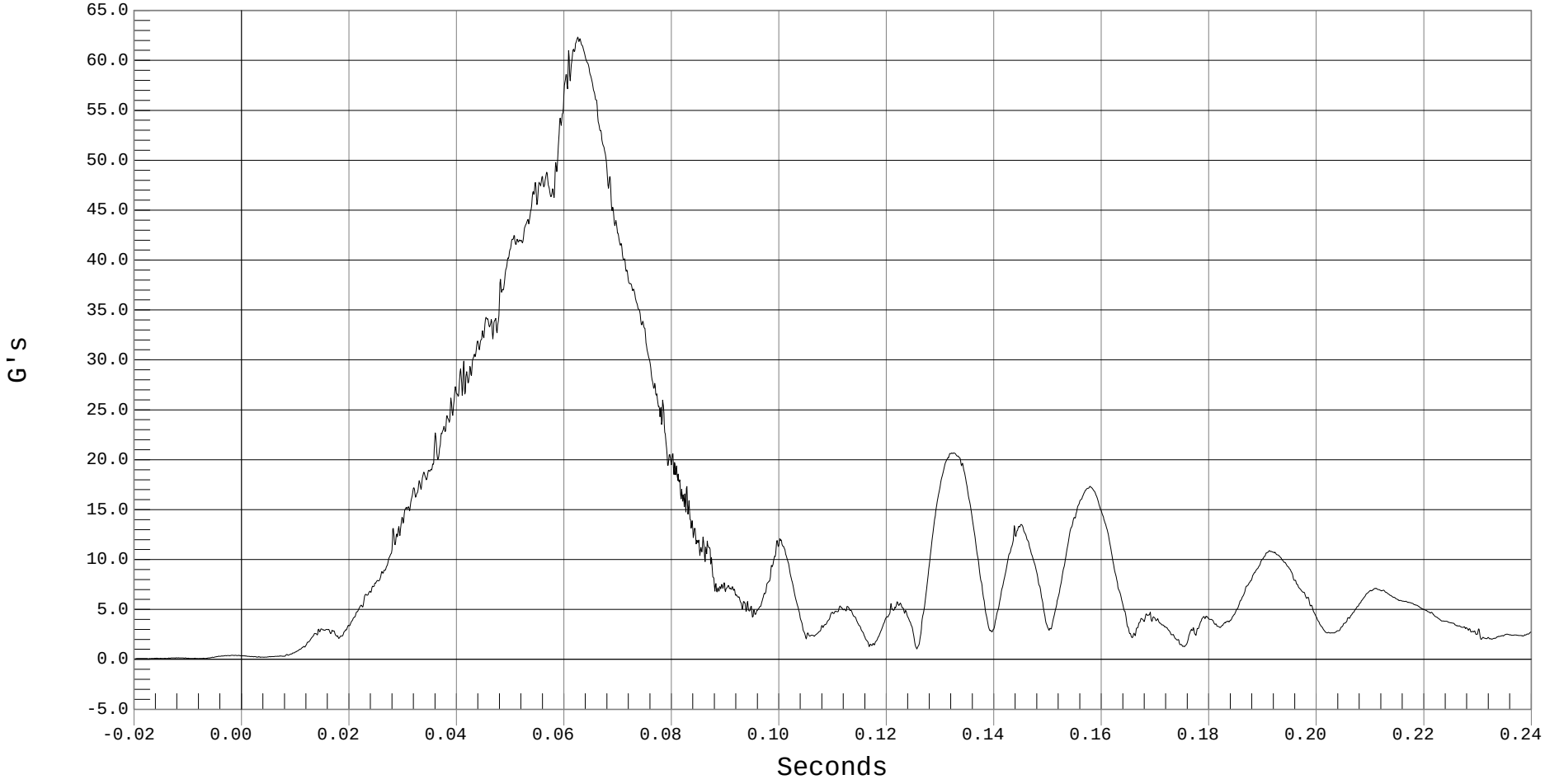
RRS 3 YR OLD PELVIS RESULTANT ACCELERATION

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 1000

1 RRS 3 YR OLD PELVIS RESULTANT ACCELERATION, B01031AV.A56

Ymin = .05 G's @ -0.0199 Seconds, Ymax = 62.32 G's @ 0.0625 Seconds



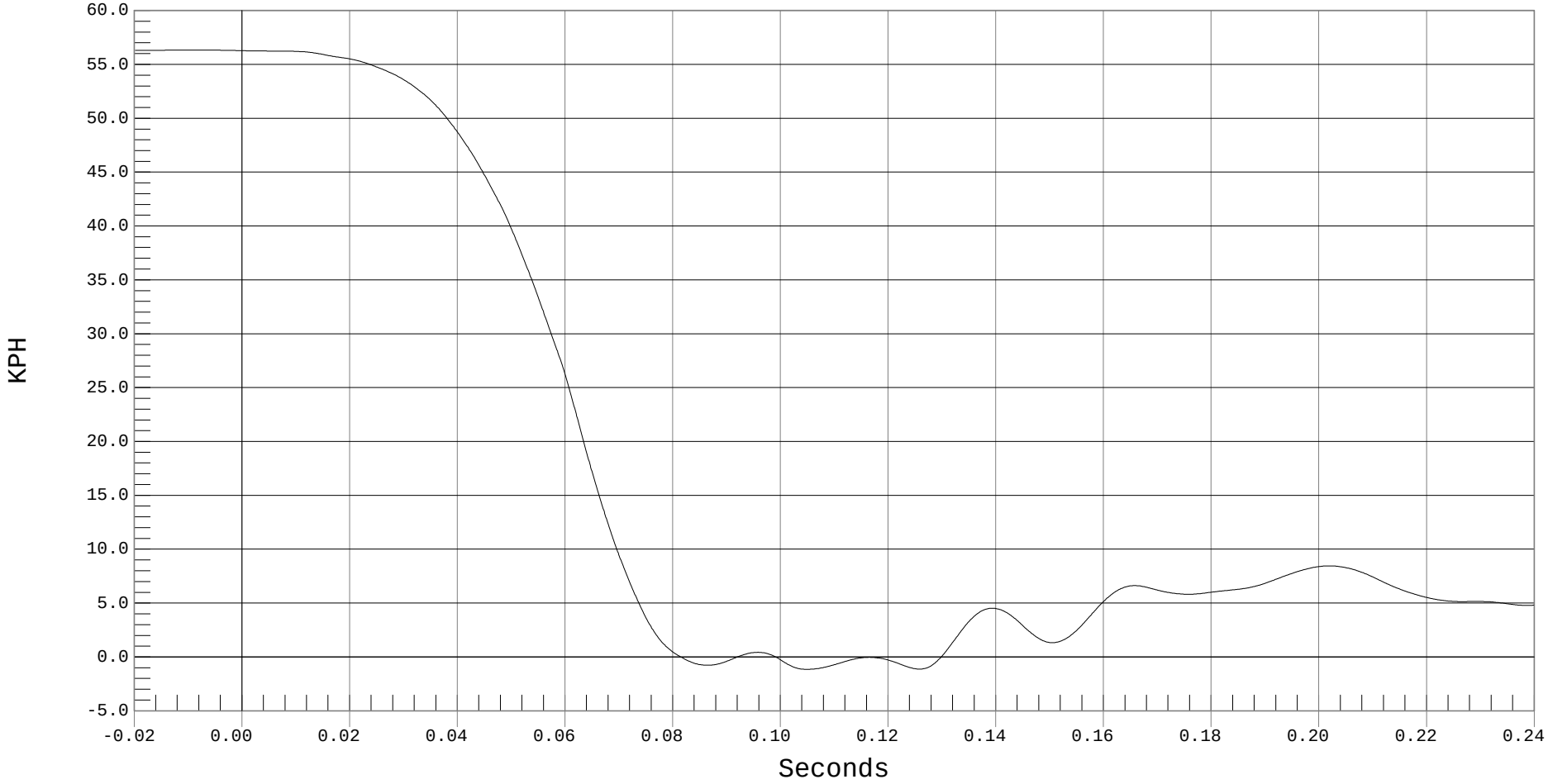
RRS 3 YR OLD PELVIS X VELOCITY

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 180

1 RRS 3 YR OLD PELVIS X VELOCITY, B01031AI.V56

Ymin = -1.16 KPH @ 0.1048 Seconds, Ymax = 56.33 KPH @ -0.0073 Seconds



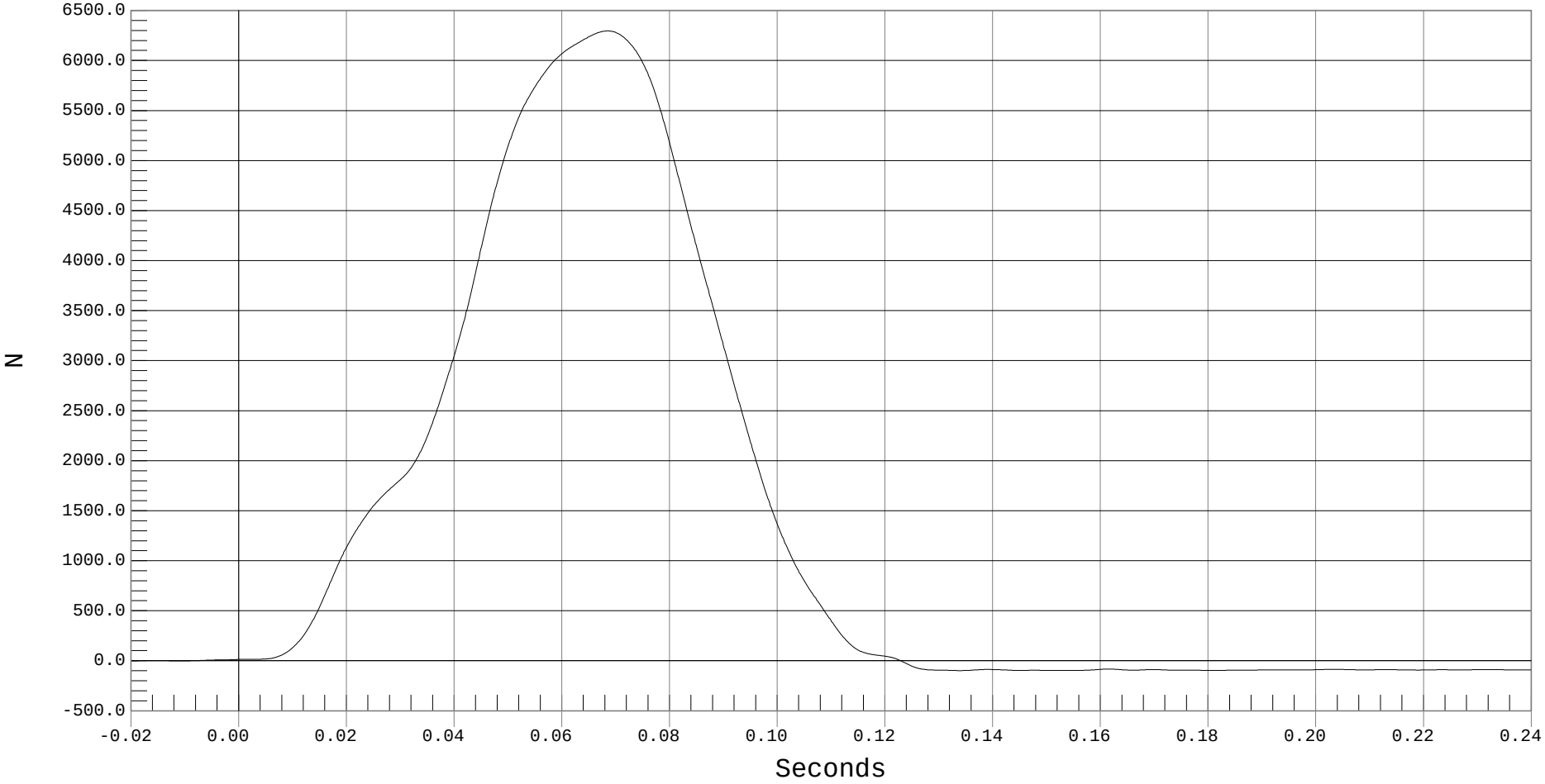
RRS TETHER FORCE

Test Desc.: NCAP FRONTAL IMPACT
Component: 2001 FORD ESCAPE (M10213)
Other Info:

Test Date: 03-16-01
Speed: 35.0 MPH, 56.3 KPH
Filter Class: 60

1 RRS TETHER FORCE, B01031FF.F67

Ymin = -98.78 N @ 0.1338 Seconds, Ymax = 6296.18 N @ 0.0684 Seconds



CHILD DUMMY CALIBRATION DATA TRACES AND TABLES

Hybrid III Calibration Data Sheet

3 Year Old

Head Drop Calibration

ATD Serial No.: 139 Test I.D.: D01061

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	21.7	PASS
Laboratory Relative Humidity	%	10 to 70	23	PASS
Peak Resultant Acceleration	G's	250.0 to 280.0	261.7	PASS
Peak Lateral Acceleration	G's	≤ ±15.0	1.7	PASS
Is Acceleration Unimodal?	Yes/No	< 10% Peak	Yes	PASS
		Overall Test Results		PASS

1/11/01

Laboratory Technician

Test Date

Approved By

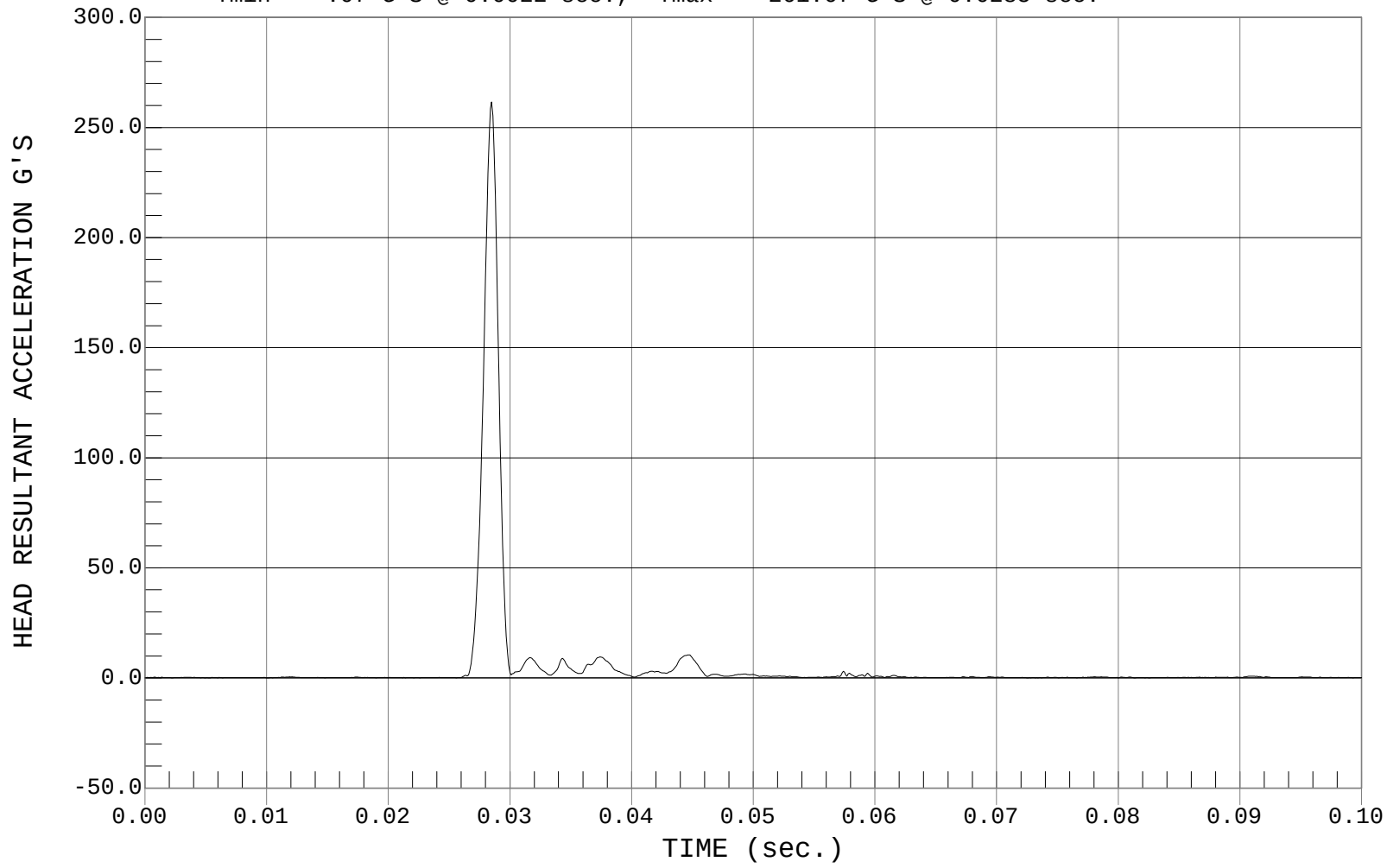
PEAK RESULTANT ACCELERATION

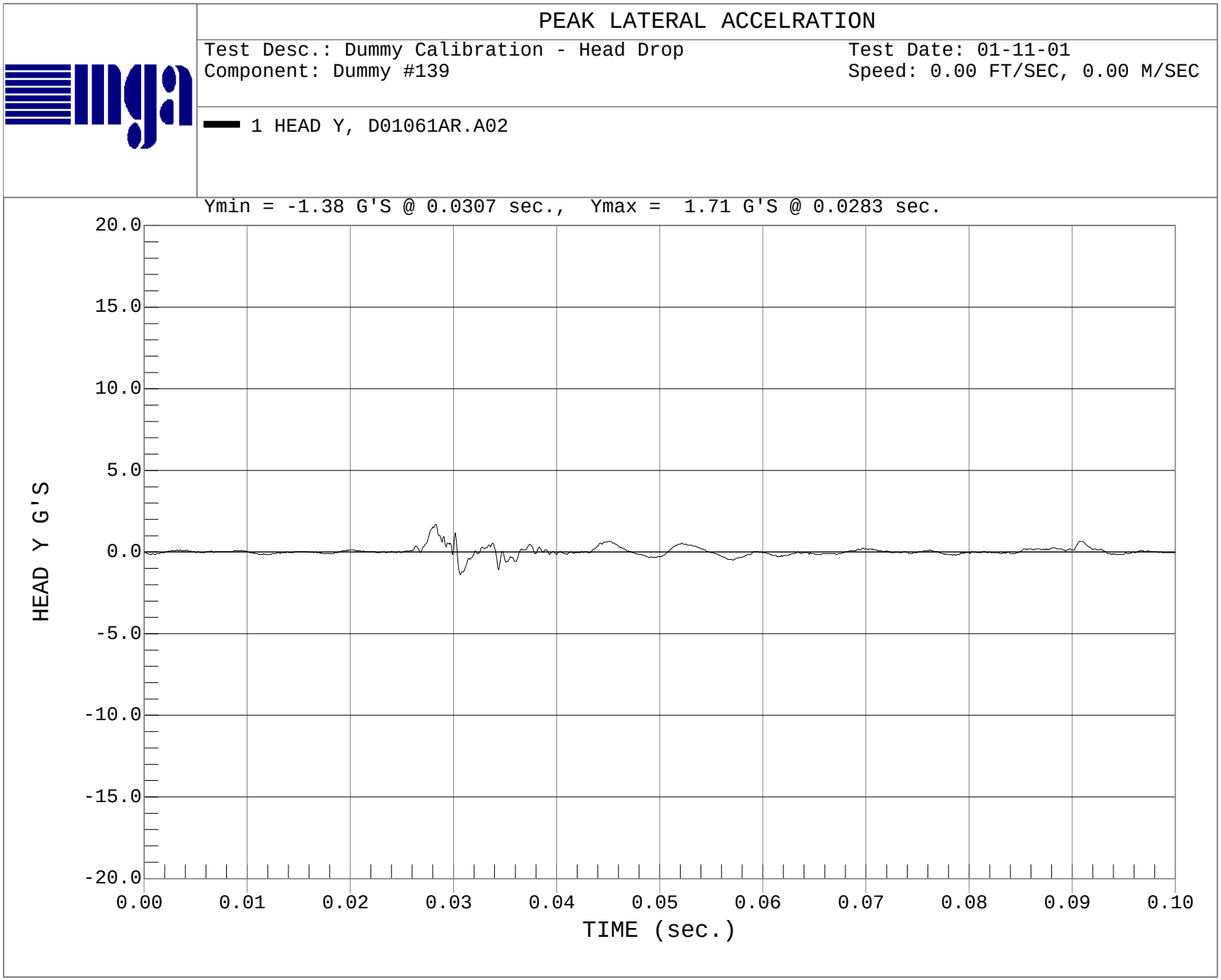
Test Desc.: Dummy Calibration - Head Drop
Component: Dummy #139

Test Date: 01-11-01
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 HEAD RESULTANT ACCELERATION, D01061AV.A01

Ymin = .07 G'S @ 0.0022 sec., Ymax = 261.67 G'S @ 0.0285 sec.




PEAK LATERAL ACCELRATION
Test Desc.: Dummy Calibration - Head Drop
Test Date: 01-11-01
Component: Dummy #139
Speed: 0.00 FT/SEC, 0.00 M/SEC
1 HEAD Y, D01061AR.A02
Ymin = -1.38 G'S @ 0.0307 sec., Ymax = 1.71 G'S @ 0.0283 sec.
HEAD Y G'S
20.0
15.0
10.0
5.0
0.0
-5.0
-10.0
-15.0
-20.0
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
TIME (sec.)

Hybrid III Calibration Data Sheet

3 Year Old

Thorax Impact Test

ATD Serial No.: 139 Test I.D.: D01064

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.7	PASS
Laboratory Relative Humidity	%	10 to 70	29	PASS
Probe Velocity	m/s	5.9 to 6.1	6.0	PASS
Peak Deflection	mm	32 to 38	33	PASS
Peak Resistive Force Within Deflection Corridor	kN	.68 to .81	.78	PASS
Internal Hysteresis	%	65 to 85	71	PASS
Max Force 12.5 mm – 32 mm Deflection	kN	Max .86	.83	PASS
		Overall Test Results		PASS

Laboratory Technician

1/14/01
Test Date

Approved By

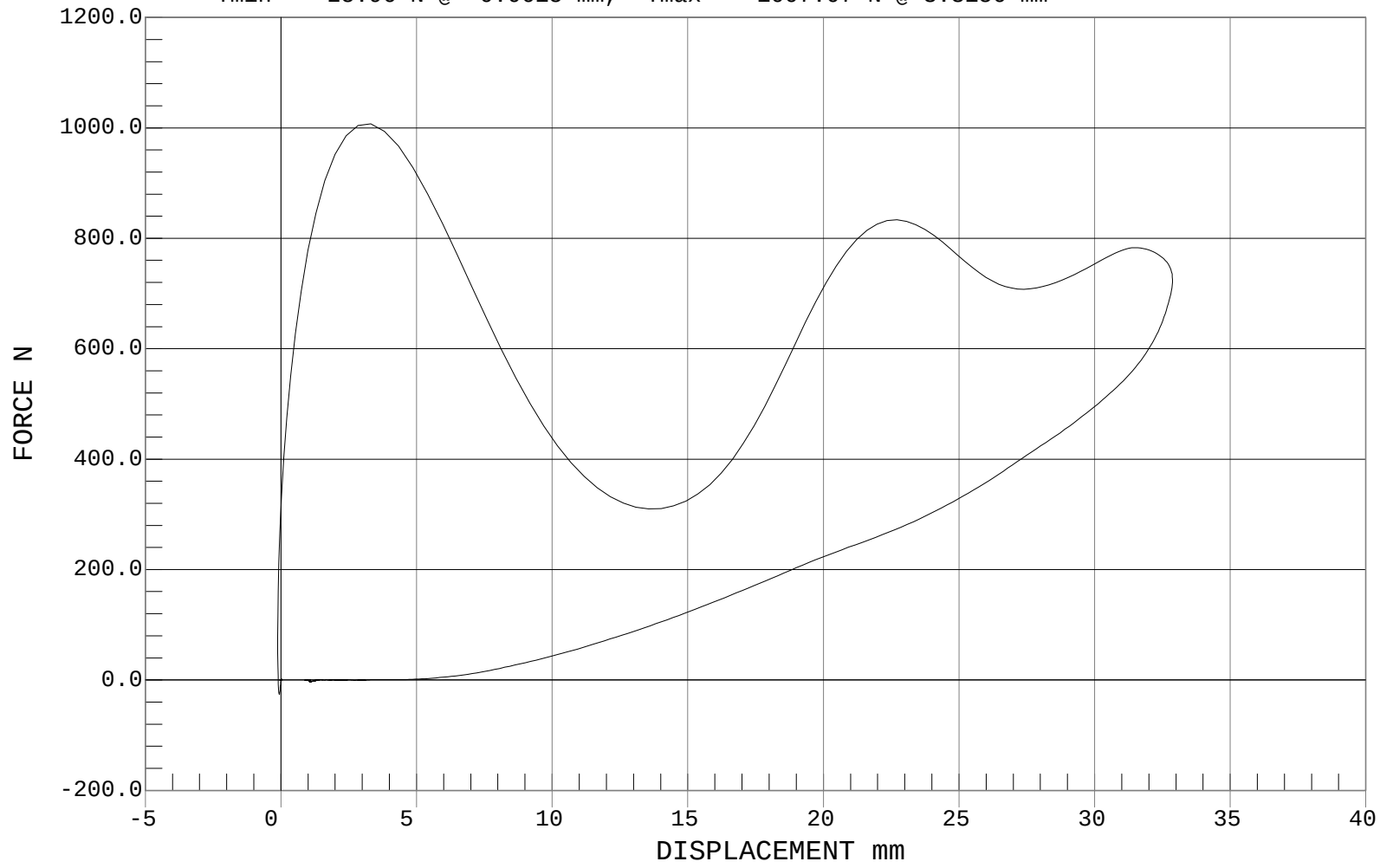
THORAX IMPACT

Test Desc.: Dummy Calibration - Chest Impact
Component: Dummy #139

Test Date: 01-14-01
Speed: 19.62 FT/SEC, 5.98 M/SEC

1 FORCE, D01064CH.FVD

Ymin = -25.96 N @ -0.0615 mm, Ymax = 1007.07 N @ 3.3156 mm



Hybrid III Calibration Data Sheet

3 Year Old

Neck Flexion Test

ATD Serial No.: 139 Test I.D.: D01062

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.7	PASS
Laboratory Relative Humidity		%	10 to 70	23	PASS
Pendulum Velocity		m/s	5.4 to 5.6	5.5	PASS
Pendulum Deceleration	10 Msec.	m/s	2.0 to 2.7	2.4	PASS
	15 Msec.	m/s	3.0 to 4.0	3.5	PASS
	20 Msec.	m/s	4.0 to 5.1	4.7	PASS
"D" Plane Rotation	Maximum	Deg.	70.0 to 82.0	73.1	PASS
Moment About Occipital Condyle	Maximum	Nm	42.0 to 53.0	43.4	PASS
Positive Moment Decay Time To 10 Nm		Msec.	60.0 to 80.0	71.3	PASS
			Overall Test Results		PASS

1/11/01

Laboratory Technician

Test Date

Approved By

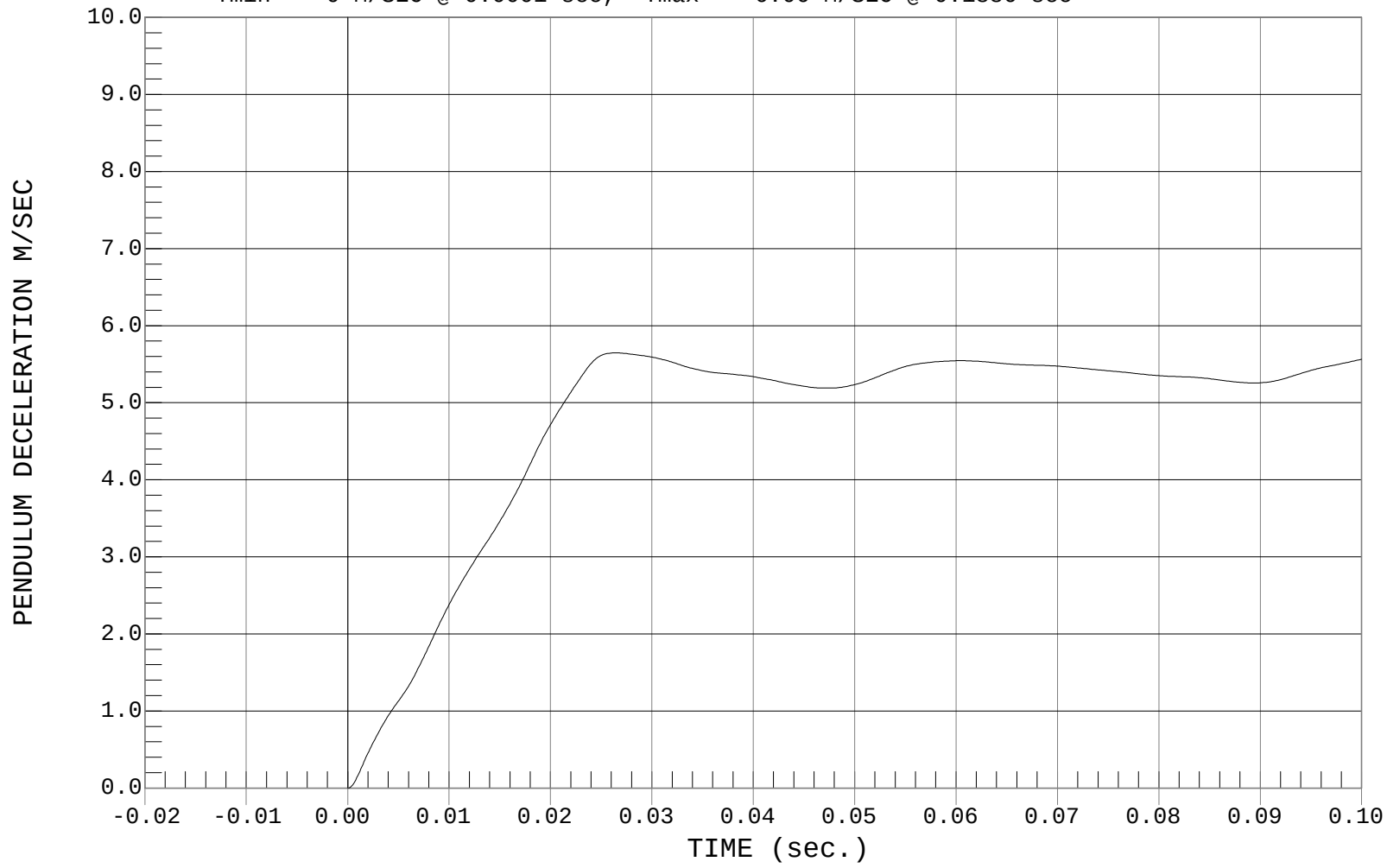
PENDULUM DECELERATION

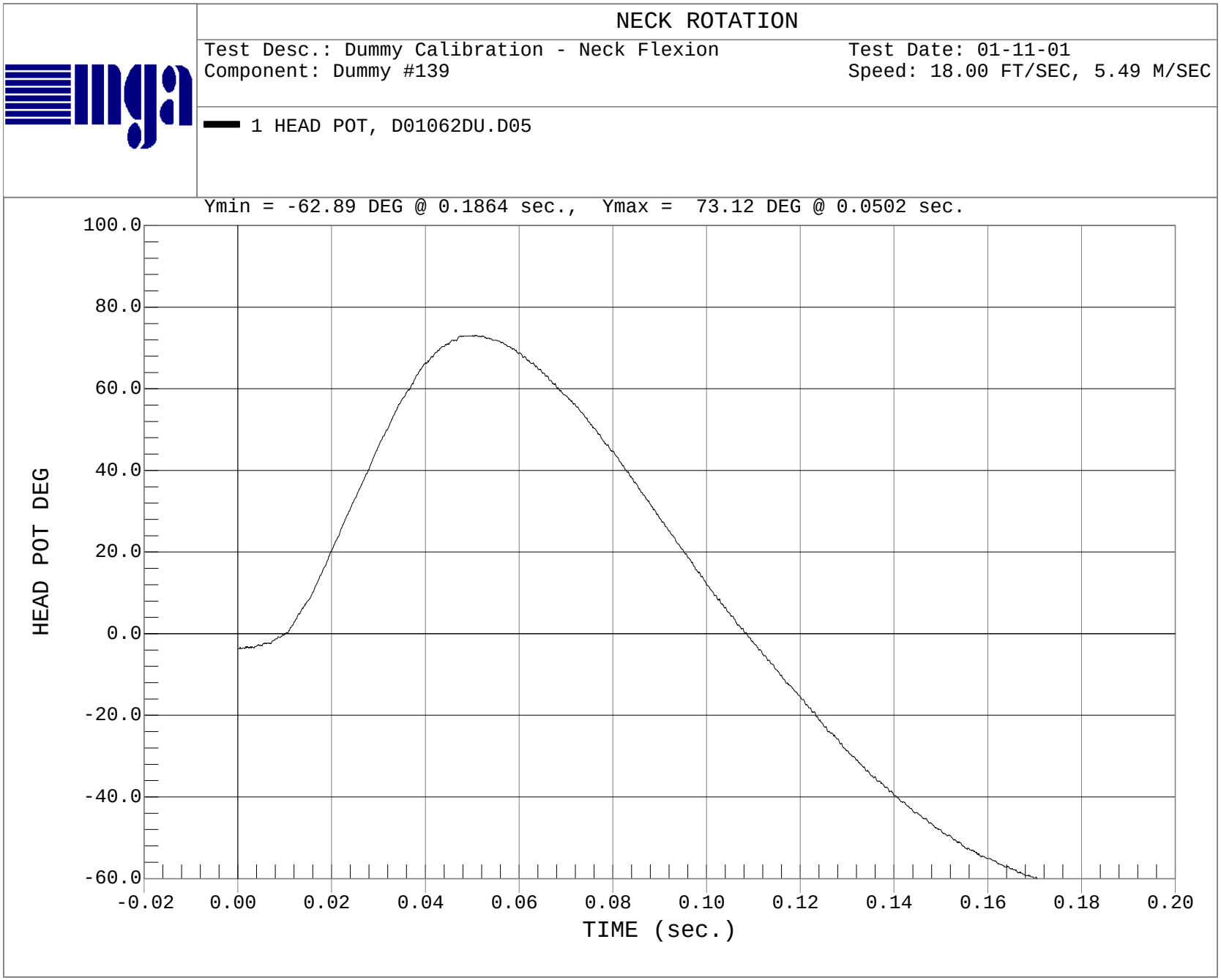
Test Desc.: Dummy Calibration - Neck Flexion
Component: Dummy #139

Test Date: 01-11-01
Speed: 18.00 FT/SEC, 5.49 M/SEC

1 PENDULUM DECELERATION, D01062AI.A04

Ymin = 0 M/SEC @ 0.0001 sec, Ymax = 6.06 M/SEC @ 0.1886 sec




NECK ROTATION
Test Desc.: Dummy Calibration - Neck Flexion
Test Date: 01-11-01
Component: Dummy #139
Speed: 18.00 FT/SEC, 5.49 M/SEC
1 HEAD POT, D01062DU.D05
Ymin = -62.89 DEG @ 0.1864 sec., Ymax = 73.12 DEG @ 0.0502 sec.
HEAD POT DEG
100.0
80.0
60.0
40.0
20.0
0.0
-20.0
-40.0
-60.0
-0.02
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
0.16
0.18
0.20
TIME (sec.)

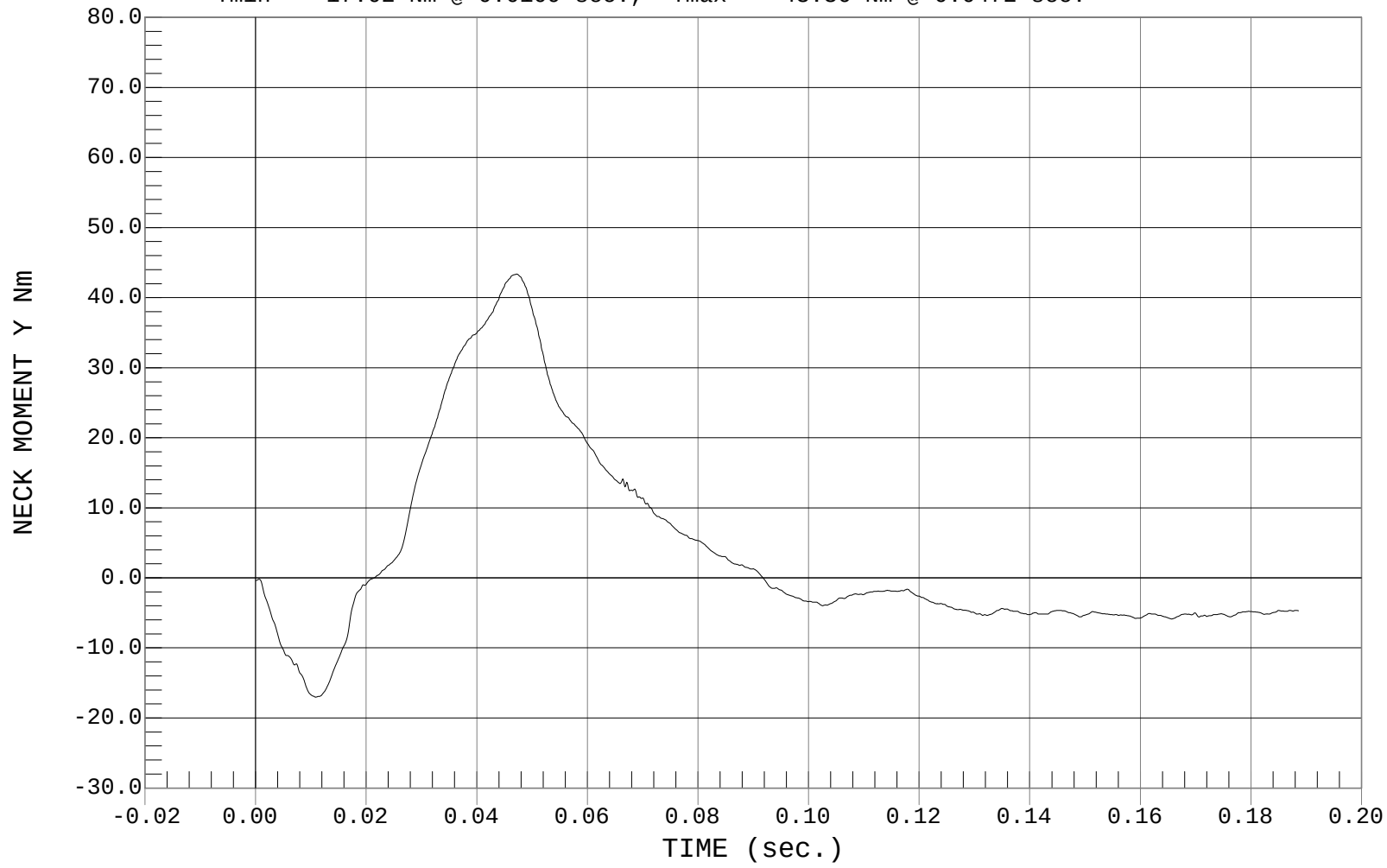
OCCIPITAL MOMENT

Test Desc.: Dummy Calibration - Neck Flexion
Component: Dummy #139

Test Date: 01-11-01
Speed: 18.00 FT/SEC, 5.49 M/SEC

1 NECK MOMENT Y, D01062MF.M01

Ymin = -17.02 Nm @ 0.0109 sec., Ymax = 43.36 Nm @ 0.0472 sec.



Hybrid III Calibration Data Sheet

3 Year Old

Neck Extension Test

ATD Serial No.: 139 Test I.D.: D01063

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.5	PASS
Laboratory Relative Humidity		%	10 to 70	24	PASS
Pendulum Velocity		m/s	3.55 to 3.75	3.66	PASS
Pendulum Deceleration	6 Msec.	m/s	1.0 to 1.4	1.2	PASS
	10 Msec.	m/s	1.9 to 2.5	2.1	PASS
	14 Msec.	m/s	2.8 to 3.5	2.9	PASS
"D" Plane Rotation	Maximum	Deg.	83.0 to 93.0	88.5	PASS
Moment About Occipital Condyle	Minimum	Nm	-53.3 to -43.7	-46.4	PASS
Negative Moment Decay Time To -10Nm		Msec.	60.0 to 80.0	68.9	PASS
			Overall Test Results		PASS

Laboratory Technician

1/11/01
Test Date

Approved By

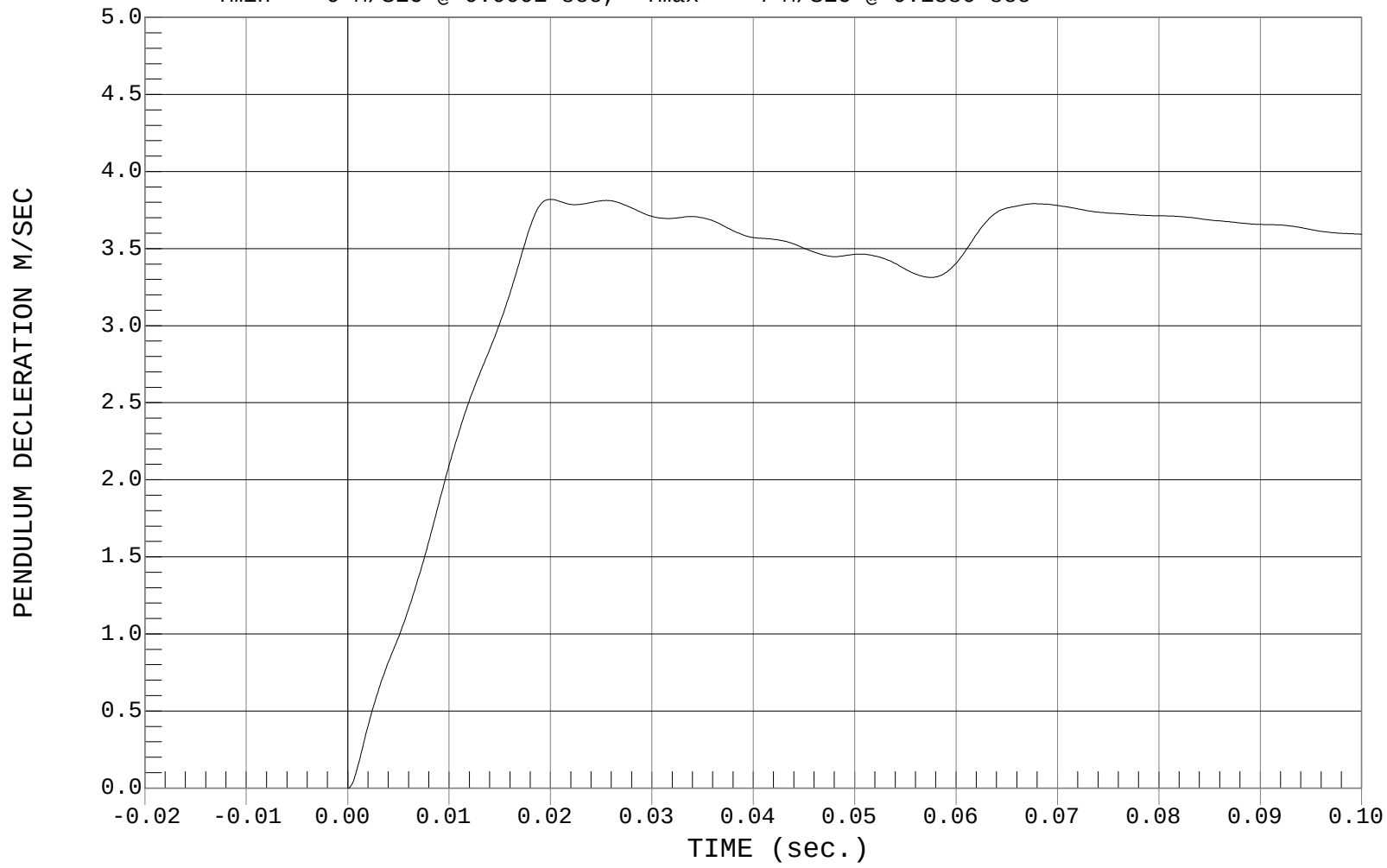
PENDULUM DECELERATION

Test Desc.: Dummy Calibration - Neck Extension
Component: Dummy #139

Test Date: 01-11-01
Speed: 12.00 FT/SEC, 3.66 M/SEC

1 PENDULUM DECLERATION, D01063AI.A04

Ymin = 0 M/SEC @ 0.0001 sec, Ymax = 4 M/SEC @ 0.1886 sec



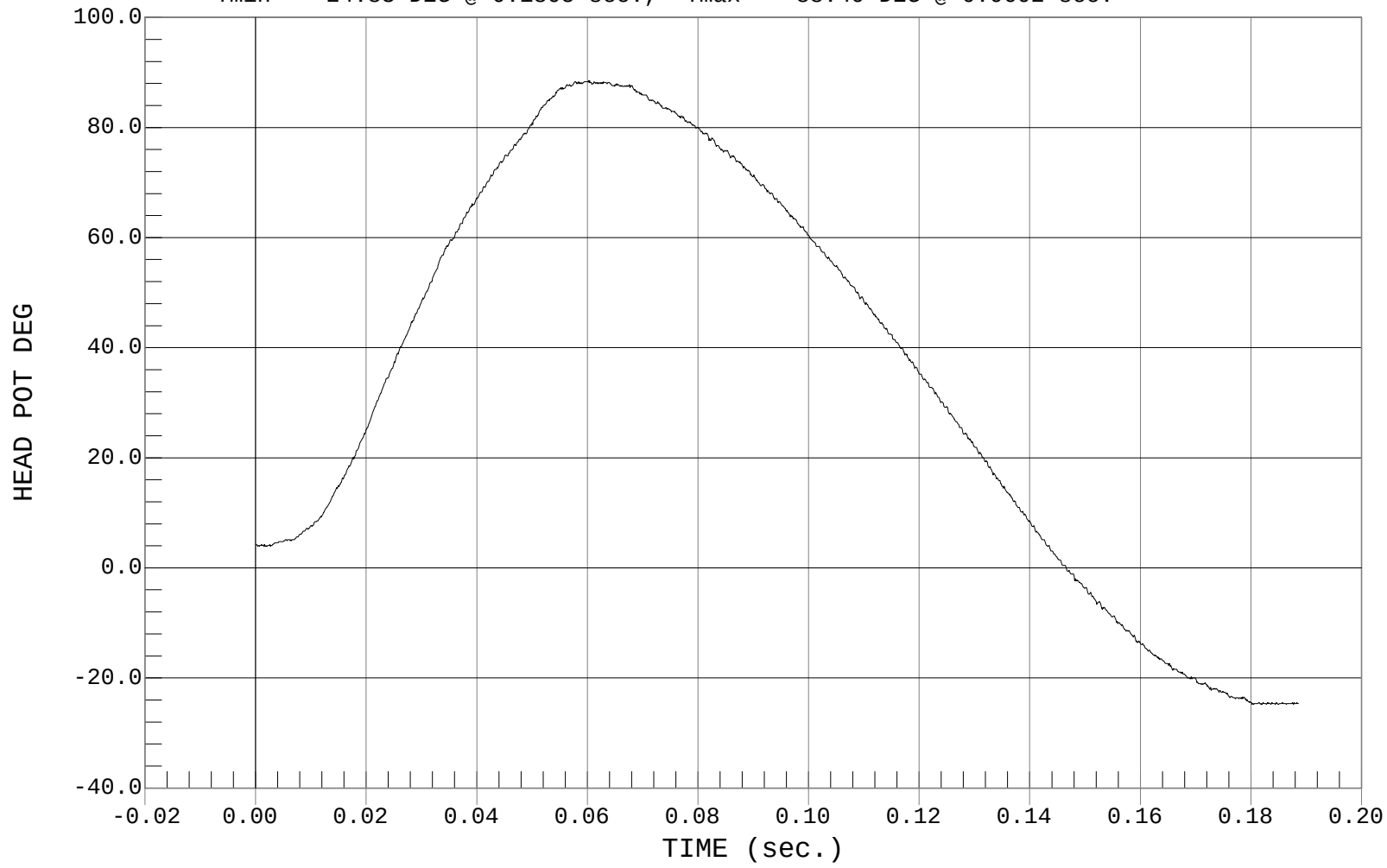
NECK ROTATION

Test Desc.: Dummy Calibration - Neck Extension
Component: Dummy #139

Test Date: 01-11-01
Speed: 12.00 FT/SEC, 3.66 M/SEC

1 HEAD POT, D01063DU.D05

Ymin = -24.83 DEG @ 0.1805 sec., Ymax = 88.49 DEG @ 0.0602 sec.



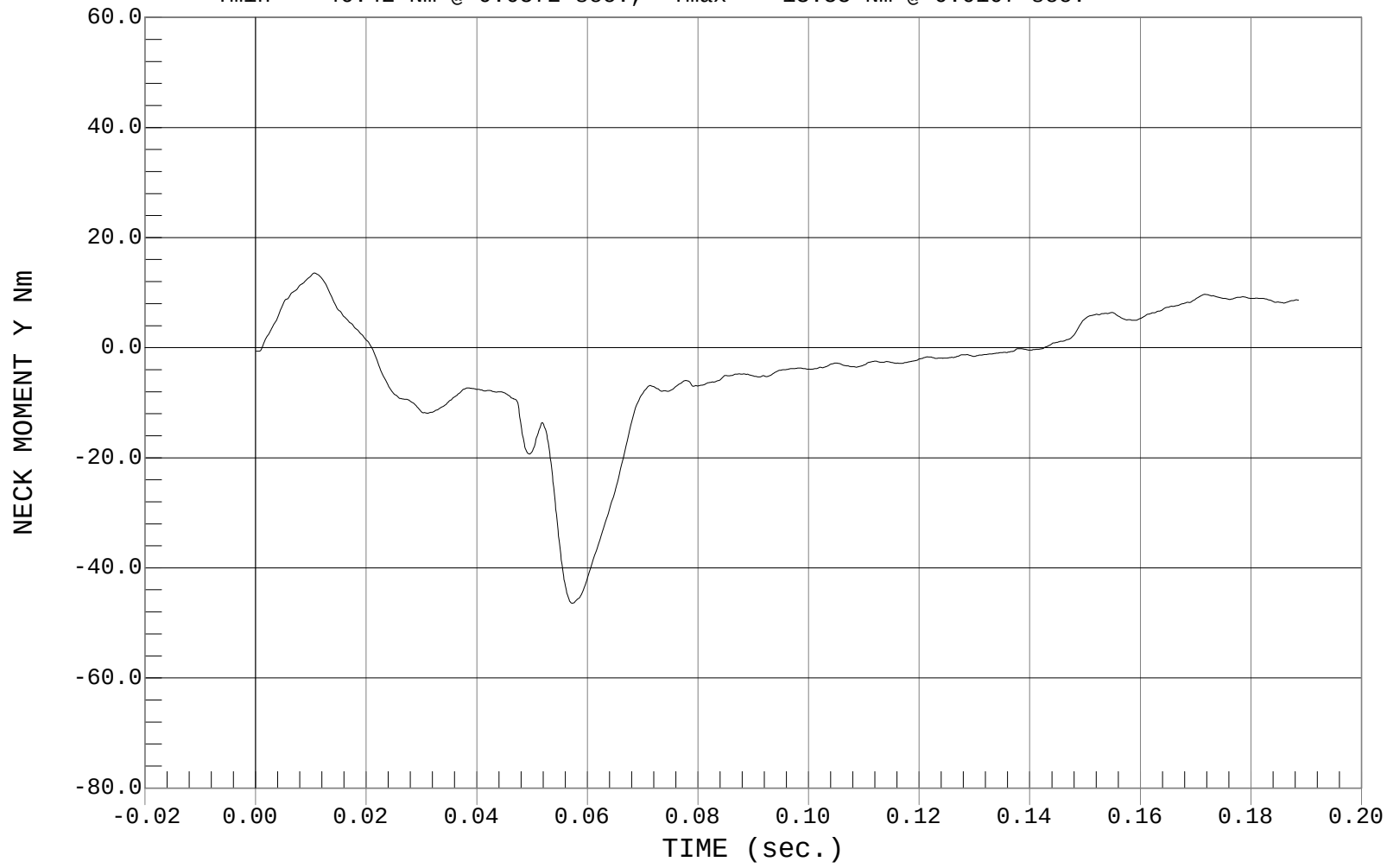
OCCIPITAL MOMENT

Test Desc.: Dummy Calibration - Neck Extension
Component: Dummy #139

Test Date: 01-11-01
Speed: 12.00 FT/SEC, 3.66 M/SEC

1 NECK MOMENT Y, D01063MF.M01

Ymin = -46.42 Nm @ 0.0572 sec., Ymax = 13.55 Nm @ 0.0107 sec.



Hybrid III Calibration Data Sheet

3 Year Old

Torso Flexion Test

ATD Serial No.: 139 Test I.D.: D01065

Tested Parameter	Units	Specification	Result	Pass/Fail
Temperature	°C	18.9 to 25.6	21.4	PASS
Relative Humidity	%	10 to 70	24	PASS
Force @ 45°	N	130 to 180	161	PASS
Initial Angle	Deg	0-15	10	PASS
Return Angle	Deg	0-10	2	PASS
		Overall Test Results		PASS

1/12/01

Laboratory Technician

Test Date

Approved By

Hybrid III Calibration Data Sheet

3 Year Old

Head Drop Calibration

ATD Serial No.: 142C Test I.D.: D01071

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	18.9 to 25.5	22.1	PASS
Laboratory Relative Humidity	%	10 to 70	23	PASS
Peak Resultant Acceleration	G's	250.0 to 280.0	267.9	PASS
Peak Lateral Acceleration	G's	≤±15.0	-4.0	PASS
Is Acceleration Unimodal?	Yes/No	<10% Peak	Yes	PASS
		Overall Test Results		PASS

1/11/01

Laboratory Technician Test Date

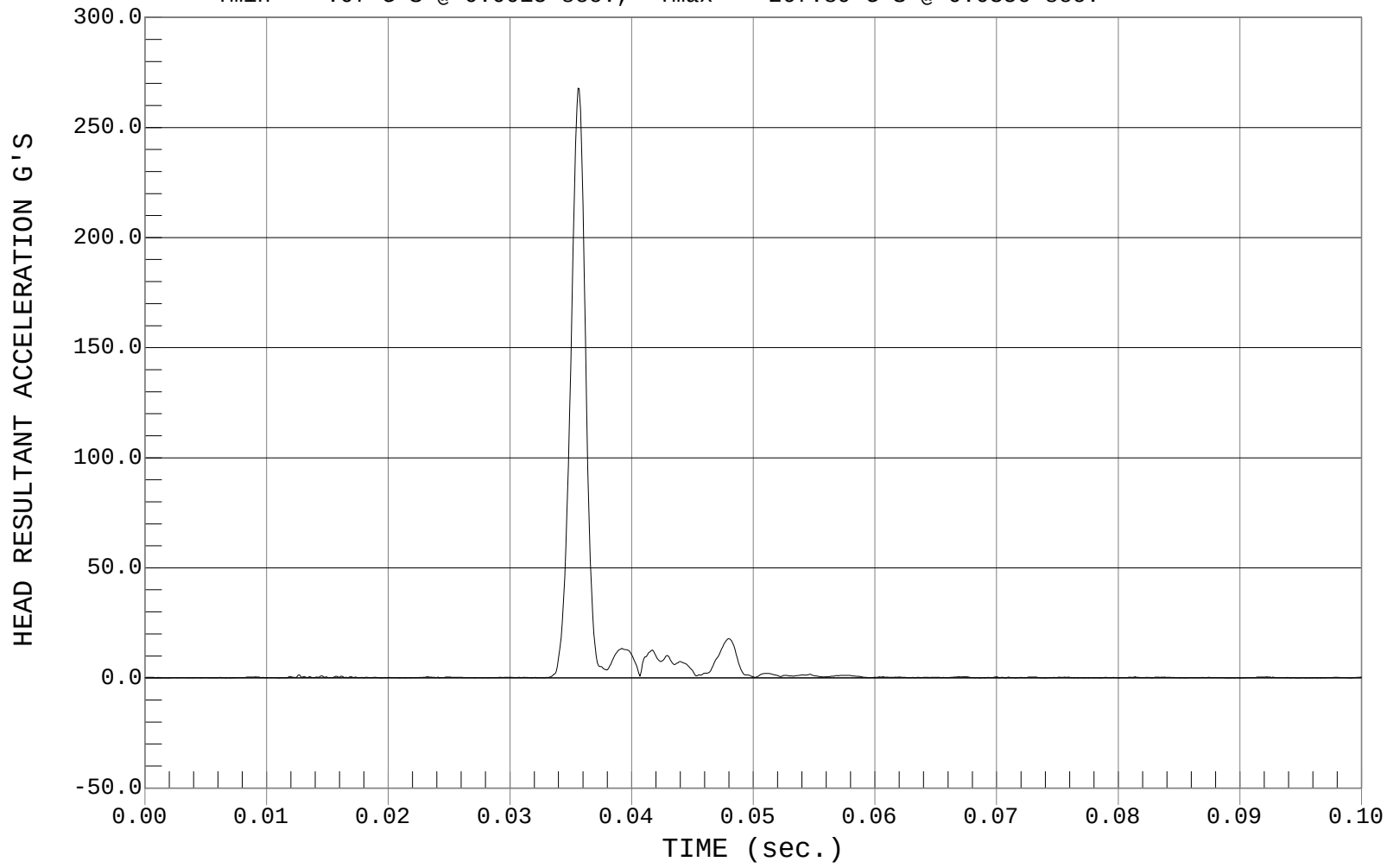
Approved By

PEAK RESULTANT ACCELERATION

Test Desc.: Dummy Calibration - Head Drop
Test Date: 01-11-01
Component: Dummy #142C
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 HEAD RSULTANT ACCELERATION, D01071AV.A01

Ymin = .07 G'S @ 0.0015 sec., Ymax = 267.89 G'S @ 0.0356 sec.

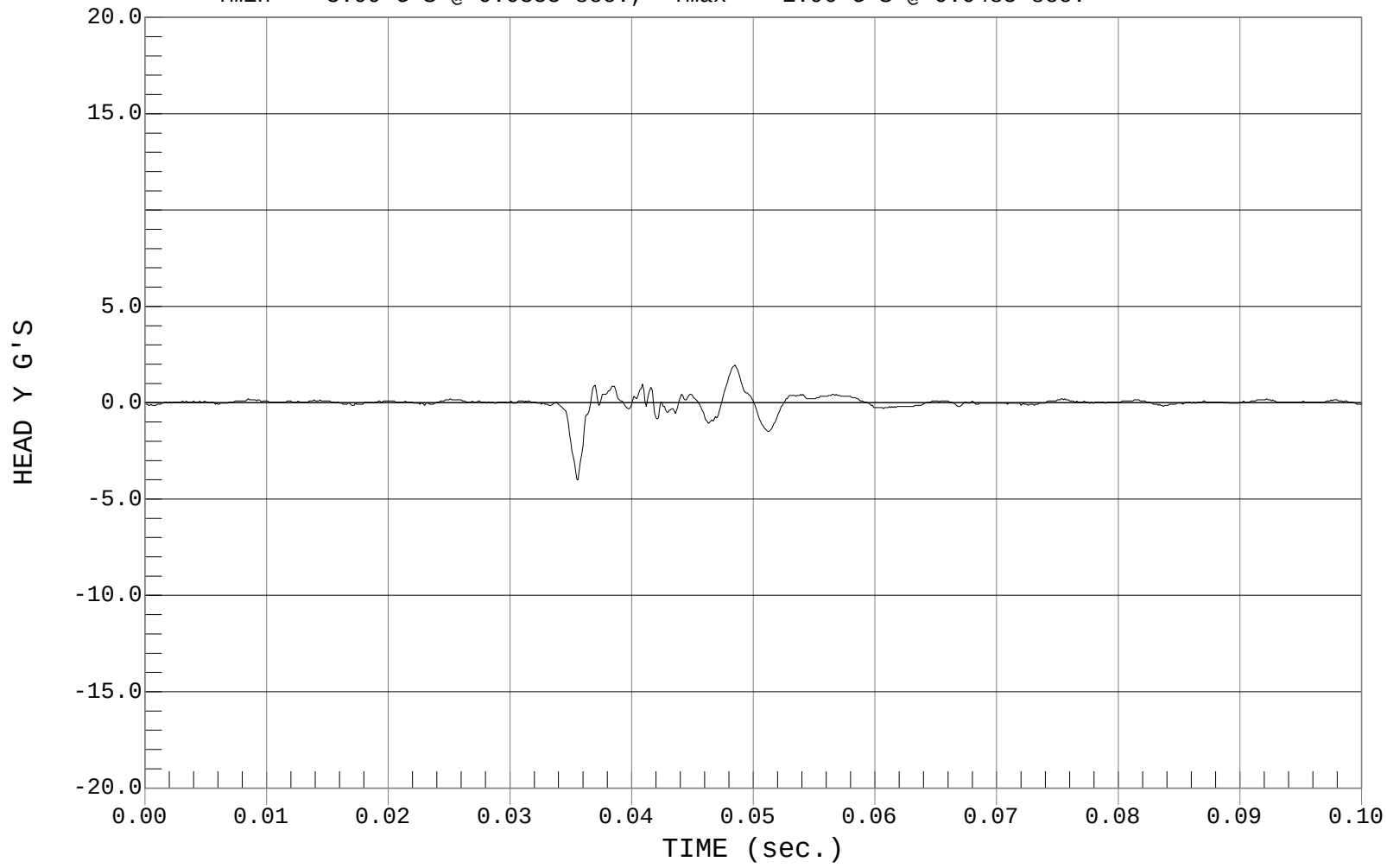


PEAK LATERAL ACCELRATION

Test Desc.: Dummy Calibration - Head Drop
Test Date: 01-11-01
Component: Dummy #142C
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 HEAD Y, D01071AR.A02

Ymin = -3.99 G'S @ 0.0355 sec., Ymax = 1.96 G'S @ 0.0485 sec.



Hybrid III Calibration Data Sheet

3 Year Old

Thorax Impact Test

ATD Serial No.: 142C Test I.D.: D01074

Tested Parameter	Units	Specification	Result	Pass/Fail
Laboratory Temperature	°C	20.6 to 22.2	21.7	PASS
Laboratory Relative Humidity	%	10 to 70	29	PASS
Probe Velocity	M/s	6.58 to 6.82	6.01	PASS
Peak Resistive Force Within Deflection Corridor	kN	.68 to .81	.80	PASS
Internal Hysteresis	%	65 to 85%	73	PASS
Max Force 12.5 mm to 32 mm Deflection	kN	Max .86	.88	FAIL
		Overall Test Results		FAIL

* TEST DOES NOT MEET SPECIFICATION

Laboratory Technician

1/14/01
Test Date

Approved By

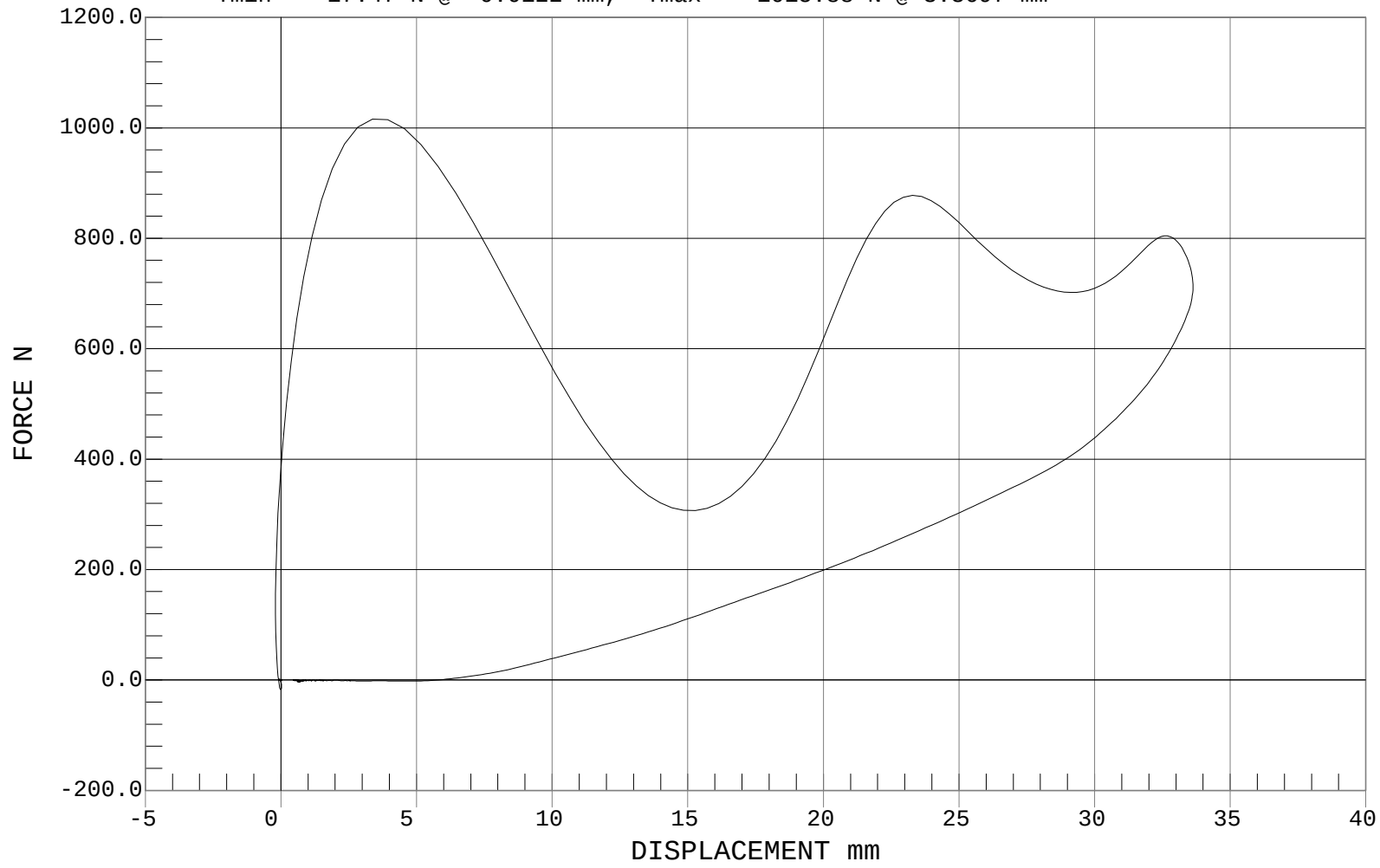
THORAX IMPACT

Test Desc.: Dummy Calibration - Chest Impact
Component: Dummy #142C

Test Date: 01-14-01
Speed: 19.72 FT/SEC, 6.01 M/SEC

1 FORCE, D01074CH.FVD

Ymin = -17.47 N @ -0.0122 mm, Ymax = 1015.88 N @ 3.3697 mm



Hybrid III Calibration Data Sheet

3 Year Old

Neck Flexion Test

ATD Serial No.: 142C Test I.D.: D01072

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.3	PASS
Laboratory Relative Humidity		%	10 to 70	22	PASS
Pendulum Velocity		m/s	5.4 to 5.6	5.5	PASS
Pendulum Deceleration	10 Msec.	m/s	2.0 to 2.7	2.4	PASS
	15 Msec.	m/s	3.0 to 4.0	3.4	PASS
	20 Msec.	m/s	4.0 to 5.1	4.6	PASS
"D" Plane Rotation	Maximum	Deg.	70.0 to 82.0	73.8	PASS
Moment About Occipital Condyle	Maximum	Nm	42.0 to 53.0	44.4	PASS
Positive Moment Decay Time to 10Nm		Msec.	60.0 to 80.0	73.4	PASS
			Overall Test Results		PASS

Laboratory Technician

1/12/01
Test Date

Approved By

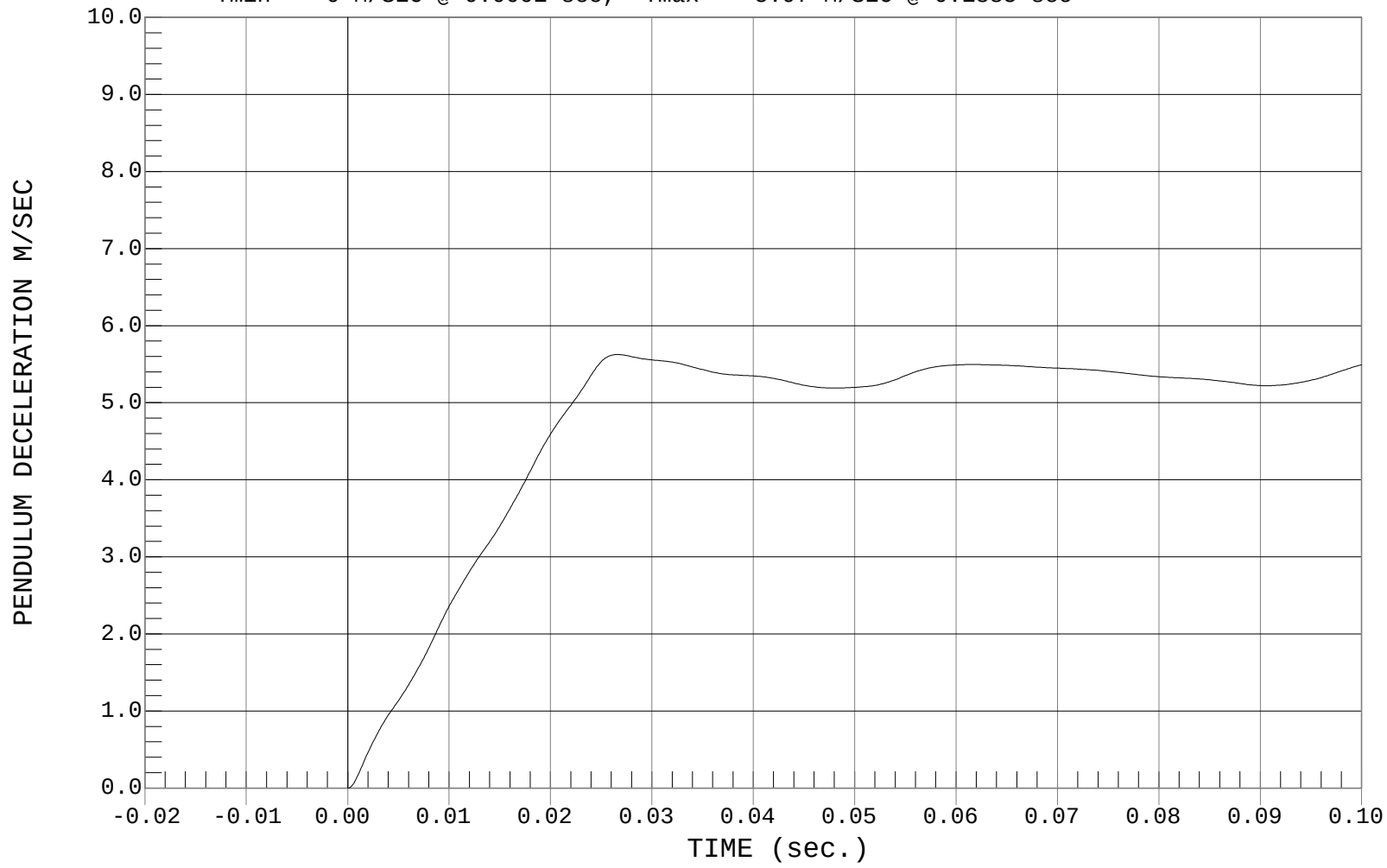
PENDULUM DECELERATION

Test Desc.: Dummy Calibration - Neck Flexion
Component: Dummy #142C

Test Date: 01-12-01
Speed: 18.00 FT/SEC, 5.49 M/SEC

1 PENDULUM DECELERATION, D01072AI.A04

Ymin = 0 M/SEC @ 0.0001 sec, Ymax = 5.97 M/SEC @ 0.1885 sec



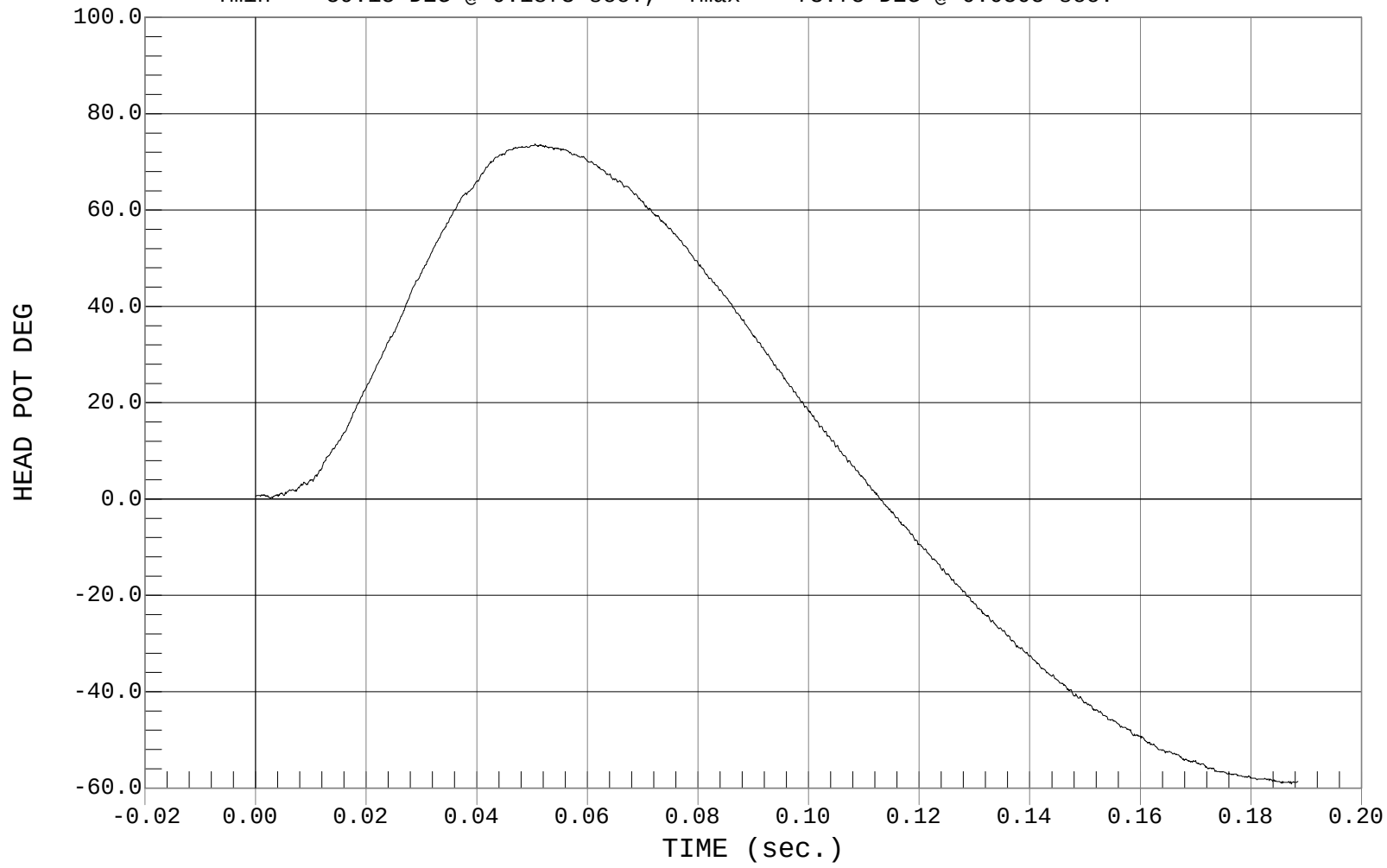
NECK ROTATION

Test Desc.: Dummy Calibration - Neck Flexion
Component: Dummy #142C

Test Date: 01-12-01
Speed: 18.00 FT/SEC, 5.49 M/SEC

1 HEAD POT, D01072DU.D05

Ymin = -59.15 DEG @ 0.1873 sec., Ymax = 73.75 DEG @ 0.0505 sec.



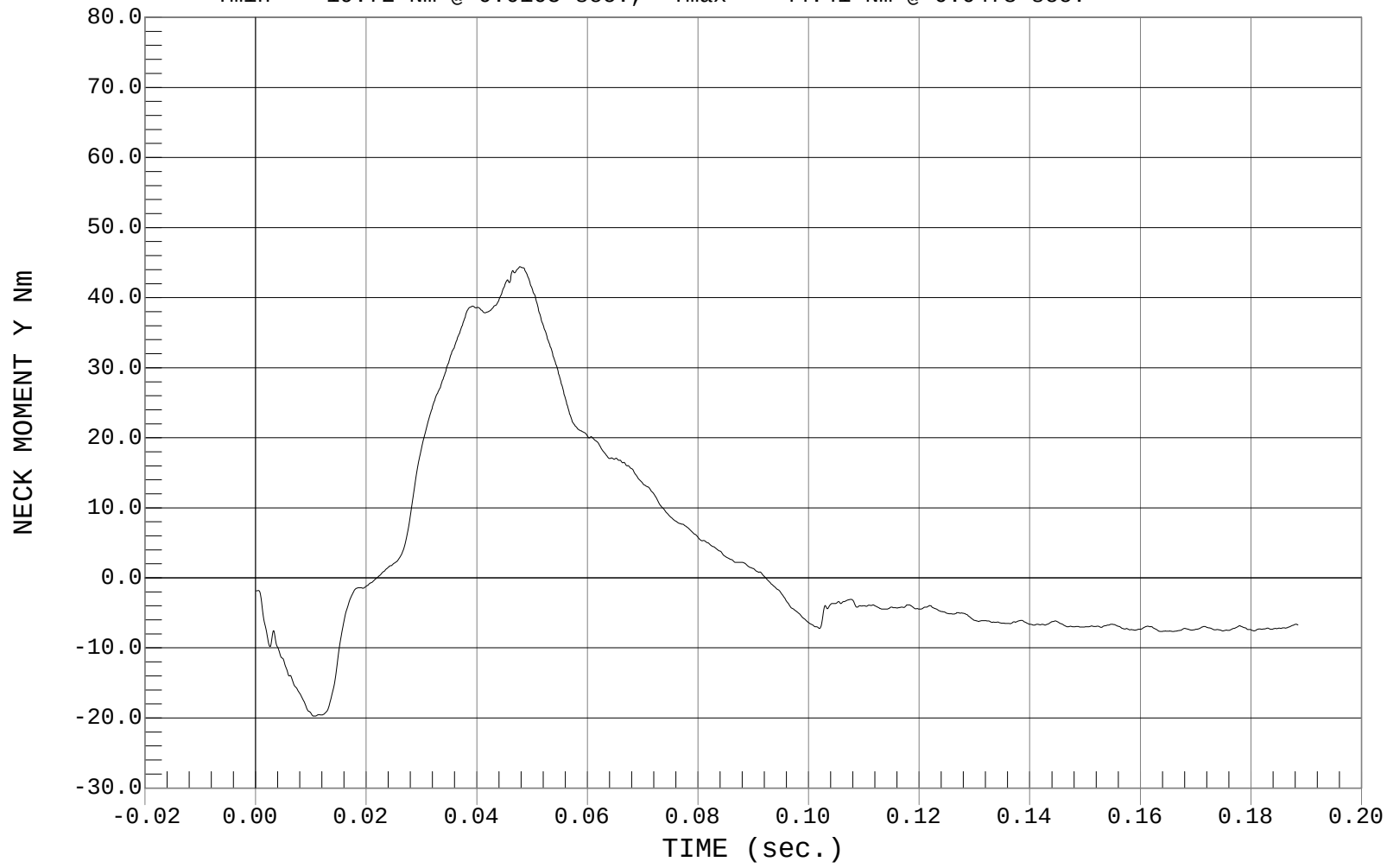
OCCIPITAL MOMENT

Test Desc.: Dummy Calibration - Neck Flexion
Component: Dummy #142C

Test Date: 01-12-01
Speed: 18.00 FT/SEC, 5.49 M/SEC

1 NECK MOMENT Y, D01072MF.M01

Ymin = -19.72 Nm @ 0.0105 sec., Ymax = 44.41 Nm @ 0.0478 sec.



Hybrid III Calibration Data Sheet

3 Year Old

Neck Extension Test

ATD Serial No.: 142C Test I.D.: D01073

Tested Parameter		Units	Specification	Result	Pass/Fail
Laboratory Temperature		°C	20.6 to 22.2	21.3	PASS
Laboratory Relative Humidity		%	10 to 70	22	PASS
Pendulum Velocity		m/s	3.55 to 3.75	3.66	PASS
Pendulum Deceleration	6 Msec.	m/s	1.0 to 1.4	1.2	PASS
	10 Msec.	m/s	1.9 to 2.5	2.1	PASS
	14 Msec.	m/s	2.8 to 3.5	2.9	PASS
"D" Plane Rotation	Maximum	Deg.	83.0 to 93.0	88.8	PASS
Moment About Occipital Condyle	Minimum	Nm	-53.3 to –43.7	-46.3	PASS
Negative Moment Decay Time to -10 Nm		Msec.	60.0 to 80.0	68.8	PASS
			Overall Test Results		PASS

1/12/01

Laboratory Technician Test Date

Approved By

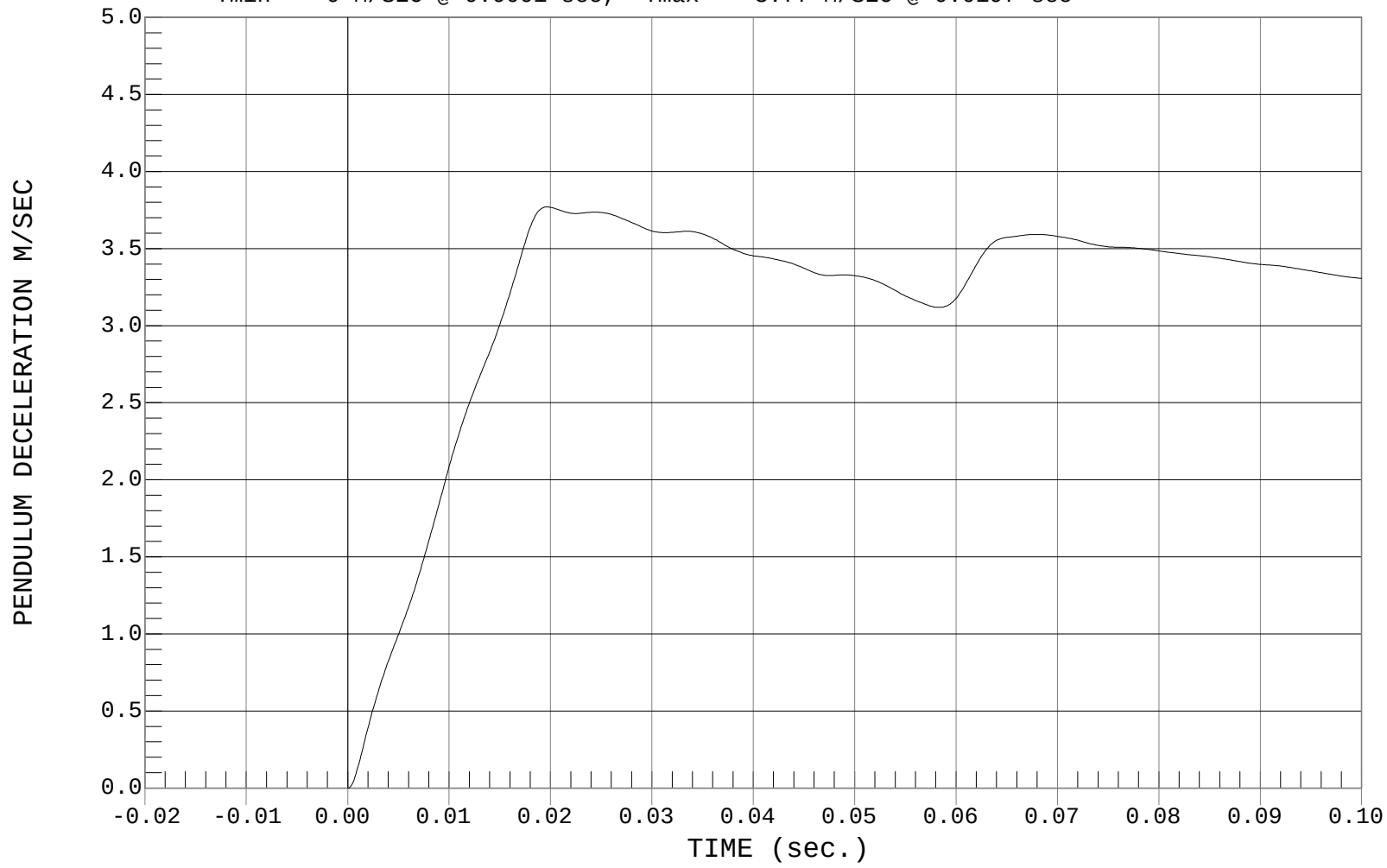
PENDULUM DECELERATION

Test Desc.: Dummy Calibration - Neck Extension
Component: Dummy #142C

Test Date: 01-12-01
Speed: 12.00 FT/SEC, 3.66 M/SEC

1 PENDULUM DECELERATION, D01073AI.A04

Ymin = 0 M/SEC @ 0.0001 sec, Ymax = 3.77 M/SEC @ 0.0197 sec



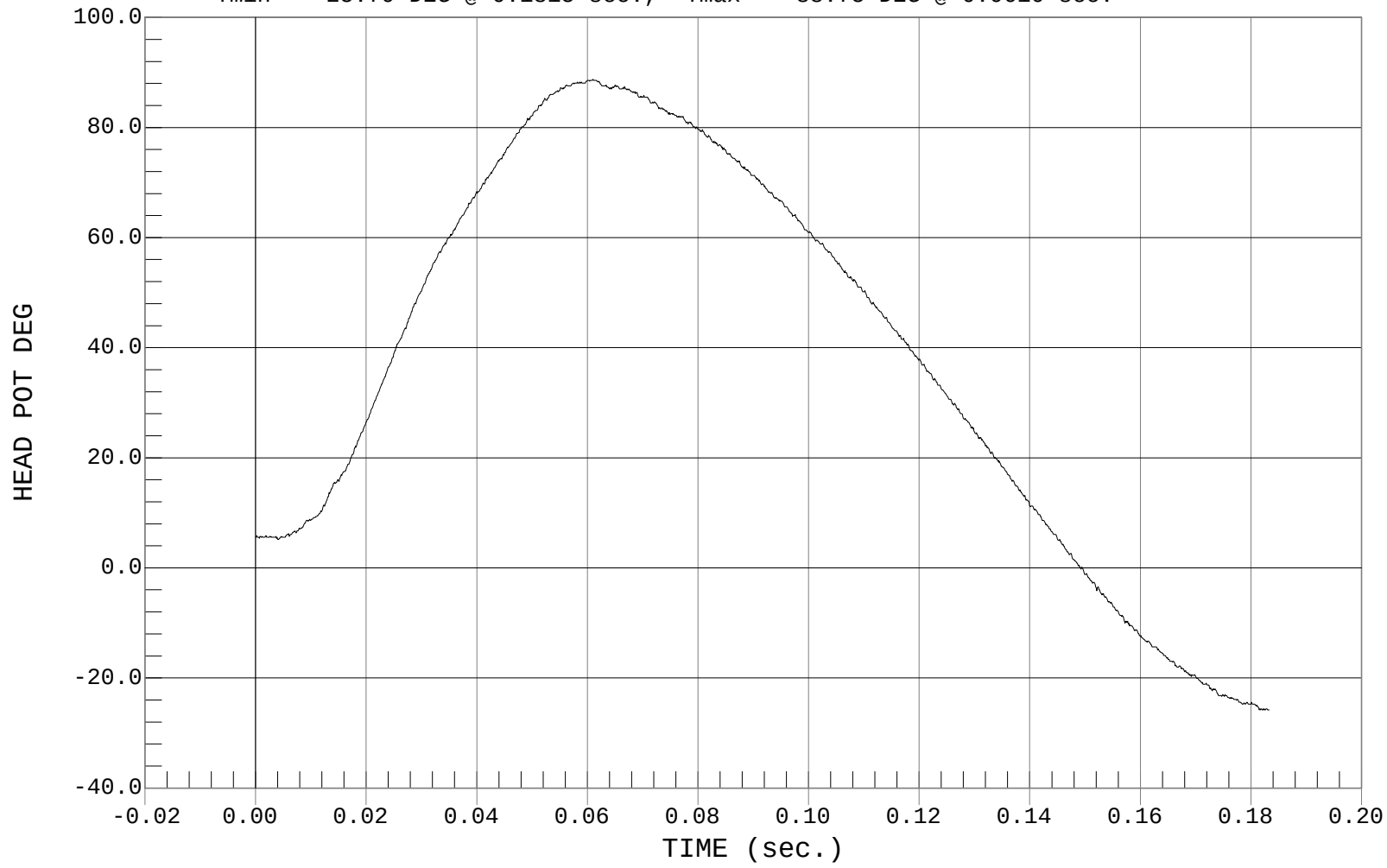
NECK ROTATION

Test Desc.: Dummy Calibration - Neck Extension
Component: Dummy #142C

Test Date: 01-12-01
Speed: 12.00 FT/SEC, 3.66 M/SEC

1 HEAD POT, D01073DU.D05

Ymin = -25.79 DEG @ 0.1815 sec., Ymax = 88.75 DEG @ 0.0610 sec.



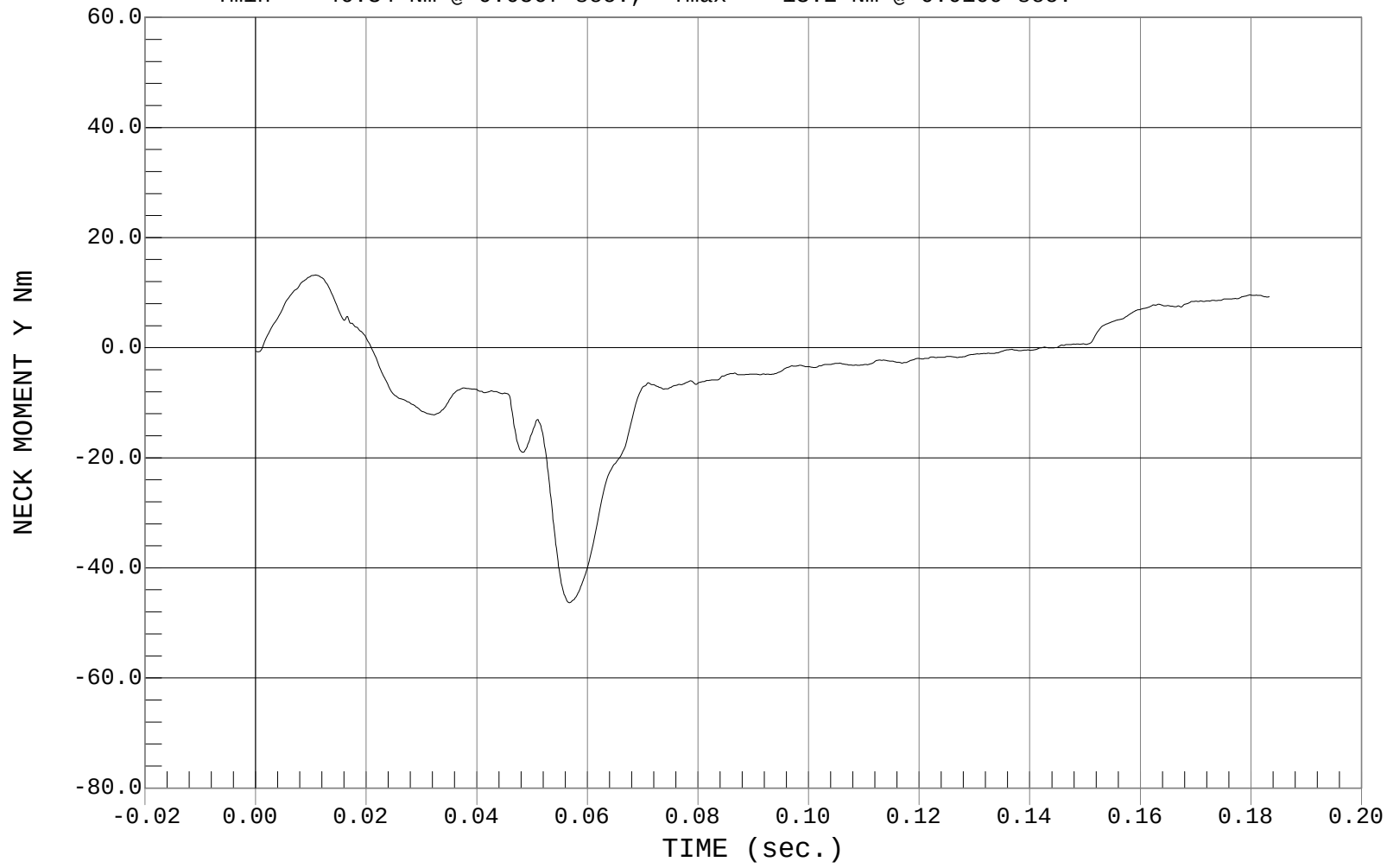
OCCIPITAL MOMENT

Test Desc.: Dummy Calibration - Neck Extension
Component: Dummy #142C

Test Date: 01-12-01
Speed: 12.00 FT/SEC, 3.66 M/SEC

1 NECK MOMENT Y, D01073MF.M01

Ymin = -46.34 Nm @ 0.0567 sec., Ymax = 13.2 Nm @ 0.0109 sec.



Hybrid III Calibration Data Sheet

3 Year Old

Torso Flexion Test

ATD Serial No.: 142C Test I.D.: D01075

Tested Parameter	Units	Specification	Result	Pass/Fail
Temperature	°C	18.9 to 25.6	21.4	PASS
Relative Humidity	%	10 to 70	25	PASS
Force @ 45°	N	130 to 180	158	PASS
Initial Angle	Deg	0 to 15	6	PASS
Return Angle	Deg	0 to 10	2	PASS
		Overall Test Results		PASS

1/12/01

Laboratory Technician Test Date

Approved By

TEST EQUIPMENT AND INSTRUMENTATION CALIBRATION

DUMMY AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR CHILD DUMMY NO. 139

	INSTRUMENTS FOR DUMMY NO. 139		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	AJ7F6	Endevco	1/4/01
Head Y	J19843	Endevco	1/4/01
Head Z	J19244	Endevco	1/4/01
Chest X	AJ7F7	Endevco	1/4/01
Chest Y	AJ454	Endevco	1/4/01
Chest Z	J23757	Endevco	1/4/01
Pelvis X	AJ8C0	Endevco	1/4/01
Pelvis Y	J14189	Endevco	1/4/01
Pelvis Z	J23943	Endevco	1/4/01
Upper Neck Force X	114	FTSS	11/7/00
Upper Neck Force Y	114	FTSS	11/7/00
Upper Neck Force Z	114	FTSS	11/7/00
Upper Neck Moment X	114	FTSS	11/7/00
Upper Neck Moment Y	114	FTSS	11/7/00
Upper Neck Moment Z	114	FTSS	11/7/00
Lower Neck Force X	119	FTSS	11/8/00
Lower Neck Force Y	119	FTSS	11/8/00
Lower Neck Force Z	119	FTSS	11/8/00
Lower Neck Moment X	119	FTSS	11/8/00
Lower Neck Moment Y	119	FTSS	11/8/00
Lower Neck Moment Z	119	FTSS	11/8/00
Chest Deflection Gauge	139	Servo	1/8/01

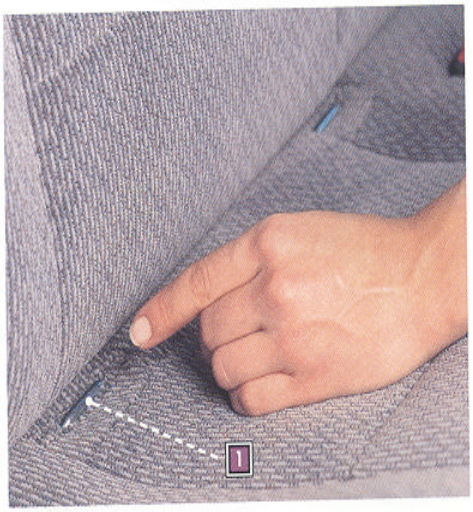
DUMMY AND LABORATORY INSTRUMENT CALIBRATION

INSTRUMENTS FOR CHILD DUMMY NO. 142C

	INSTRUMENTS FOR DUMMY NO. 142C		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X	J19927	Endevco	1/4/01
Head Y	J18736	Endevco	1/4/01
Head Z	J14674	Endevco	1/4/01
Chest X	J14235	Endevco	1/4/01
Chest Y	J18724	Endevco	1/4/01
Chest Z	AJ5R0	Endevco	1/4/01
Pelvis X	J19440	Endevco	1/4/01
Pelvis Y	AJ4W2	Endevco	1/4/01
Pelvis Z	J20093	Endevco	1/4/01
Upper Neck Force X	120	FTSS	11/6/00
Upper Neck Force Y	120	FTSS	11/6/00
Upper Neck Force Z	120	FTSS	11/6/00
Upper Neck Moment X	120	FTSS	11/6/00
Upper Neck Moment Y	120	FTSS	11/6/00
Upper Neck Moment Z	120	FTSS	11/6/00
Lower Neck Force X	121	FTSS	11/8/00
Lower Neck Force Y	121	FTSS	11/8/00
Lower Neck Force Z	121	FTSS	11/8/00
Lower Neck Moment X	121	FTSS	11/8/00
Lower Neck Moment Y	121	FTSS	11/8/00
Lower Neck Moment Z	121	FTSS	11/8/00
Chest Deflection Gauge	142C	Servo	1/12/01

CHILD SEAT OWNER'S MANUAL RESTRAINT INSTRUCTIONS

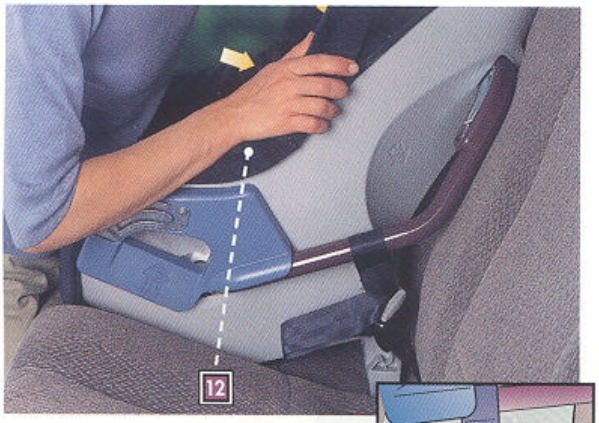
Installing Your Car Seat in a Vehicle Using the Easy & Secure LATCH System

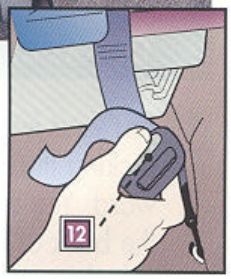


1 Once you have selected an acceptable seating location for the car seat (see car seat Owner's Manual), locate the special anchor points in your vehicle.

FORWARD-FACING POSITION 1 YEAR AND UP (22 - 40 LBS.)

Installing Your Car Seat in a Vehicle Using the Easy & Secure LATCH System





12 **To remove the car seat from the vehicle:**
While pushing down on the car seat armrest, press the release button on the Easy & Secure LATCH System buckle to loosen the strap.

With the strap loose, unfasten the Easy & Secure LATCH System hook from the vehicle special anchor point.

Repeat this procedure to loosen and unfasten the other strap.

Installing Your Car Seat in a Vehicle

WARNING

ALWAYS secure this car seat with your vehicle belt system exactly as described in this manual. Refer also to your vehicle owner's manual for specific information on your vehicle belt system and specific instructions on how to install a car seat in your vehicle.

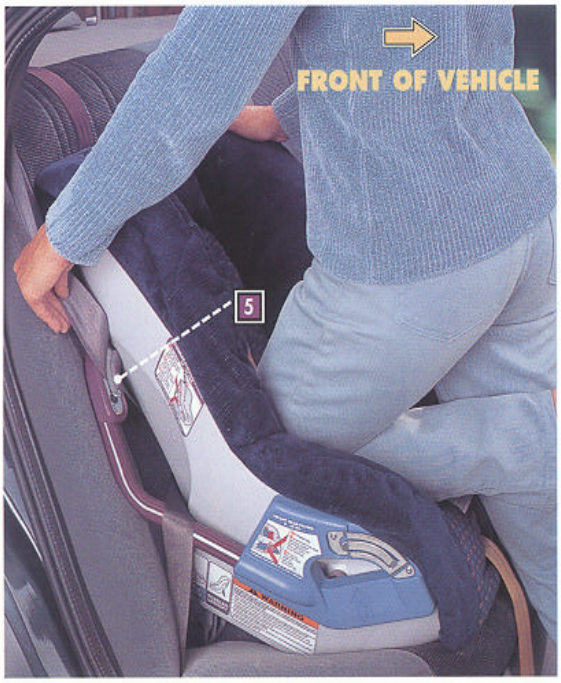
ALWAYS use the tether strap in the forward-facing position. Your child's safety is significantly enhanced in the event of a crash if the tether strap is used. The tether strap significantly reduces forward motion of your child's head during a crash, greatly reducing the likelihood of head injury.

IMPORTANT!

When installing this car seat in your vehicle, only use the front seat when no acceptable rear seating location is available. If the front seating location is equipped with an airbag but must be used to install this car seat in the forward-facing position, adjust the vehicle seat as far back from the dashboard as possible. Consult your vehicle owner's manual regarding front seat, forward-facing child restraint use.

FORWARD-FACING POSITION 1 YEAR AND UP (22-40 LBS.)

Installing Your Car Seat in a Vehicle



5 If you are using a vehicle seating location equipped with a shoulder belt, you must use **only one** forward-facing position locking clip on the car seat to prevent the vehicle belt system from loosening during use. With the vehicle belt system tight, fit the **shoulder belt** into the forward-facing position locking clip on the burgundy tube.

IMPORTANT!

Your car seat is equipped with two forward-facing position locking clips (one on each side of the seat). Use **only one** forward-facing position locking clip to install the car seat. Use the forward-facing position locking clip closest to where the vehicle shoulder belt is attached to the vehicle.