

REPORT NUMBER: TO6-MGA-2001-003

**ES-2 - FULL SCALE VEHICLE TESTS
IIHS SIDE IMPACT**

**General Motors
1999 Chevrolet Prizm 4 door**

**PREPARED BY:
MGA RESEARCH CORPORATION
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BURLINGTON, WI 53105**



June 4, 2001

FINAL REPORT

**PREPARED FOR:
U.S. DEPARTMENT OF TRANSPORTATION
VOLPE NATIONAL TRANSPORTATION SYSTEM CENTER
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This final test report was prepared for the U.S. Department of Transportation, Volpe National Transportation System Center, under Contract No. DTRS57-98-D-00041.

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TABLE OF CONTENTS

<u>Section</u>		<u>Page No.</u>
1	Purpose and Test Procedure	1
2	Summary of Side Impact Test	2
3	Side Impact Dummy (ES-2) and Vehicle Test Data	6
4	Occupant and Vehicle Information	13

<u>Data Sheet No.</u>		<u>Page No.</u>
1	General Test and Vehicle Parameter Data	7
2	Test Vehicle Summary of Results	10
3	Moving Deformable Barrier (MDB) Summary of Results	11
4	Post Test Observations	12
5	ES-2 Injury Criteria and Sensor Data	14
6	Vehicle Pre-Test and Post-Test Measurements	15
7	ES-2 Longitudinal Clearance Dimensions	16
8	ES-2 Lateral Clearance Dimensions	17
9	Dummy Positioning	18
10	Vehicle Side Measurements	19
11	Vehicle Exterior Crush Profiles	20
12	Vehicle Damage Profile Distances	22
13	Deformable Barrier Honeycomb Face Static Crush	23
14	Vehicle Accelerometer Locations and Data Summary	24
15	MDB Accelerometer Locations and Data Summary	27
16	High Speed Camera Locations and Data	28

Appendix

A	Photographs	A
B	Vehicle and ES-2 Response Data	B
C	ES-2 Configuration and Performance Verification Data	C
D	Test Equipment List and Calibration Information	D
E	Procedure Used for ES-2 Positioning	E
F	ES-2 Peak Responses	F
G	ES-2 Sign Convention	G

SECTION 1
PURPOSE AND TEST PROCEDURE

This Side Impact test was conducted as part of Contract No. DTRS57-98-D-00041, task order 6, sponsored by the U.S. Department of Transportation, Volpe National Transportation System Center. The purpose of this test was to evaluate the response of the ES-2 dummies in a 1999 Chevrolet Prizm 4 door manufactured by General Motors when subjected to an Insurance Institute for Highway Safety side impact.

MGA does not endorse or certify products. The manufacturer's name appears solely for identification purposes.

SECTION 2

SUMMARY OF SIDE IMPACT TEST

A 1999 Chevrolet Prizm 4 door was impacted on the left side by a Moving Deformable Barrier (MDB) which was moving forward in a 27° crabbed position to the tow road guidance system at a velocity of 52.9 kph (32.9 mph). The target vehicle was stationary and was positioned at an angle of 63° to the line of forward motion. The side impact test was conducted by MGA Research Corporation in Burlington, Wisconsin, on June 4, 2001. Pre- and post-test photographs of the test vehicle, the MDB and the side impact dummies (ES-2s) are included in Appendix A.

Two ES-2 side impact dummies were placed in the left front and left rear designated seating positions according to instructions specified in the FMVSS 214 Side Impact Laboratory Test Procedure which is dated August 2, 1999 and Evaluation of Eurosid-1 Positioning Procedure Appendix A dated February 5, 1997. The side impact event was documented by ten high speed cameras. Camera locations and other pertinent camera information can be found in this report.

Appendix B contains the vehicle and dummy response data traces. A summary of the side impact dummy (ES-2) configuration and performance verification test data is shown in Appendix C. Dummy and vehicle calibration data can be found in Appendix D of this report.

Appendix E contains a copy of the dummy positioning procedure used, Appendix F contains the ES-2 peak responses, and Appendix G contains the ES-2 sign conventions.

The following table summarizes the results of the Left Side Impact test:

		Left Front	Left Rear
1) Head Performance Criteria			
< 1000	T1 (msec)	43.8	63.5
	T2 (msec)	54.8	80.2
	HPC	164.8	84.8
2) Thorax Performance Criteria			
2.1) Chest Deflection < 42 mm	Upper Rib Deflection	36.2	27.7
	Mid Rib Deflection	37.7	20.6
	Lower Rib Deflection	39.0	15.3
2.2) Viscous Criteria < 1.0 (m/sec)	Upper Rib	0.57	0.31
	Mid Rib	0.71	0.18
	Lower Rib	0.78	0.13
3) Abdominal Protection Criterion			
Sum < 2500 N	Front Abdominal Force	493.0	1029.4
	Mid Abdominal Force	586.5	649.2
	Rear Abdominal Force	762.5	243.0
	Sum of Abdominal Force	1672.1	1733.5
4) Pelvis Performance Criterion			
< 6000 N	Pubic Symphysis Force	3432.8	3149.6

HIC		Left Front	Left Rear
	T1 (msec)	32.7	48.8
	T2 (msec)	50.7	73.4
	T2 - T1 (msec)	18.0	24.6
	HIC	543	424

Fir Filtered	Left Front	Left Rear
Upper Rib Y (g's)	113.1	81.9
Mid Rib Y (g's)	125.1	77.3
Lower Rib Y (g's)	107.5	92.7
Lower Spine Y (g's)	95.8	47.8
Pelvis Y (g's)	97.2	62.7
TTI (g's)	110	70

Contacts	Left Front	Left Rear
Head (msec)	34.9	37.6
Arm (msec)	14.9	21.8
Rib (msec)	17.4	52.5
Pelvis (msec)	14.5	32.0

TEST NOTES

A complete data set, including all ES-2 instrumentation, can be found by accessing the electronic data from the U.S. Department of Transportation.

The corner plate attached to the deformable barrier was 1.5 mm AL provided by the Insurance Institute for Highway Safety. The deformable barrier was supplied by Cellbond.

SECTION 3
SIDE IMPACT DUMMY (ES-2) AND VEHICLE TEST DATA

DATA SHEET NO. 1**GENERAL TEST AND VEHICLE PARAMETER DATA**Test Vehicle: 1999 Chevrolet Prizm 4 doorTest Date: June 4, 2001**TEST VEHICLE INFORMATION**

Make	Chevrolet
Model	Prizm
Body Style	4 door
VIN	1Y1SK5283XZ402874
Color	Blue
Odometer Reading	48,992 miles
Transmission	Manual
Final Drive	Front
Number of Cylinders	4
Engine Displacement	1.8 liters
Engine Placement	lateral

TEST VEHICLE OPTIONS

Front Airbags	yes
Side Airbags	no
Power Windows	no
Power Steering	yes
Power Door Locks	no
Tilt Wheel	no
Air Conditioning	yes
Power Brakes	yes
Anti-lock Brakes	no
AM/FM	yes
Cruise Control	no

DATA FROM CERTIFICATION LABEL

Manufactured By	General Motors
Date of Manufacture	8/98

DATA FROM TIRE PLACARD

Measured Parameter	Front	Rear
Maximum Tire Pressure (kPa)	210	210
Cold Pressure (kPa)	210	210
Recommend Tire Size	P175/65R14	P175/65R14
Tire Size on Vehicle	P175/65R14	P175/65R14
Tire Manufacturer	Goodyear	Goodyear

Measured Parameter	Front	Rear	Third	Total
Type of Seats	bucket	bench		
Number of Occupants	2	3		5
Capacity Wt. (VCW) (kg)				385
Cargo Weight (RCI W) (kg)				45.4

DATA SHEET NO. 1...(continued)
GENERAL TEST AND VEHICLE PARAMETER DATA

Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)		
		Front	Rear	Total	Front	Rear	Total
Left	kg	331.1	219.5		372.4	319.3	
Right	kg	323.4	224.5		332.0	277.1	
Ratio	%	59.6	40.4		54.2	45.8	
Totals	kg	654.5	444.0	1098.5	704.4	596.4	1300.8

TARGET TEST WEIGHT CALCULATION*

Measured Parameter	Units	Value
Total Delivered Weight (UVW)	kg	1098.5
Weight of 2 P572F Side Impact Dummies	kg	161.5
Rated Cargo/Luggage Weight (RCLW)	kg	45.4
Calculated Vehicle Target Weight (TVTW)	kg	1305.4

*Actual As Tested Weight (ATW) will be TVTW -5/-10 kg

TEST VEHICLE ATTITUDES AND CG

	Units	LF	RF	LR	RR	CG (aft of front axle)
As Delivered	mm	643	641	623	625	996
As Tested	mm	623	625	573	586	1129
Fully Loaded	mm	619	635	573	592	

GENERAL TEST VEHICLE DATA

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2463
Total Vehicle Length at Left Side	mm	3682
Total Vehicle Length at Centerline	mm	4537
Total Vehicle Length at Right Side	mm	3682
Weight of Ballast in Cargo Area	kg	0

TEST VEHICLE VERTICAL IMPACT LINE DATA

Measurement Description	Units	Value
Test Vehicle Wheel Base	mm	2463
Target Impact Point Aft of Front Axle	mm	292
Actual Impact Point Aft of Front Axle	mm	307

DATA SHEET NO. 1...(continued)

GENERAL TEST AND VEHICLE PARAMETER DATA

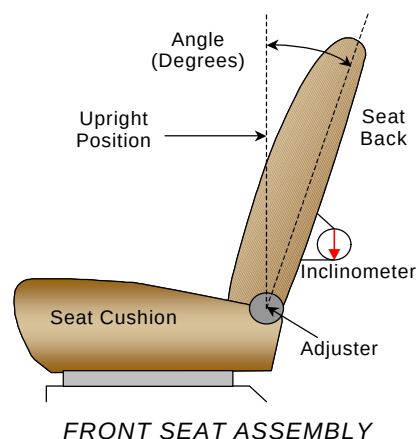
Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001

NORMAL DESIGN RIDING POSITION

Driver seat back angle: 3rd notch, 1st as 0

Passenger seat back angle: non adjustable



SEAT FORE/AFT POSITIONS

Driver seat fore/aft total travel: 17 detents total, 240 mm of total travel

Rear passenger seat fore/aft total travel: non adjustable

Driver seat fore/aft position: 9th detent, 1st as 1

Rear passenger seat fore/aft position: non adjustable

SEAT BELT UPPER ANCHORAGE

The D ring was placed in the full up position.

STEERING COLUMN ADJUSTMENT

The steering column was not adjustable.

DATA SHEET NO. 2
TEST VEHICLE SUMMARY OF RESULTS

Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001

TEST VEHICLE WEIGHTS

	Units	As Delivered (UVW)			As Tested (ATW)		
		Front	Rear	Total	Front	Rear	Total
Left	kg	331.1	219.5		372.4	319.3	
Right	kg	323.4	224.5		332.0	277.1	
Weight Ratio	%	59.6	40.4		54.2	45.8	
Totals	kg	654.5	444.0	1098.5	704.4	596.4	1300.8

MAXIMUM EXTERIOR STATIC CRUSH

Level	Measured Parameter	Units	Maximum Crush	Above Ground
Level 1	Sill Top Height	mm	212	224
Level 2	Occupant H-Point	mm	445	430
Level 3	Mid Door	mm	493	549
Level 4	Window Sill	mm	375	818
Level 5	Window Top	mm	102	1274
N/A	Maximum Penetration	mm	493	549

INSTRUMENTATION

Left Front ES-2 Channels	64
Left Rear ES-2 Channels	64
Vehicle Structure Channels	33
MDB Channels	7
Total	168

DATA SHEET NO. 3**MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS**Impactor: IIHS Side Impact BarrierTest Date: June 4, 2001**MDB SPECIFICATIONS (mm)**

Measurement Description	Length
Overall Width of Framework Carriage	1252
Overall Length Including Honeycomb Face	4115
Wheel base of Framework Carriage	2590
C.G. Location aft of Front Axle	1109

MDB WEIGHTS

	Units	Front Axle	Rear Axle	Total
Left	kg	565.2	388.7	
Right	kg	521.6	424.6	
Ratio	%	57.2	42.8	
Totals	kg	1086.8	813.3	1900.1

SPEED AND IMPACT ANGLE DATA

Measured Parameter	Units	Requirement	Value
Trap No. 1 Velocity (Primary)	km/h	52.1 to 53.7	52.9
Trap No. 2 Velocity (Redundant)	km/h	52.1 to 53.7	52.9
MDB CL to Target Vehicle CL	degrees	88.5 to 91.5	90.3

MAXIMUM STATIC CRUSH OF HONEYCOMB FACE (mm)

Vertical Location			From Centerline		Max. Crush
Row	Description	Height	Distance	Direction	
A	Center of Bumper	813	800	Right	61
B	Top of Bumper	686	800	Right	50
C	Mid Level	533	800	Left	32
D	Top of Stack	432	400	Left	33

MDB INSTRUMENTATION AND CAMERAS

Accelerometers	5
Contact Switches	2
High Speed Cameras	1

DATA SHEET NO. 4**POST TEST OBSERVATIONS**Test Vehicle: 1999 Chevrolet Prizm 4 doorTest Date: June 4, 2001**TEST DUMMY INFORMATION AND CONTACT POINTS**

Description	Left Front	Left Rear
Dummy Type / Serial No.	ES-2/009	ES-2/010
Head Contact	Side header	Side header, C post
Upper Torso Contact	door trim panel	door trim panel
Lower Torso Contact	door trim panel	door trim panel
Left Knee Contact	door trim panel	door trim panel
Right Knee Contact	left knee	left knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

Description	Left Front	Left Rear
Left Side Door Opening	remained closed	remained closed
Right Side Door Opening	remained closed	remained closed
Seat Movement	none	none
Seat Back Failure	none	none

POST TEST STRUCTURAL OBSERVATIONS

Critical Areas of Performance	Observations and Conclusions
Pillar Performance	No failures
Sill Separation	None noted
Windshield Damage	Broke
Window Damage	all windows were down
Other Notable Effects	Left rear upper door hinge ripped out of B pillar

AIRBAG DEPLOYMENT

	Driver	Left Front	Left Rear
Front	no	no	
Side			

MDB LEFT EDGE IMPACT POINT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	+/- 50	15 forward
Vertical Offset	mm	+/-20	19 up

SECTION 4
OCCUPANT AND VEHICLE INFORMATION

DATA SHEET NO. 5

ES-2 INJURY CRITERIA AND SENSOR DATA

Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001

THORAX AND PELVIS PEAK ACCELERATIONS (FIR 100 Filtered)

Location	Axis	Units	Left Front				Left Rear			
			Max	Time	Min	Time	Max	Time	Min	Time
Upper Rib (LUR)	Y	G's	113.1	22	53.5	28	81.9	54	19.5	94
Mid Rib (LMR)	Y	G's	125.1	21	33.6	26	77.3	54	24.4	96
Lower Rib (LLR)	Y	G's	107.5	20	28.6	75	92.7	53	23.9	97
Lower Spine (T ₁₂)	Y	G's	95.8	26	14.1	64	47.8	54	4.8	177
Pelvis (PEV)	Y	G's	97.2	27	33.9	51	62.7	39	8.6	31

THORACIC TRAUMA INDEX (TTI) AND PELVIC ACCELERATION (FIR 100 Filtered)

Location	Left Front				Left Rear			
	LMR	T ₁₂	TTI(g)	PEV(g)	LLR	T ₁₂	TTI(g)	PEV(g)
Rib, Spine, and Pelvis	125.1	95.8	110	97.2	92.7	47.8	70	62.7

HEAD CG PEAK ACCELERATIONS (SAE CLASS 1000 Filtered)

Location	Axis	Units	Driver				Passenger			
			Max	Time	Min	Time	Max	Time	Min	Time
Head CG	X	G's	7.4	38	25.7	48	7.7	111	27.0	71
Head CG	Y	G's	106.9	35	7.3	170	77.2	53	7.8	122
Head CG	Z	G's	34.7	34	22.8	48	24.8	72	32.6	65
Head CG Resultant		G's	110.1	35			77.8	53		

HEAD INJURY CRITERIA (SAE CLASS 1000 Filtered)

Location	Driver				Passenger			
	HIC	T ¹	T ²	Avg G's	HIC	T ¹	T ²	Avg G's
Head CG	543	32.7	50.7	61.9	424	48.8	73.4	49.5

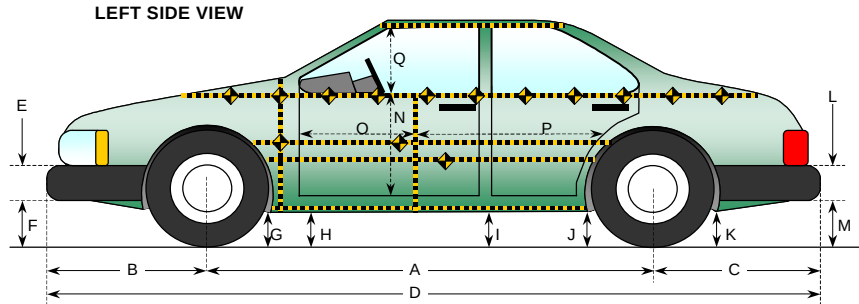
Positive Acceleration Polarities: Longitudinal (X) = Forward
 (Conforms to SAE J211) Lateral (Y) = Right
 Vertical (Z) = Down

DATA SHEET NO. 6

VEHICLE PRE-TEST AND POST-TEST MEASUREMENTS

Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001



All Measurements in mm

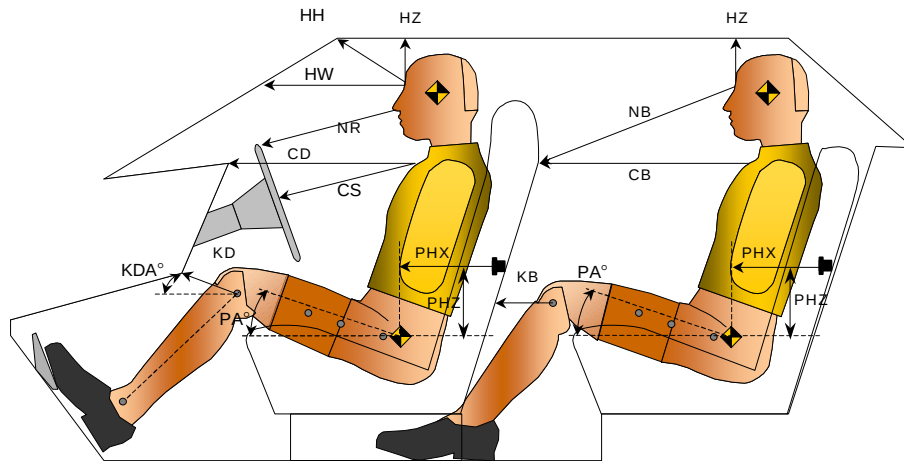
Code	Measurement Description	Pre-Test	Post-Test	Difference
A	Wheelbase	2463	2434	29
B	Front Axle to FSOV	929	922	7
C	Rear Axle to RSOV	1145	1060	85
D	Total Length at Centerline	4537	4416	121
E	Front Bumper Thickness	102	102	0
F	Front Bumper Bottom to Ground	393	389	4
G	Sill Height at Front Wheel Well	160	171	11
H	Sill Height at Front Door Leading Edge	160	180	20
I	Sill Height at "B" Pillar	147	159	12
J1	Sill Height at Rear Wheel Well	144	155	11
J2	Pinch Weld Height at Rear Wheel Well	143	162	19
K	Sill Height Aft of Rear Wheel Well	175	164	11
L	Rear Bumper Thickness	248	248	0
M	Rear Bumper Bottom to Ground	280	280	0
N	Sill Height to Window Bottom Sill	638	530	108
O	Front Door Leading Edge to Impact CL	680	661	19
P	Rear Door Trailing Edge to Impact CL	1113	1114	1
Q	Front Window Opening	425	413	12
R	Right Side Length	3682	3694	12
S	Left Side Length	3682	3646	36
T	Vehicle Width at "B" Post	1707	1332	375

DATA SHEET NO. 7

ES-2 LONGITUDINAL CLEARANCE DIMENSIONS

Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001



** Left rear passenger back and pelvic angle measurements not recorded due to the positioning sensors not installed in the dummy

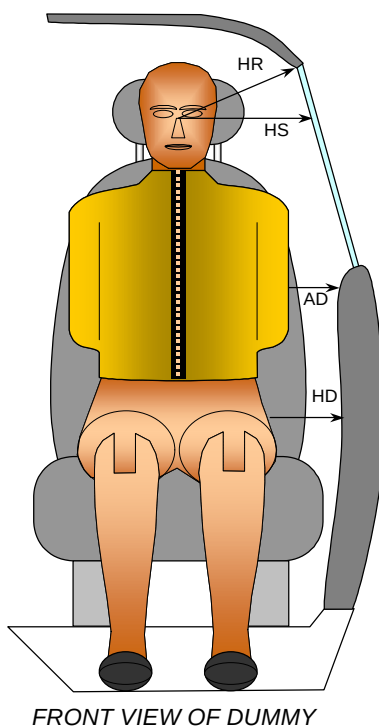
Driver Code	Pass. Code	Measurement Description	Left Front 009		Left Rear 010	
			Length(mm)	Angle(°)	Length(mm)	Angle(°)
HH		Head to Header	291			
HW		Head to Windshield	440			
HZ	HZ	Head to Roof	146		143	
NR	NB	Nose to Rim/Nose to Seatback	418		633	
CD	CB	Chest to Dash or Seatback	509		544	
CS		Chest to Steering Wheel	312			
KDL	KBL	Left Knee to Dash or Seatback	155	0.0	175	0.0
KDR	KBR	Right Knee to Dash or Seatback	162	0.0	169	0.0
PA	PA	Pelvic Angle (Longitudinal)		24.1		**
PA	PA	Pelvic Angle (Lateral)		-0.4		**
SA	SA	Spine Angle (Longitudinal)		24.7		**
SA	SA	Spine Angle (Lateral)		0.2		**
PHX	PHX	H-Point to Striker (X-Axis)	173		232	
PHZ	PHZ	H-Point to Striker (Z-Axis)	110		265	

DATA SHEET NO. 8

ES-2 LATERAL CLEARANCE DIMENSIONS

Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001



Code	Measurement Description	Units	Left Front 009	Left Rear 010
HR	Head to Side Header	mm	174	185
HS	Head to Side Window	mm	276	222
AD	Arm to Door	mm	48	70
HD	H-Point to Door	mm	120	155

DATA SHEET NO. 9

DUMMY POSITIONING

Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001

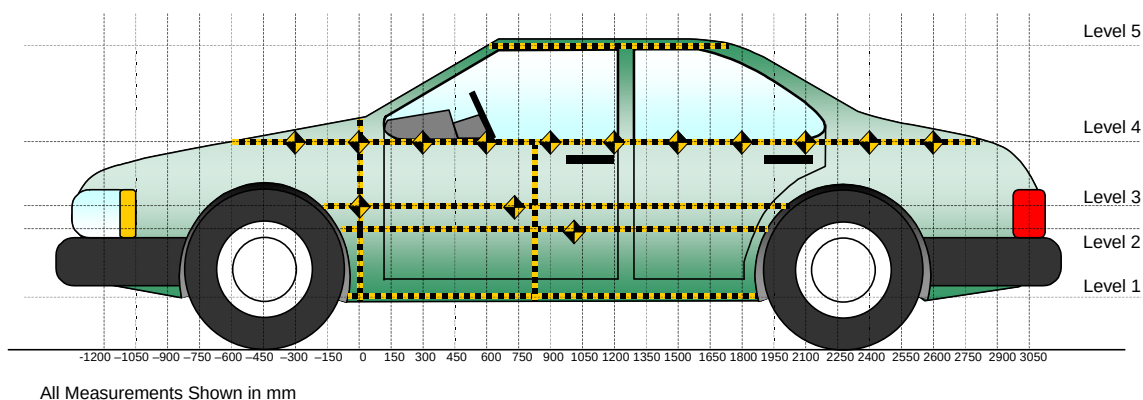
	Left Front S/N 009	Left Rear S/N 010	Left Front S/N 009	Left Rear S/N 010
	H-Point	Dummy	H-Point	Dummy
HP to Floor Z (mm)	158	155	38	32
HP to Hinge X (mm)	706	716	614	612
HP to Sill Y (mm)	199	207	170	177
HP to Striker X (mm)	330	331	402	399
HP to Dash X (mm)	524	525	1346	1346
HP to Header Z (mm)	753	744	746	740
H-POINT MACHINE (deg)				
Left Knee	126		121	
Right Knee	125		120	
Left Foot	104		138	
Right Foot	99		136	
Left Leg (mm)	113		147	
Right Leg (mm)	161		134	
Hip Angle	96		103	
Back Angle	22		28	

DATA SHEET NO. 10

VEHICLE SIDE MEASUREMENTS

Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001



LEFT SIDE VIEW

Measurements are taken with vehicle in the as tested condition.

Measurements along the vertical 800 mm.

Level	Measurement Description	Units	Height Above Ground
5	Window Top	mm	1274
4	Window Sill	mm	818
3	Mid Door	mm	549
2	Occupant H-Point	mm	430
1	Axle Centerline Height (or Sill Top)	mm	224

DATA SHEET NO. 11

VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001

	Pre-Test					Post-Test					Difference				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
-900				589					590					1	
-750			483	545				492	557				9	12	
-600			441	520				459	532				18	12	
-450				502					518					16	
-300				485					508					23	
-150				472					504					32	
0			400	462				450	504				50	42	
150	451	398	400	455		482	505	526	515		31	107	126	60	
300	453	392	395	450		552	659	712	652		99	267	317	202	
450	448	386	392	448		569	710	780	720		121	324	388	272	
600	445	383	389	445		592	747	826	771		147	364	437	326	
750	440	379	385	445	712	619	769	833	768	779	179	390	448	323	67
900	438	376	383	440	694	633	770	836	768	775	195	394	453	328	81
1050	439	375	382	440	705	639	778	836	770	791	200	403	454	330	86
1200	435	376	379	437	706	647	821	872	792	794	212	445	493	355	88
1350	436	376	379	440	692	620	766	832	815	794	184	390	453	375	102
1500	437	373	379	442	701	564	702	764	760	790	127	329	385	318	89
1650	436	372	379	443	795	520	636	692	688	770	84	264	313	245	-25
1800	431	374	379	444	796	465	562	618	617	753	34	188	239	173	-43
1950			370	447	700			488	548	755			118	101	55
2100				450					504					54	
2250				455					522					67	
2400			385	460				433	522				48	62	
2550			416	473				463	530				47	57	
2700			429	484				479	538				50	65	
2850			448	499				496	550				48	51	
3000			484					532					48		

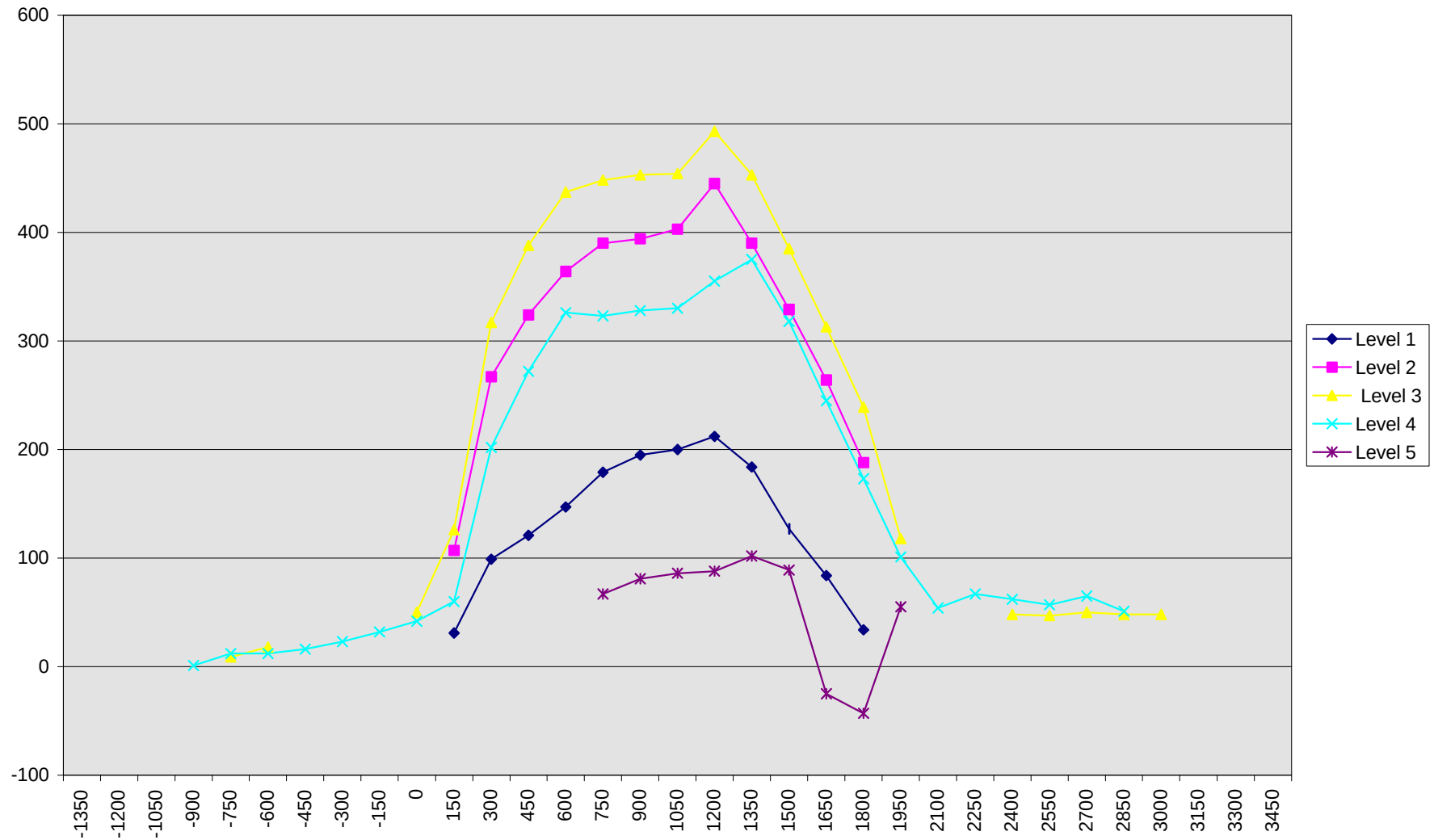
Pre-Test and Post-Test dimensions are actual distance from centerline of test vehicle.

DATA SHEET NO. 11...(continued)

VEHICLE EXTERIOR CRUSH PROFILES

Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001

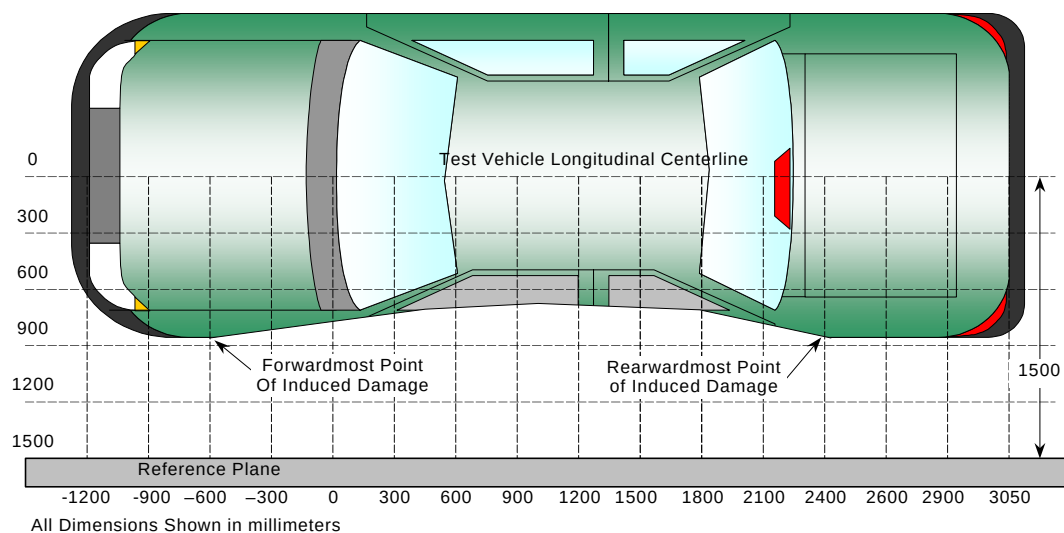


DATA SHEET NO. 12

VEHICLE DAMAGE PROFILE DISTANCES

Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001



TOP VIEW

Damage Profile Distances

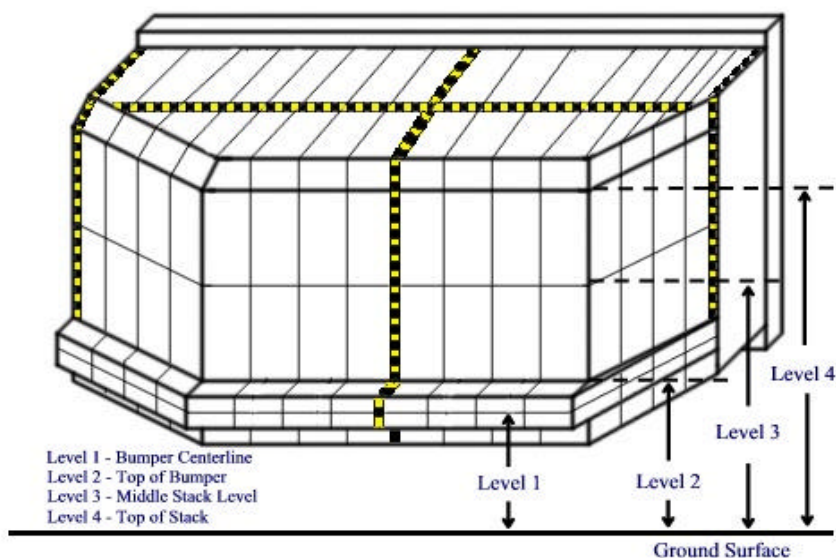
DPD	Distance from Impact Point in mm	Level	Pre-Test (mm)	Post-Test (mm)	Max Static Crush (mm)
1	2850 mm	3	448	496	48
2	2090 mm	4	450	490	40
3	1276 mm	3	379	878	499
4	586 mm	3	390	822	432
5	-156 mm	4	472	496	24
6	-900 mm	4	589	590	1

DATA SHEET NO. 13

DEFORMABLE BARRIER HONEYCOMB FACE STATIC CRUSH

Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001



DEFORMABLE BARRIER STATIC CRUSH

Stack Level	Distance Right of Center								C _L	Distance Left of Center							
	800	700	600	500	400	300	200	100		100	200	300	400	500	600	700	800
1	61	53	51	37	29	18	18	22	19	20	20	22	24	19	29	29	37
2	50	25	22	14	-5	-7	-7	-6	-6	-5	-4	-2	1	-13	6	12	44
3	0	-6	-2	-5	-1	-2	-4	-4	-4	-4	-4	-4	-1	0	19	5	32
4	0	1	0	1	1	0	6	2	2	2	1	-1	33	24	7	-4	-7

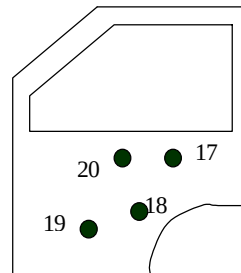
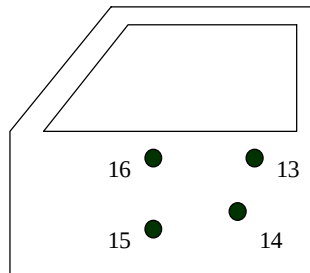
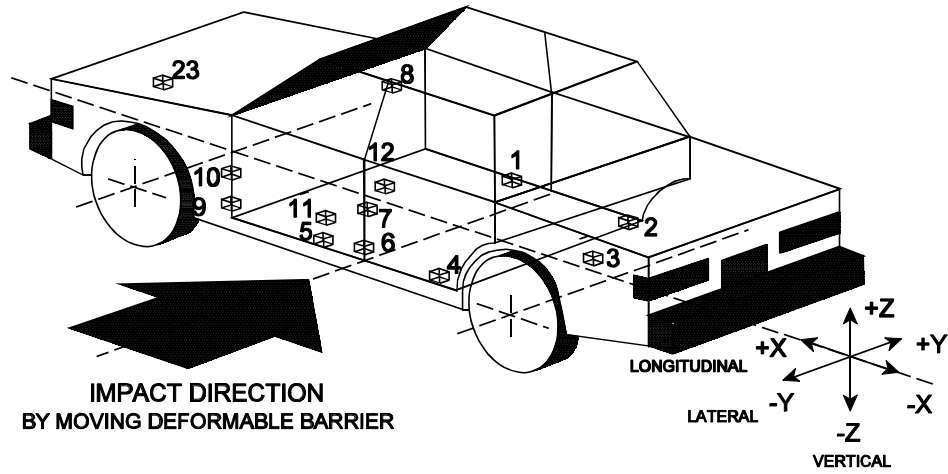
All Dimensions in mm

DATA SHEET NO. 14

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001



No.	Location
1	Right Side Sill at Front Seat
2	Right Side Sill at Rear Seat
3	Rear Floorpan Above Axle
4	Left Side Sill at Rear Door
5	Left Side Sill at Front Door
6	Left Lower B Post
7	Left Mid B Post
8	Left Upper B Post
9	Left Lower A Post
10	Left Mid A Post
11	Driver Seat Track
12	Vehicle CG

No.	Location
13	Left Front Door @ Mid Rib
14	Left Front Door @ Pelvis
15	Left Front Door @ Knee
16	Left Front Door @ Arm
17	Left Rear Door @ Mid Rib
18	Left Rear Door @ Pelvis
19	Left Rear Door @ Knee
20	Left Rear Door @ Arm
21	Left Seat Frame
22	Right Seat Frame
23	Lower Center Radiator Support

DATA SHEET NO. 14...(continued)

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001

VEHICLE ACCELEROMETER PEAK DATA AND PRE-TEST LOCATIONS

Loc. No.	Accelerometer Location	Long. (X) Maximums (g's) (CFC 60)		Lat. (Y) Maximums (g's) (CFC 60)		Vert. (Z) Maximums (g's) (CFC 60)		Resultant (g's) (CFC 60)
		Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Max.
1	Right Side Sill at Front Seat	1.8	5.2	11.3	2.5	6.4	2.6	13.2
2	Right Side Sill at Rear Seat	3.1	3.8	15.5	2.8	6.7	2.9	16.6
3	Rear Floorpan Above Axle	2.1	5.2	17.9	3.5	12.2	6.2	18.6
4	Left Side Sill at Rear Door			31.8	5.4			
5	Left Side Sill at Front Door			39.5	13.9			
6	Left Lower B Post			97.6	22.7			
7	Left Mid B Post			213.6	53.6			
8	Left Upper B Post			53.0	19.2			
9	Left Lower A Post			13.8	2.4			
10	Left Mid A Post**			25.8	1.0			
11	Driver Left Seat Track			32.2	18.6			
12	Vehicle CG	2.8	6.4	13.0	2.4	7.7	5.6	14.3
13	Left Front Door @ Mid Rib			232.5	85.9			
14	Left Front Door @ Pelvis			221.2	84.3			
15	Left Front Door @ Knee			244.8	138.5			
16	Left Front Door @ Arm			241.1	122.7			
17	Left Rear Door @ Mid Rib			120.7	80.2			
18	Left Rear Door @ Pelvis			115.0	65.4			
19	Left Rear Door @ Knee			249.6	162.1			
20	Left Rear Door @ Arm			209.5	123.8			
21	Left Driver Seat Frame			199.3	60.9			
22	Right Driver Seat Frame			196.3	117.6			
23	Lower Center Radiator Support	3.4	9.3	20.5	6.4	8.1	7.2	21.6

** No valid data after 25 msec

DATA SHEET NO. 14...(continued)

VEHICLE ACCELEROMETER LOCATION AND DATA SUMMARY

Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001

VEHICLE ACCELEROMETER COORDINATES

Loc. No.	Description	Coordinates (mm)*		
		X	Y	Z
1	Right Side Sill at Front Seat	2545	648	201
2	Right Side Sill at Rear Seat	1865	644	198
3	Rear Floorpan Above Axle	1078	0	495
4	Left Side Sill at Rear Door	1875	-644	200
5	Left Side Sill at Front Door	2615	-648	195
6	Left Lower B Post	1895	-698	388
7	Left Mid B Post	2035	-675	841
8	Left Upper B Post	1915	-505	1304
9	Left Lower A Post	2993	-659	303
10	Left Mid A Post	3015	-766	790
11	Driver Left Seat Track	2106	-542	228
12	Vehicle CG	2424	0	356
13	Left Front Door @ Mid Rib	2443	-714	765
14	Left Front Door @ Pelvis	2164	-724	610
15	Left Front Door @ Knee	2675	-713	655
16	Left Front Door @ Arm	2312	-730	740
17	Left Rear Door @ Mid Rib	1258	-707	789
18	Left Rear Door @ Pelvis	1435	-718	540
19	Left Rear Door @ Knee	1815	-708	643
20	Left Rear Door @ Arm	1258	-707	789
21	Left Driver Seat Frame	2022	-480	825
22	Right Driver Seat Frame	2022	-124	825
23	Lower Center Radiator Support	4240	0	325

Reference Points X - Rear Bumper (+ Forward)
 Y - Vehicle Centerline (+ to right)
 Z - Ground Level (+ up)

DATA SHEET NO. 15

MDB ACCELEROMETER LOCATIONS AND DATA SUMMARY

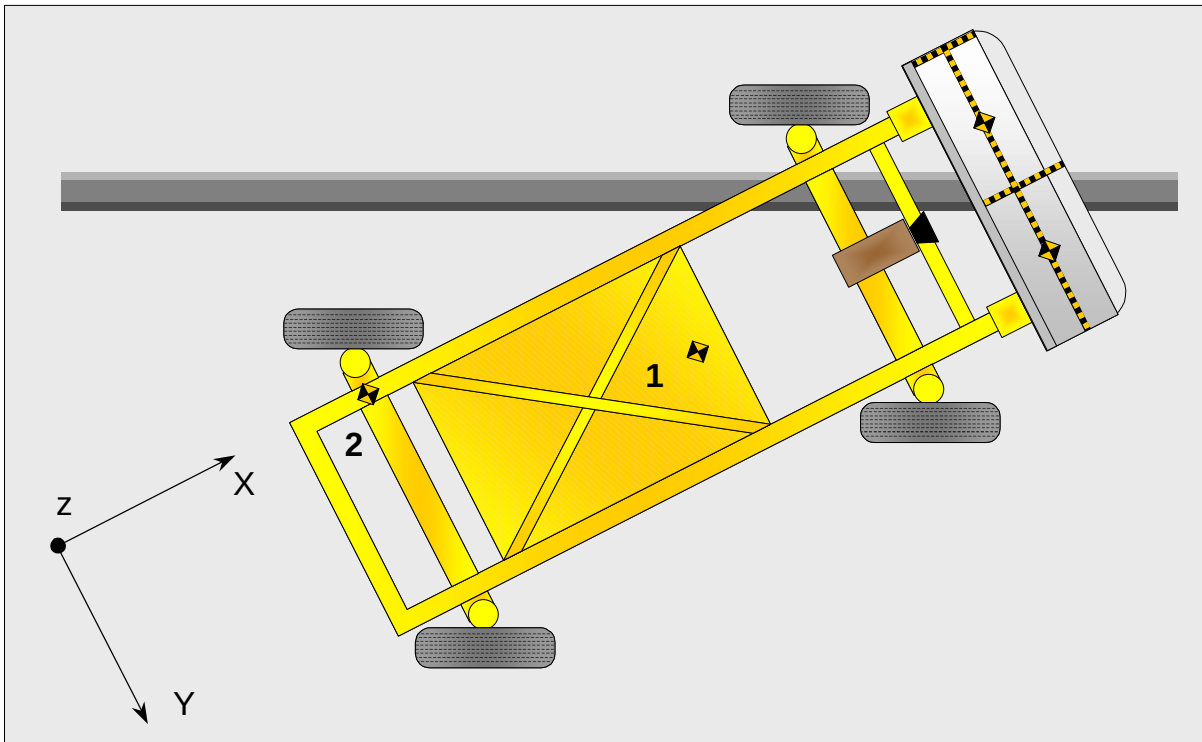
Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001

MDB ACCELEROMETER PEAK DATA AND LOCATIONS

Loc. No.	Accelerometer Location	Measurement (mm)			Peak Values (G's)				
		X	Y	Z	Axis	Max	Time	Min	Time
1	MDB CG	-1092	0	483	X	1.1	182	10.1	37
					Y	1.6	80	5.1	61
					Z	9.3	60	6.2	196
					RES	13.1	60		
2	MDB Rear	-2591	-625	622	X	1.7	126	13.1	31
					Y	4.4	40	1.7	92

Reference Points
 X - MDB Front Axle
 Y - MDB Centerline
 Z - Ground Plane

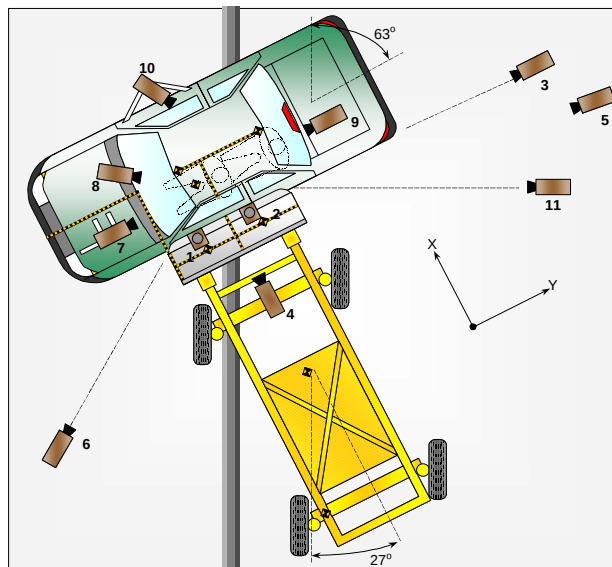


DATA SHEET NO. 16

HIGH SPEED CAMERA LOCATIONS AND DATA

Test Vehicle: 1999 Chevrolet Prizm 4 door

Test Date: June 4, 2001



No.	Camera View	Location (mm)			Lens (mm)	Film Speed (fps)
		X	Y	Z		
1	Overhead Overall	-160	930	5000	8	NT
2	Overhead Close-up	-750	-420	5000	50	NT
3	Right LoCam	-500	10600	1950	35	NR
4	MDB Onboard, Centerline of Impact				13	NT
5	Right Side Overall	-1000	10400	1880	25	NT
6	Left Side Overall	-4040	-5200	2660	25	NT
7	Vehicle Onboard Front SID, Front				13	NT
8	Vehicle Onboard Front SID, Hip to Door				13	NT
9	Vehicle Onboard Rear SID, Rear				13	NT
10	Vehicle Onboard Rear SID, Hip to Door				13	NT
11	Real Time				13	32

Reference Points X - + Forward of Impact
Y - +Right of Impact
Z - + Up from Ground

NR - No Run

NT - No Timing Marks

APPENDIX A

PHOTOGRAPHS

TABLE OF PHOTOGRAPHS

	<u>Page No.</u>
Photo No. A-1 - Pre-Test Front View of Test Vehicle	A-1
Photo No. A-2 - Post-Test Front View of Test Vehicle	A-2
Photo No. A-3 - Pre-Test Rear View of Test Vehicle	A-3
Photo No. A-4 - Post-Test Rear View of Test Vehicle	A-4
Photo No. A-5 - Pre-Test Left Side View of Test Vehicle	A-5
Photo No. A-6 - Pre-Test MDB Positioned Against Vehicle (left side)	A-6
Photo No. A-7 - Pre-Test MDB Positioned Against Vehicle (right side)	A-7
Photo No. A-8 - Pre-Test MDB Positioned Against Vehicle Overhead View	A-8
Photo No. A-9 - Pre-Test Dummy Head to MDB View	A-9
Photo No. A-10 - Post-Test MDB and Vehicle (left side)	A-10
Photo No. A-11 - Post-Test MDB and Vehicle (right side)	A-11
Photo No. A-12 - Post-Test MDB and Vehicle Overhead View	A-12
Photo No. A-13 - Pre-Test MDB Top View	A-13
Photo No. A-14 - Post-Test MDB Top View	A-14
Photo No. A-15 - Pre-Test MDB Front View	A-15
Photo No. A-16 - Post-Test MDB Front View	A-16
Photo No. A-17 - Pre-Test MDB Right Side View	A-17
Photo No. A-18 - Post-Test MDB Right Side View	A-18
Photo No. A-19 - Pre-Test MDB Left Side View	A-19
Photo No. A-20 - Post-Test MDB Left Side View	A-20
Photo No. A-21 - Pre-Test Driver Dummy Right Side View	A-21
Photo No. A-22 - Post-Test Driver Dummy Right Side View	A-22
Photo No. A-23 - Pre-Test Driver Dummy Left Side View	A-23
Photo No. A-24 - Post-Test Driver Dummy Left Side View	A-24
Photo No. A-25 - Pre-Test Driver Dummy Left Side View (Door Open)	A-25
Photo No. A-26 - Pre-Test Driver Dummy Shoulder and Door Top View	A-26
Photo No. A-27 - Post-Test Driver Dummy Shoulder and Door Top View	A-27
Photo No. A-28 - Post-Test Driver Dummy Contact	A-28
Photo No. A-29 - Post-Test Driver Dummy Head Contact	A-29
Photo No. A-30 - Post-Test Driver Dummy Head Contact	A-30

TABLE OF PHOTOGRAPHS

	<u>Page No.</u>
Photo No. A-31 - Pre-Test Passenger Dummy Right Side View	A-31
Photo No. A-32 - Post-Test Passenger Dummy Right Side View	A-32
Photo No. A-33 - Pre-Test Passenger Dummy Left Side View	A-33
Photo No. A-34 - Post-Test Passenger Dummy Left Side View	A-34
Photo No. A-35 - Pre-Test Passenger Dummy Left Side View (Door Open)	A-35
Photo No. A-36 - Pre-Test Passenger Dummy Shoulder and Door Top View	A-36
Photo No. A-37 - Post-Test Passenger Dummy Shoulder and Door Top View	A-37
Photo No. A-38 - Post-Test Passenger Dummy Contact	A-38
Photo No. A-39 - Post-Test Passenger Dummy Head Contact	A-39
Photo No. A-40 - Pre-Test Left Front Impact Point on Vehicle	A-40
Photo No. A-41 - Post-Test Left Front Impact Point on Vehicle	A-41
Photo No. A-42 - Impact	A-42
Photo No. A-43 - Tire Placard	A-43

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

A-2



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

A-5



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



Photo No. A-6 - Pre-Test MDB Positioned Against Vehicle (left side)



Photo No. A-7 - Pre-Test MDB Positioned Against Vehicle (right side)

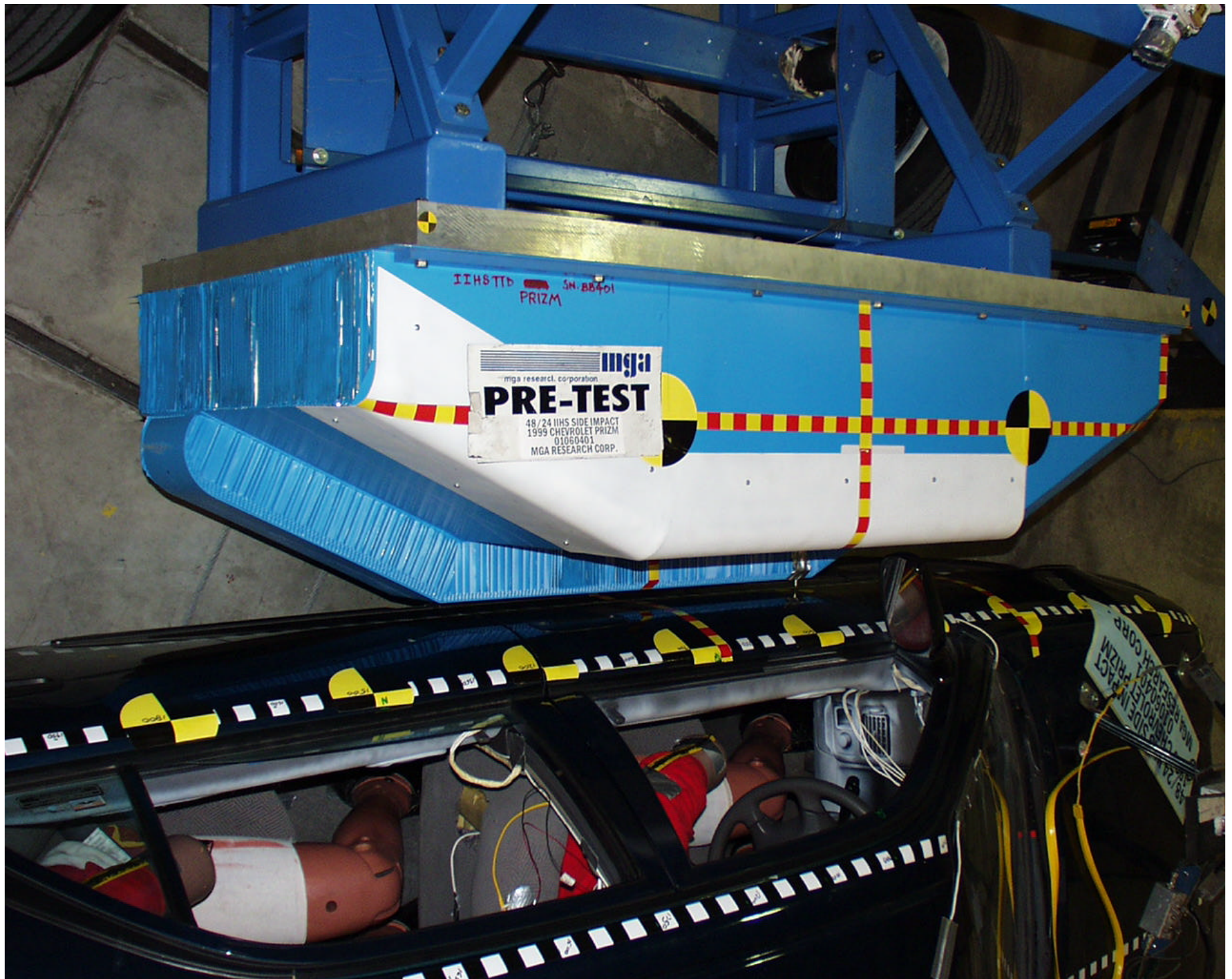


Photo No. A-8 - Pre-Test MDB Positioned Against Vehicle Overhead View

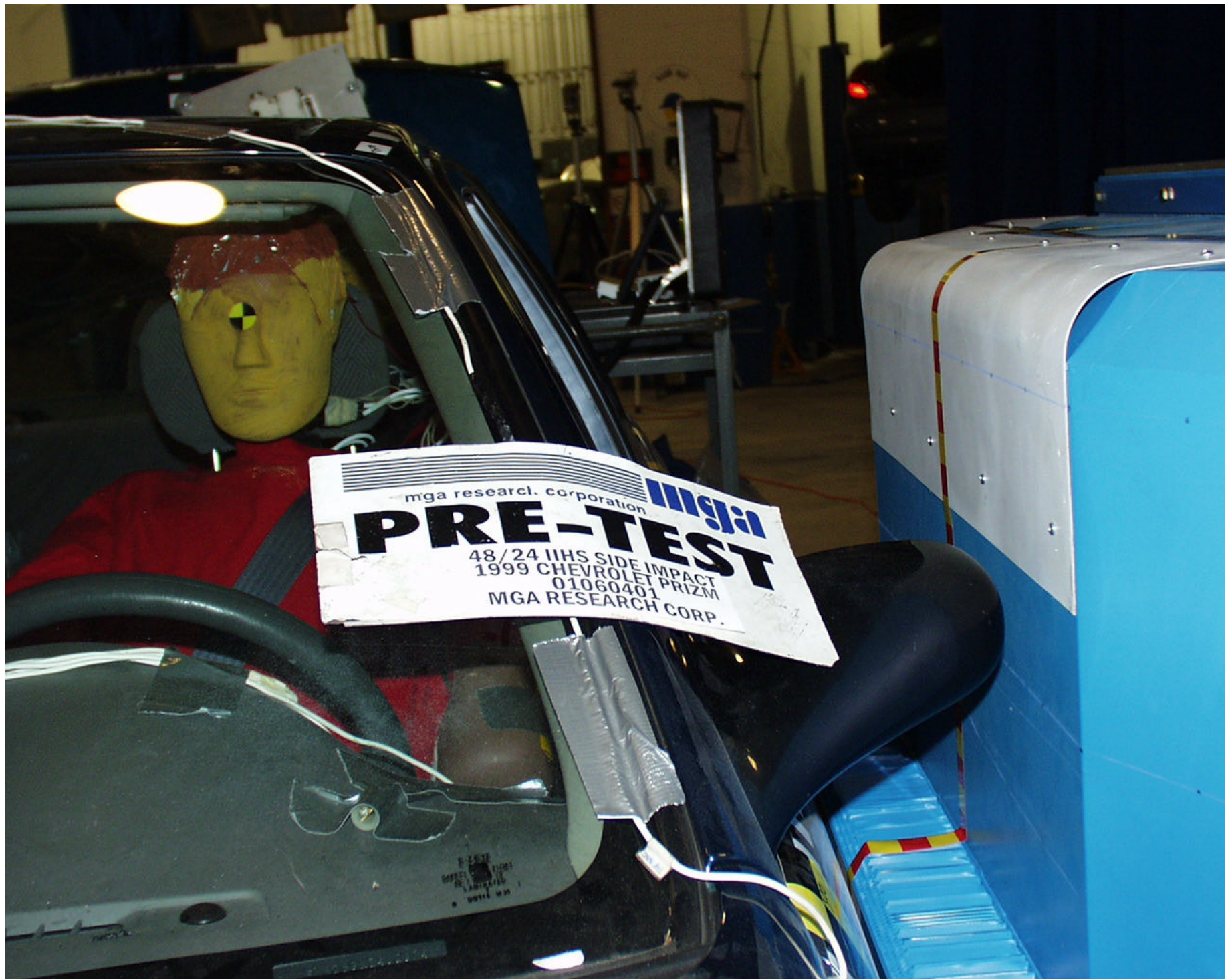


Photo No. A-9 - Pre-Test Dummy Head to MDB View

A-10



Photo No. A-10 - Post-Test MDB and Vehicle (left side)



Photo No. A-11 - Post-Test MDB and Vehicle (right side)



Photo No. A-12 - Post-Test MDB and Vehicle Overhead View

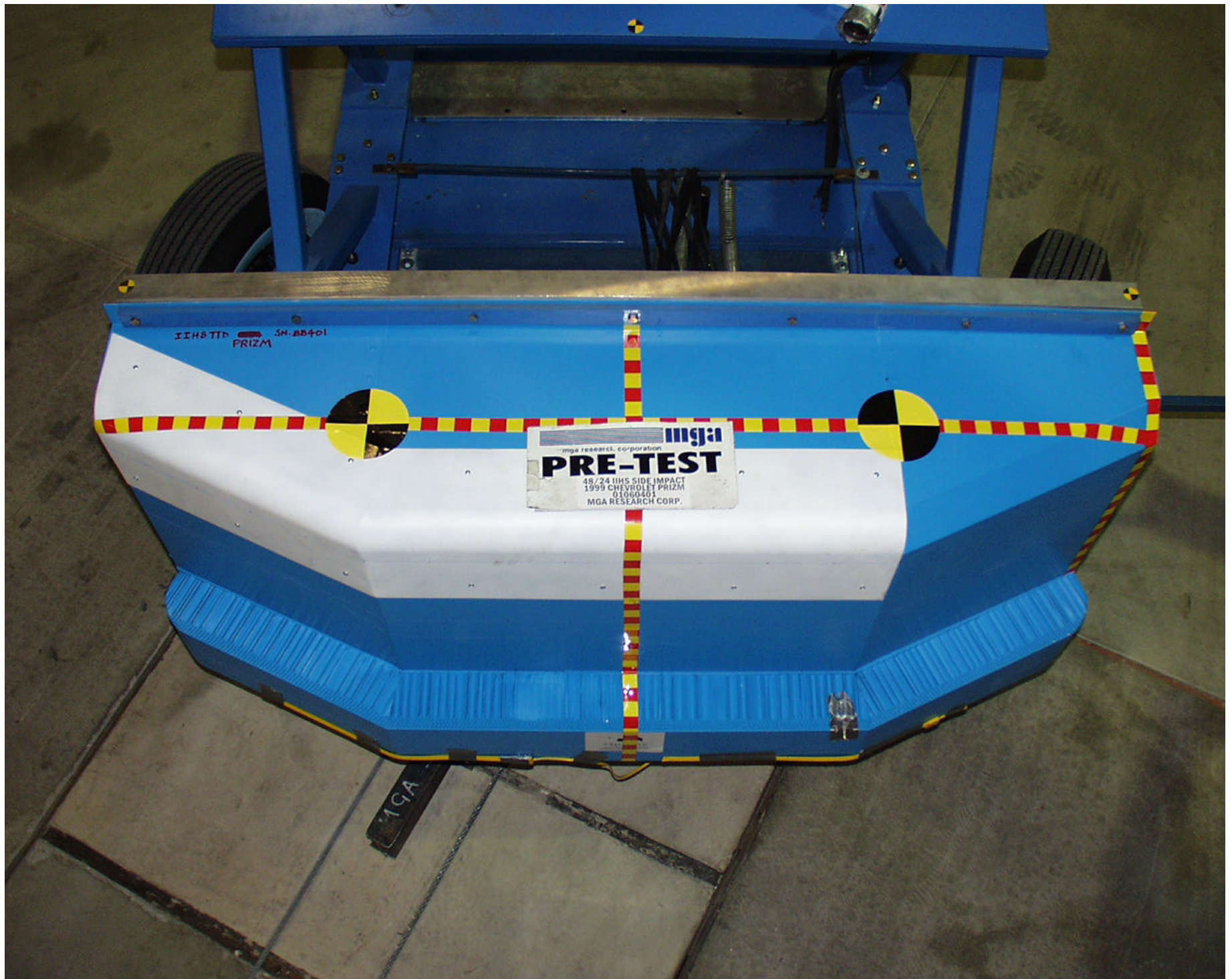


Photo No. A-13 - Pre-Test MDB Top View



Photo No. A-14 - Post-Test MDB Top View

A-15



Photo No. A-15 - Pre-Test MDB Front View



Photo No. A-16 - Post-Test MDB Front View



Photo No. A-17 - Pre-Test MDB Right Side View



Photo No. A-18 - Post-Test MDB Right Side View



Photo No. A-19 - Pre-Test MDB Left Side View



Photo No. A-20 - Post-Test MDB Left Side View

A-21



Photo No. A-21 - Pre-Test Driver Dummy Right Side View

A-22



Photo No. A-22 - Post-Test Driver Dummy Right Side View

A-23



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



Photo No. A-24 - Post-Test Driver Dummy Left Side View



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



Photo No. A-26 - Pre-Test Driver Dummy Shoulder and Door Top View

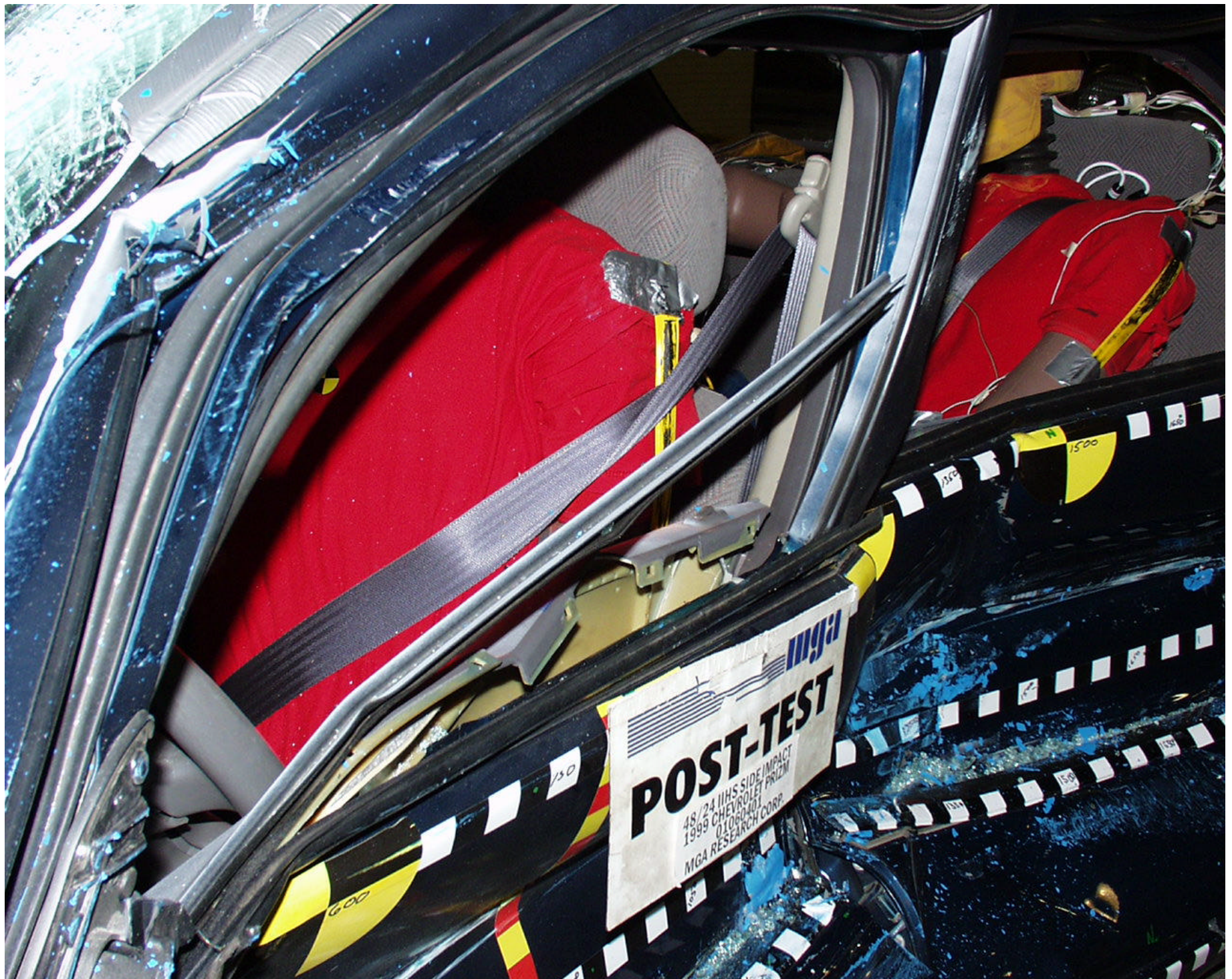


Photo No. A-27 - Post-Test Driver Dummy Shoulder and Door Top View

A-28



Photo No. A-28 - Post-Test Driver Dummy Contact

A-29



Photo No. A-29 - Post-Test Driver Dummy Head Contact

A-30



Photo No. A-30 - Post-Test Driver Dummy Head Contact

A-31



Photo No. A-31 - Pre-Test Passenger Dummy Right Side View

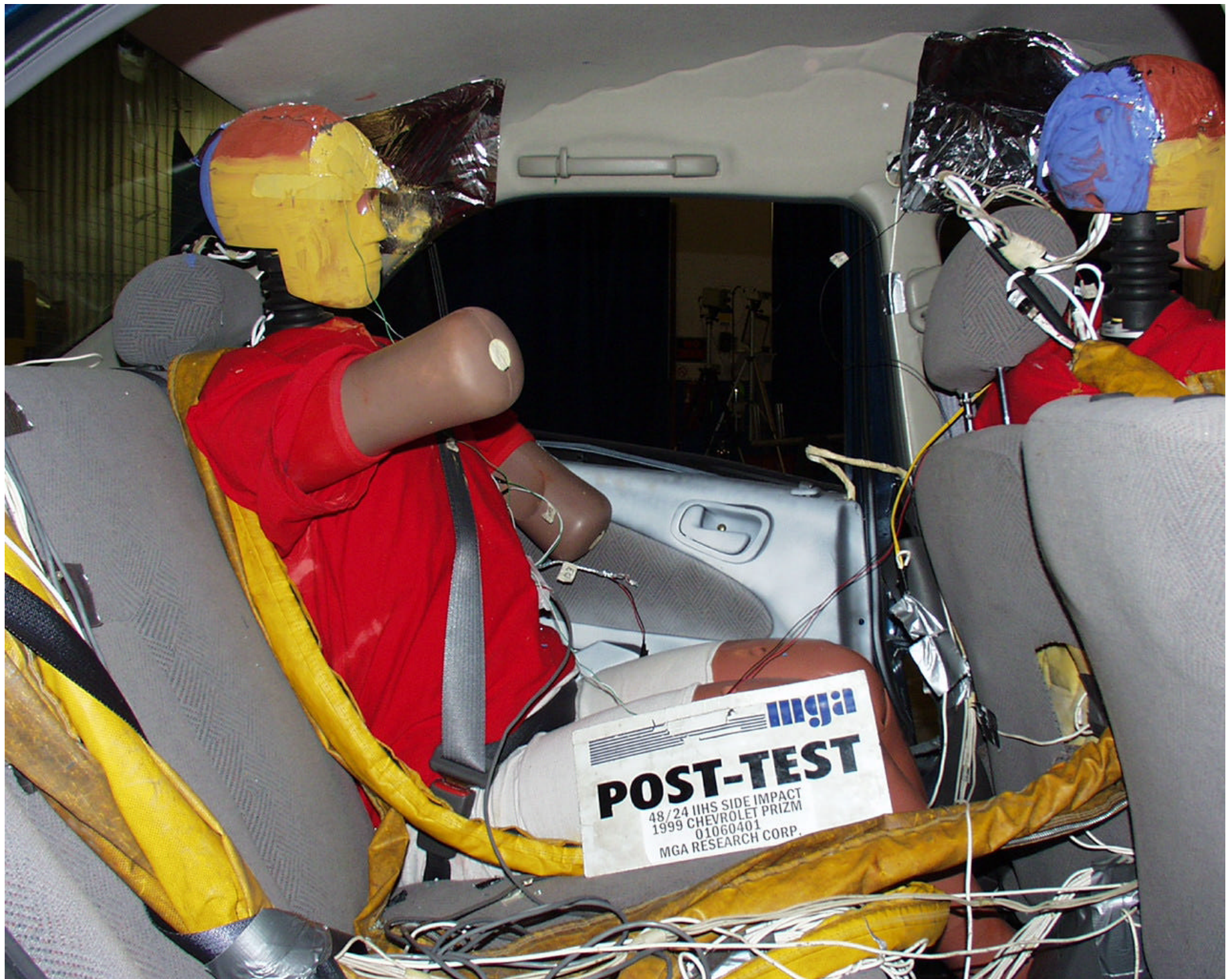


Photo No. A-32 - Post-Test Passenger Dummy Right Side View

A-33



Photo No. A-33 - Pre-Test Passenger Dummy Left Side View

A-34



Photo No. A-34 - Post-Test Passenger Dummy Left Side View

A-35

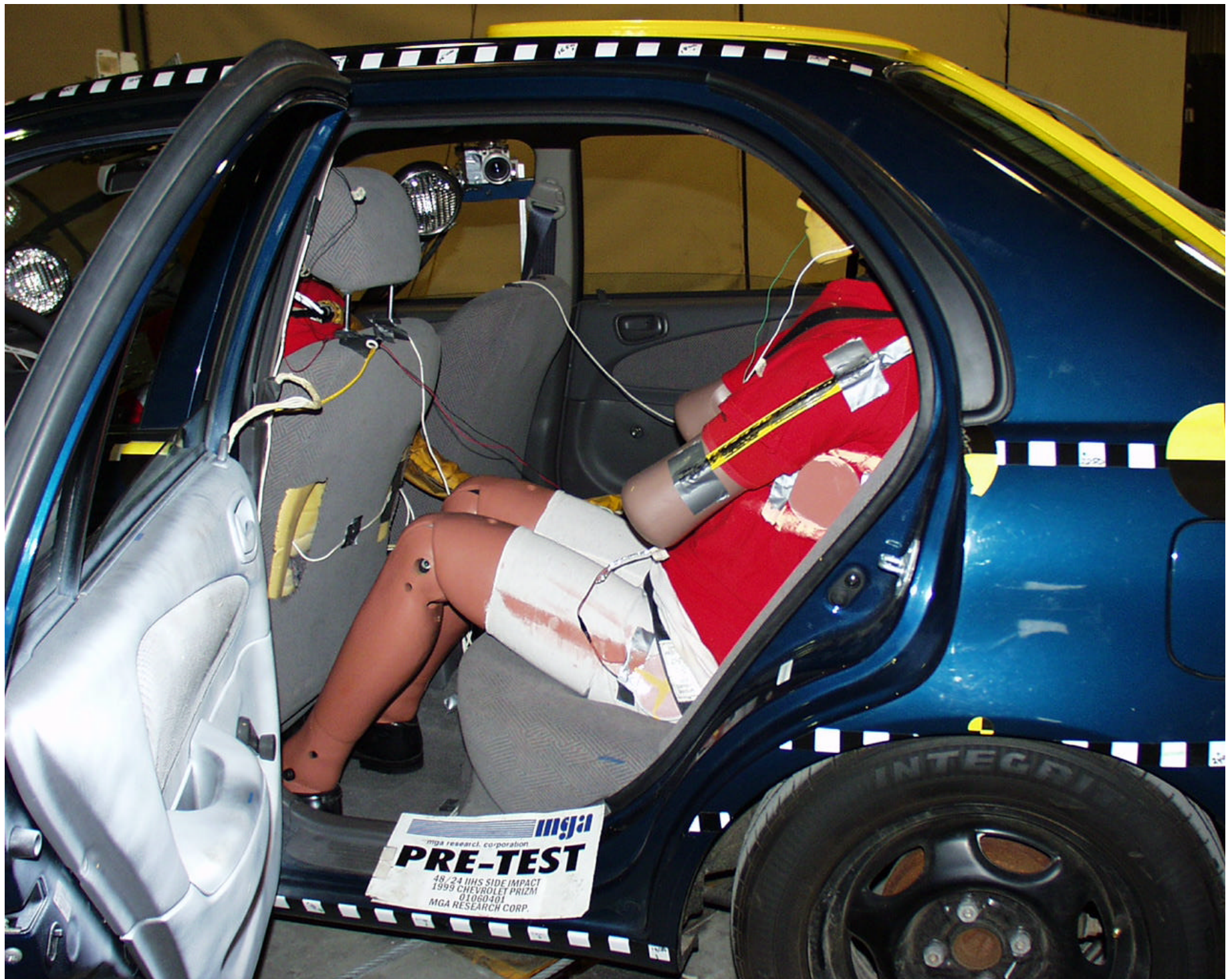


Photo No. A-35 - Pre-Test Passenger Dummy Left Side View (Door Open)



Photo No. A-36 - Pre-Test Passenger Dummy Shoulder and Door Top View

A-37



Photo No. A-37 - Post-Test Passenger Dummy Shoulder and Door Top View

A-38



Photo No. A-38 - Post-Test Passenger Dummy Contact

A-39



Photo No. A-39 - Post-Test Passenger Dummy Head Contact

A-40



Photo No. A-40 - Pre-Test Left Front Impact Point on Vehicle



Photo No. A-41 - Post-Test Left Front Impact Point on Vehicle

A-42



Photo No. A-42 – Impact



VEHICLE CAPACITY WEIGHT : 850 lbs (385kg)
 DESIGNATED SEATING CAPACITY : TOTAL 5 (FRONT 2, REAR 3)
 RECOMMENDED COLD TIRE INFLATION PRESSURE : psi (kPa)
 UP TO VEHICLE CAPACITY WEIGHT FRONT 30 (210), REAR 30 (210)
 RECOMMENDED TIRE SIZE : P175 / 65R14 81S
 COMPACT SPARE TIRE
 RECOMMENDED COLD TIRE INFLATION PRESSURE : 60 psi (420 kPa)
 RECOMMENDED TIRE SIZE : T115 / 70D14 88M
 SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION

CHARGE MAXIMALE DU VEHICULE : 850 LIVRES (385kg)
 NOMBRE DESIGNÉ DE PLACES ASSISES : TOTAL 5
 (AVANT 2, ARRIERE 3)
 PRESSION RECOMMANDEE DE GONFLAGE A FROID DES PNEUS
 AU POIDS MAXIMAL DU VEHICULE CHARGE : LB / PO² (kPa)
 AVANT 30 (210), ARRIERE 30 (210)
 DIMENSION RECOMMANDEE DES PNEUS : P175 / 65R14 81 S
 PNEU DE RECHANGE COMPACT
 DIMENSION RECOMMANDEE DU PNEU : T115 / 70D14 88M
 PRESSION RECOMMANDEE DE GONFLAGE A FROID : 60LB / PO² (420kPa)
 POUR DE PLUS AMPLES DETAILS, VOIR LE MANUEL DU PROPRIETAIRE

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APPENDIX B

SID, VEHICLE, AND MDB RESPONSE DATA

Table of Data Plots

<u>Occupant:</u>	<u>Page No.</u>
Figure B-1 - Driver Head X Acceleration vs. Time	B-1
Figure B-2 - Driver Head Y Acceleration vs. Time	B-2
Figure B-3 - Driver Head Z Acceleration vs. Time	B-3
Figure B-4 - Driver Head Resultant Acceleration vs. Time	B-4
Figure B-5 - Driver Upper Neck Force X vs. Time	B-5
Figure B-6 - Driver Upper Neck Force Y vs. Time	B-6
Figure B-7 - Driver Upper Neck Force Z vs. Time	B-7
Figure B-8 - Driver Upper Neck Force Resultant vs. Time	B-8
Figure B-9 - Driver Upper Neck Moment X vs. Time	B-9
Figure B-10 - Driver Upper Neck Moment Y vs. Time	B-10
Figure B-11 - Driver Upper Neck Moment Z vs. Time	B-11
Figure B-12 - Driver Upper Neck Moment Resultant vs. Time	B-12
Figure B-13 - Driver Lower Neck Force X vs. Time	B-13
Figure B-14 - Driver Lower Neck Force Y vs. Time	B-14
Figure B-15 - Driver Lower Neck Force Z vs. Time	B-15
Figure B-16 - Driver Lower Neck Force Resultant vs. Time	B-16
Figure B-17 - Driver Lower Neck Moment X vs. Time	B-17
Figure B-18 - Driver Lower Neck Moment Y vs. Time	B-18
Figure B-19 - Driver Lower Neck Moment Z vs. Time	B-19
Figure B-20 - Driver Lower Neck Moment Resultant vs. Time	B-20
Figure B-21 - Driver Shoulder Force X vs. Time	B-21
Figure B-22 - Driver Shoulder Force Y vs. Time	B-22
Figure B-23 - Driver Shoulder Force Z vs. Time	B-23
Figure B-24 - Driver Upper Rib Displacement vs. Time	B-24
Figure B-25 - Driver Upper Rib Viscous Criteria vs. Time	B-25
Figure B-26 - Driver Mid Rib Displacement vs. Time	B-26
Figure B-27 - Driver Mid Rib Viscous Criteria vs. Time	B-27
Figure B-28 - Driver Lower Rib Displacement vs. Time	B-28
Figure B-29 - Driver Lower Rib Viscous Criteria vs. Time	B-29
Figure B-30 - Driver Torso Force X vs. Time	B-30
Figure B-31 - Driver Torso Force Y vs. Time	B-31
Figure B-32 - Driver Torso Moment Y vs. Time	B-32
Figure B-33 - Driver Torso Moment Z vs. Time	B-33

Table of Data Plots

<u>Occupant (Cont'd):</u>	<u>Page No.</u>
Figure B-34 - Driver T-12 Force X vs. Time	B-34
Figure B-35 - Driver T-12 Force Y vs. Time	B-35
Figure B-36 - Driver T-12 Moment X vs. Time	B-36
Figure B-37 - Driver T-12 Moment Y vs. Time	B-37
Figure B-38 - Driver Lumbar Force Y vs. Time	B-38
Figure B-39 - Driver Lumbar Force Z vs. Time	B-39
Figure B-40 - Driver Lumbar Moment X vs. Time	B-40
Figure B-41 - Driver Abdomen Front Force vs. Time	B-41
Figure B-42 - Driver Abdomen Mid Force vs. Time	B-42
Figure B-43 - Driver Abdomen Rear Force vs. Time	B-43
Figure B-44 - Driver Summed Abdomen Force vs. Time	B-44
Figure B-45 - Driver Pubic Symphysis Force vs. Time	B-45
Figure B-46 - Driver Left Femur Force X vs. Time	B-46
Figure B-47 - Driver Left Femur Force Y vs. Time	B-47
Figure B-48 - Driver Left Femur Force Z vs. Time	B-48
Figure B-49 - Driver Left Femur Force Resultant vs. Time	B-49
Figure B-50 - Driver Left Femur Moment X vs. Time	B-50
Figure B-51 - Driver Left Femur Moment Y vs. Time	B-51
Figure B-52 - Driver Left Femur Moment Z vs. Time	B-52
Figure B-53 - Driver Left Femur Moment Resultant vs. Time	B-53
Figure B-54 - Driver Right Femur Force X vs. Time	B-54
Figure B-55 - Driver Right Femur Force Y vs. Time	B-55
Figure B-56 - Driver Right Femur Force Z vs. Time	B-56
Figure B-57 - Driver Right Femur Force Resultant vs. Time	B-57
Figure B-58 - Driver Right Femur Moment X vs. Time	B-58
Figure B-59 - Driver Right Femur Moment Y vs. Time	B-59
Figure B-60 - Driver Right Femur Moment Z vs. Time	B-60
Figure B-61 - Driver Right Femur Moment Resultant vs. Time	B-61
Figure B-62 - Driver Head Contact vs. Time	B-62
Figure B-63 - Driver Arm Contact vs. Time	B-63
Figure B-64 - Driver Rib Contact vs. Time	B-64
Figure B-65 - Driver Pelvis Contact vs. Time	B-65

Table of Data Plots

<u>Occupant (Cont'd):</u>	<u>Page No.</u>
Figure B-66 - Passenger Head X Acceleration vs. Time	B-66
Figure B-67 - Passenger Head Y Acceleration vs. Time	B-67
Figure B-68 - Passenger Head Z Acceleration vs. Time	B-68
Figure B-69 - Passenger Head Resultant Acceleration vs. Time	B-69
Figure B-70 - Passenger Upper Neck Force X vs. Time	B-70
Figure B-71 - Passenger Upper Neck Force Y vs. Time	B-71
Figure B-72 - Passenger Upper Neck Force Z vs. Time	B-72
Figure B-73 - Passenger Upper Neck Force Resultant vs. Time	B-73
Figure B-74 - Passenger Upper Neck Moment X vs. Time	B-74
Figure B-75 - Passenger Upper Neck Moment Y vs. Time	B-75
Figure B-76 - Passenger Upper Neck Moment Z vs. Time	B-76
Figure B-77 - Passenger Upper Neck Moment Resultant vs. Time	B-77
Figure B-78 - Passenger Lower Neck Force X vs. Time	B-78
Figure B-79 - Passenger Lower Neck Force Y vs. Time	B-79
Figure B-80 - Passenger Lower Neck Force Z vs. Time	B-80
Figure B-81 - Passenger Lower Neck Force Resultant vs. Time	B-81
Figure B-82 - Passenger Lower Neck Moment X vs. Time	B-82
Figure B-83 - Passenger Lower Neck Moment Y vs. Time	B-83
Figure B-84 - Passenger Lower Neck Moment Z vs. Time	B-84
Figure B-85 - Passenger Lower Neck Moment Resultant vs. Time	B-85
Figure B-86 - Passenger Shoulder Force X vs. Time	B-86
Figure B-87 - Passenger Shoulder Force Y vs. Time	B-87
Figure B-88 - Passenger Shoulder Force Z vs. Time	B-88
Figure B-89 - Passenger Upper Rib Displacement vs. Time	B-89
Figure B-90 - Passenger Upper Rib Viscous Criteria vs. Time	B-90
Figure B-91 - Passenger Mid Rib Displacement vs. Time	B-91
Figure B-92 - Passenger Mid Rib Viscous Criteria vs. Time	B-92
Figure B-93 - Passenger Lower Rib Displacement vs. Time	B-93
Figure B-94 - Passenger Lower Rib Viscous Criteria vs. Time	B-94
Figure B-95 - Passenger Torso Force X vs. Time	B-95
Figure B-96 - Passenger Torso Force Y vs. Time	B-96
Figure B-97 - Passenger Torso Moment Y vs. Time	B-97
Figure B-98 - Passenger Torso Moment Z vs. Time	B-98

Table of Data Plots

<u>Occupant (Cont'd):</u>	<u>Page No.</u>
Figure B-99 - Passenger T-12 Force X vs. Time	B-99
Figure B-100 - Passenger T-12 Force Y vs. Time	B-100
Figure B-101 - Passenger T-12 Moment X vs. Time	B-101
Figure B-102 - Passenger T-12 Moment Y vs. Time	B-102
Figure B-103 - Passenger Lumbar Force Y vs. Time	B-103
Figure B-104 - Passenger Lumbar Force Z vs. Time	B-104
Figure B-105 - Passenger Lumbar Moment X vs. Time	B-105
Figure B-106 - Passenger Abdomen Front Force vs. Time	B-106
Figure B-107 - Passenger Abdomen Mid Force vs. Time	B-107
Figure B-108 - Passenger Abdomen Rear Force vs. Time	B-108
Figure B-109 - Passenger Summed Abdomen Force vs. Time	B-109
Figure B-110 - Passenger Pubic Symphysis Force vs. Time	B-110
Figure B-111 - Passenger Left Femur Force X vs. Time	B-111
Figure B-112 - Passenger Left Femur Force Y vs. Time	B-112
Figure B-113 - Passenger Left Femur Force Z vs. Time	B-113
Figure B-114 - Passenger Left Femur Force Resultant vs. Time	B-114
Figure B-115 - Passenger Left Femur Moment X vs. Time	B-115
Figure B-116 - Passenger Left Femur Moment Y vs. Time	B-116
Figure B-117 - Passenger Left Femur Moment Z vs. Time	B-117
Figure B-118 - Passenger Left Femur Moment Resultant vs. Time	B-118
Figure B-119 - Passenger Right Femur Force X vs. Time	B-119
Figure B-120 - Passenger Right Femur Force Y vs. Time	B-120
Figure B-121 - Passenger Right Femur Force Z vs. Time	B-121
Figure B-122 - Passenger Right Femur Force Resultant vs. Time	B-122
Figure B-123 - Passenger Right Femur Moment X vs. Time	B-123
Figure B-124 - Passenger Right Femur Moment Y vs. Time	B-124
Figure B-125 - Passenger Right Femur Moment Z vs. Time	B-125
Figure B-126 - Passenger Right Femur Moment Resultant vs. Time	B-126
Figure B-127 - Passenger Head Contact vs. Time	B-127
Figure B-128 - Passenger Arm Contact vs. Time	B-128
Figure B-129 - Passenger Rib Contact vs. Time	B-129
Figure B-130 - Passenger Pelvis Contact vs. Time	B-130

Table of Data Plots

<u>Vehicle:</u>	<u>Page No.</u>
Figure B-131 - Right Side Sill at Front Seat X Acceleration vs. Time	B-131
Figure B-132 - Right Side Sill at Front Seat Y Acceleration vs. Time	B-132
Figure B-133 - Right Side Sill at Front Seat Z Acceleration vs. Time	B-133
Figure B-134 - Right Side Sill at Front Seat Resultant Acceleration vs. Time	B-134
Figure B-135 - Right Side Sill at Rear Seat X Acceleration vs. Time	B-135
Figure B-136 - Right Side Sill at Rear Seat Y Acceleration vs. Time	B-136
Figure B-137 - Right Side Sill at Rear Seat Z Acceleration vs. Time	B-137
Figure B-138 - Right Side Sill at Rear Seat Resultant Acceleration vs. Time	B-138
Figure B-139 - Rear Floorpan above Axle X Acceleration vs. Time	B-139
Figure B-140 - Rear Floorpan above Axle Y Acceleration vs. Time	B-140
Figure B-141 - Rear Floorpan above Axle Z Acceleration vs. Time	B-141
Figure B-142 - Rear Floorpan above Axle Resultant Acceleration vs. Time	B-142
Figure B-143 - Left Side Sill at Front Seat Y Acceleration vs. Time	B-143
Figure B-144 - Left Side Sill at Rear Seat Y Acceleration vs. Time	B-144
Figure B-145 - Left Lower A-Post Y Acceleration vs. Time	B-145
Figure B-146 - Left Mid A-Post Y Acceleration vs. Time*	B-146
Figure B-147 - Left Lower B-Post Y Acceleration vs. Time	B-147
Figure B-148 - Left Mid B-Post Y Acceleration vs. Time	B-148
Figure B-149 - Left Upper B-Post Y Acceleration vs. Time	B-149
Figure B-150 - Left Driver Seat Track Y Acceleration vs. Time	B-150
Figure B-151 - Driver Left Seat Frame Y Acceleration vs. Time	B-151
Figure B-152 - Driver Right Seat Frame Y Acceleration vs. Time	B-152
Figure B-153 - Vehicle Center of Gravity X Acceleration vs. Time	B-153
Figure B-154 - Vehicle Center of Gravity Y Acceleration vs. Time	B-154
Figure B-155 - Vehicle Center of Gravity Z Acceleration vs. Time	B-155
Figure B-156 - Vehicle Center of Gravity Resultant Acceleration vs. Time	B-156
Figure B-157 - Left Front Door @ Mid Rib Y Acceleration vs. Time	B-157
Figure B-158 - Left Front Door @ Pelvis Y Acceleration vs. Time	B-158
Figure B-159 - Left Front Door @ Knee Y Acceleration vs. Time	B-159
Figure B-160 - Left Front Door @ Arm Y Acceleration vs. Time	B-160
Figure B-161 - Left Rear Door @ Mid Rib Y Acceleration vs. Time	B-161
Figure B-162 - Left Rear Door @ Pelvis Y Acceleration vs. Time	B-162
Figure B-163 - Left Rear Door @ Knee Y Acceleration vs. Time	B-163

* No valid data after 25 msec.

Table of Data Plots

<u>Vehicle (Cont'd):</u>	<u>Page No.</u>
Figure B-164 - Left Rear Door @ Arm Y Acceleration vs. Time	B-164
Figure B-165 - Lower Center Radiator Support X Acceleration vs. Time	B-165
Figure B-166 - Lower Center Radiator Support Y Acceleration vs. Time	B-166
Figure B-167 - Lower Center Radiator Support Z Acceleration vs. Time	B-167
 <u>Barrier:</u>	
Figure B-168 - Moving Barrier Center of Gravity X Acceleration vs. Time	B-168
Figure B-169 - Moving Barrier Center of Gravity Y Acceleration vs. Time	B-169
Figure B-170 - Moving Barrier Center of Gravity Z Acceleration vs. Time	B-170
Figure B-171 - Moving Barrier Center of Gravity Resultant Acceleration vs. Time	B-171
Figure B-172 - Moving Barrier Rear Axle X Acceleration vs. Time	B-172
Figure B-173 - Moving Barrier Rear Axle Y Acceleration vs. Time	B-173
Figure B-174 - Left Barrier Contact	B-174
Figure B-175 - Right Barrier Contact	B-175
 <u>FIR Filtered:</u>	
Figure B-176 - Driver Upper Spine X Acceleration vs. Time	B-176
Figure B-177 - Driver Upper Spine Y Acceleration vs. Time	B-177
Figure B-178 - Driver Upper Spine Z Acceleration vs. Time	B-178
Figure B-179 - Driver Upper Rib Y Acceleration vs. Time	B-179
Figure B-180 - Driver Mid Rib Y Acceleration vs. Time	B-180
Figure B-181 - Driver Lower Rib Y Acceleration vs. Time	B-181
Figure B-182 - Driver Lower Spine X Acceleration vs. Time	B-182
Figure B-183 - Driver Lower Spine Y Acceleration vs. Time	B-183
Figure B-184 - Driver Lower Spine Z Acceleration vs. Time	B-184
Figure B-185 - Driver Pelvis X Acceleration vs. Time	B-185
Figure B-186 - Driver Pelvis Y Acceleration vs. Time	B-186
Figure B-187 - Driver Pelvis Z Acceleration vs. Time	B-187
Figure B-188 - Passenger Upper Spine X Acceleration vs. Time	B-188
Figure B-189 - Passenger Upper Spine Y Acceleration vs. Time	B-189
Figure B-190 - Passenger Upper Spine Z Acceleration vs. Time	B-190
Figure B-191 - Passenger Upper Rib Y Acceleration vs. Time	B-191
Figure B-192 - Passenger Mid Rib Y Acceleration vs. Time	B-192

Table of Data Plots

FIR Filtered (Cont'd):

Page No.

Figure B-193 - Passenger Lower Rib Y Acceleration vs. Time	B-193
Figure B-194 - Passenger Lower Spine X Acceleration vs. Time	B-194
Figure B-195 - Passenger Lower Spine Y Acceleration vs. Time	B-195
Figure B-196 - Passenger Lower Spine Z Acceleration vs. Time	B-196
Figure B-197 - Passenger Pelvis X Acceleration vs. Time	B-197
Figure B-198 - Passenger Pelvis Y Acceleration vs. Time	B-198
Figure B-199 - Passenger Pelvis Z Acceleration vs. Time	B-199



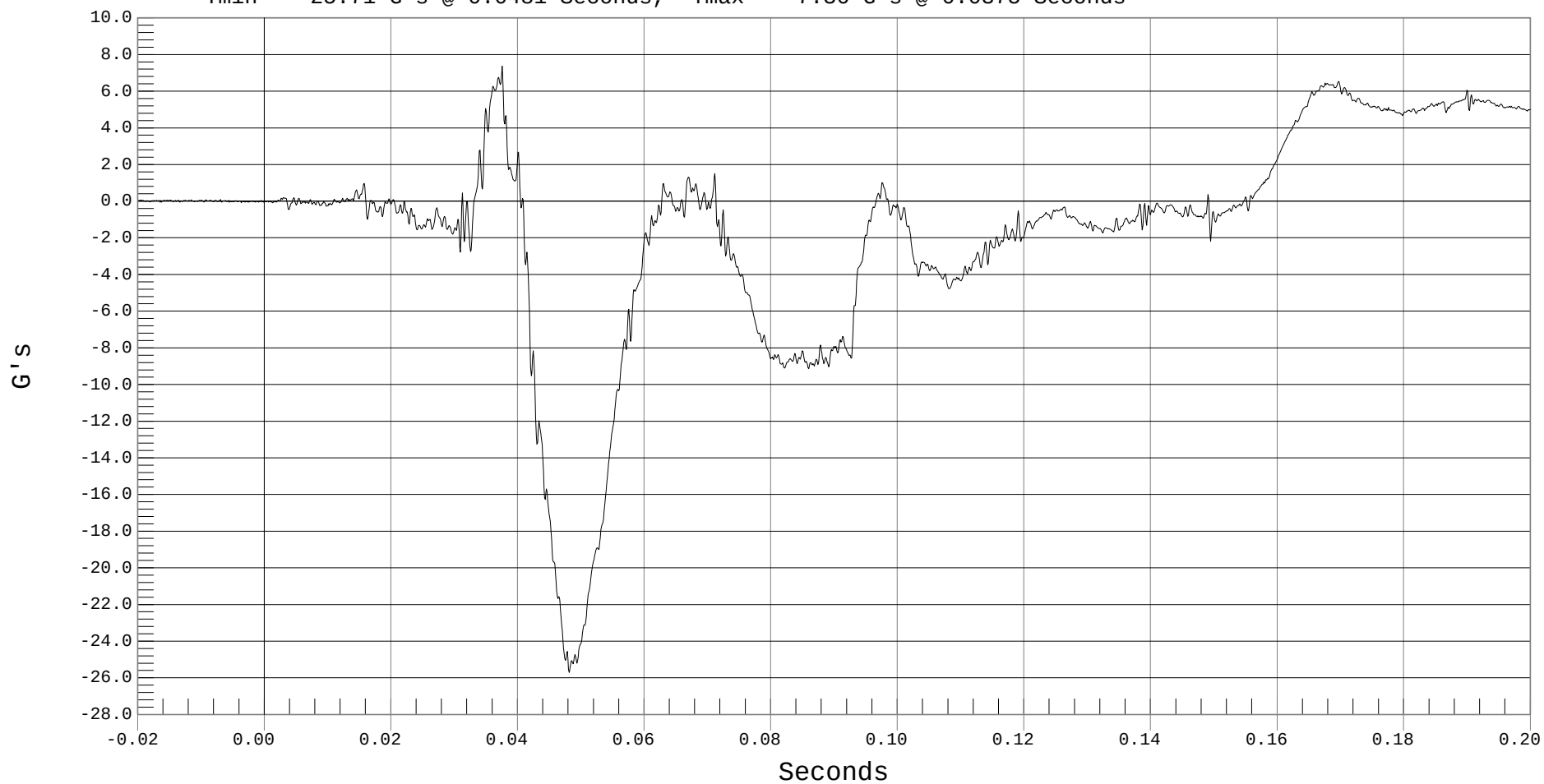
DRIVER HEAD X ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER HEAD X, B01061AT.A01

Ymin = -25.71 G's @ 0.0481 Seconds, Ymax = 7.36 G's @ 0.0375 Seconds





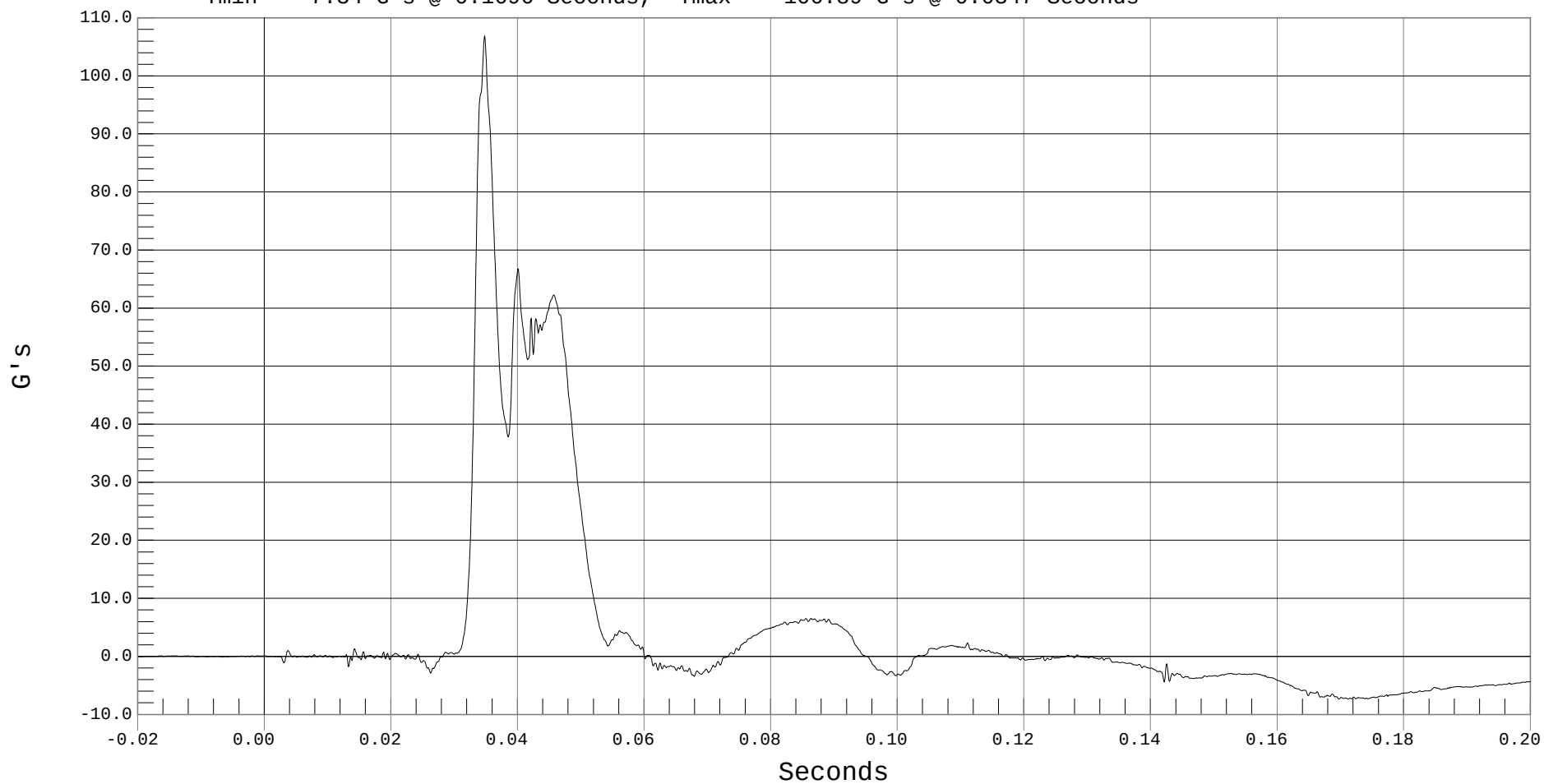
DRIVER HEAD Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER HEAD Y, B01061AT.A02

Ymin = -7.34 G's @ 0.1696 Seconds, Ymax = 106.89 G's @ 0.0347 Seconds





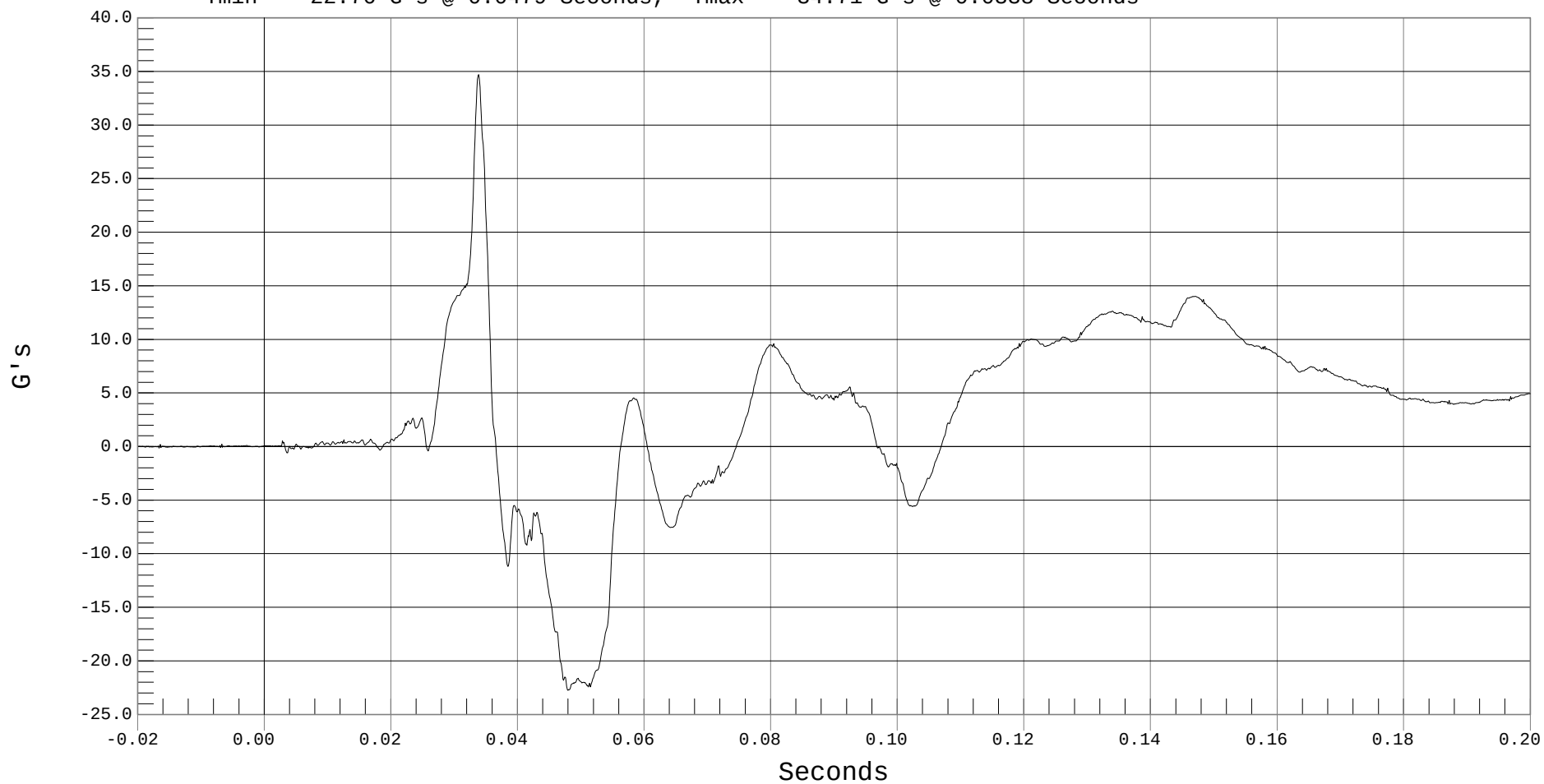
DRIVER HEAD Z ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER HEAD Z, B01061AT.A03

Ymin = -22.76 G's @ 0.0479 Seconds, Ymax = 34.71 G's @ 0.0338 Seconds





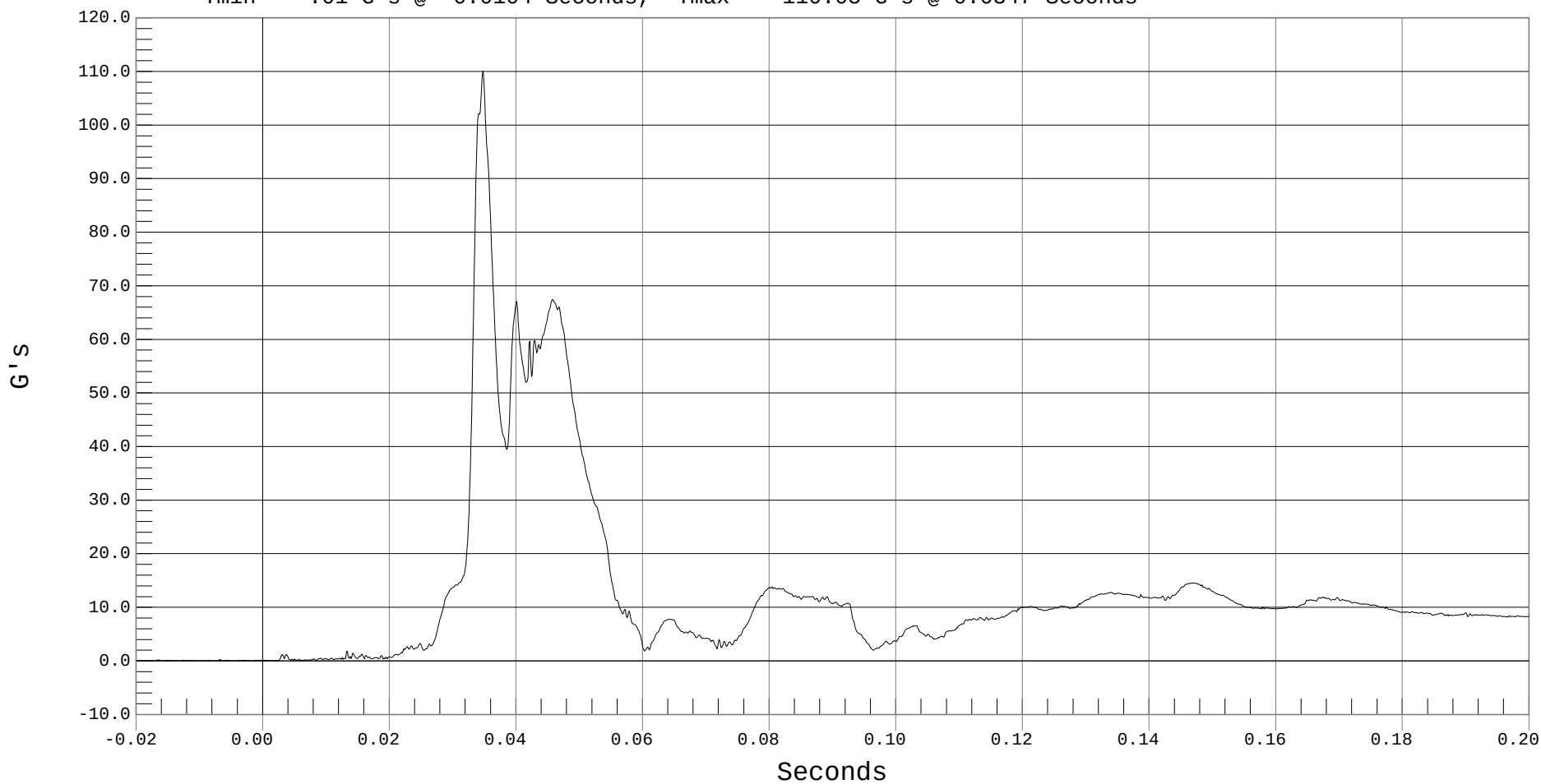
DRIVER HEAD RESULTANT ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER HEAD RESULTANT, B01061AV.A01

Ymin = .01 G's @ -0.0104 Seconds, Ymax = 110.05 G's @ 0.0347 Seconds





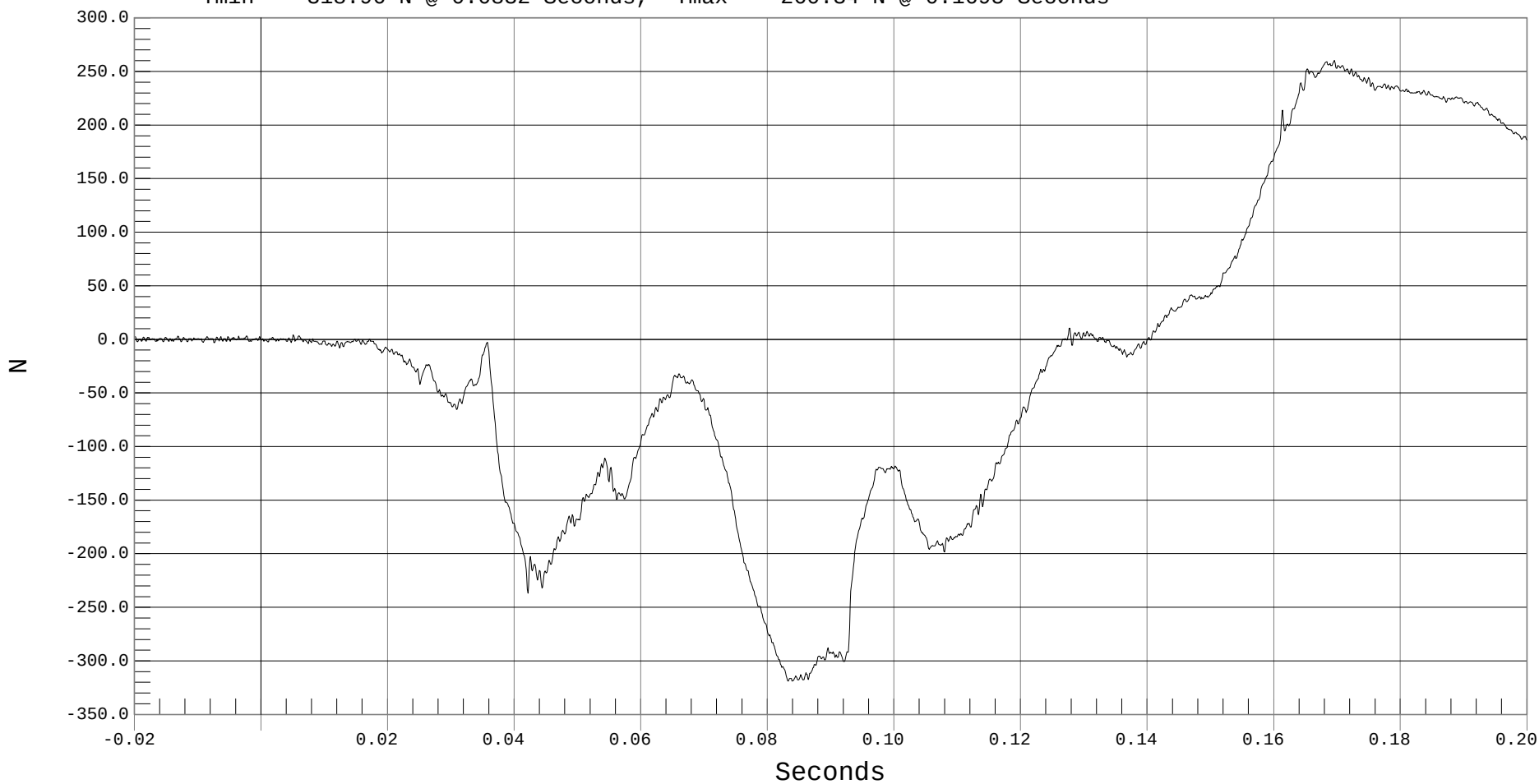
DRIVER UPPER NECK FORCE X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER UPPER NECK FORCE X, B01061FT.F04

Ymin = -318.96 N @ 0.0832 Seconds, Ymax = 260.34 N @ 0.1695 Seconds





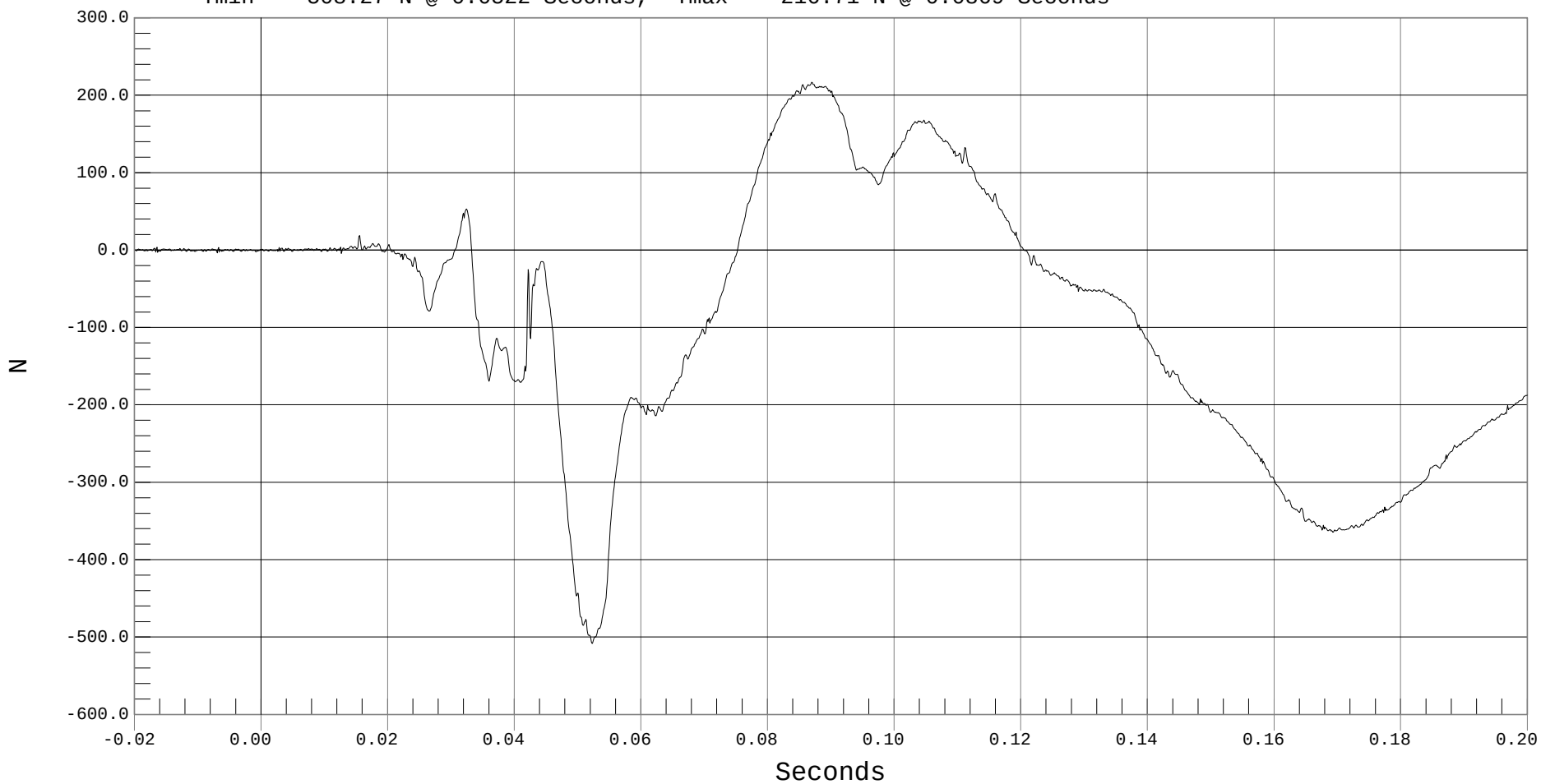
DRIVER UPPER NECK FORCE Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER UPPER NECK FORCE Y, B01061FT.F05

Ymin = -508.27 N @ 0.0522 Seconds, Ymax = 216.71 N @ 0.0869 Seconds





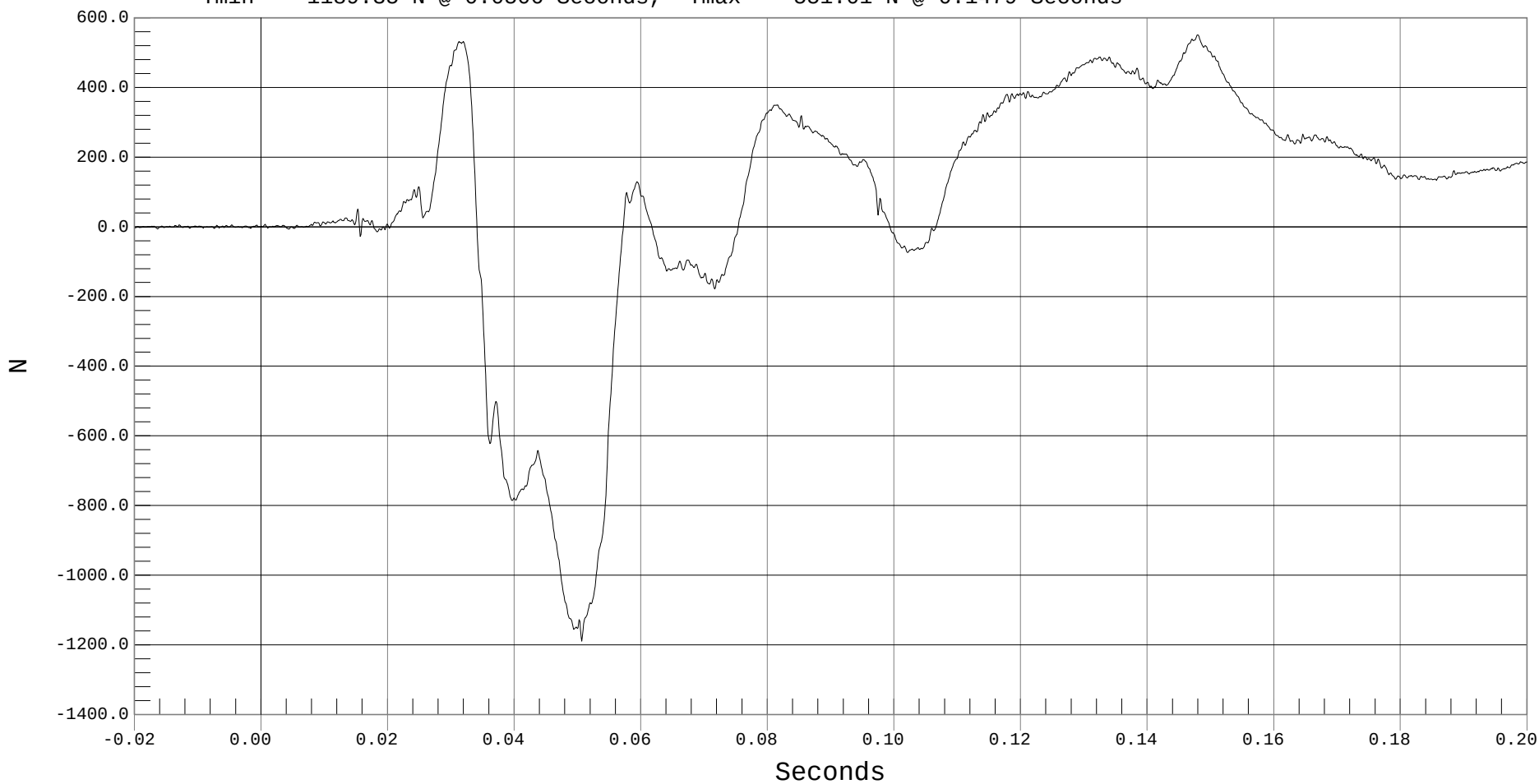
DRIVER UPPER NECK FORCE Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

1 DRIVER UPPER NECK FORCE Z, B01061FT.F06

Ymin = -1189.35 N @ 0.0506 Seconds, Ymax = 551.01 N @ 0.1479 Seconds





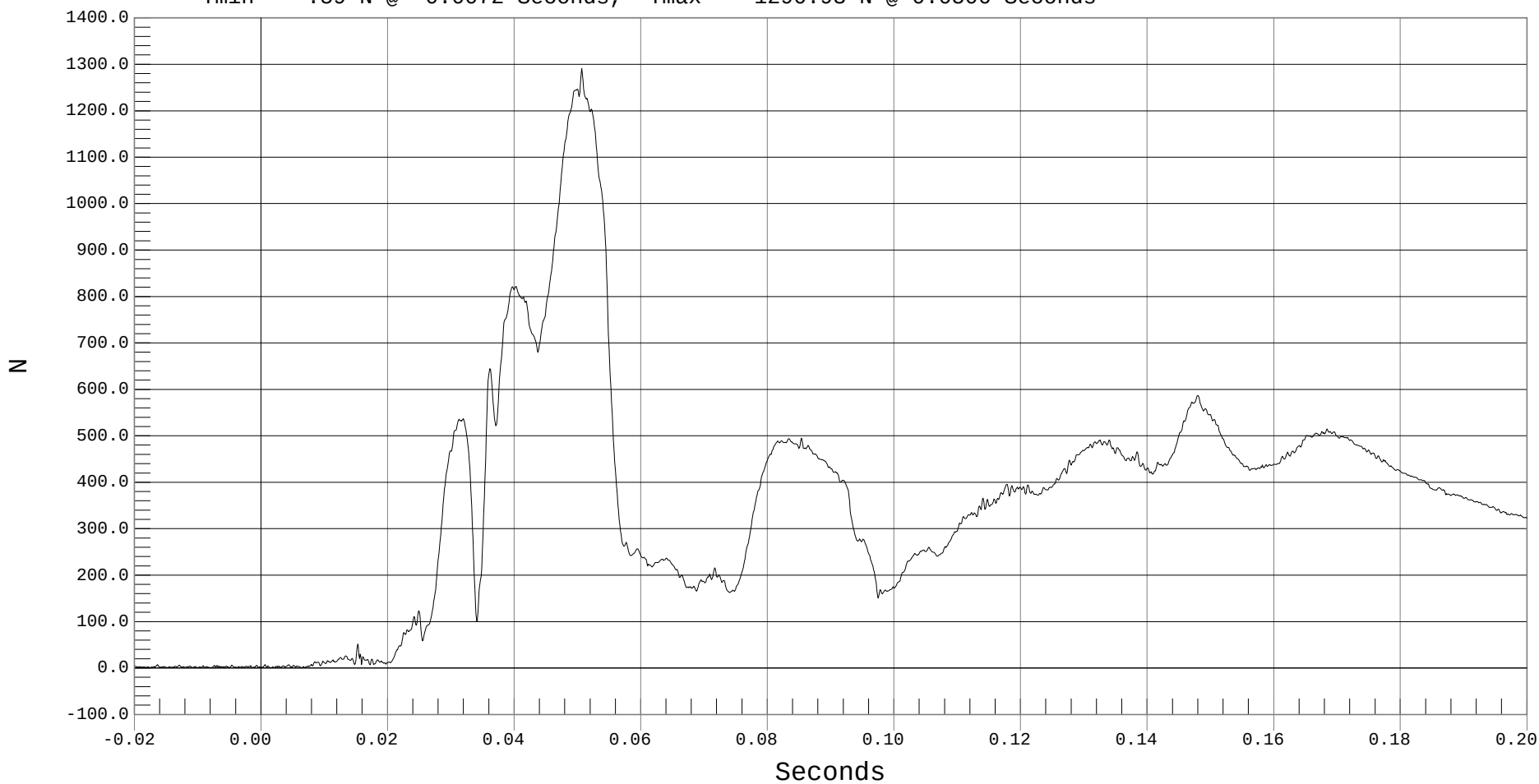
DRIVER UPPER NECK FORCE RESULTANT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER UPPER NECK FORCE RESULTANT, B01061FV.F04

Ymin = .59 N @ -0.0072 Seconds, Ymax = 1290.93 N @ 0.0506 Seconds





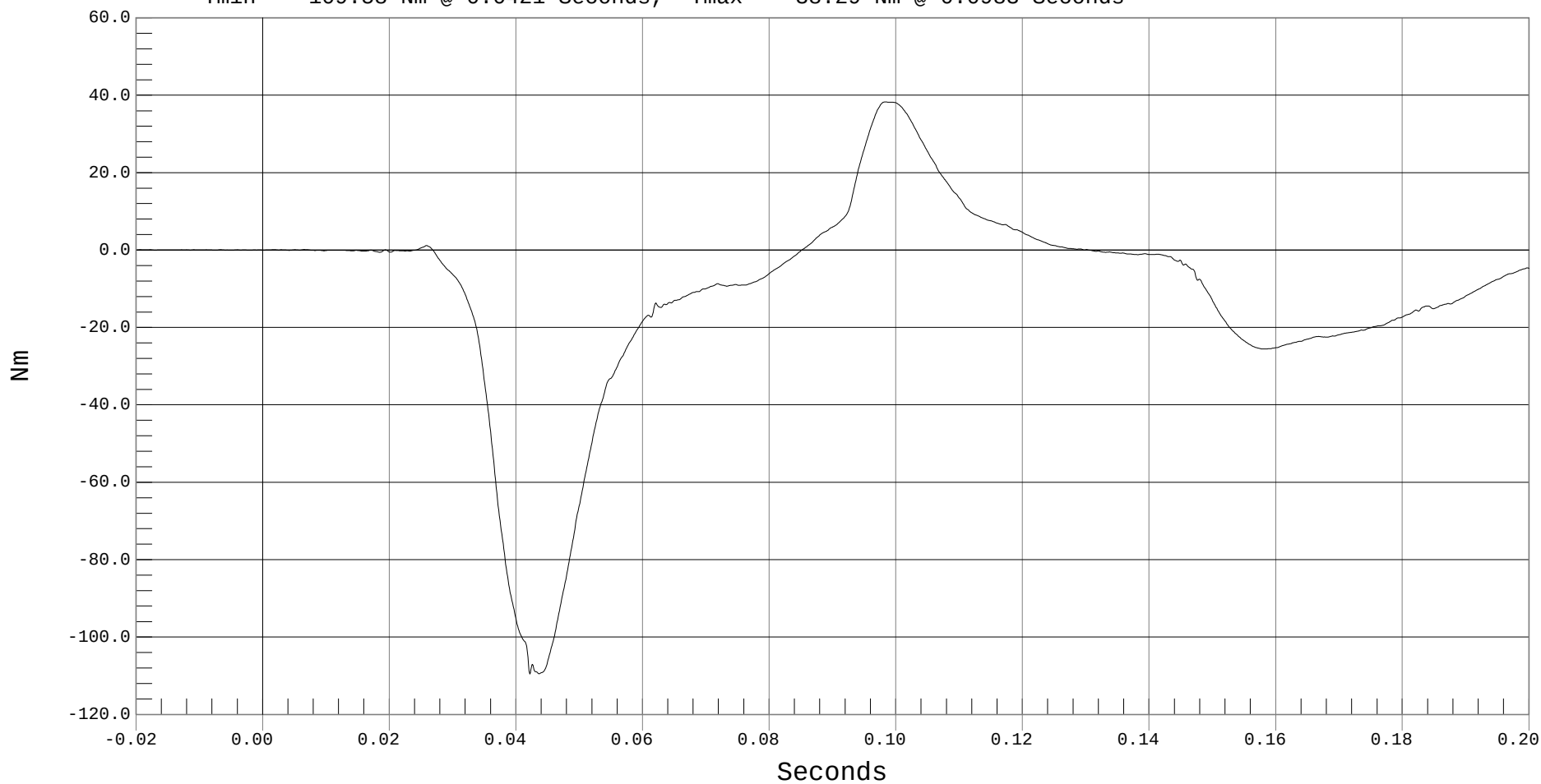
DRIVER UPPER NECK MOMENT X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER UPPER NECK MOMENT X, B01061MF.M07

Ymin = -109.58 Nm @ 0.0421 Seconds, Ymax = 38.29 Nm @ 0.0983 Seconds





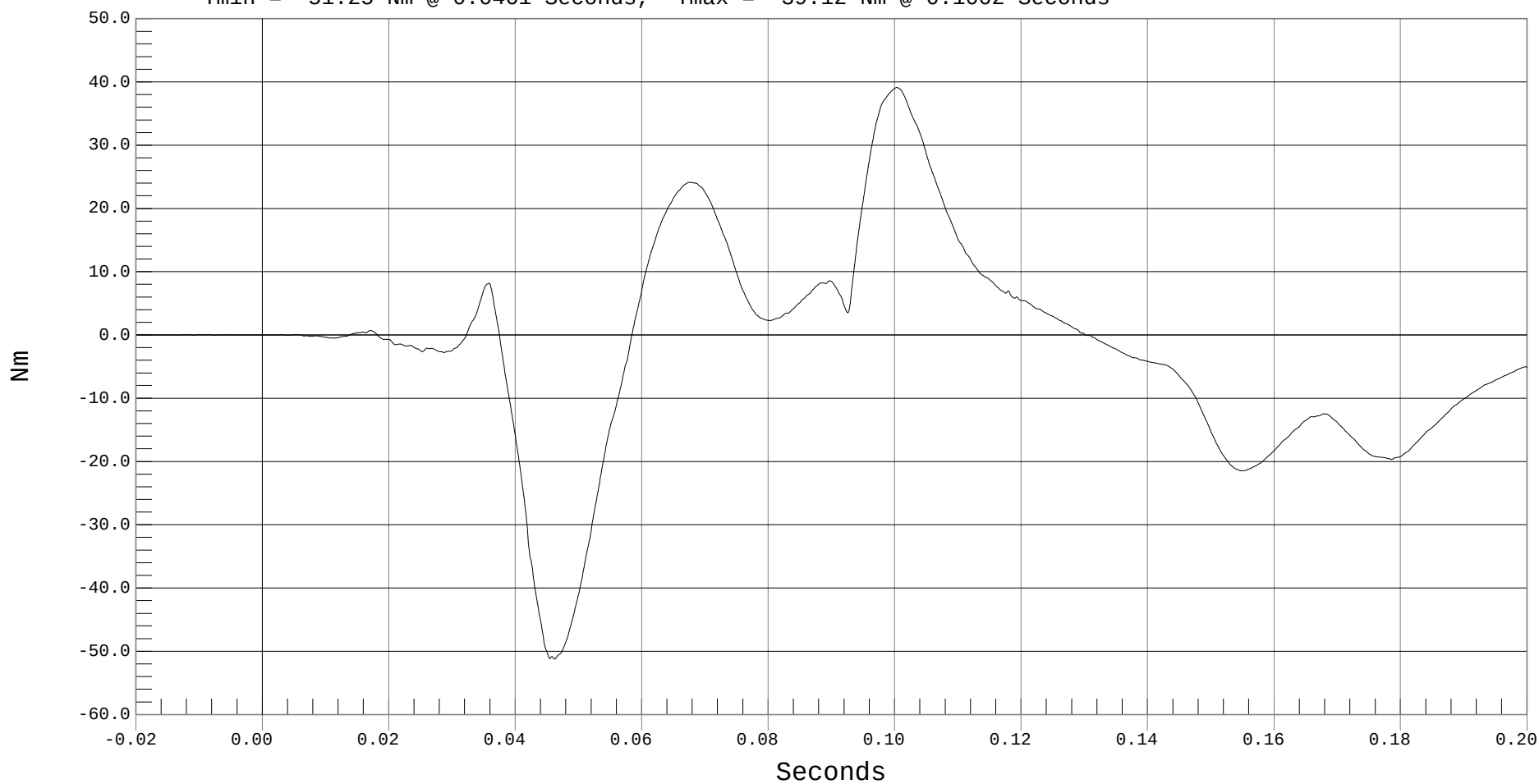
DRIVER UPPER NECK MOMENT Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER UPPER NECK MOMENT Y, B01061MF.M08

Ymin = -51.25 Nm @ 0.0461 Seconds, Ymax = 39.12 Nm @ 0.1002 Seconds





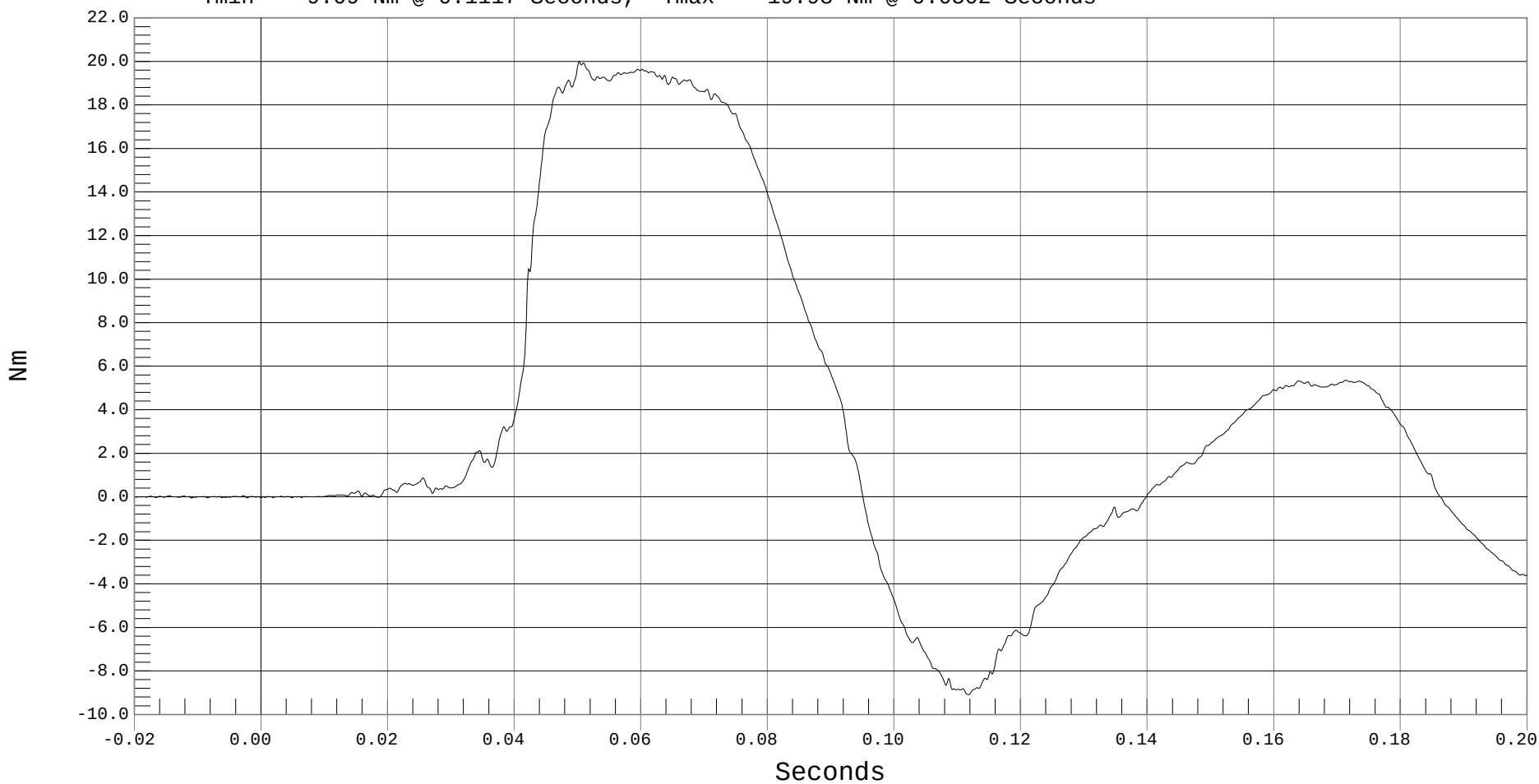
DRIVER UPPER NECK MOMENT Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER UPPER NECK MOMENT Z, B01061MF.M09

Ymin = -9.09 Nm @ 0.1117 Seconds, Ymax = 19.98 Nm @ 0.0502 Seconds





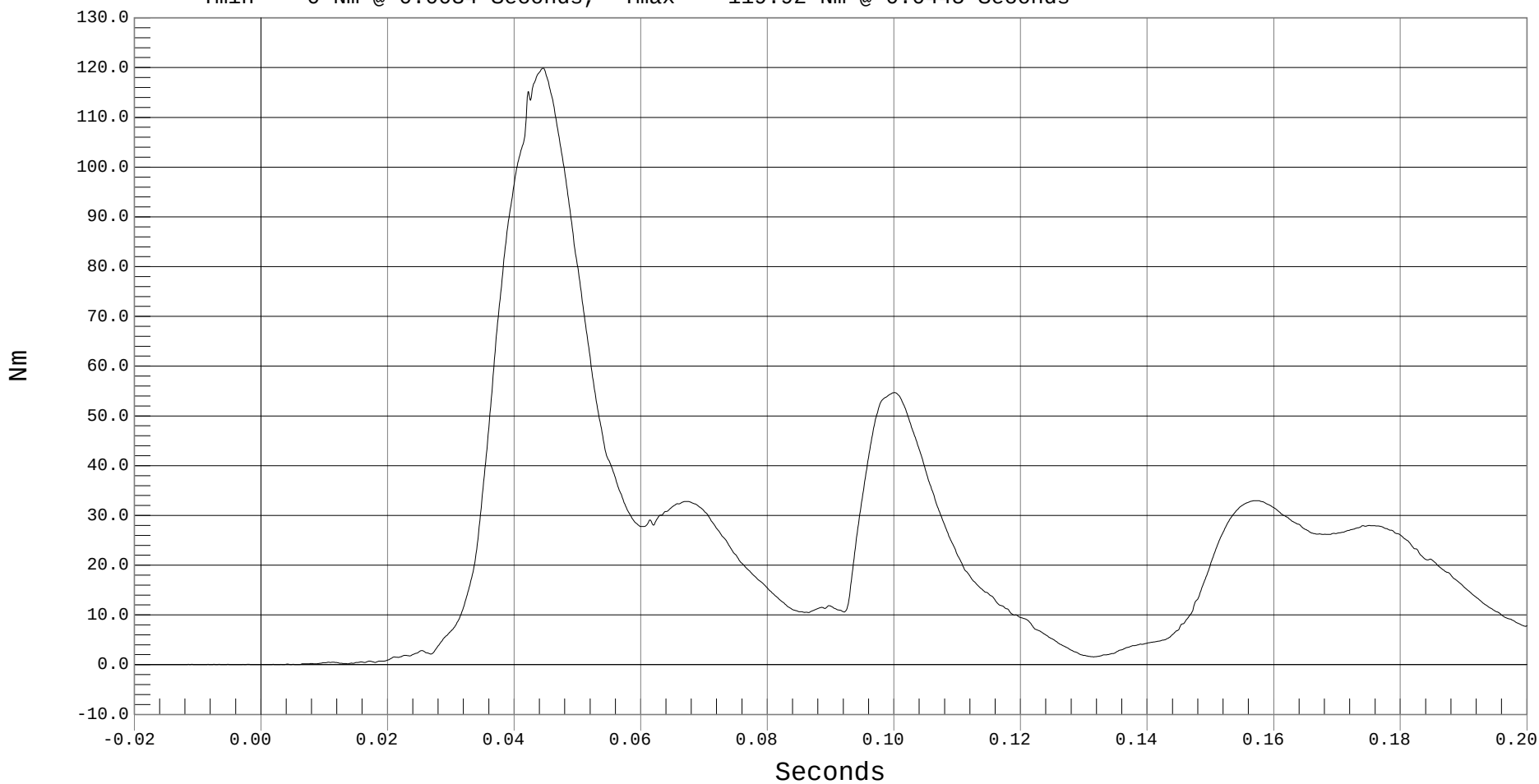
DRIVER UPPER NECK MOMENT RESULTANT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER UPPER NECK MOMENT RESULTANT, B01061MV.M07

Ymin = 0 Nm @ 0.0034 Seconds, Ymax = 119.92 Nm @ 0.0445 Seconds





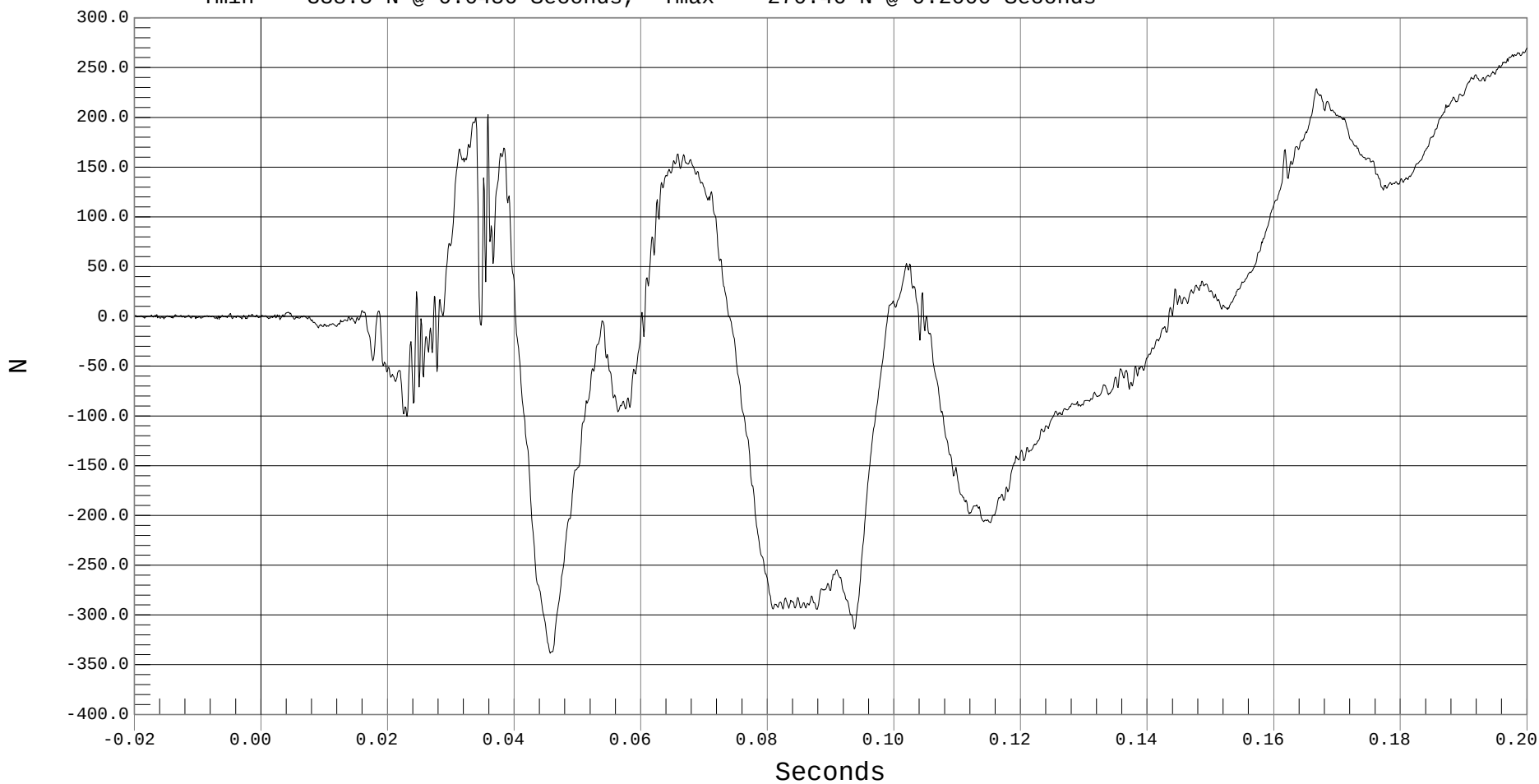
DRIVER LOWER NECK FORCE X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER LOWER NECK FORCE X, B01061FT.F10

Ymin = -338.5 N @ 0.0456 Seconds, Ymax = 270.46 N @ 0.2000 Seconds





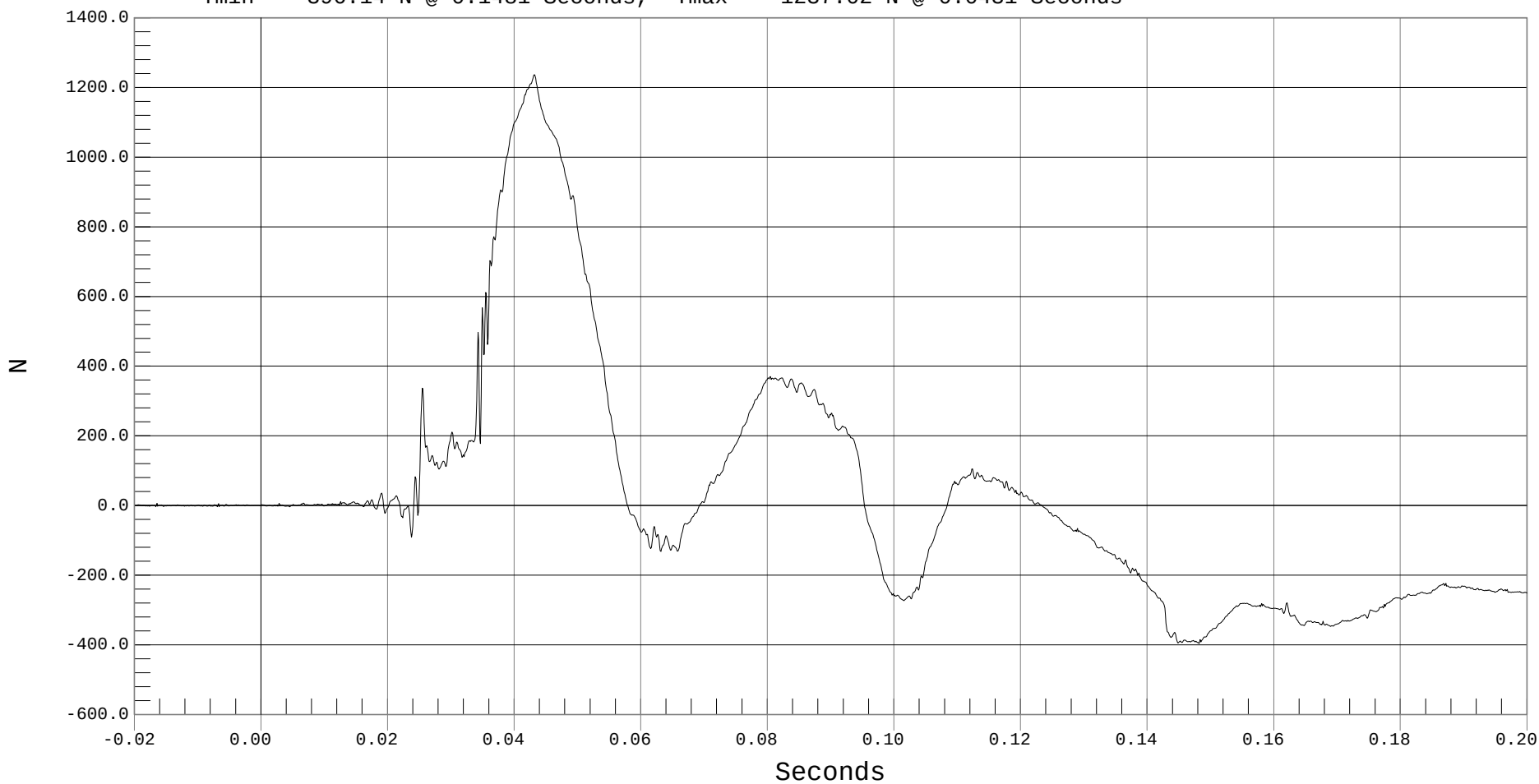
DRIVER LOWER NECK FORCE Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER LOWER NECK FORCE Y, B01061FT.F11

Ymin = -396.14 N @ 0.1481 Seconds, Ymax = 1237.02 N @ 0.0431 Seconds





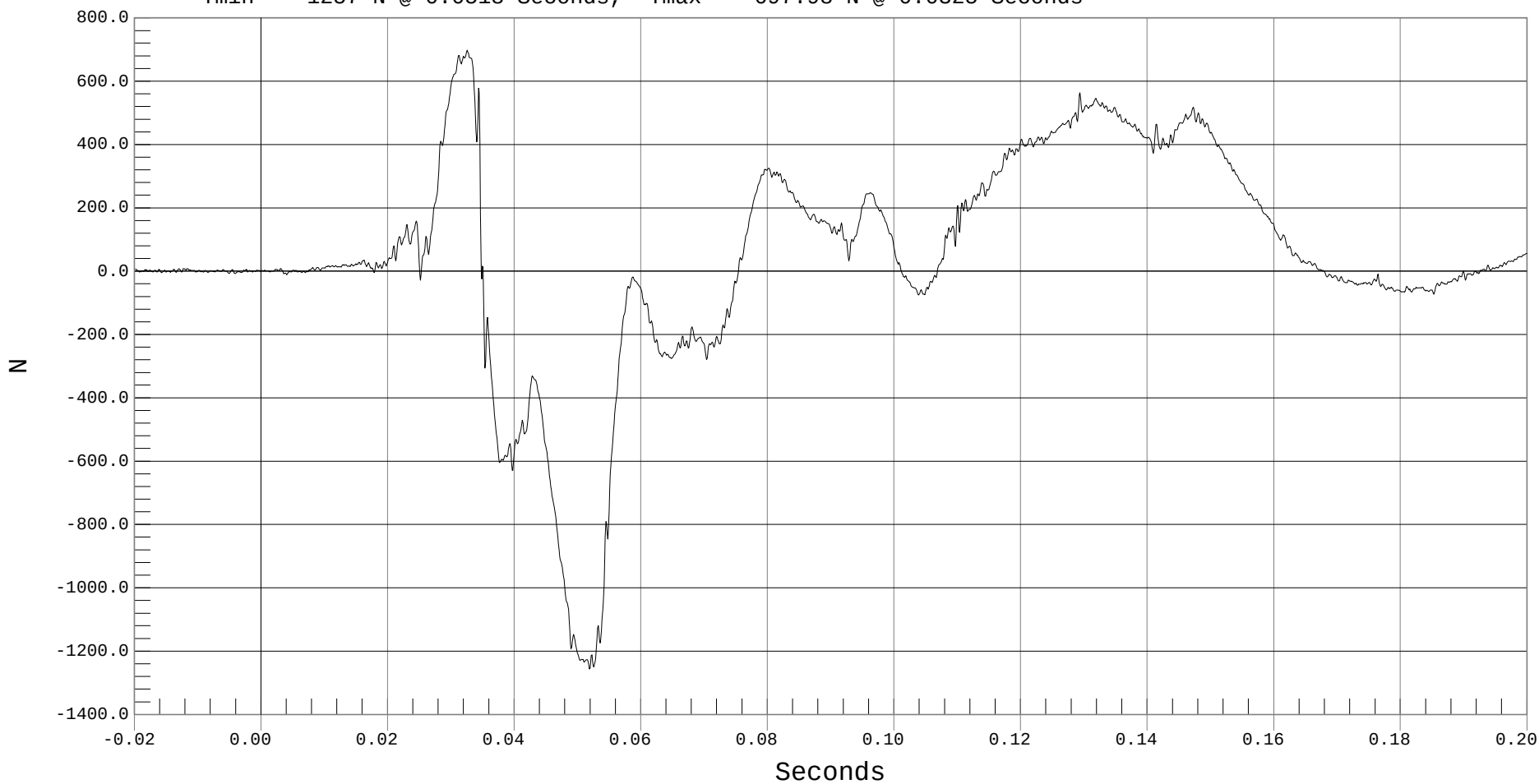
DRIVER LOWER NECK FORCE Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER LOWER NECK FORCE Z, B01061FT.F12

Ymin = -1257 N @ 0.0518 Seconds, Ymax = 697.98 N @ 0.0325 Seconds





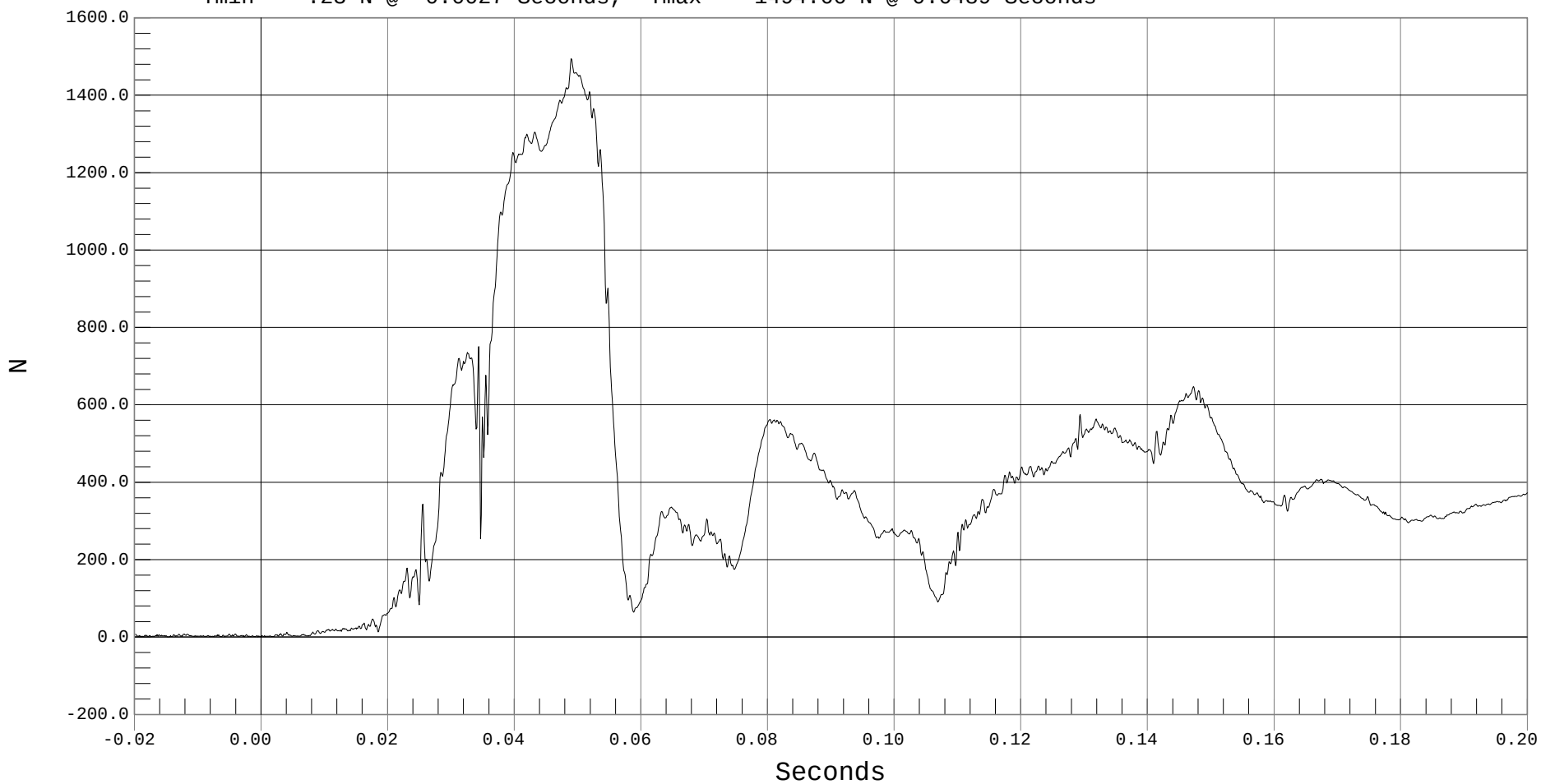
DRIVER LOWER NECK FORCE RESULTANT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER LOWER NECK FORCE RESULTANT, B01061FV.F10

Ymin = .23 N @ -0.0027 Seconds, Ymax = 1494.66 N @ 0.0489 Seconds





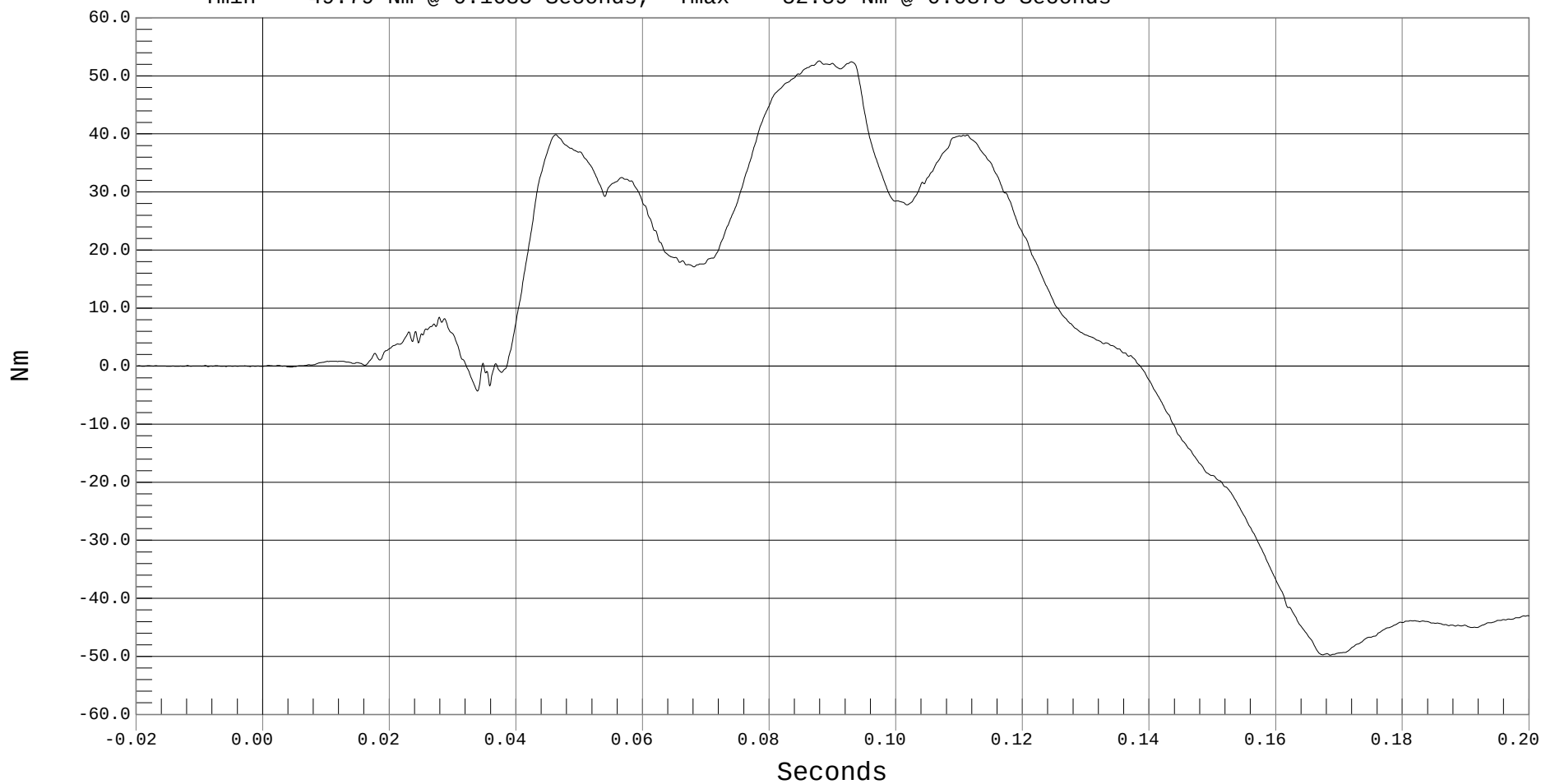
DRIVER LOWER NECK MOMENT X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER LOWER NECK MOMENT X, B01061MF.M13

Ymin = -49.79 Nm @ 0.1685 Seconds, Ymax = 52.59 Nm @ 0.0878 Seconds





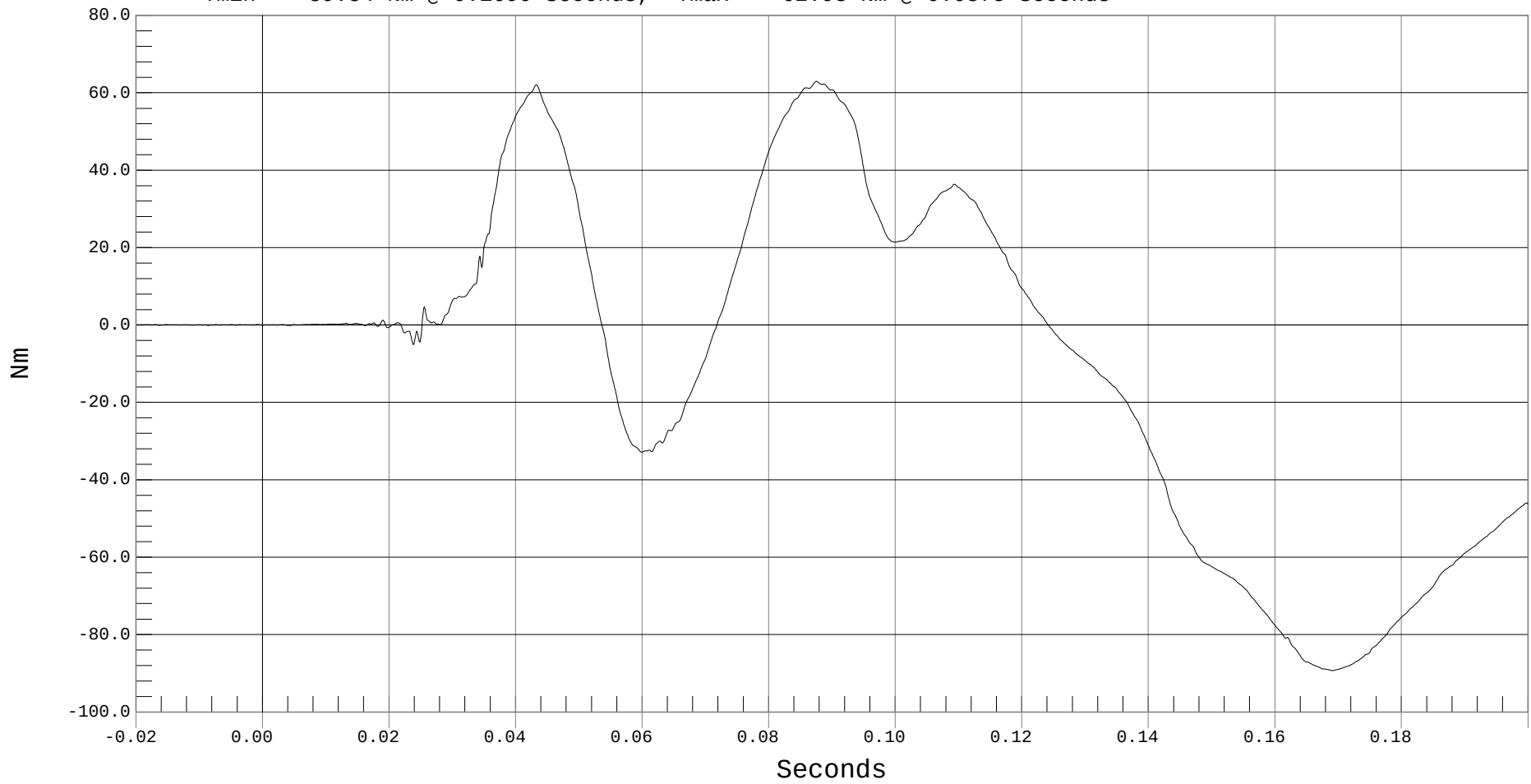
DRIVER LOWER NECK MOMENT Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER LOWER NECK MOMENT Y, B01061MF.M14

Ymin = -89.34 Nm @ 0.1690 Seconds, Ymax = 62.93 Nm @ 0.0875 Seconds





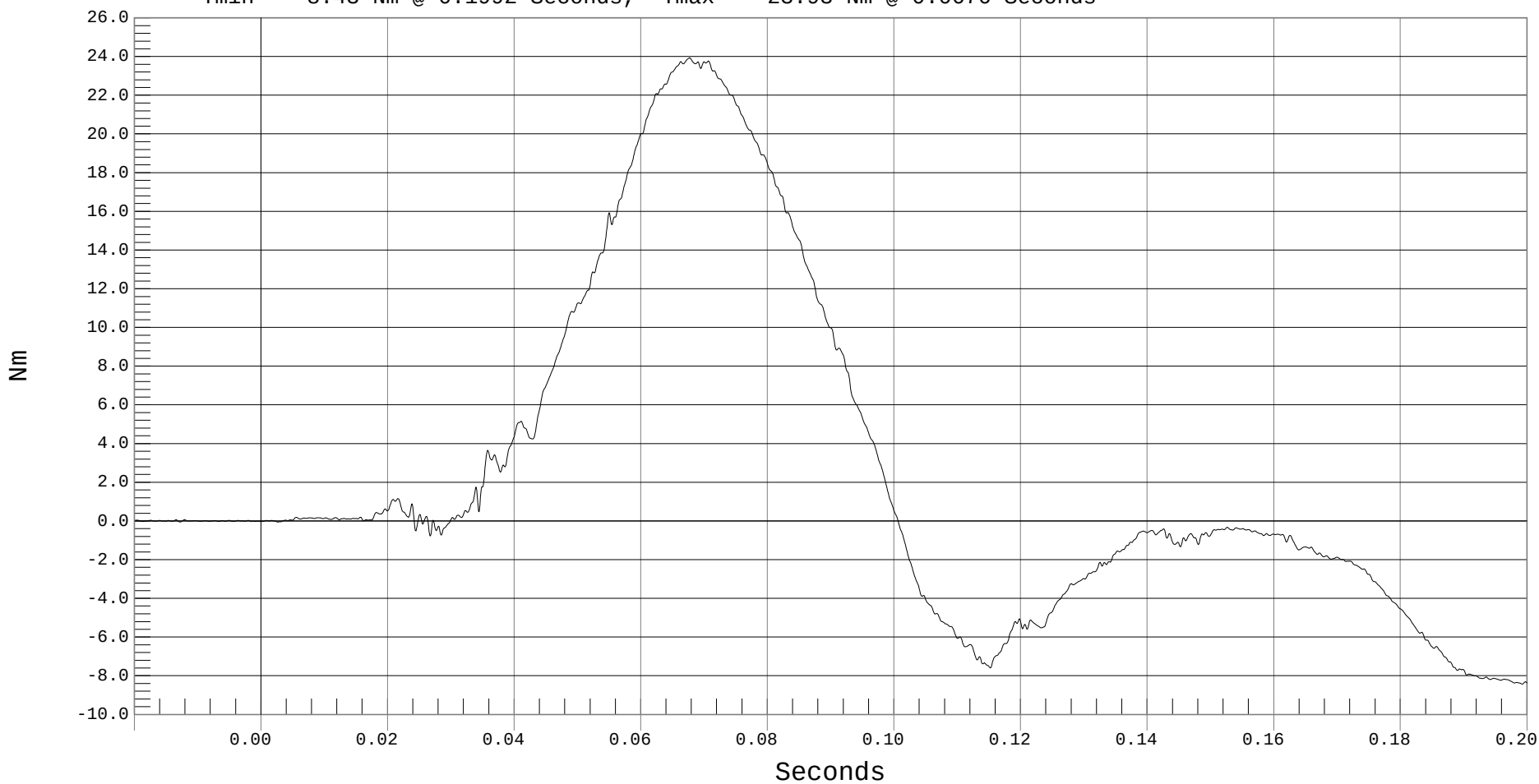
DRIVER LOWER NECK MOMENT Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER LOWER NECK MOMENT Z, B01061MF.M15

Ymin = -8.43 Nm @ 0.1992 Seconds, Ymax = 23.93 Nm @ 0.0676 Seconds





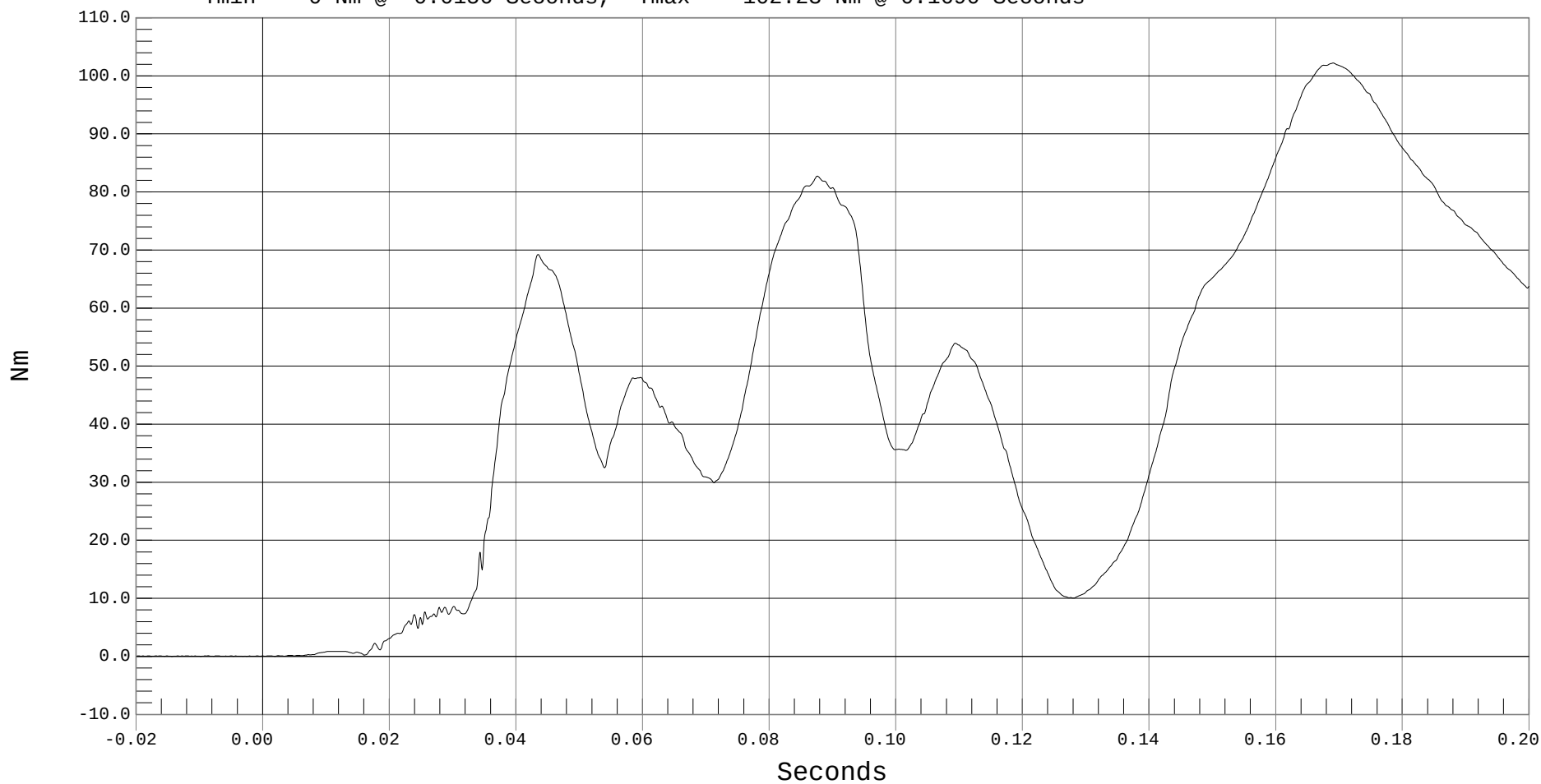
DRIVER LOWER NECK MOMENT RESULTANT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER LOWER NECK MOMENT RESULTANT, B01061MV.M13

Ymin = 0 Nm @ -0.0156 Seconds, Ymax = 102.23 Nm @ 0.1690 Seconds





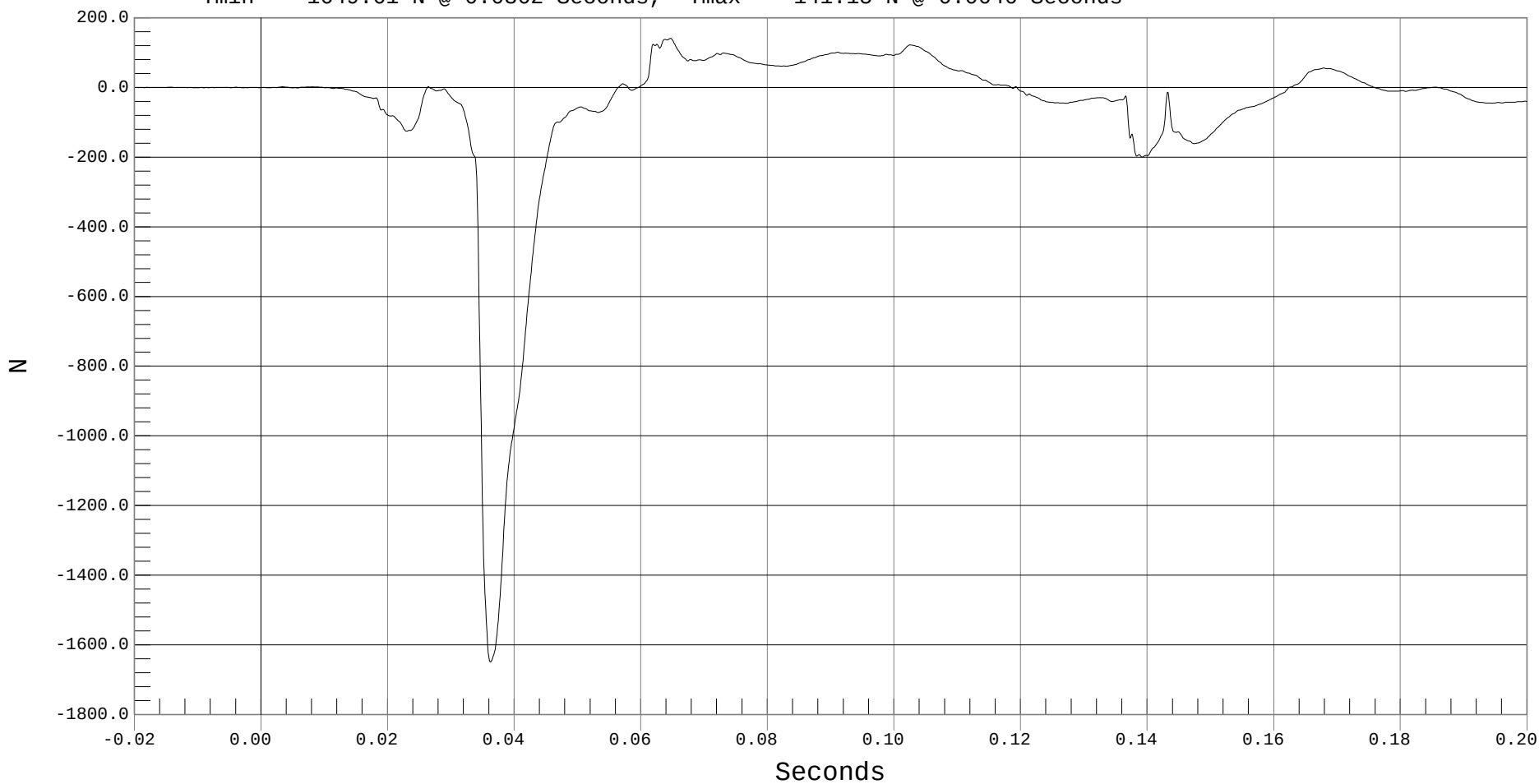
DRIVER SHOULDER FORCE X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

1 DRIVER SHOULDER FORCE X, B01061FF.F16

Ymin = -1649.61 N @ 0.0362 Seconds, Ymax = 141.15 N @ 0.0646 Seconds





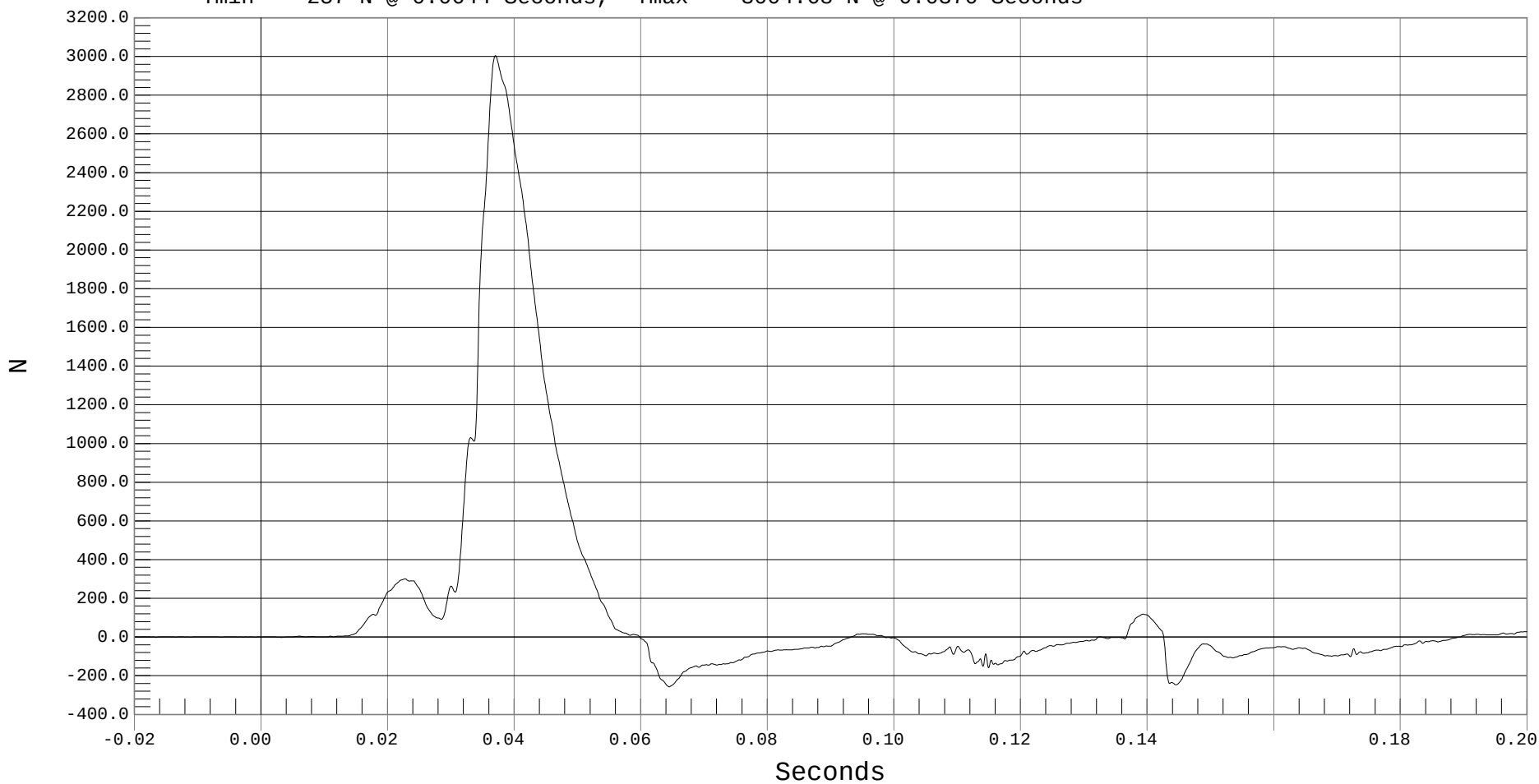
DRIVER SHOULDER FORCE Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER SHOULDER FORCE Y, B01061FF.F17

Ymin = -257 N @ 0.0644 Seconds, Ymax = 3004.68 N @ 0.0370 Seconds





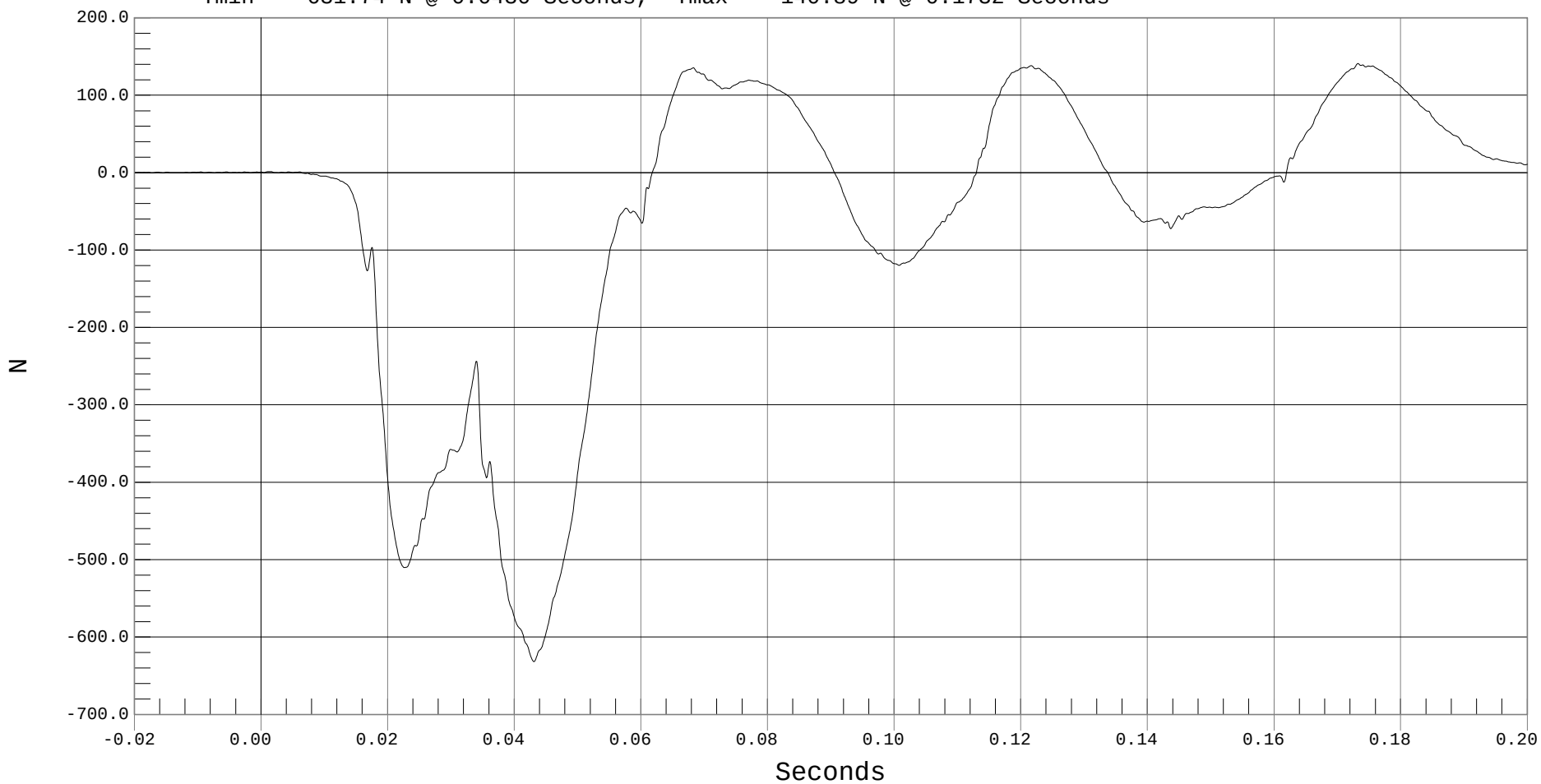
DRIVER SHOULDER FORCE Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER SHOULDER FORCE Z, B01061FF.F18

Ymin = -631.74 N @ 0.0430 Seconds, Ymax = 140.89 N @ 0.1732 Seconds





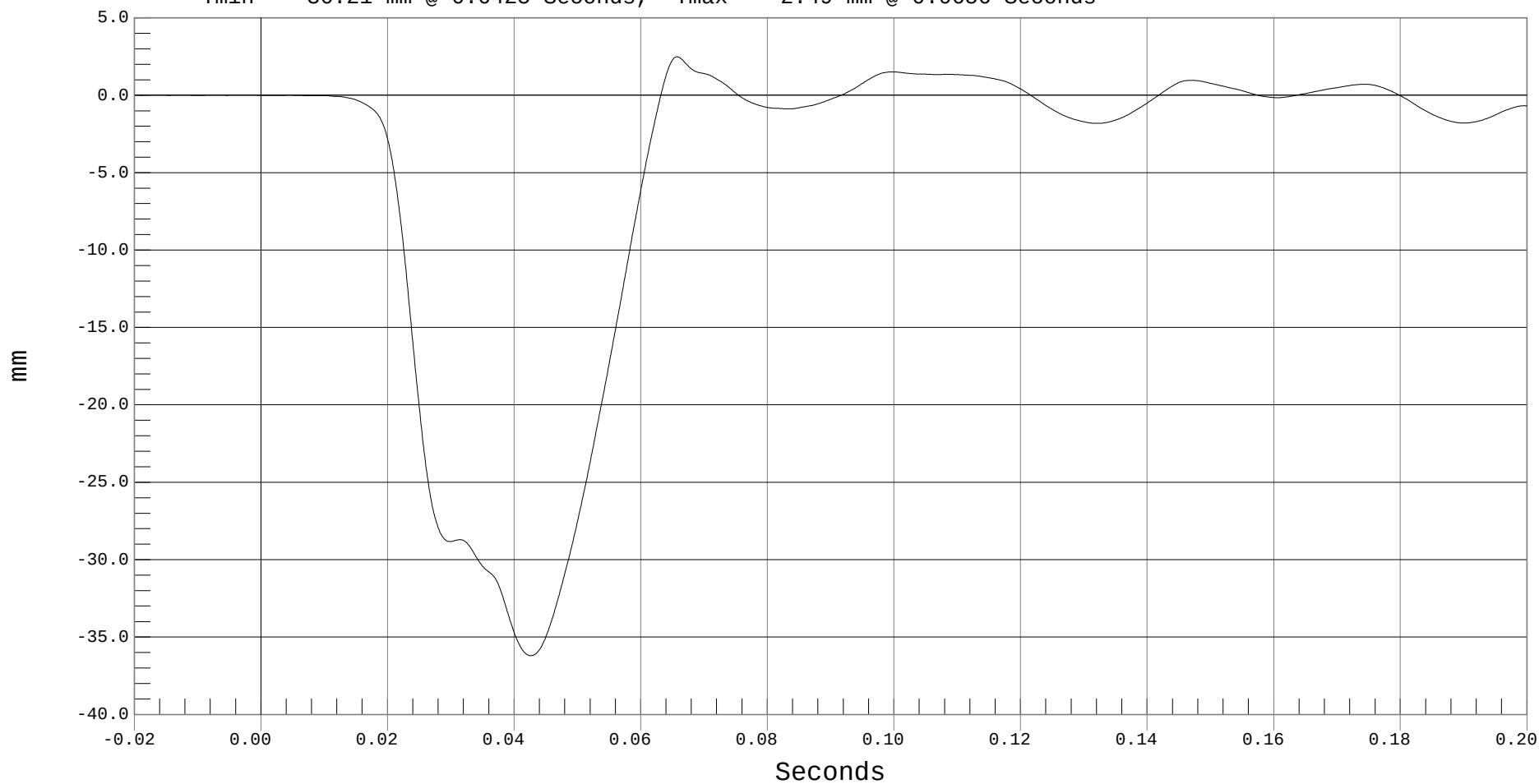
DRIVER UPPER RIB DISPLACEMENT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 180

— 1 DRIVER UPPER RIB DISPLACEMENT, B01061DF.D26

Ymin = -36.21 mm @ 0.0425 Seconds, Ymax = 2.49 mm @ 0.0656 Seconds





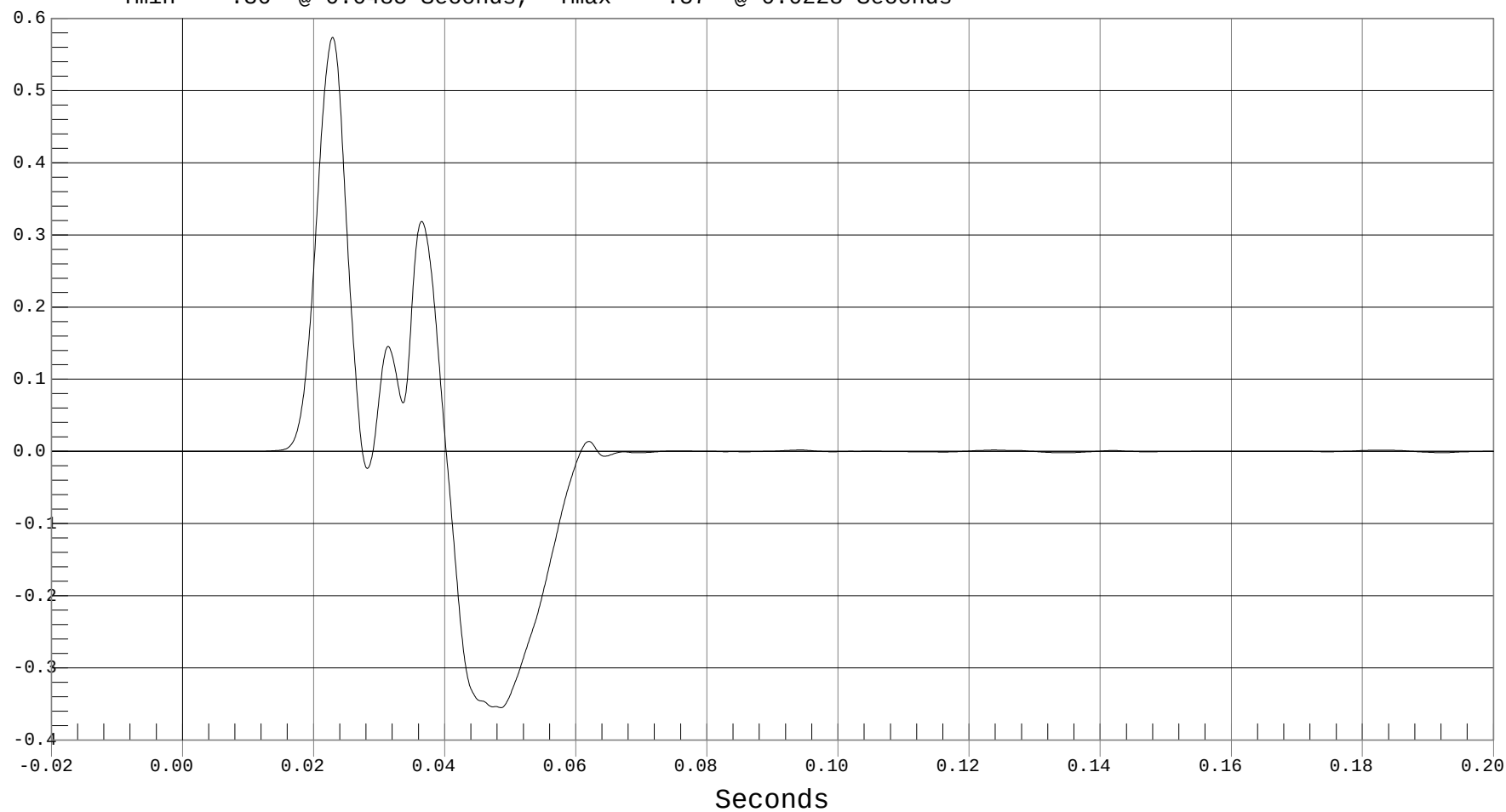
DRIVER UPPER RIB VISCOUS CRITERIA

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 180

— 1 Viscous Criterion, B01061DV.C26

Ymin = -.36 @ 0.0485 Seconds, Ymax = .57 @ 0.0228 Seconds





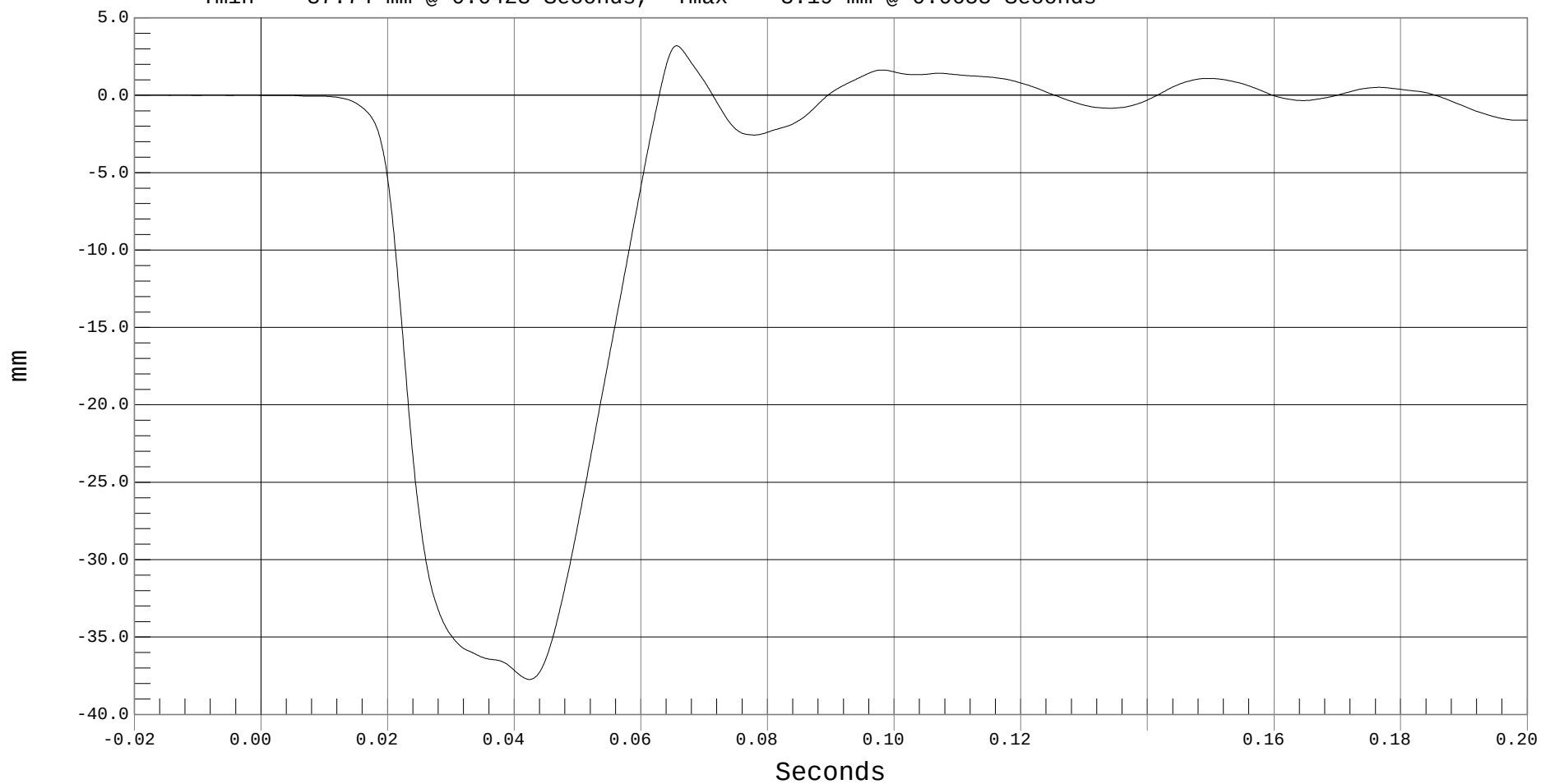
DRIVER MID RIB DISPLACEMENT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 180

— 1 DRIVER MID RIB DISPLACEMENT, B01061DF.D27

Ymin = -37.74 mm @ 0.0423 Seconds, Ymax = 3.19 mm @ 0.0655 Seconds





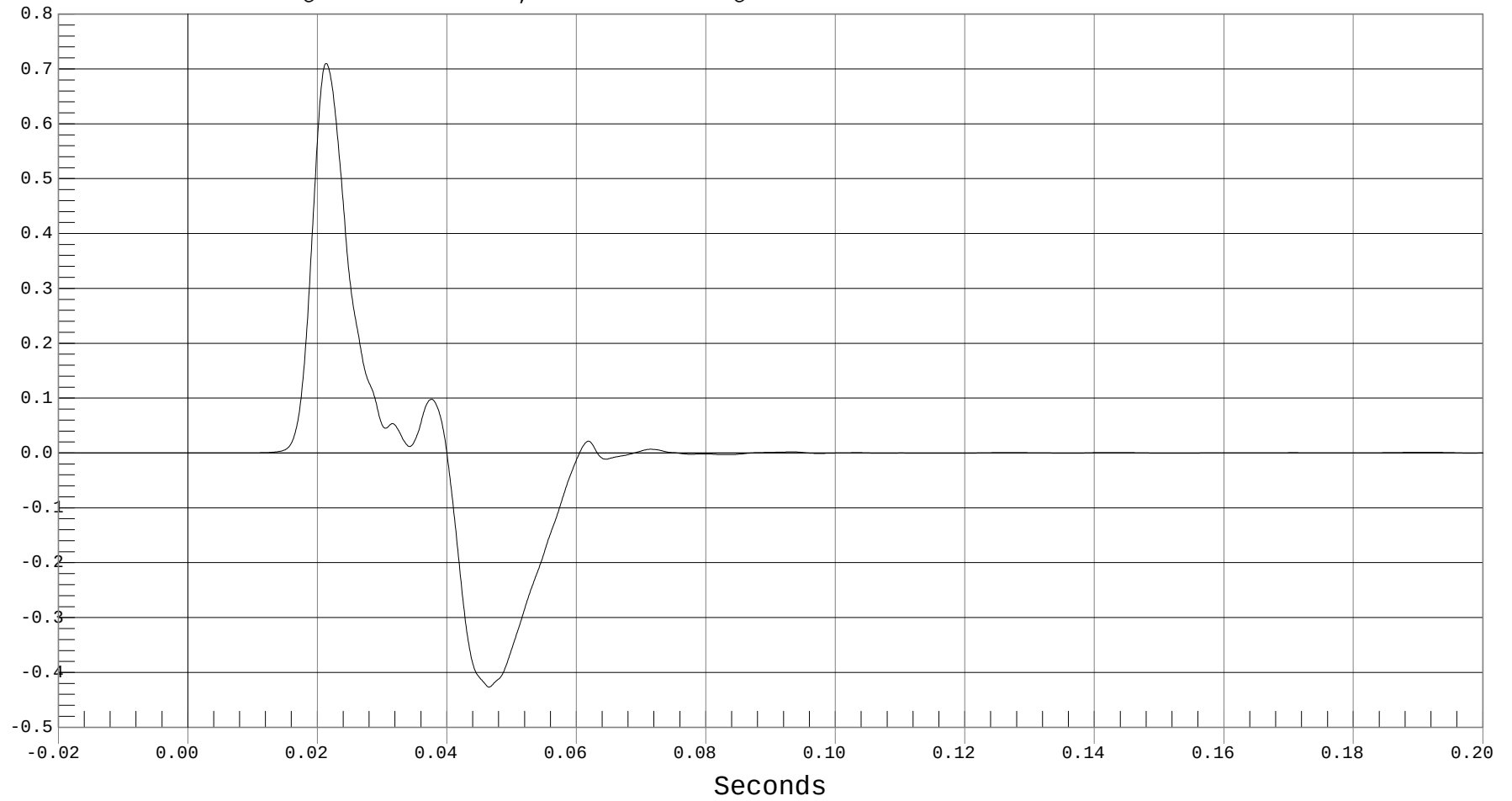
DRIVER MID RIB VISCOUS CRITERIA

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 180

— 1 Viscous Criterion, B01061DV.C27

Ymin = -.43 @ 0.0464 Seconds, Ymax = .71 @ 0.0213 Seconds





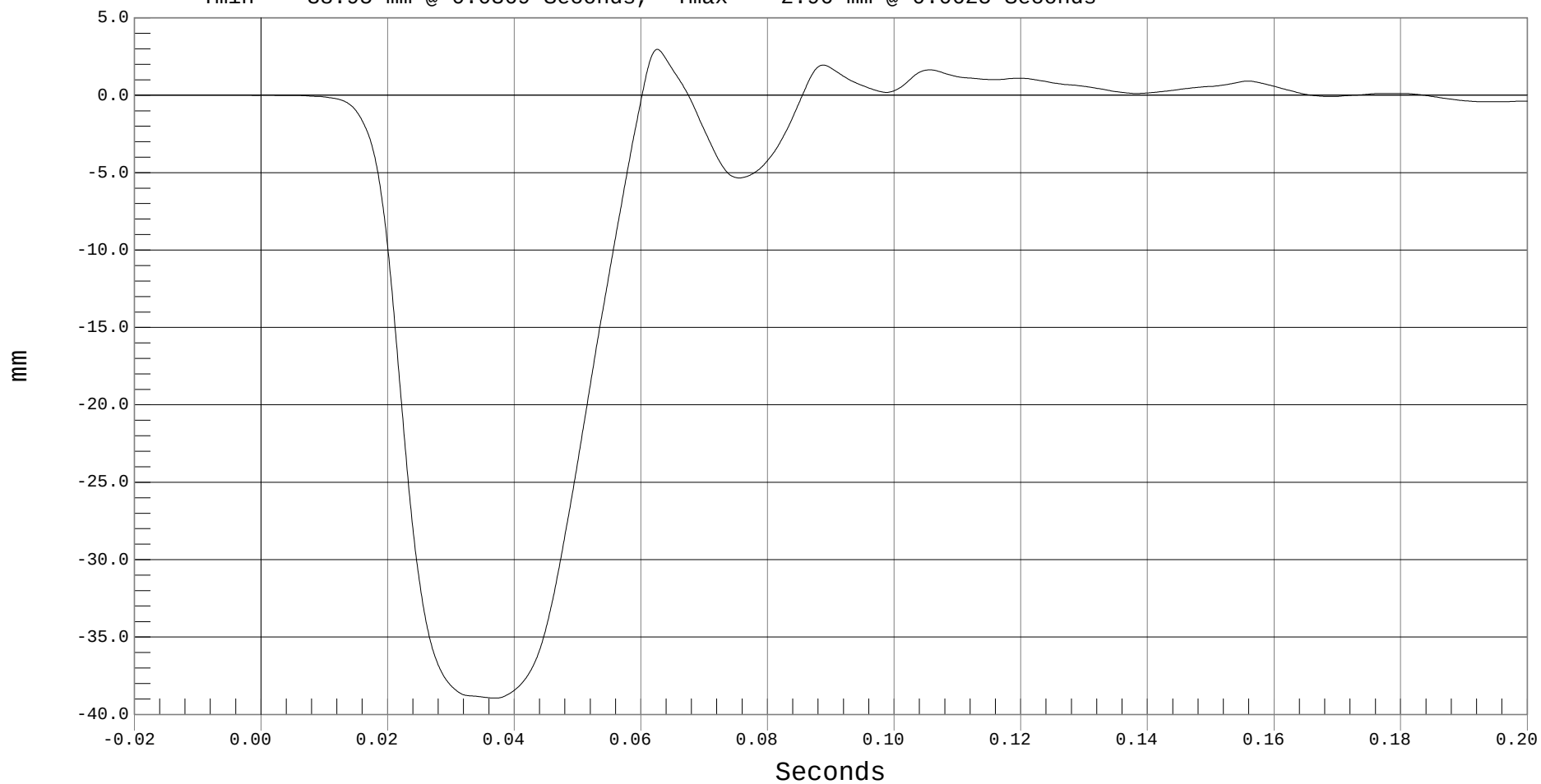
DRIVER LOWER RIB DISPLACEMENT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 180

— 1 DRIVER LOWER RIB DISPLACEMENT, B01061DF.D28

Ymin = -38.95 mm @ 0.0369 Seconds, Ymax = 2.96 mm @ 0.0625 Seconds





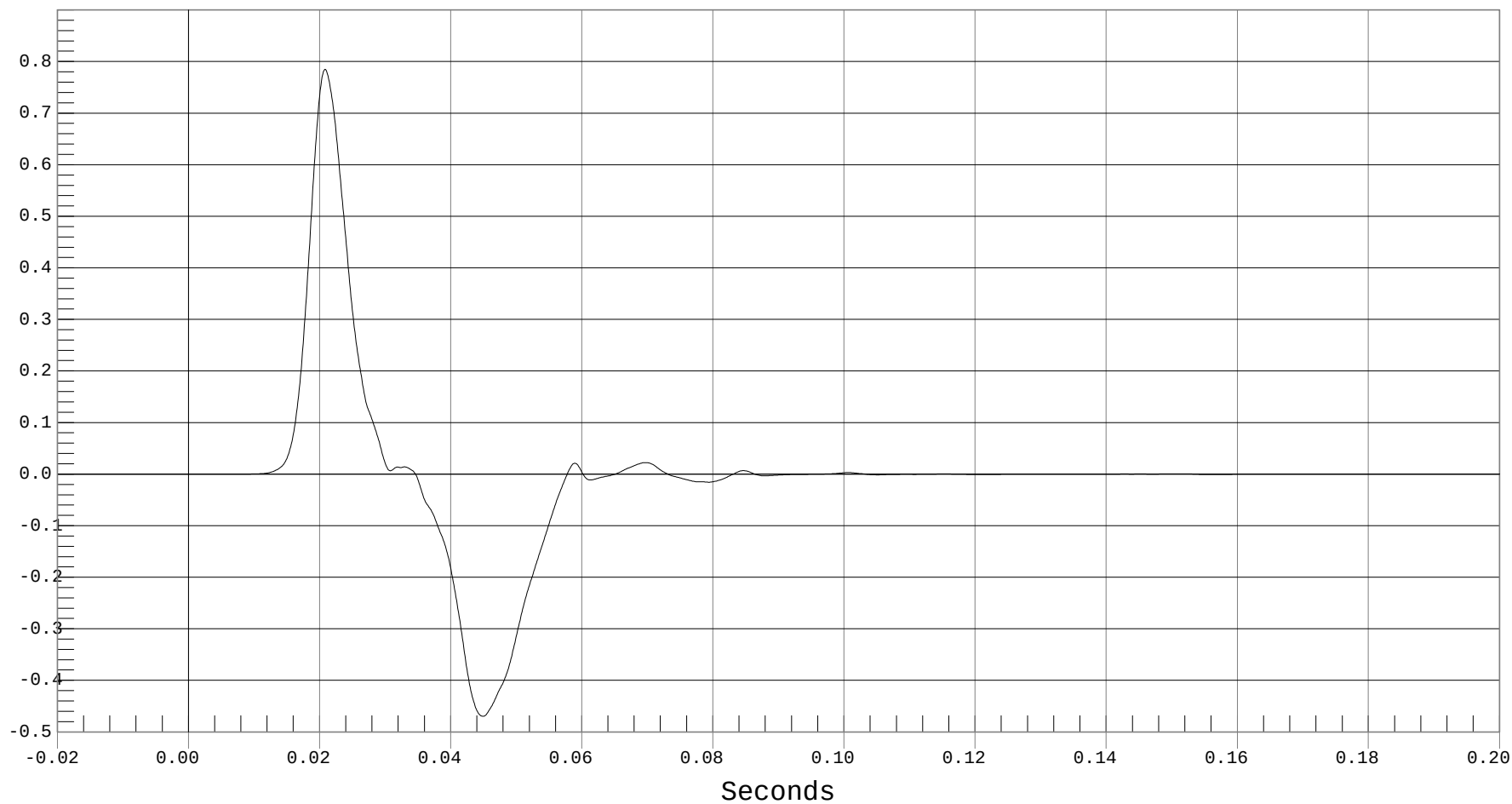
DRIVER LOWER RIB VISCOUS CRITERIA

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 180

— 1 Viscous Criterion, B01061DV.C28

Ymin = -.47 @ 0.0448 Seconds, Ymax = .78 @ 0.0208 Seconds





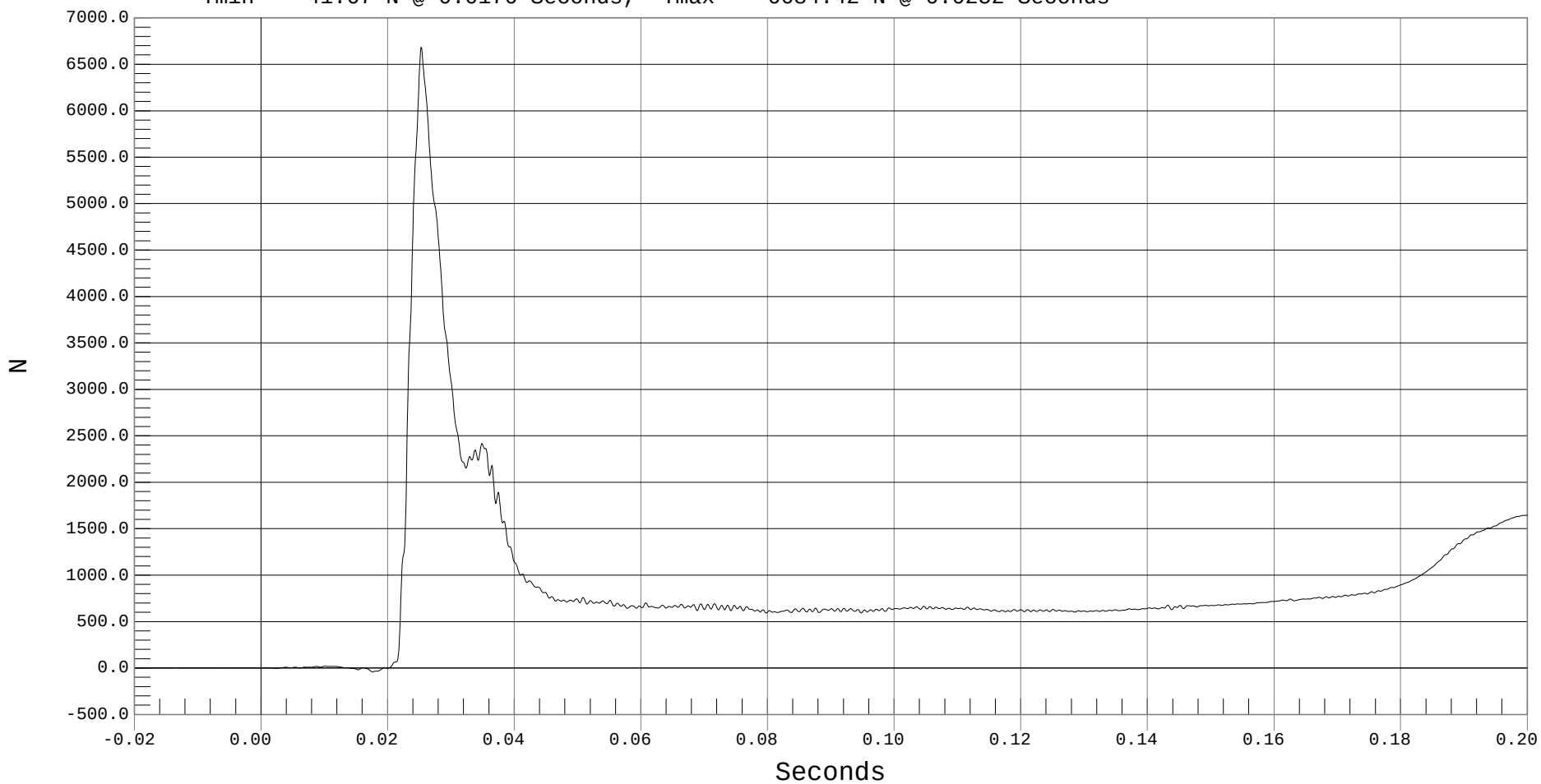
DRIVER TORSO FORCE X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER TORSO FORCE X, B01061FF.F33

Ymin = -41.67 N @ 0.0176 Seconds, Ymax = 6684.42 N @ 0.0252 Seconds





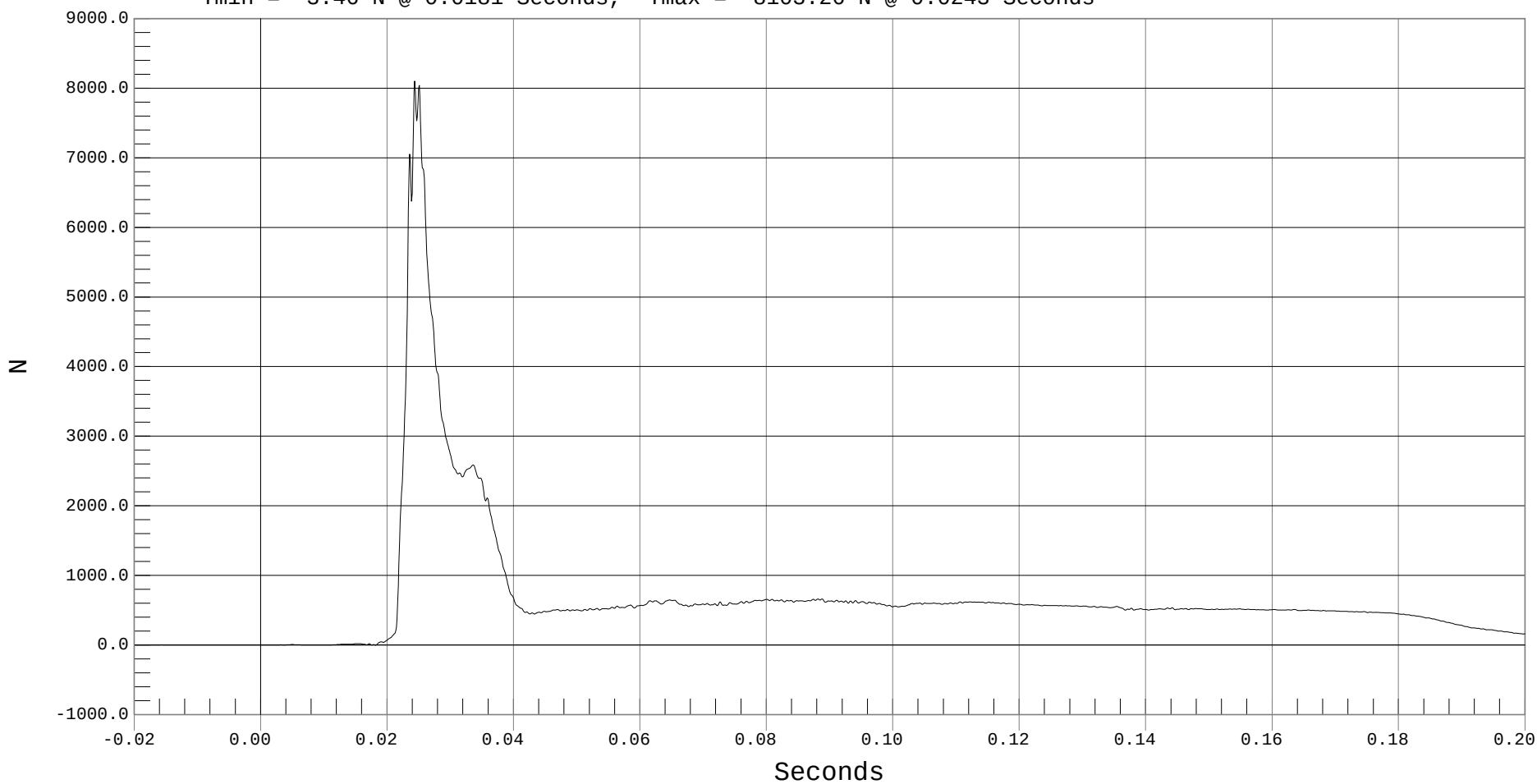
DRIVER TORSO FORCE Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER TORSO FORCE Y, B01061FF.F34

Ymin = -3.46 N @ 0.0181 Seconds, Ymax = 8103.26 N @ 0.0243 Seconds





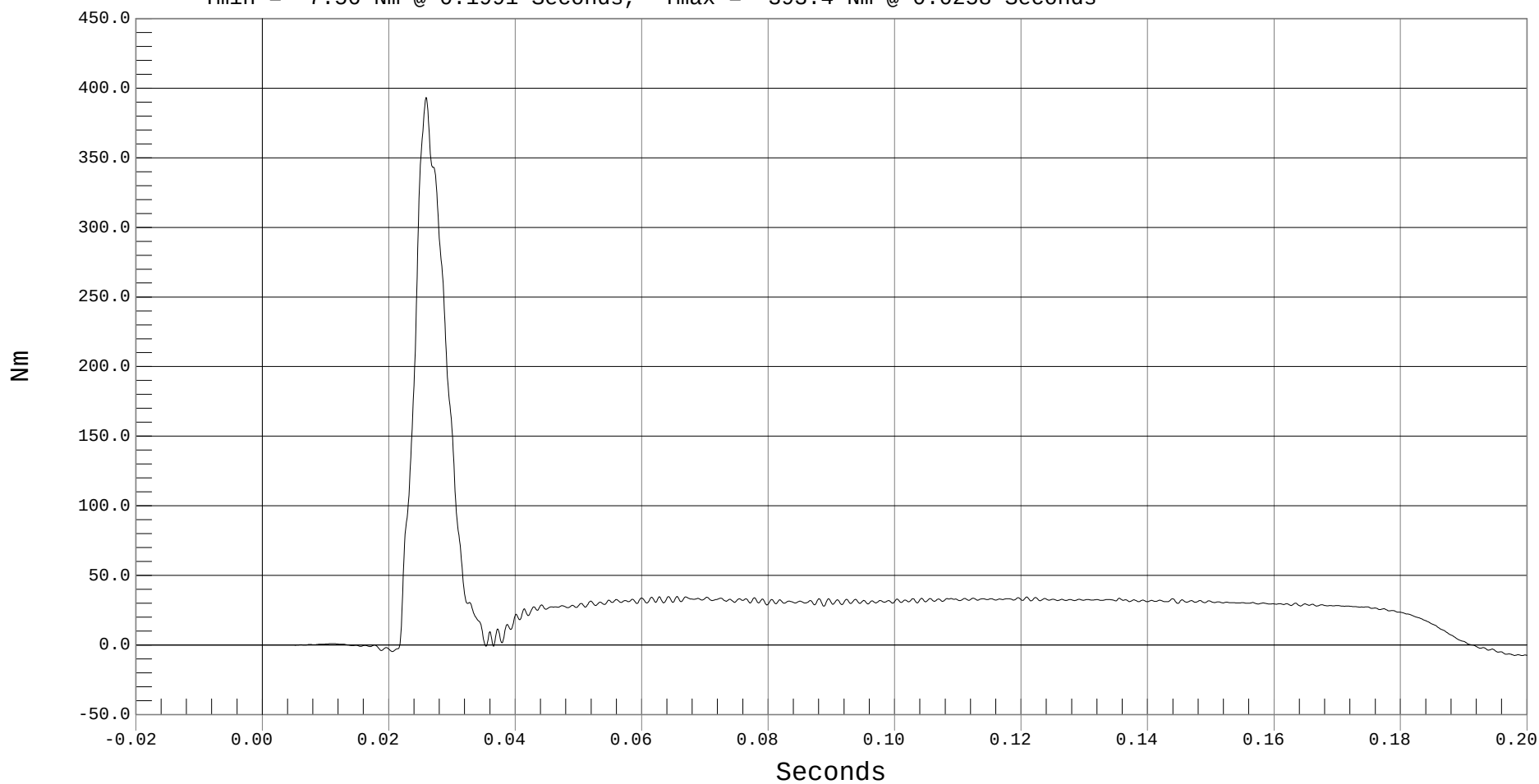
DRIVER TORSO MOMENT Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER TORSO MOMENT Y, B01061MF.M35

Ymin = -7.56 Nm @ 0.1991 Seconds, Ymax = 393.4 Nm @ 0.0258 Seconds





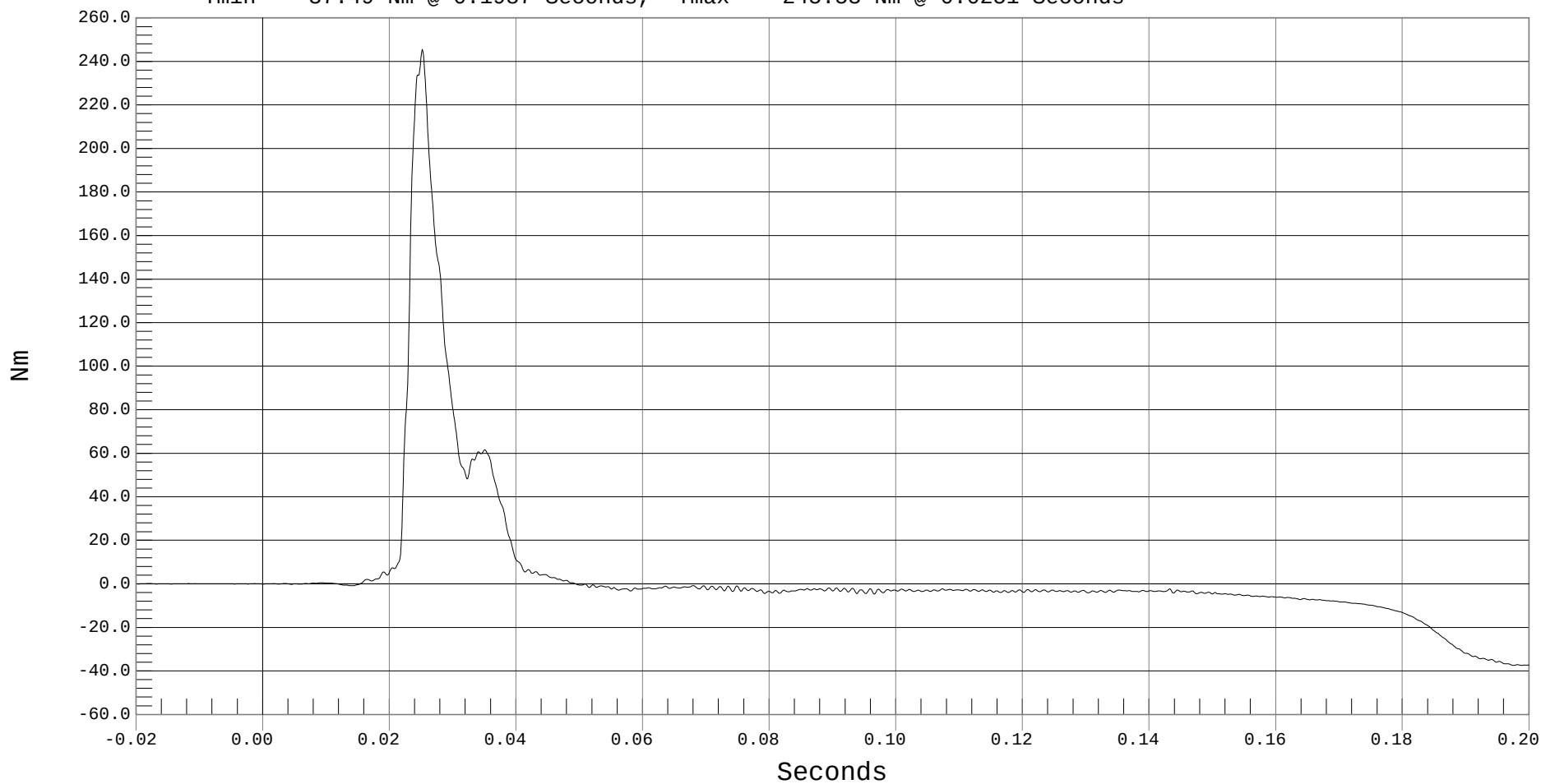
DRIVER TORSO MOMENT Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER TORSO MOMENT Z, B01061MF.M36

Ymin = -37.49 Nm @ 0.1987 Seconds, Ymax = 245.53 Nm @ 0.0251 Seconds





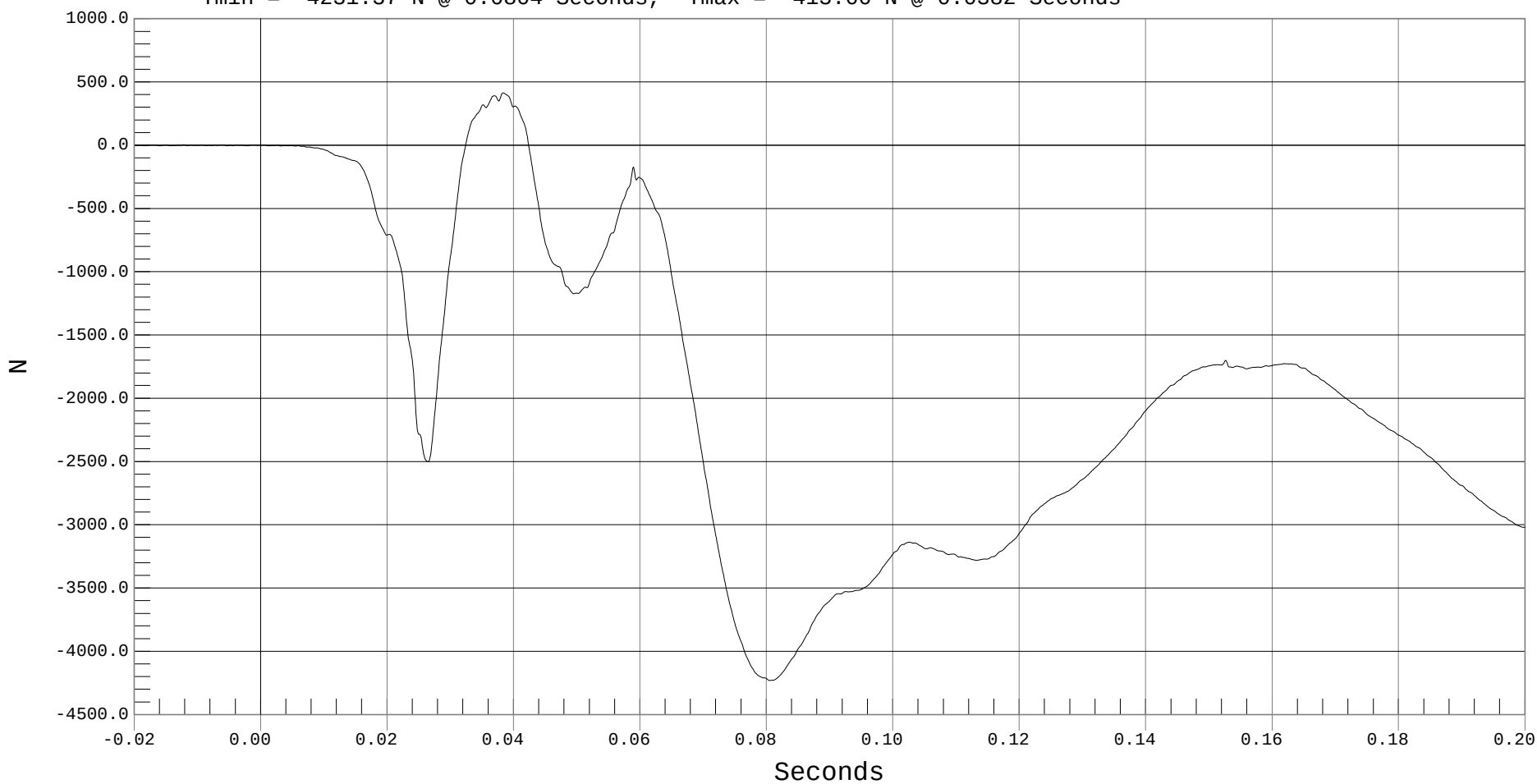
DRIVER T-12 FORCE X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER T-12 FORCE X, B01061FF.F37

Ymin = -4231.37 N @ 0.0804 Seconds, Ymax = 413.66 N @ 0.0382 Seconds





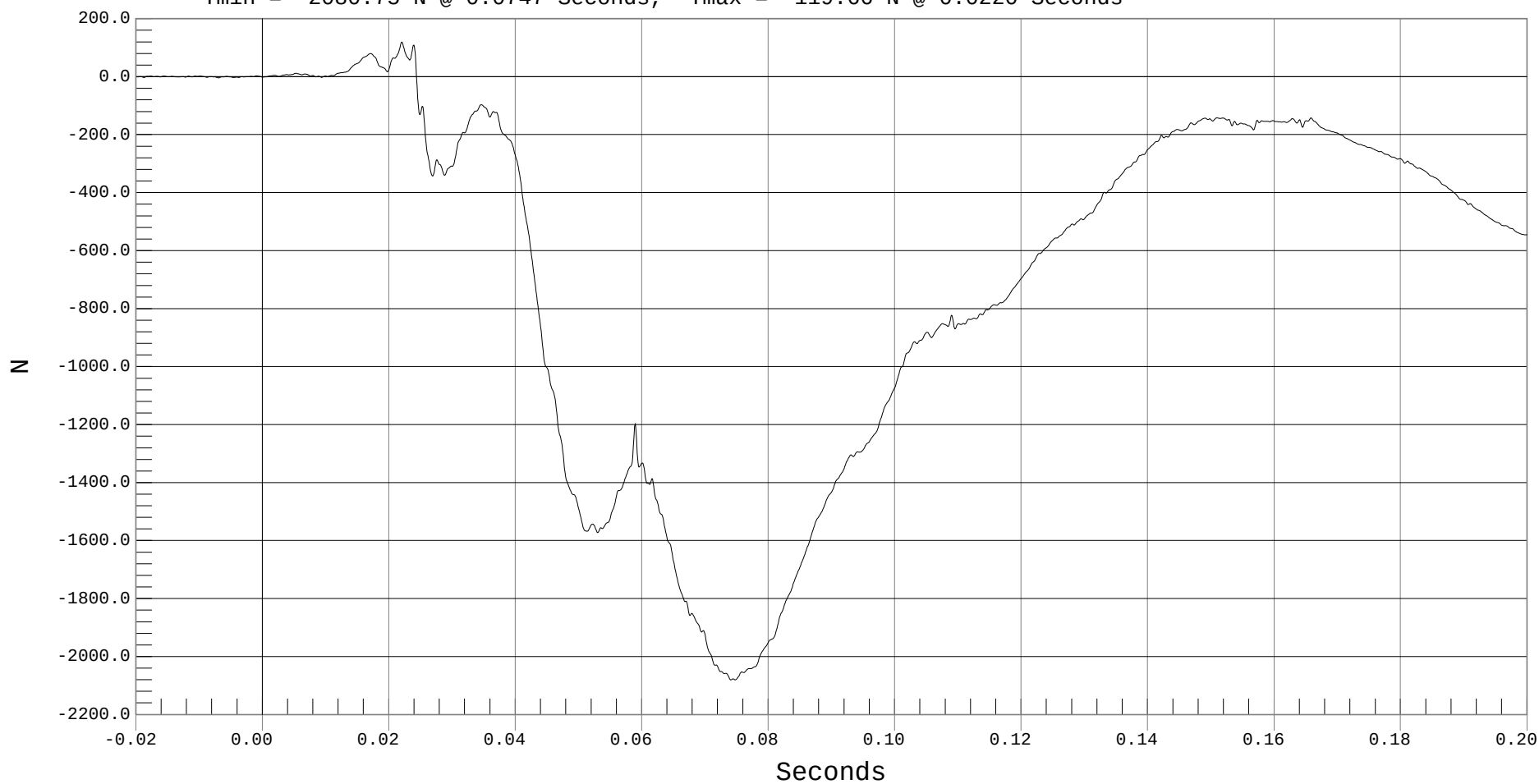
DRIVER T-12 FORCE Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

1 DRIVER T-12 FORCE Y, B01061FF.F38

Ymin = -2080.75 N @ 0.0747 Seconds, Ymax = 119.66 N @ 0.0220 Seconds





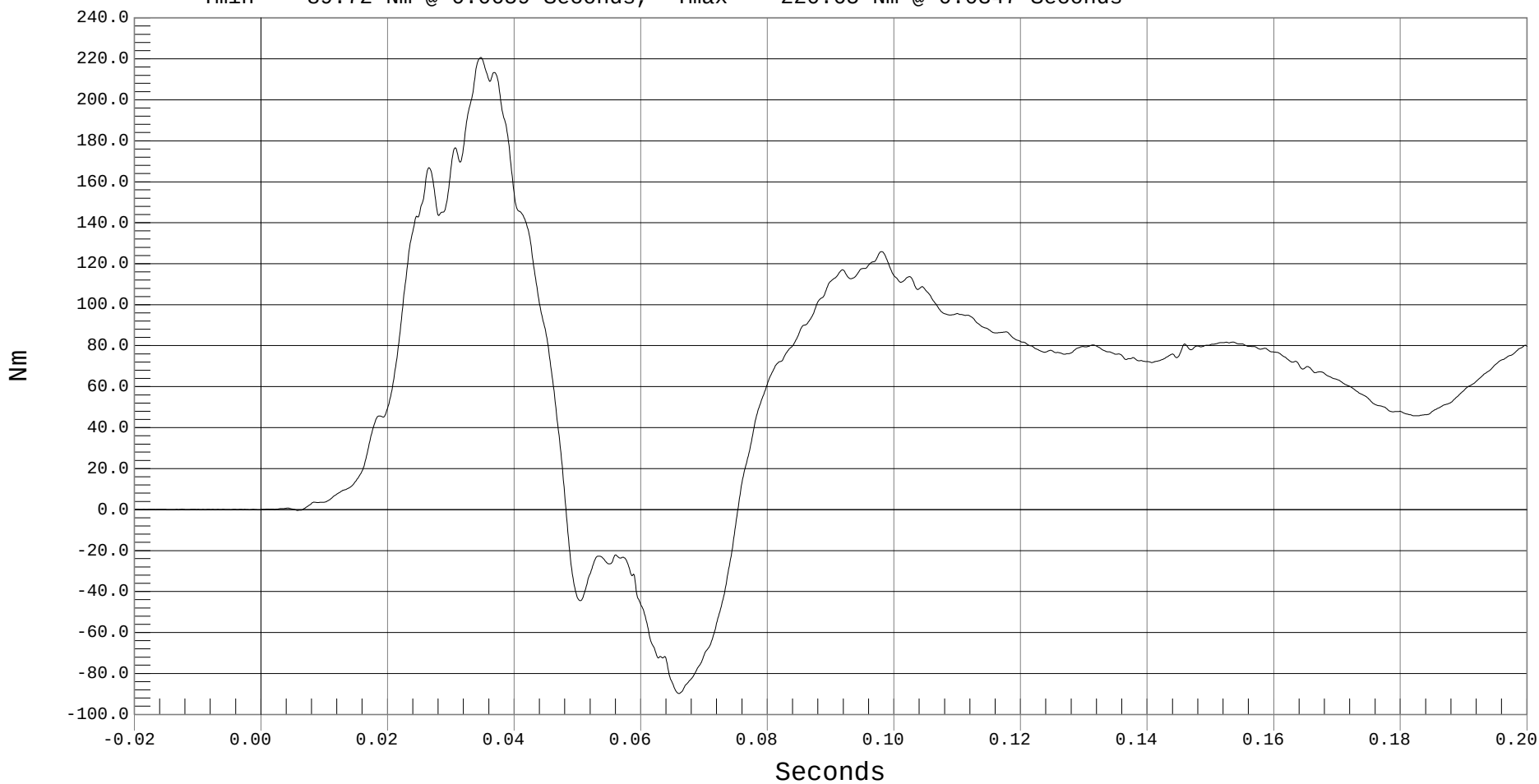
DRIVER T-12 MOMENT X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER T-12 MOMENT X, B01061MF.M39

Ymin = -89.72 Nm @ 0.0659 Seconds, Ymax = 220.65 Nm @ 0.0347 Seconds





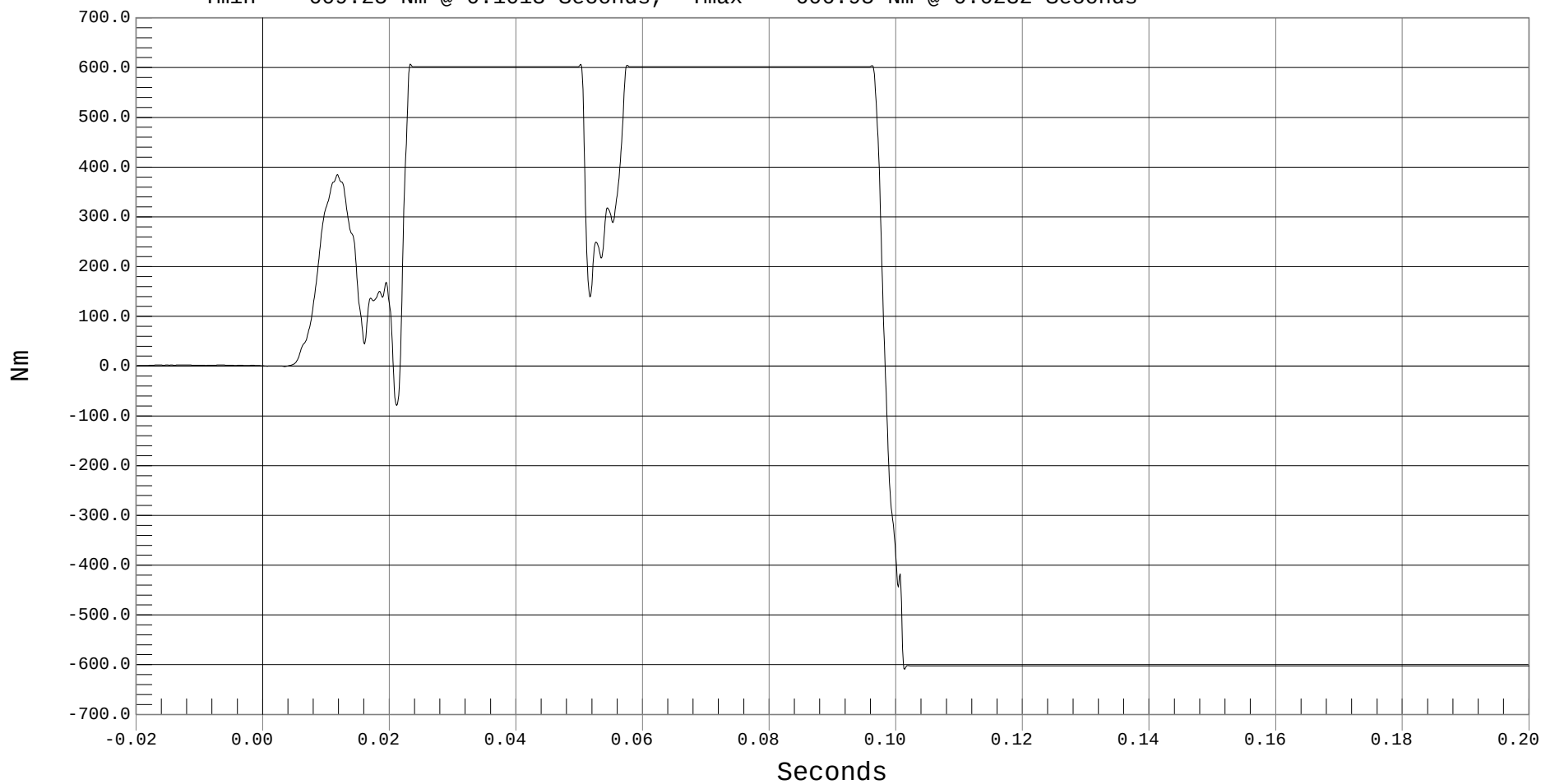
DRIVER T-12 MOMENT Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER T-12 MOMENT Y, B01061MF.M40

Ymin = -609.25 Nm @ 0.1013 Seconds, Ymax = 606.95 Nm @ 0.0232 Seconds





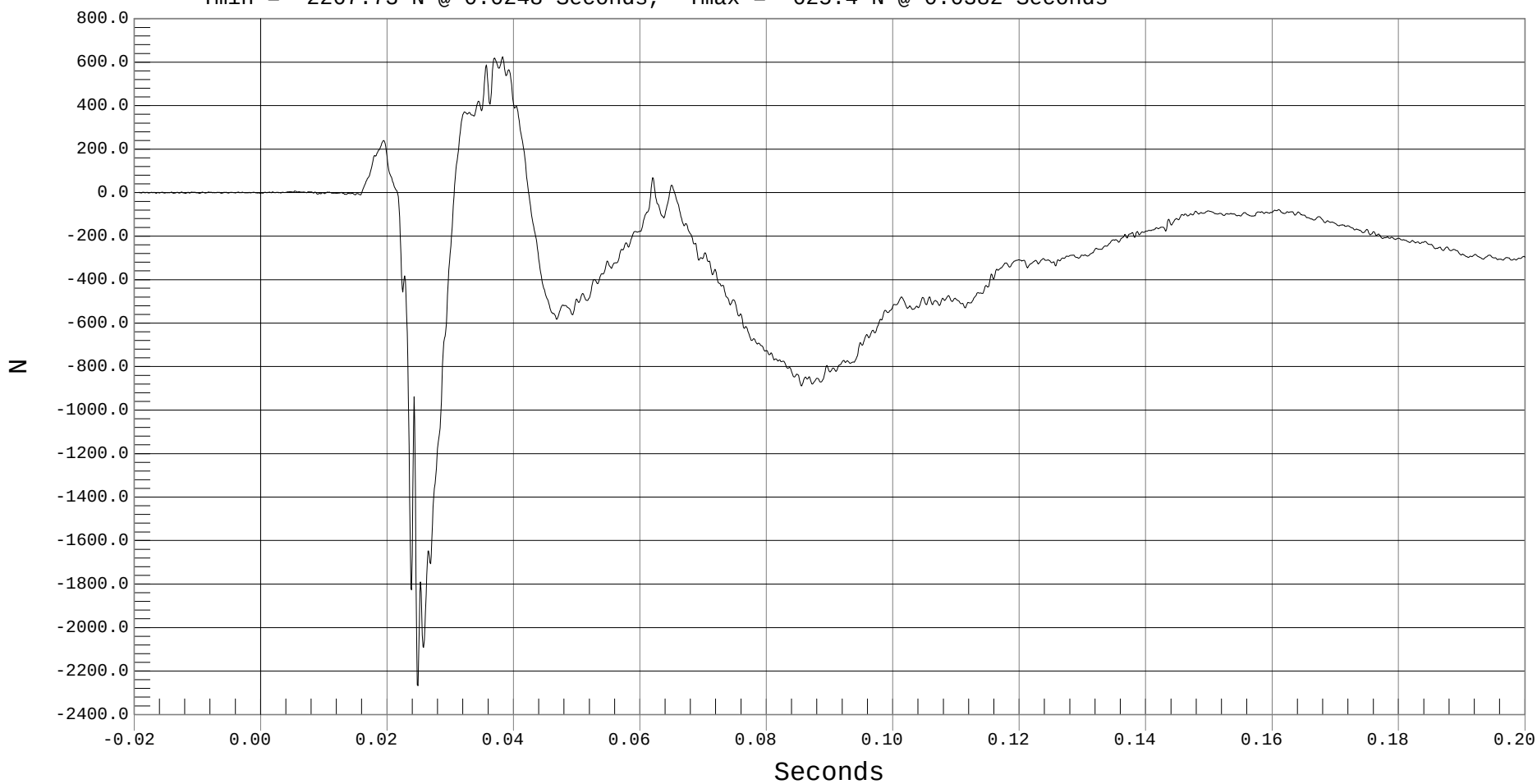
DRIVER LUMBAR FORCE Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER LUMBAR FORCE Y, B01061FT.F56

Ymin = -2267.73 N @ 0.0248 Seconds, Ymax = 625.4 N @ 0.0382 Seconds





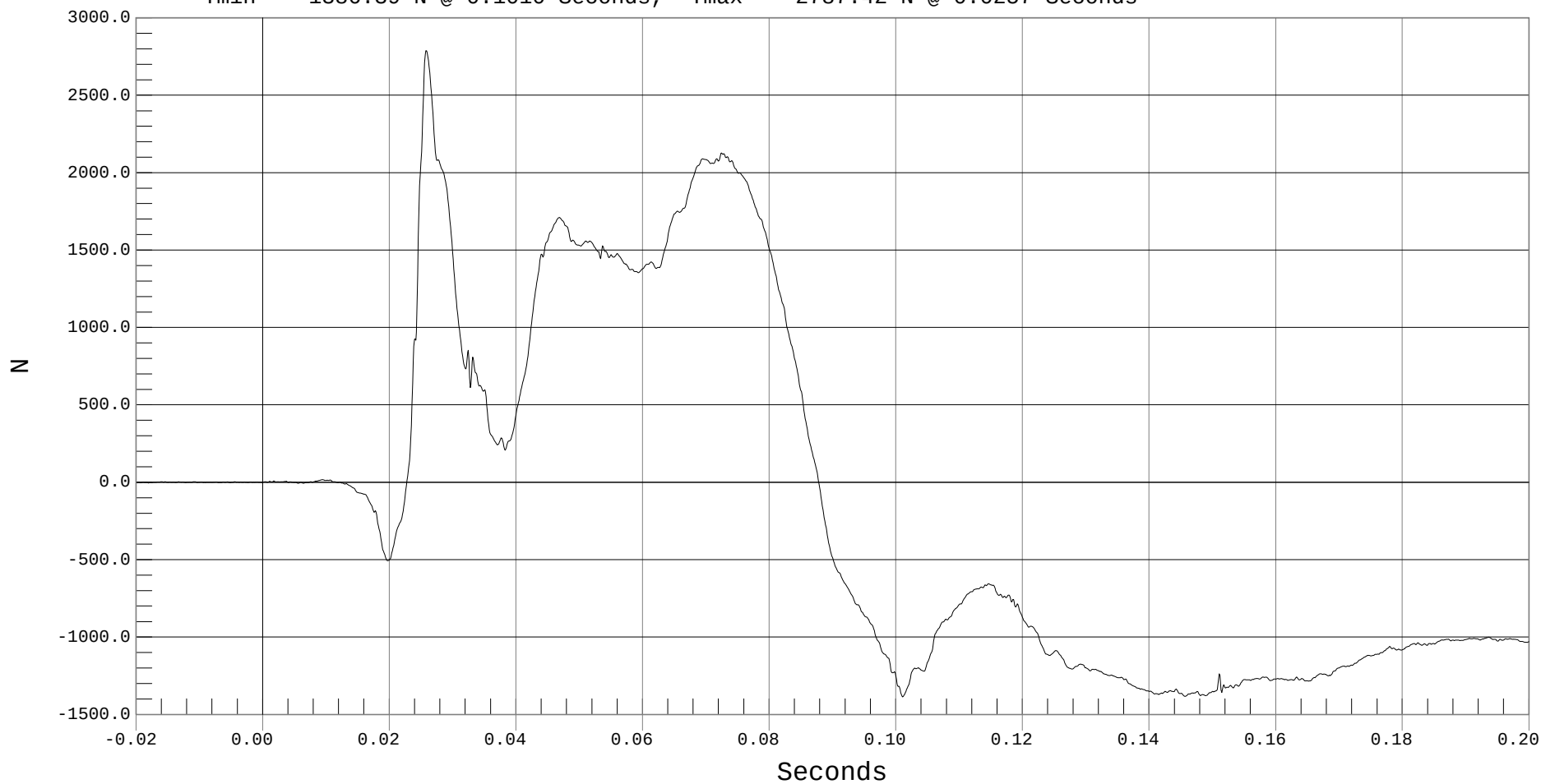
DRIVER LUMBAR FORCE Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER LUMBAR FORCE Z, B01061FT.F57

Ymin = -1386.39 N @ 0.1010 Seconds, Ymax = 2787.42 N @ 0.0257 Seconds





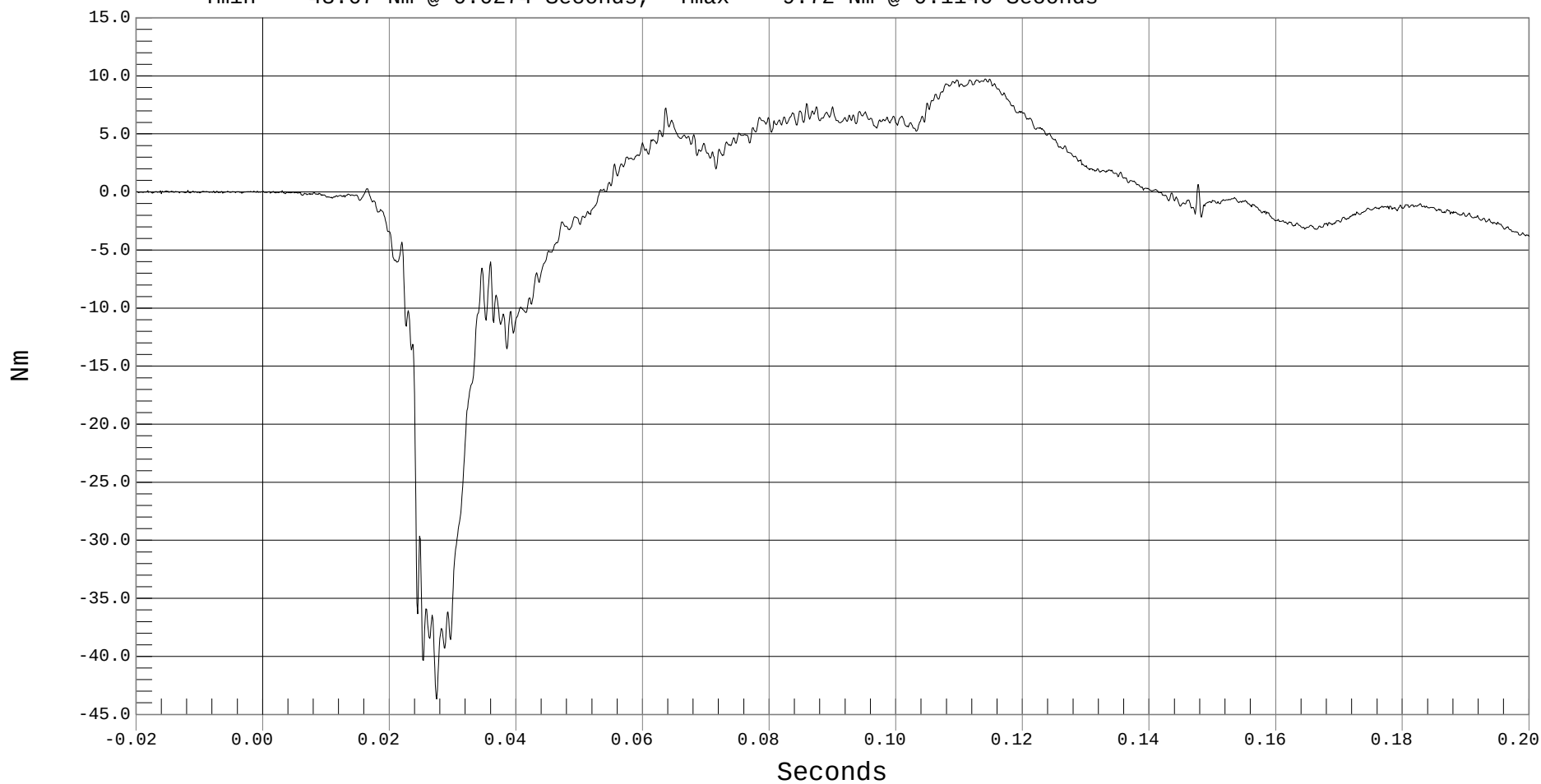
DRIVER LUMBAR MOMENT X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER LUMBAR MOMENT X, B01061MT.M58

Ymin = -43.67 Nm @ 0.0274 Seconds, Ymax = 9.72 Nm @ 0.1140 Seconds





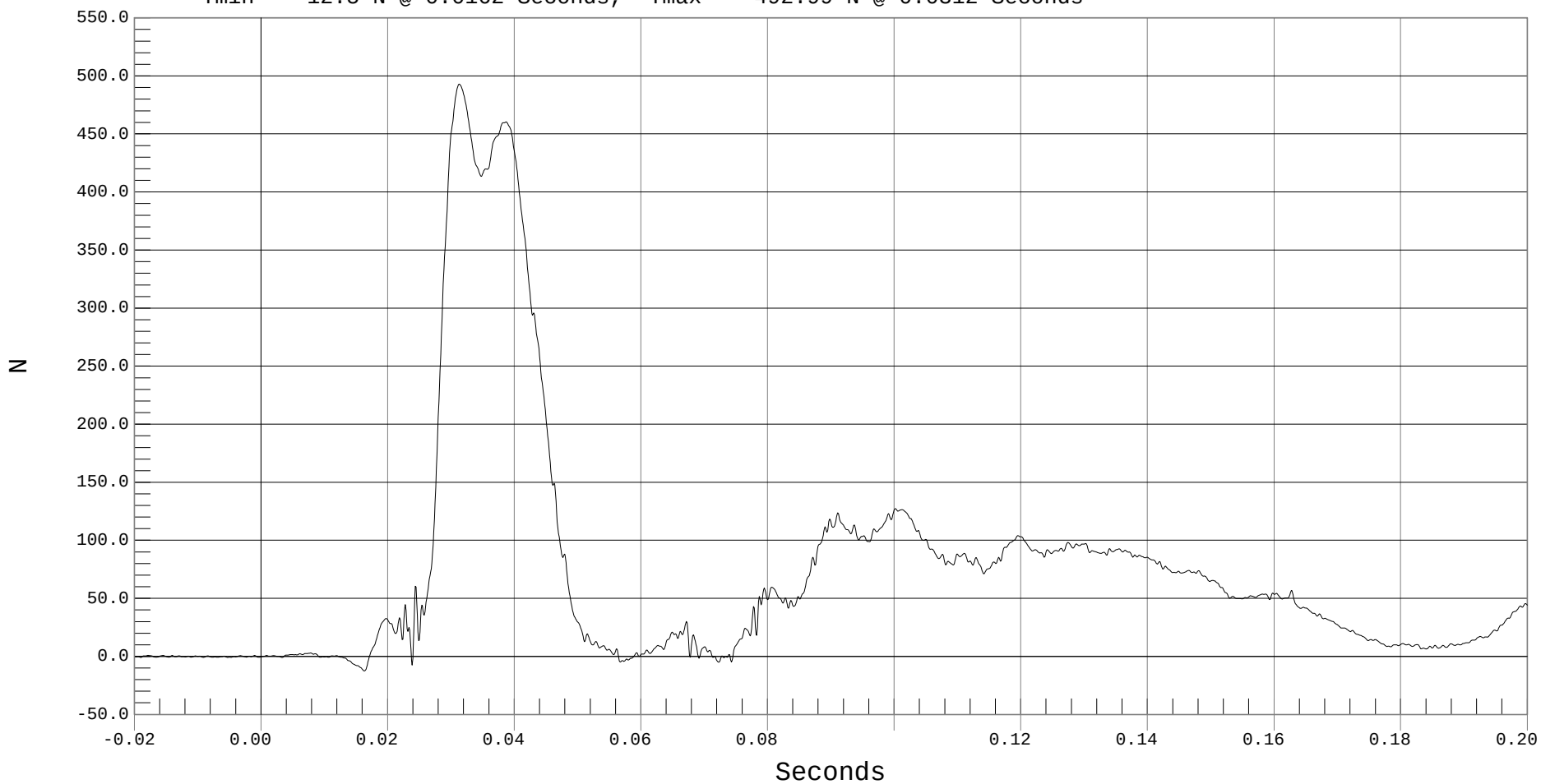
DRIVER ABDOMEN FRONT FORCE

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER FRONT ABDOMEN FORCE, B01061FF.F41

Ymin = -12.5 N @ 0.0162 Seconds, Ymax = 492.99 N @ 0.0312 Seconds





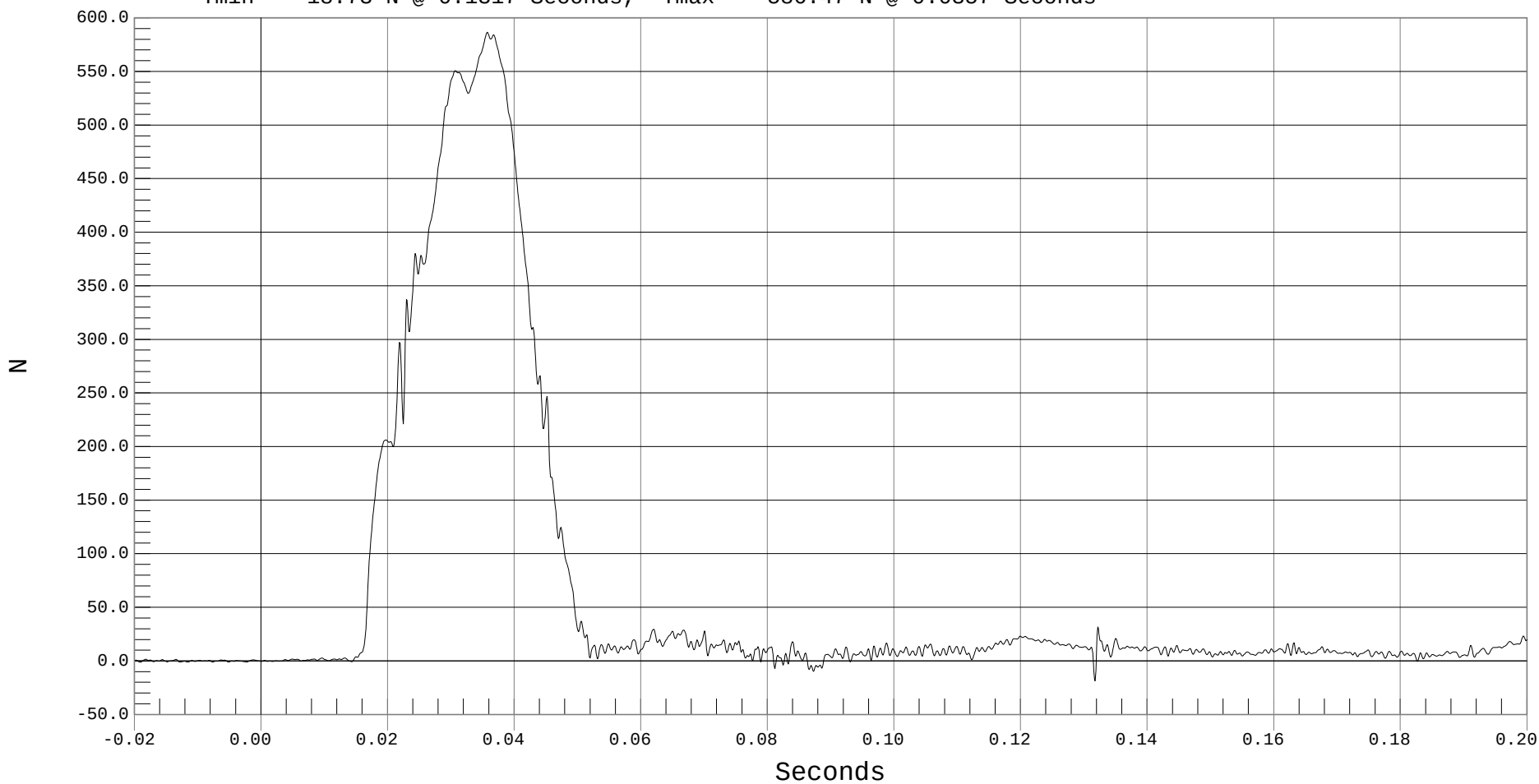
DRIVER ABDOMEN MID FORCE

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER MID ABDOMEN FORCE, B01061FF.F42

Ymin = -18.73 N @ 0.1317 Seconds, Ymax = 586.47 N @ 0.0357 Seconds





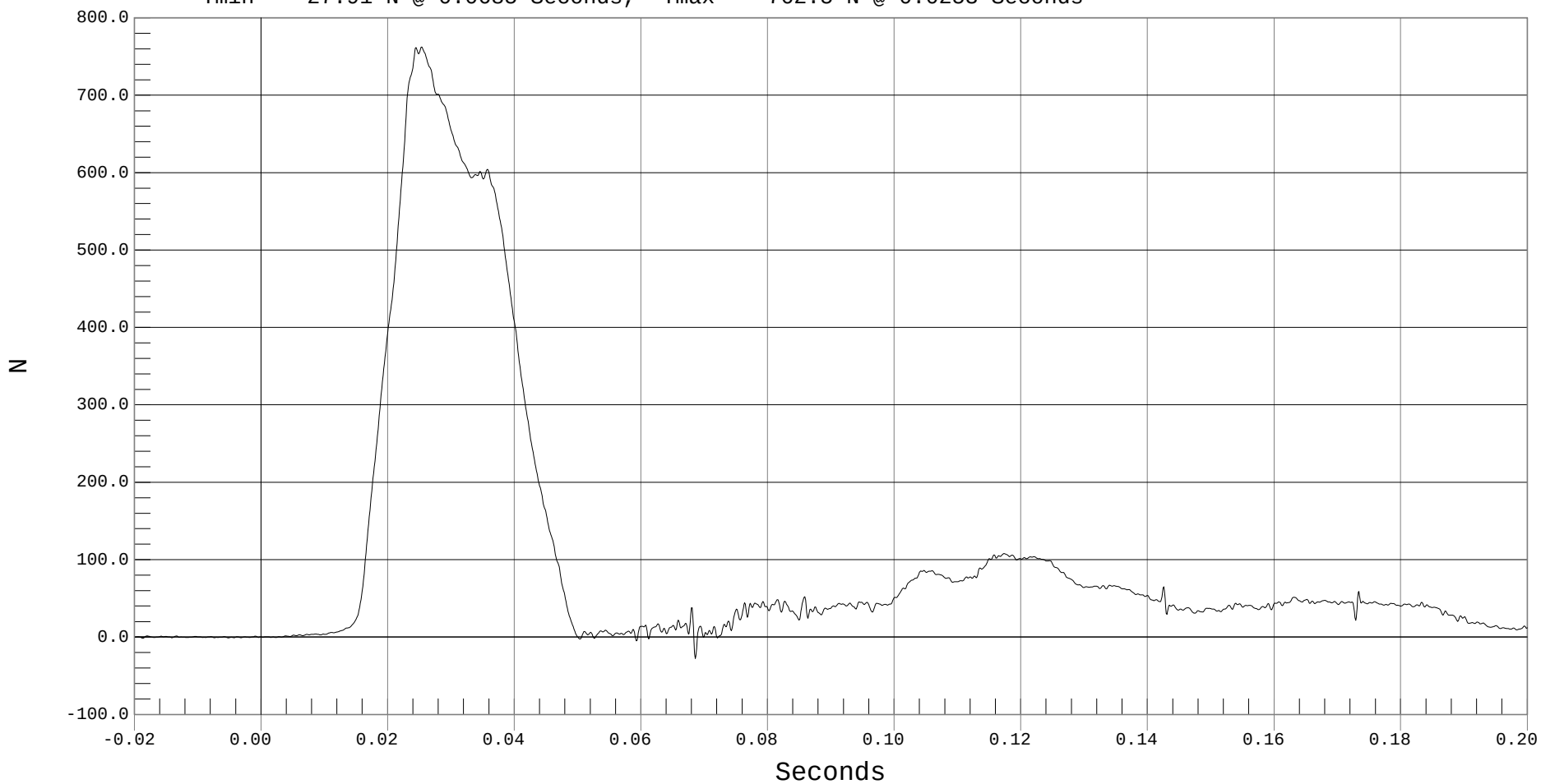
DRIVER ABDOMEN REAR FORCE

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER REAR ABDOMEN FORCE, B01061FF.F43

Ymin = -27.91 N @ 0.0685 Seconds, Ymax = 762.5 N @ 0.0253 Seconds





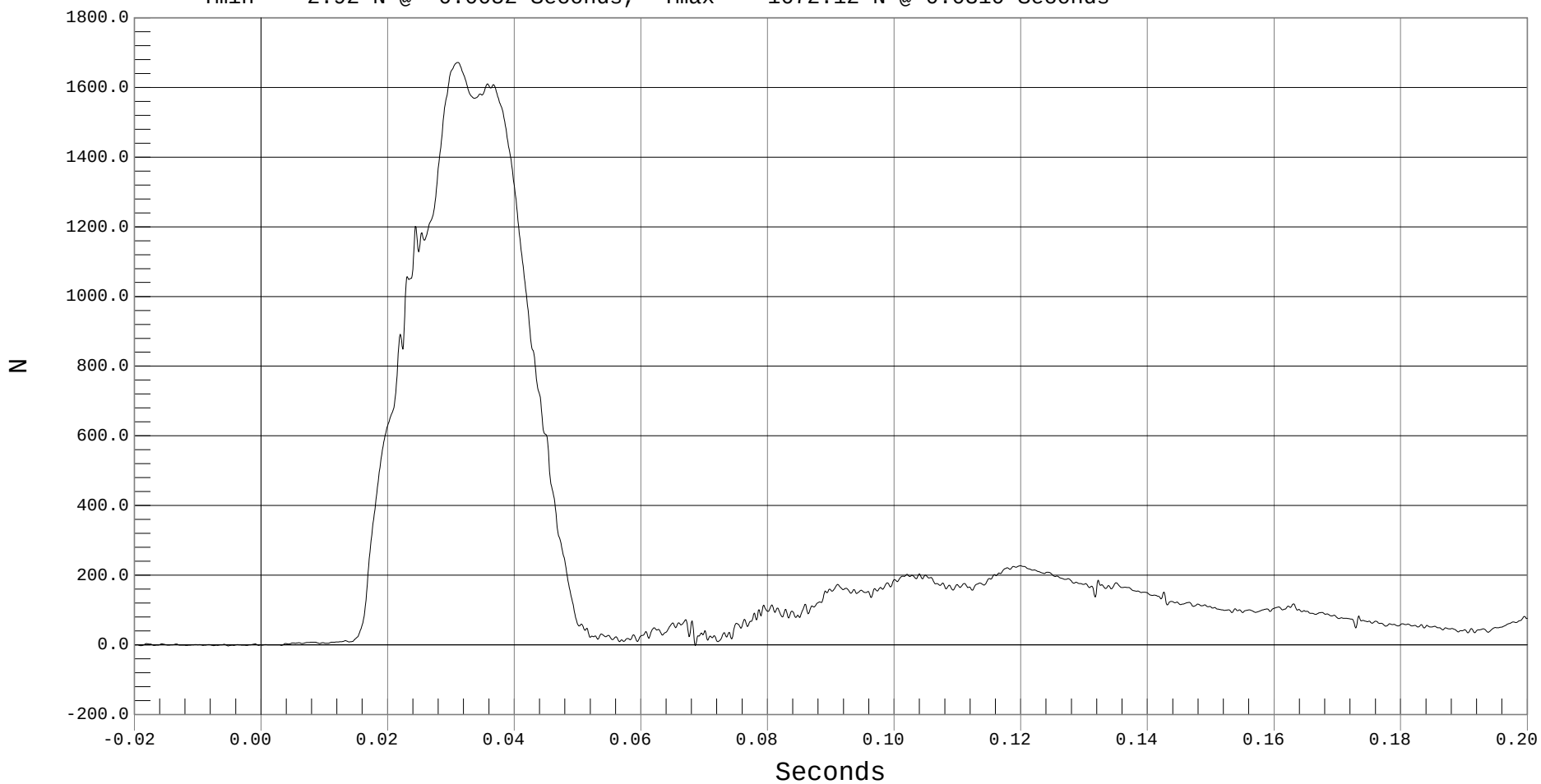
DRIVER SUMMED ABDOMEN FORCE

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER SUMMED ABDOMEN FORCE, B01061FU.F41

Ymin = -2.92 N @ -0.0052 Seconds, Ymax = 1672.12 N @ 0.0310 Seconds





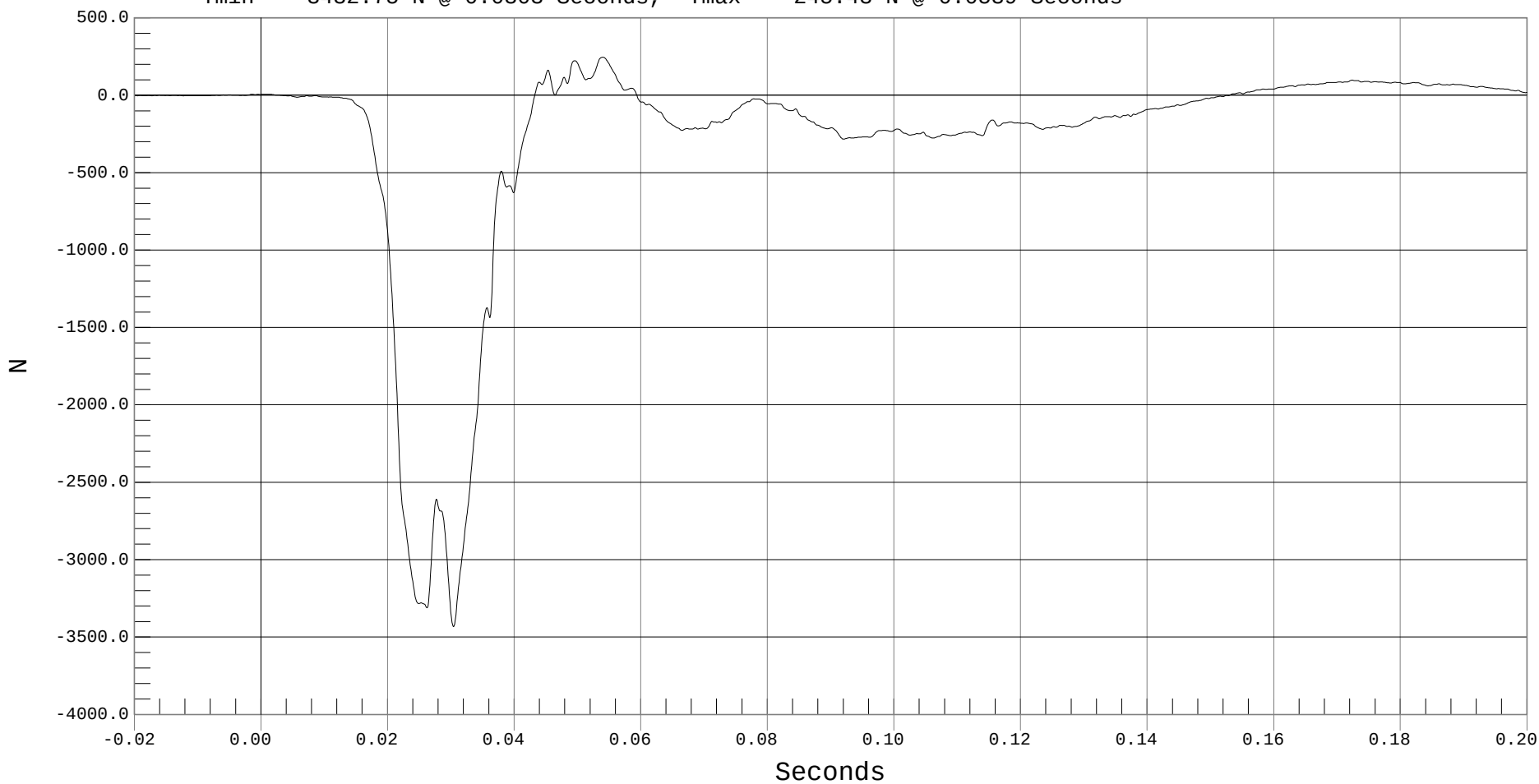
DRIVER PUBIC SYMPHYSIS FORCE

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER PUBIC SYMPHYSIS FORCE, B01061FF.F44

Ymin = -3432.75 N @ 0.0303 Seconds, Ymax = 245.43 N @ 0.0539 Seconds





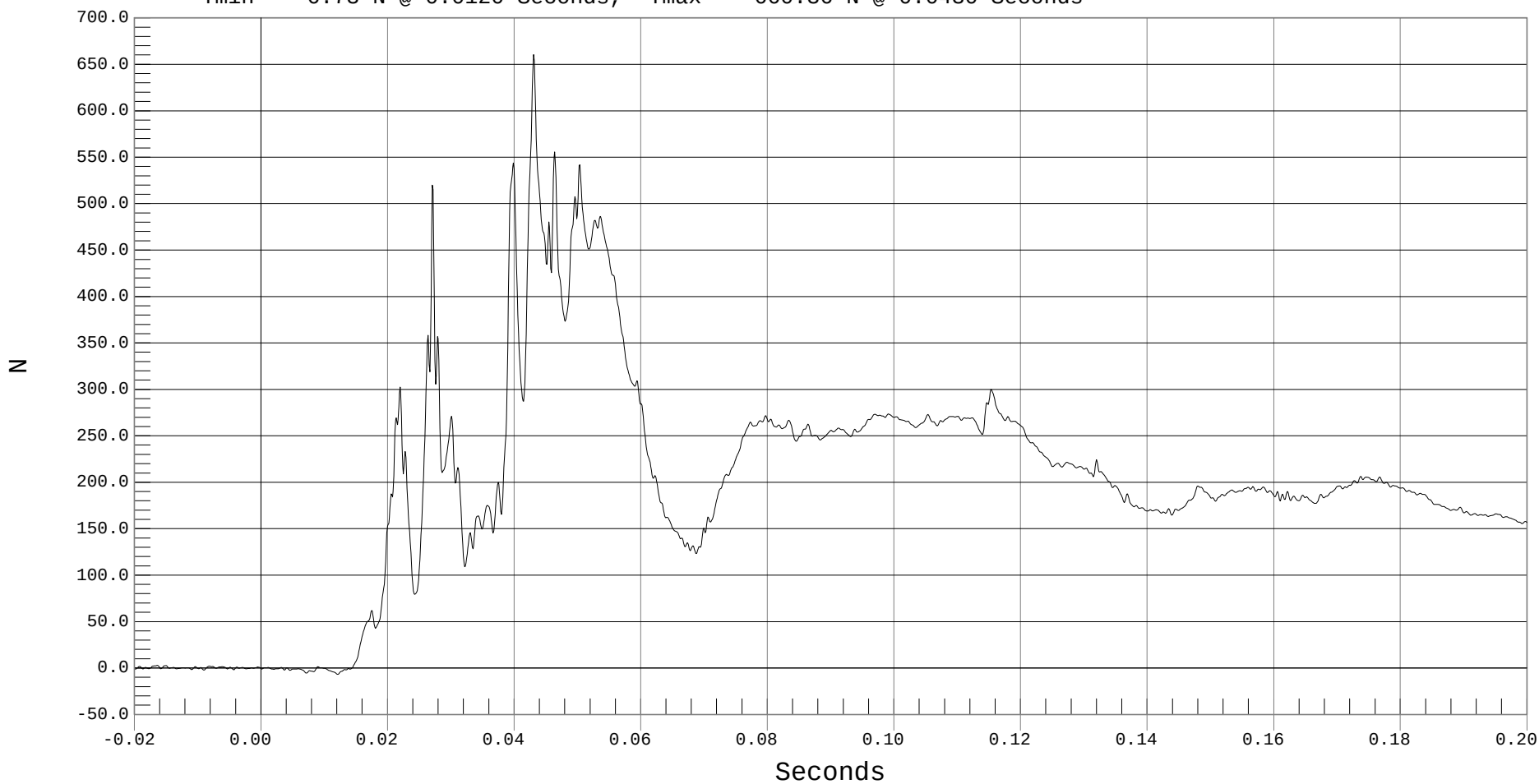
DRIVER LEFT FEMUR FORCE X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER LEFT FEMUR FORCE X, B01061FF.F54

Ymin = -6.73 N @ 0.0120 Seconds, Ymax = 660.36 N @ 0.0430 Seconds





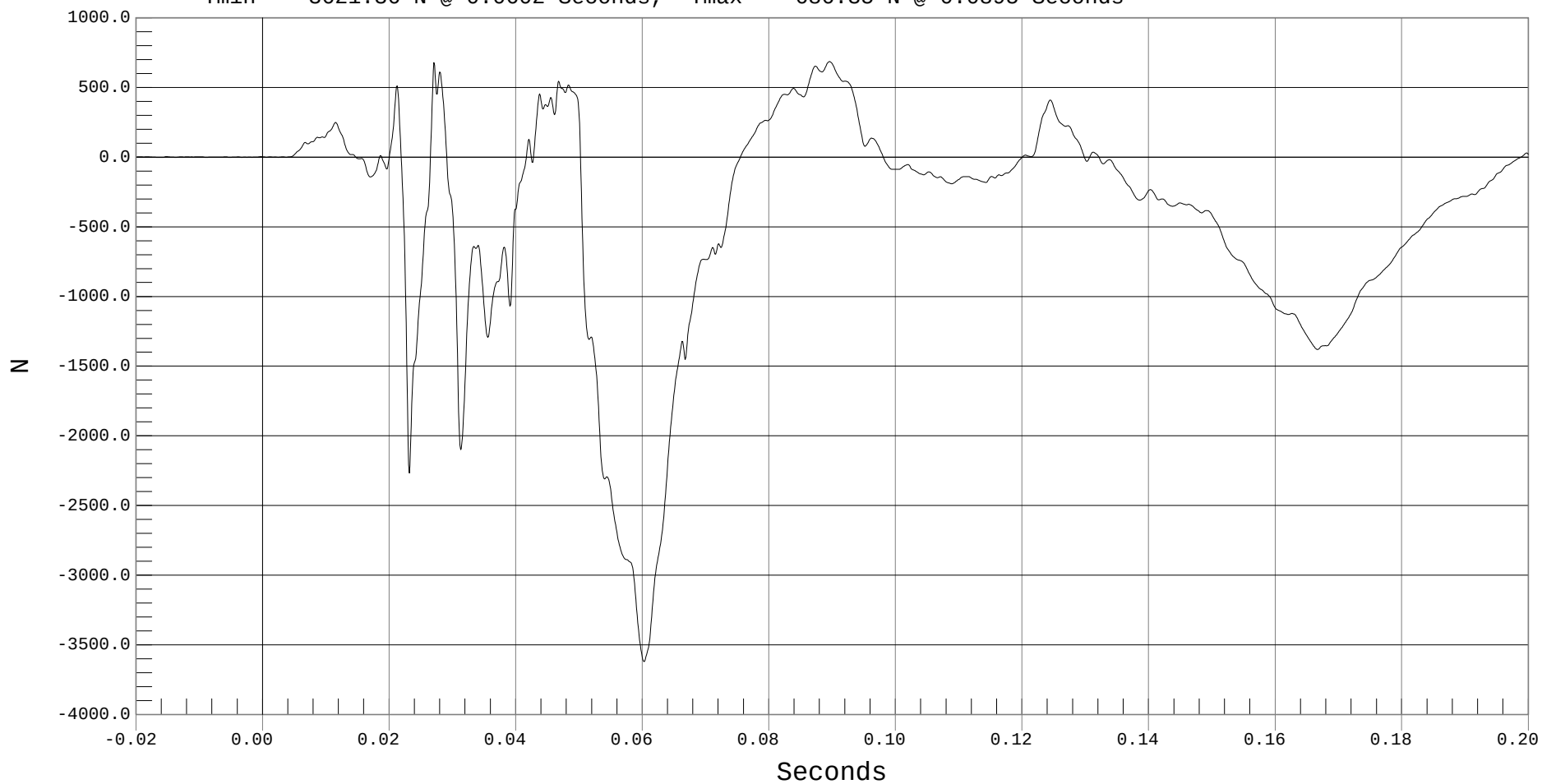
DRIVER LEFT FEMUR FORCE Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER LEFT FEMUR FORCE Y, B01061FF.F55

Ymin = -3621.36 N @ 0.0602 Seconds, Ymax = 686.35 N @ 0.0895 Seconds





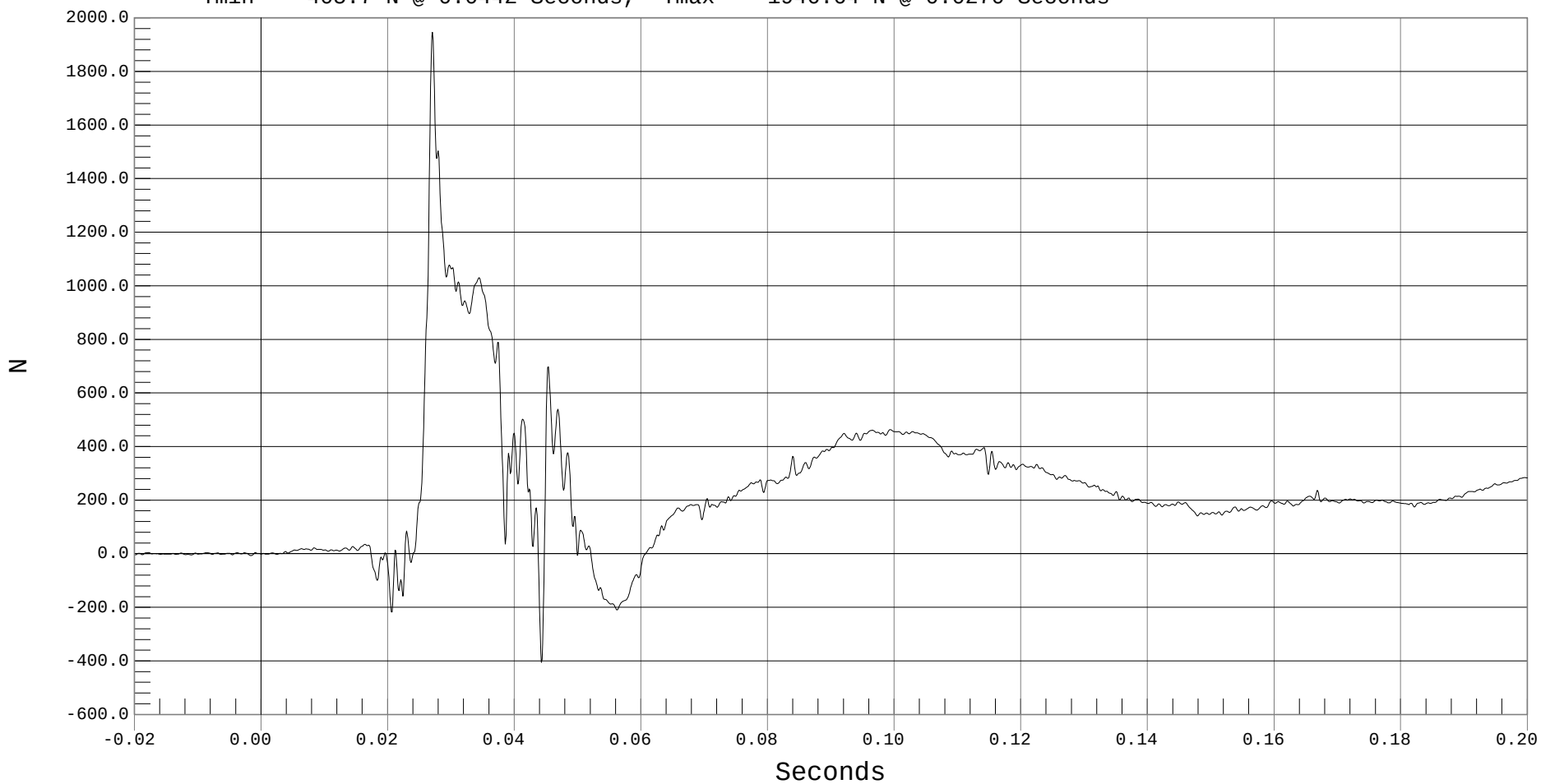
DRIVER LEFT FEMUR FORCE Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER LEFT FEMUR FORCE Z, B01061FF.F56

Ymin = -405.7 N @ 0.0442 Seconds, Ymax = 1946.64 N @ 0.0270 Seconds





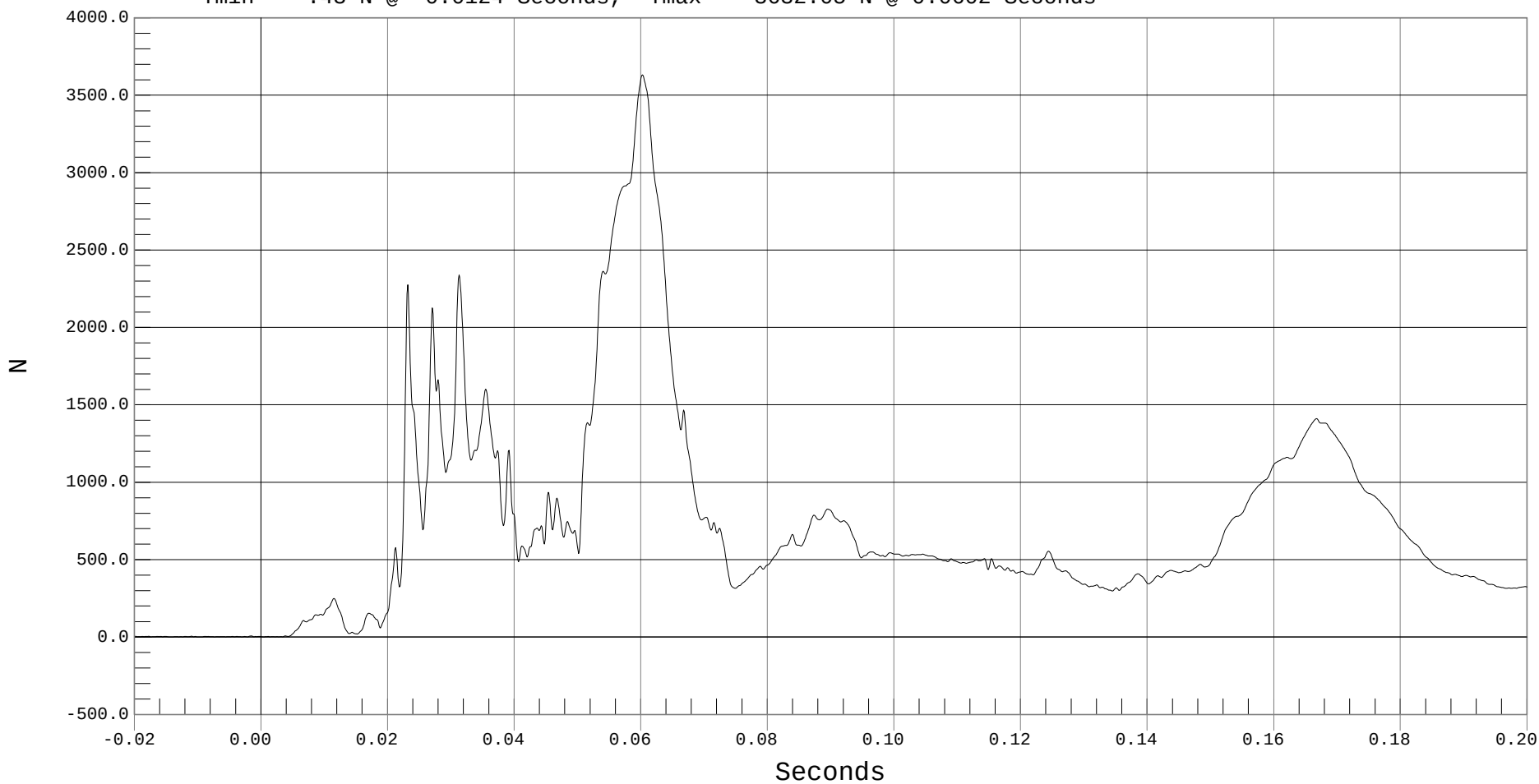
DRIVER LEFT FEMUR FORCE RESULTANT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER LEFT FEMUR FORCE RESULTANT, B01061FV.F54

Ymin = .43 N @ -0.0124 Seconds, Ymax = 3632.05 N @ 0.0602 Seconds





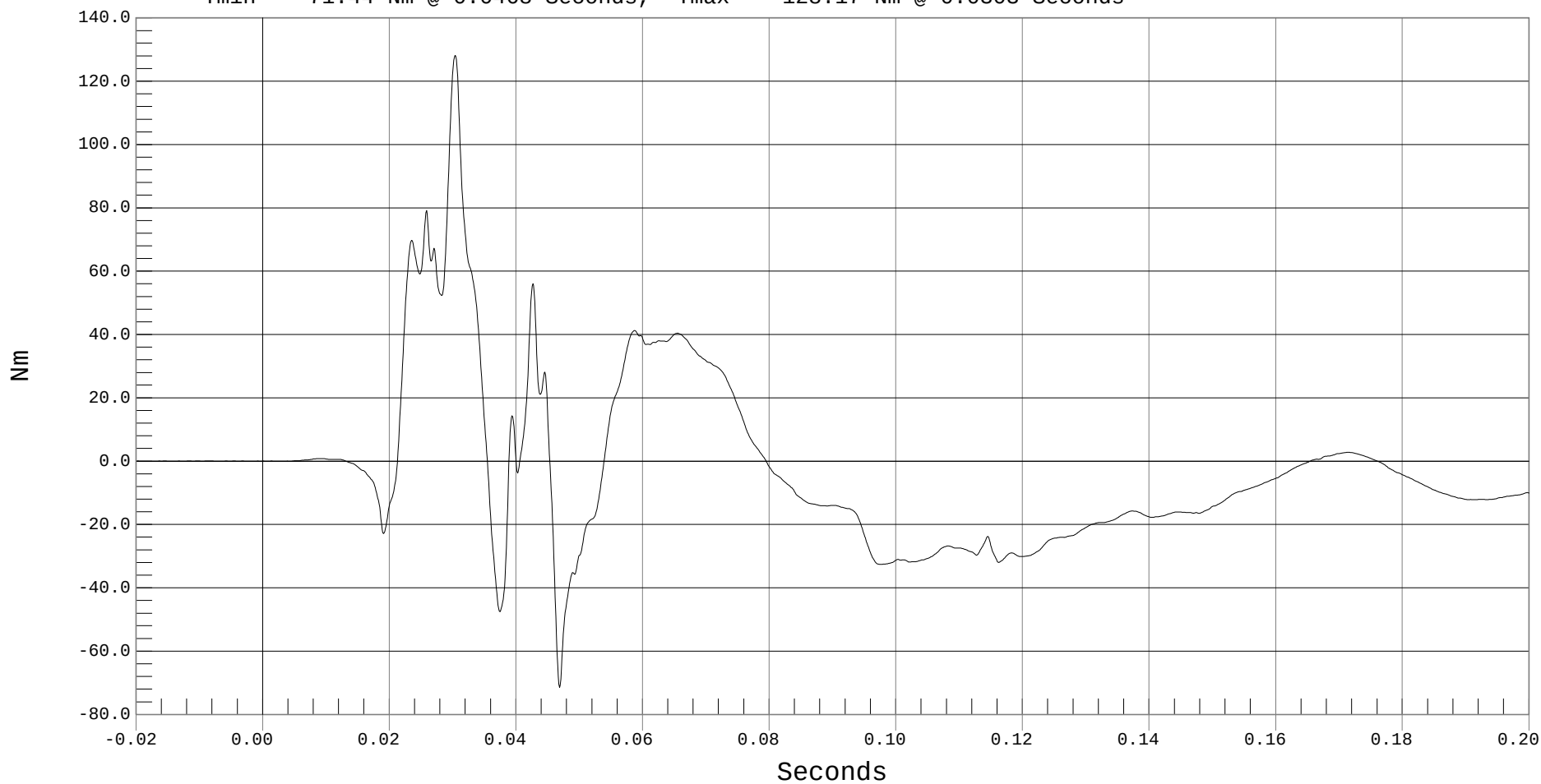
DRIVER LEFT FEMUR MOMENT X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER LEFT FEMUR MOMENT X, B01061MF.M57

Ymin = -71.44 Nm @ 0.0468 Seconds, Ymax = 128.17 Nm @ 0.0303 Seconds





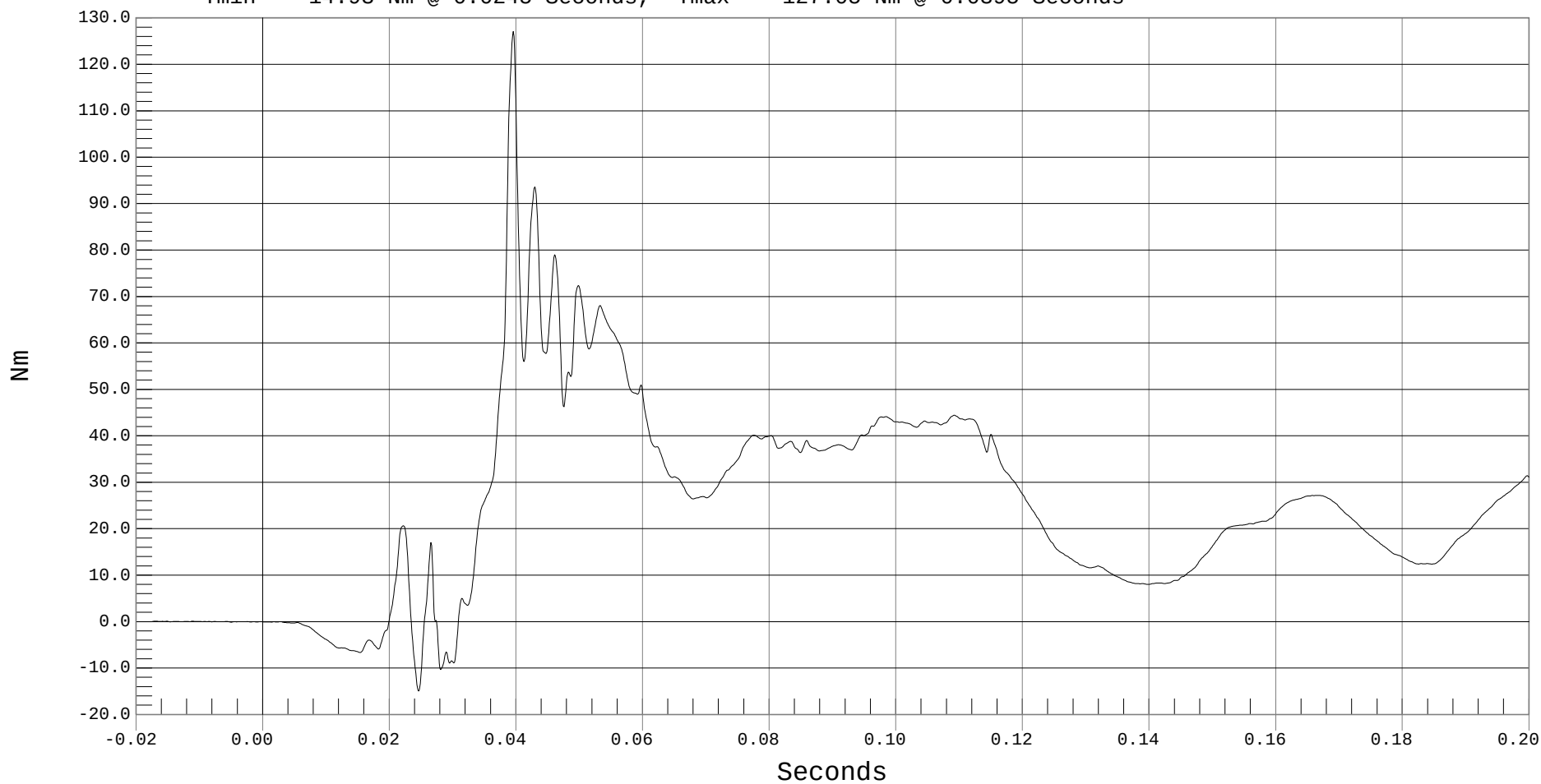
DRIVER LEFT FEMUR MOMENT Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER LEFT FEMUR MOMENT Y, B01061MF.M58

Ymin = -14.93 Nm @ 0.0245 Seconds, Ymax = 127.05 Nm @ 0.0395 Seconds





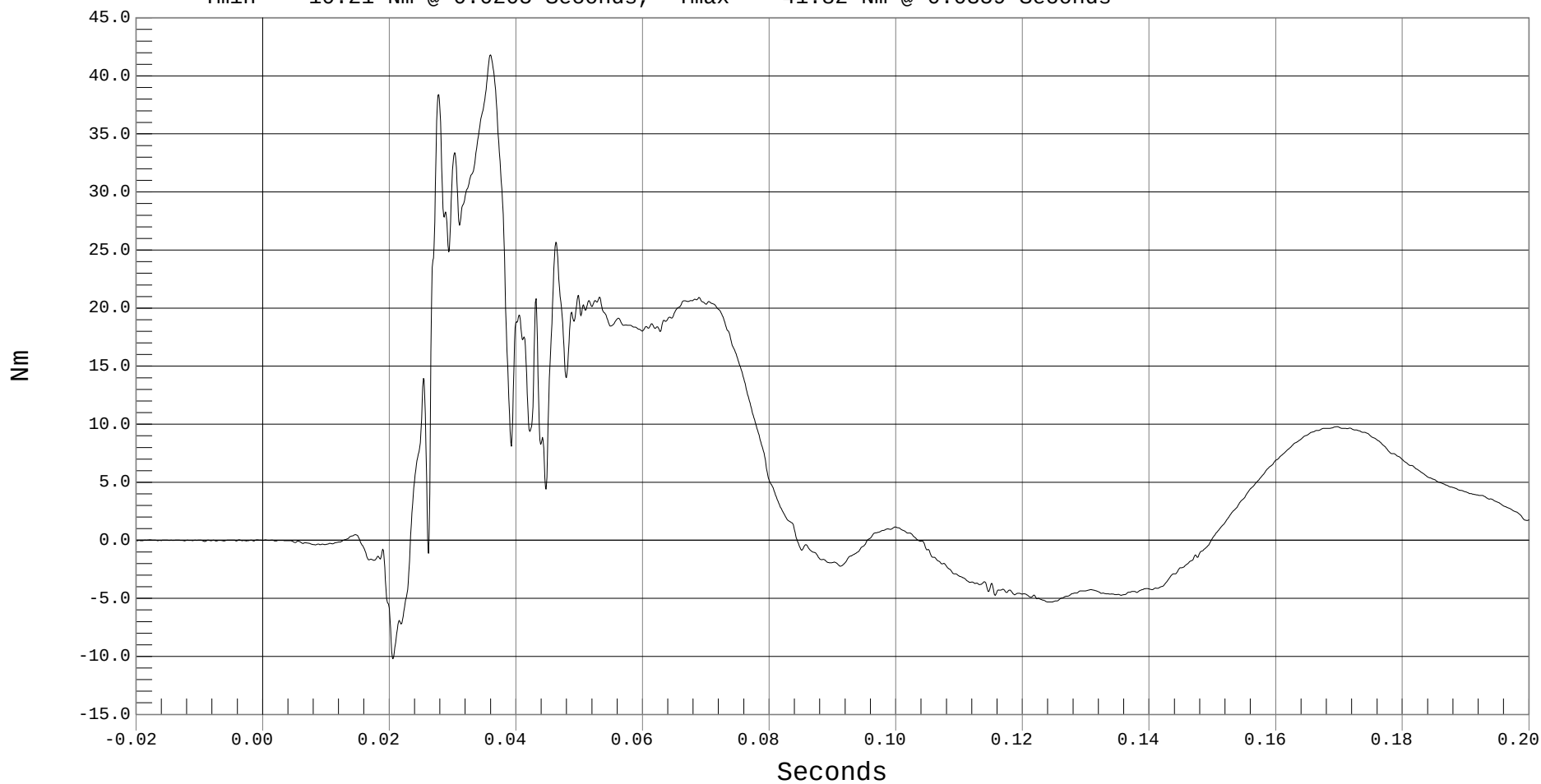
DRIVER LEFT FEMUR MOMENT Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER LEFT FEMUR MOMENT Z, B01061MF.M59

Ymin = -10.21 Nm @ 0.0205 Seconds, Ymax = 41.82 Nm @ 0.0359 Seconds





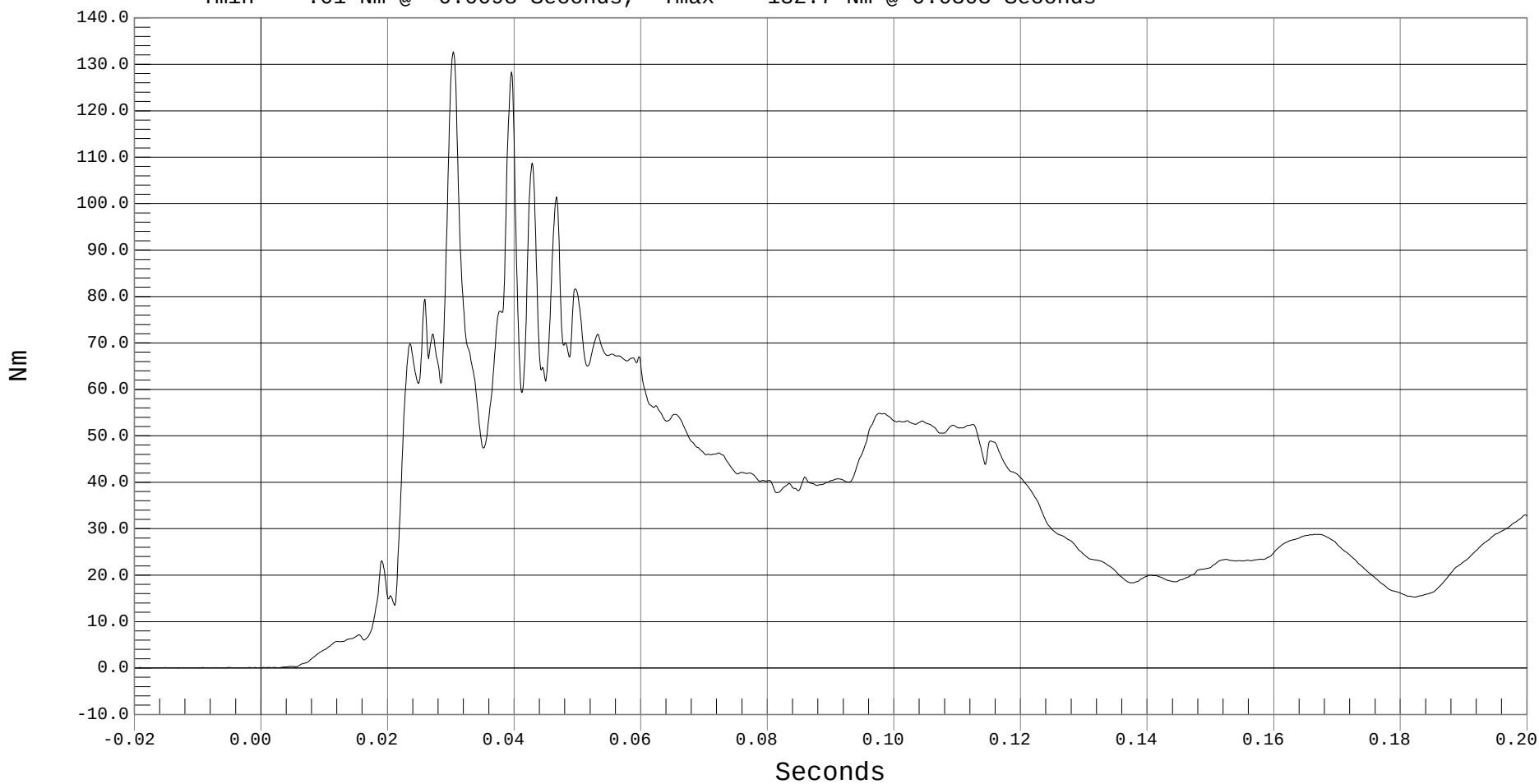
DRIVER LEFT FEMUR MOMENT RESULTANT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER LEFT FEMUR MOMENT RESULTANT, B01061MV.M57

Ymin = .01 Nm @ -0.0098 Seconds, Ymax = 132.7 Nm @ 0.0303 Seconds





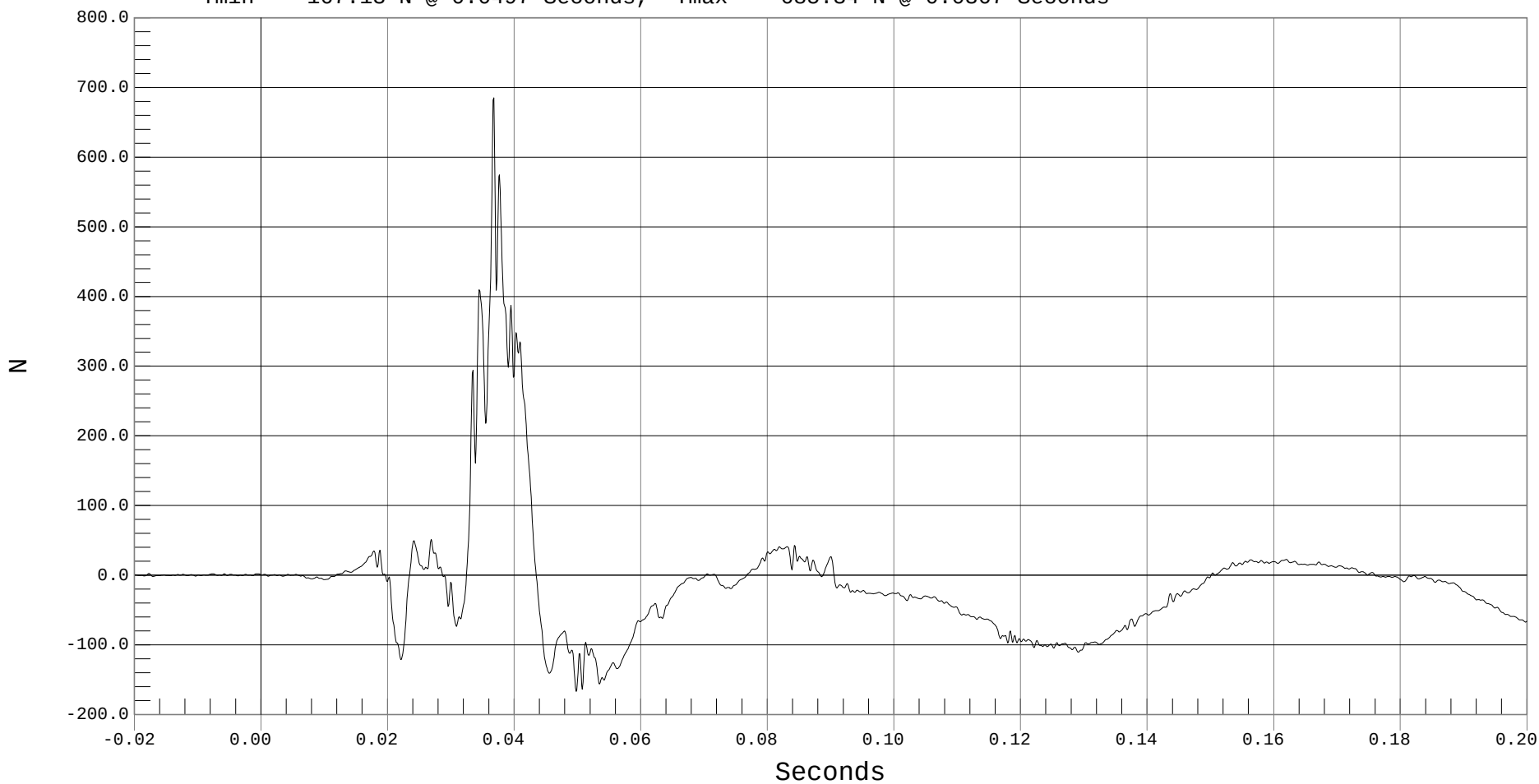
DRIVER RIGHT FEMUR FORCE X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER RIGHT FEMUR FORCE X, B01061FF.F48

Ymin = -167.13 N @ 0.0497 Seconds, Ymax = 685.34 N @ 0.0367 Seconds





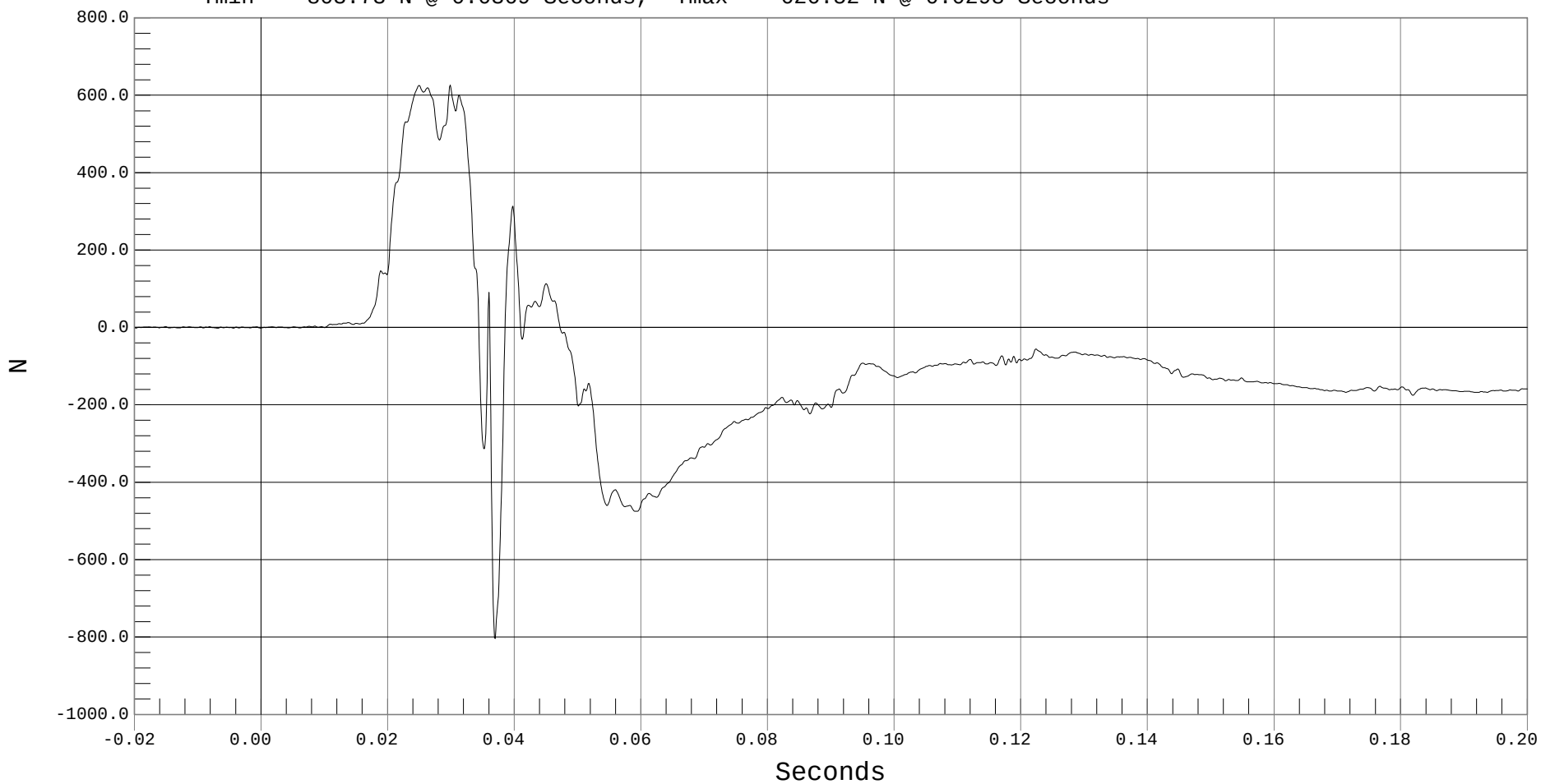
DRIVER RIGHT FEMUR FORCE Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER RIGHT FEMUR FORCE Y, B01061FF.F49

Ymin = -803.73 N @ 0.0369 Seconds, Ymax = 626.52 N @ 0.0298 Seconds





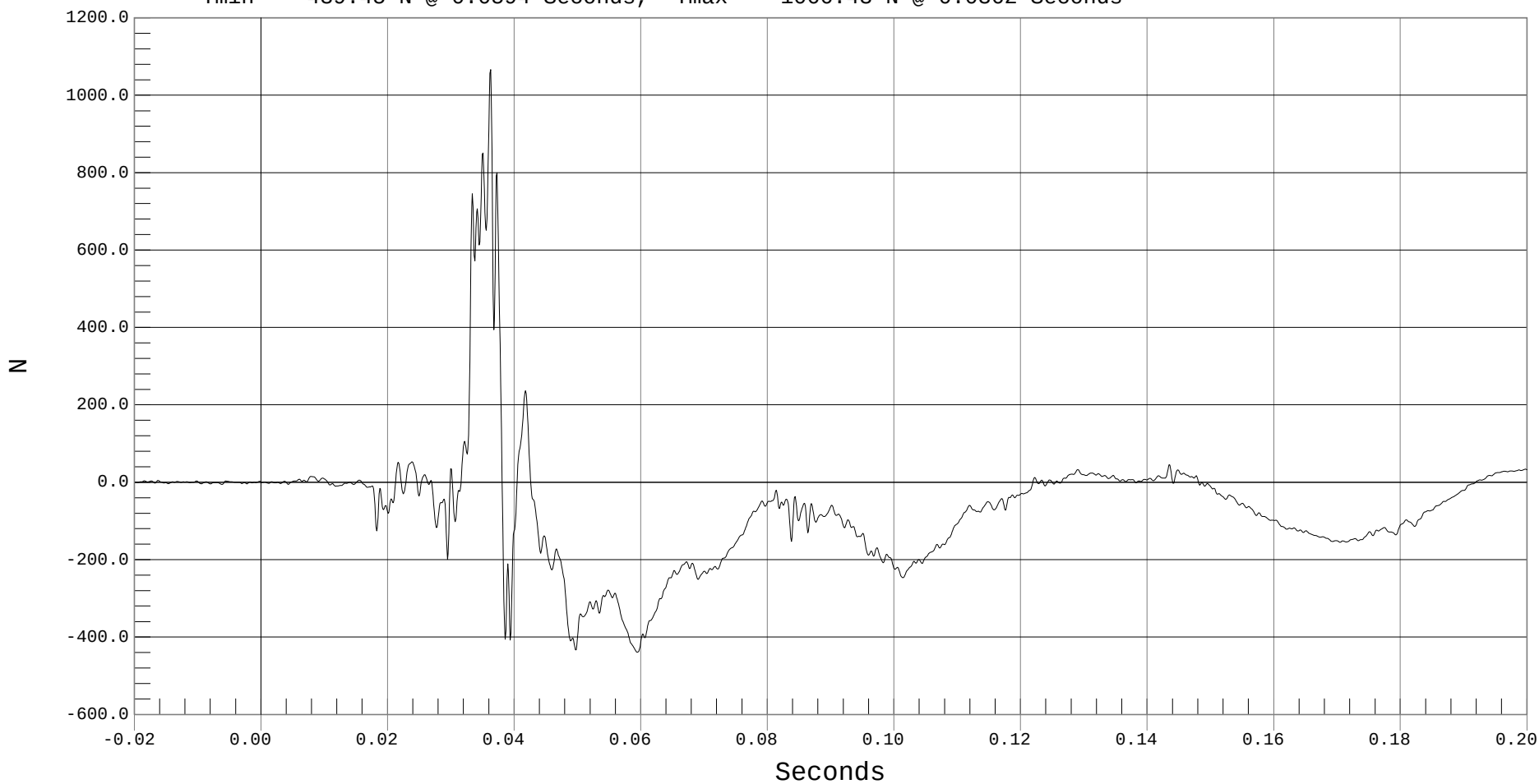
DRIVER RIGHT FEMUR FORCE Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER RIGHT FEMUR FORCE Z, B01061FF.F50

Ymin = -439.45 N @ 0.0594 Seconds, Ymax = 1066.43 N @ 0.0362 Seconds





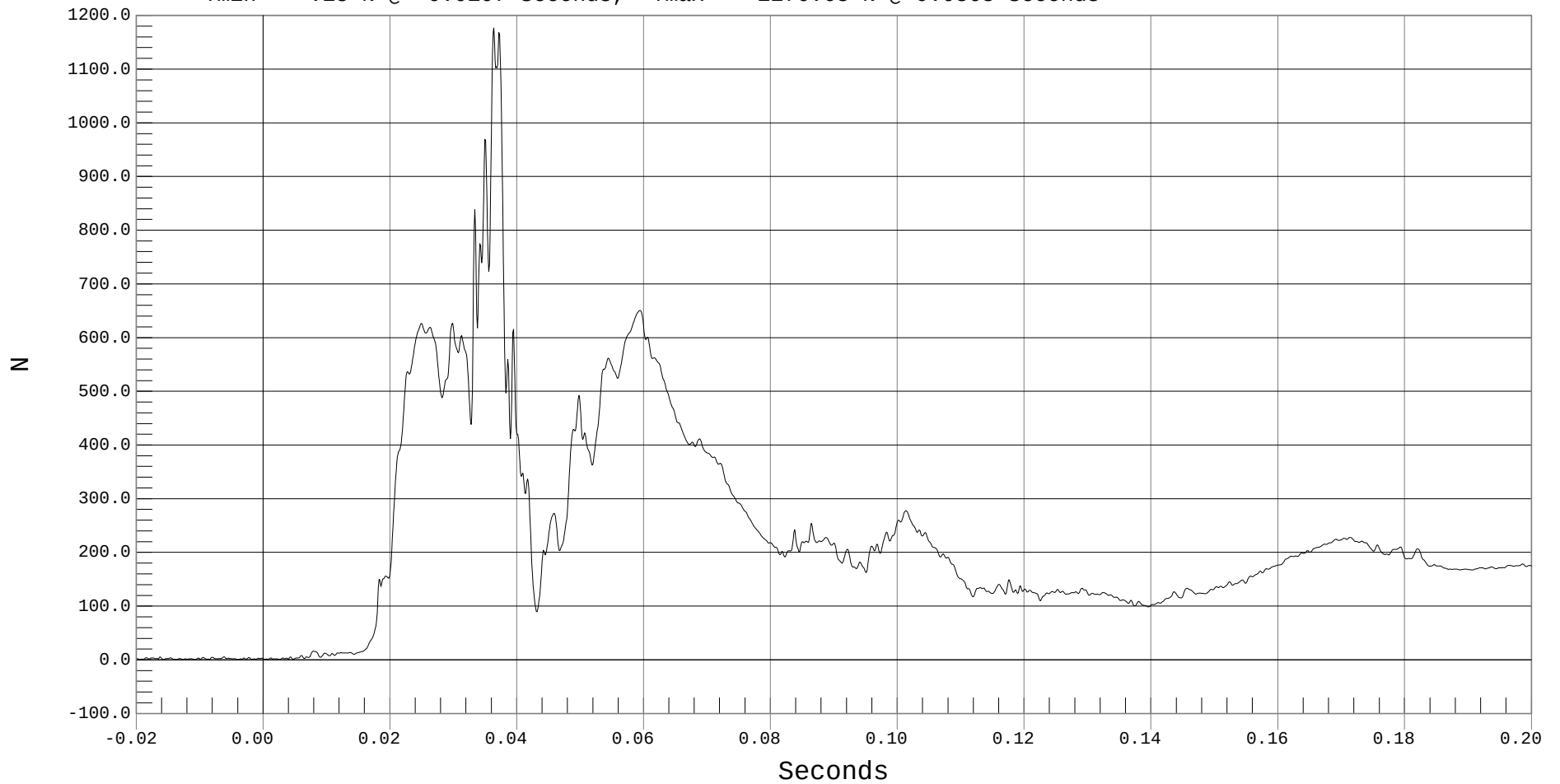
DRIVER RIGHT FEMUR FORCE RESULTANT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER RIGHT FEMUR FORCE RESULTANT, B01061FV.F48

Ymin = .18 N @ -0.0107 Seconds, Ymax = 1176.68 N @ 0.0363 Seconds





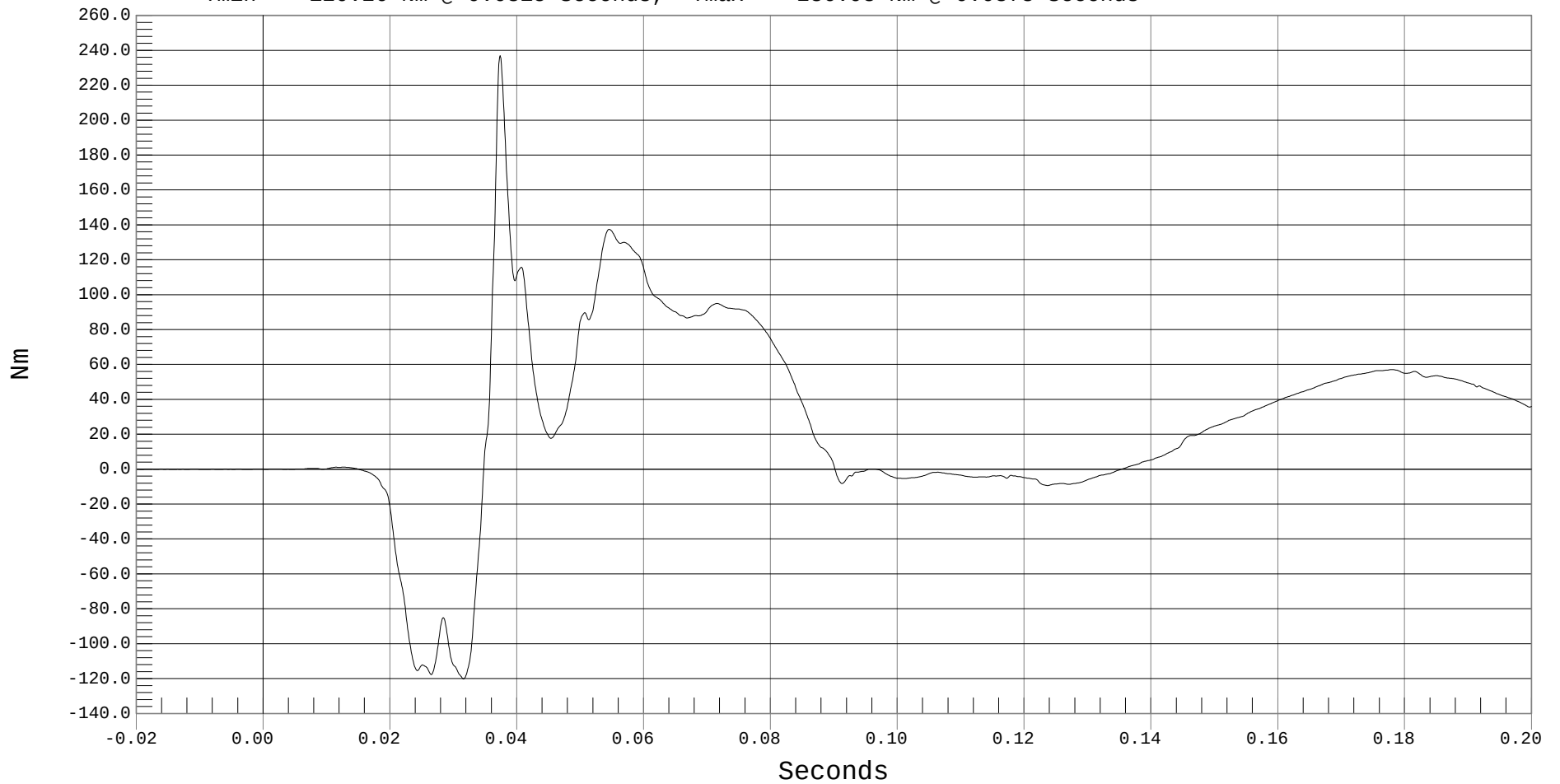
DRIVER RIGHT FEMUR MOMENT X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER RIGHT FEMUR MOMENT X, B01061MF.M51

Ymin = -120.26 Nm @ 0.0315 Seconds, Ymax = 236.98 Nm @ 0.0373 Seconds





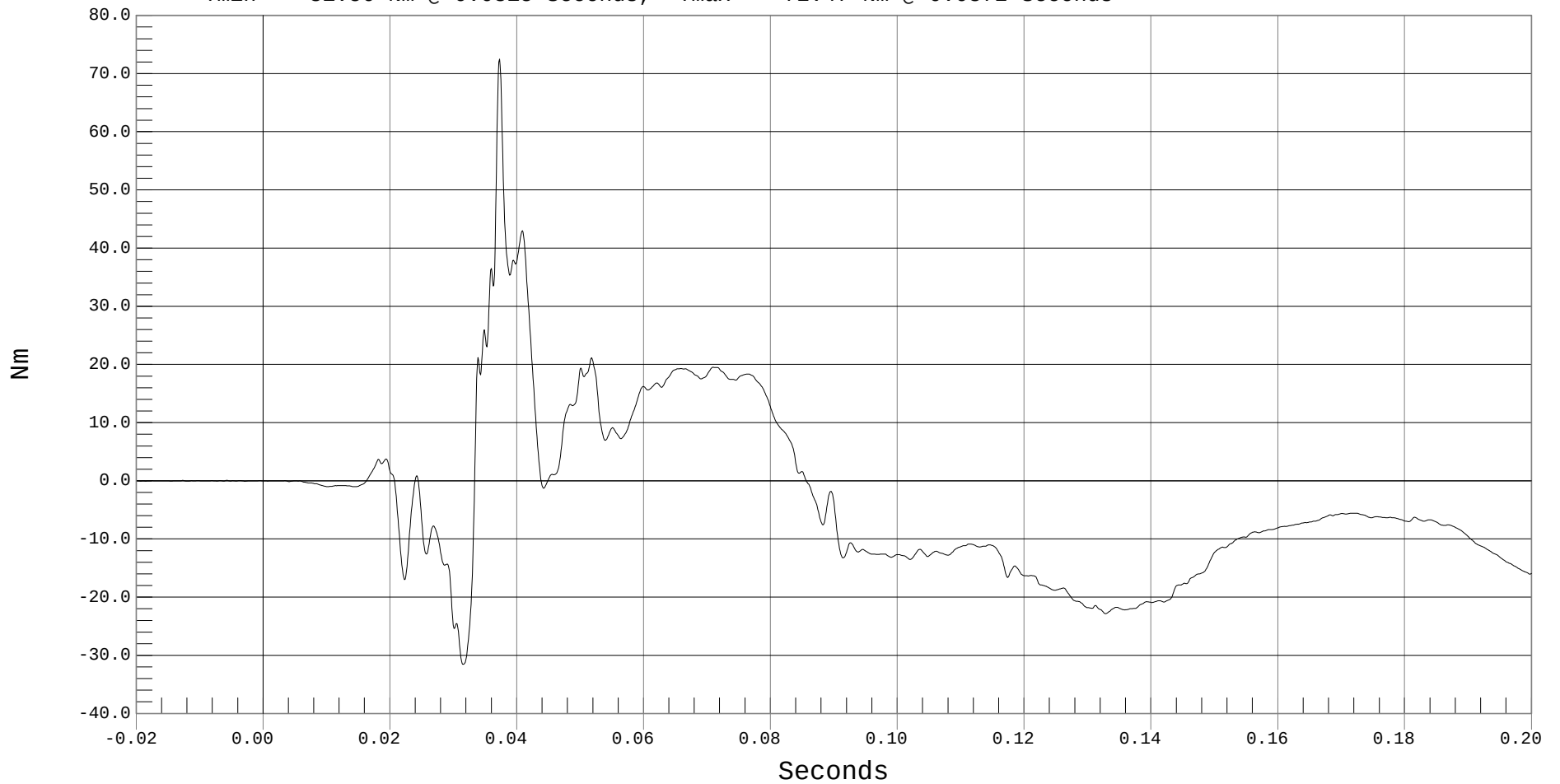
DRIVER RIGHT FEMUR MOMENT Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER RIGHT FEMUR MOMENT Y, B01061MF.M52

Ymin = -31.56 Nm @ 0.0315 Seconds, Ymax = 72.47 Nm @ 0.0372 Seconds





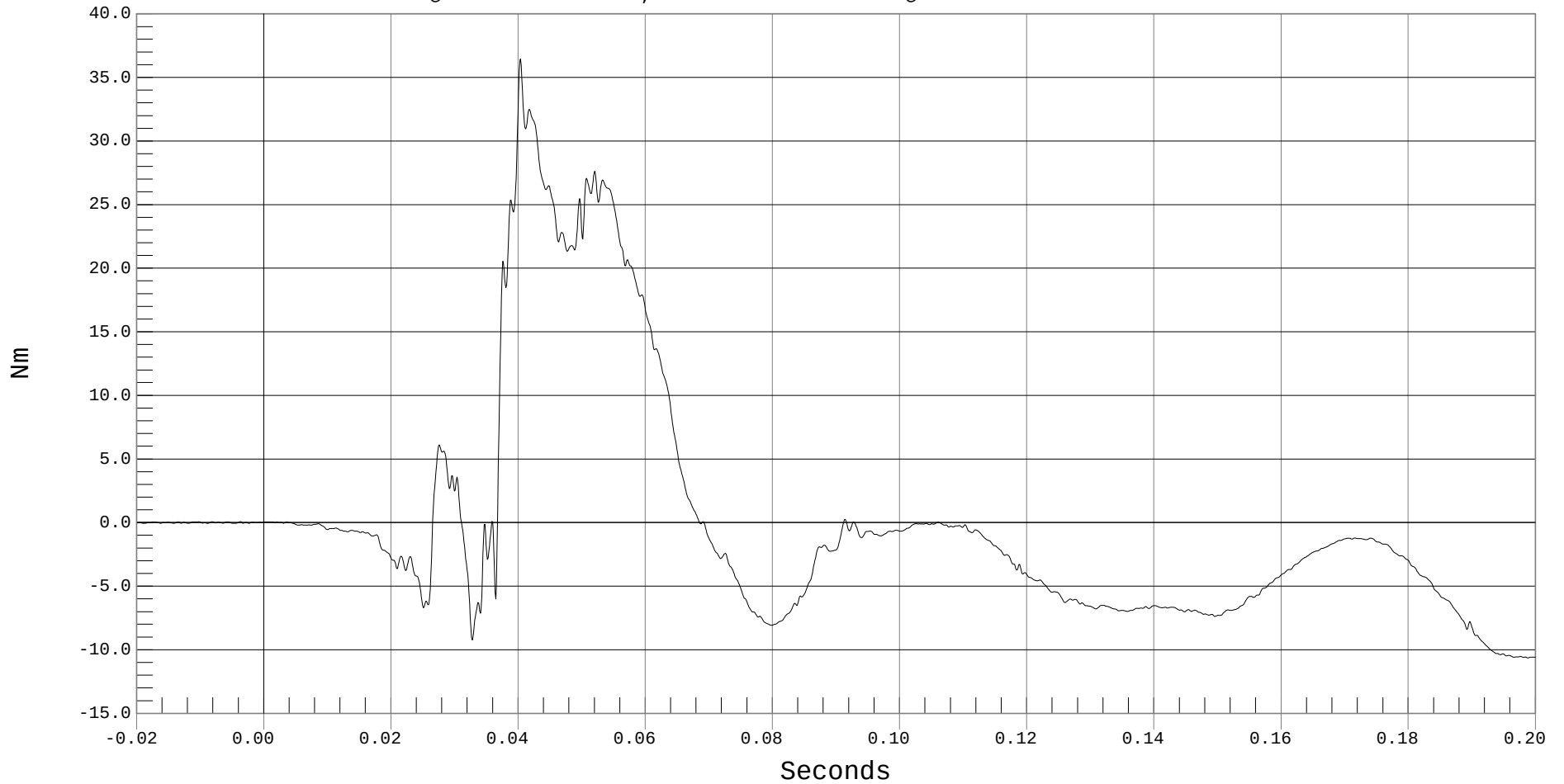
DRIVER RIGHT FEMUR MOMENT Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER RIGHT FEMUR MOMENT Z, B01061MF.M53

Ymin = -10.64 Nm @ 0.1987 Seconds, Ymax = 36.46 Nm @ 0.0403 Seconds





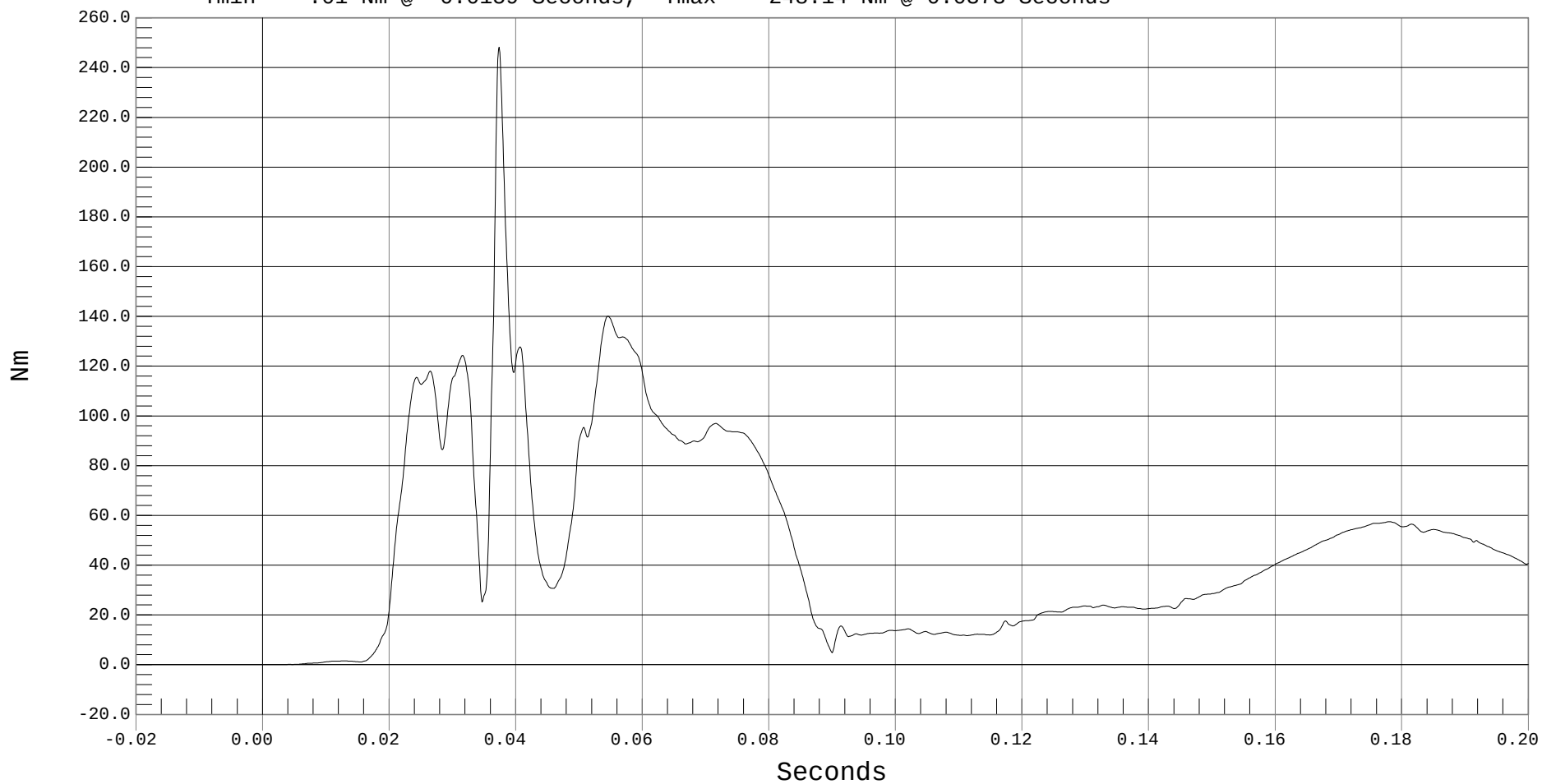
DRIVER RIGHT FEMUR MOMENT RESULTANT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 DRIVER RIGHT FEMUR MOMENT RESULTANT, B01061MV.M51

Ymin = .01 Nm @ -0.0159 Seconds, Ymax = 248.14 Nm @ 0.0373 Seconds



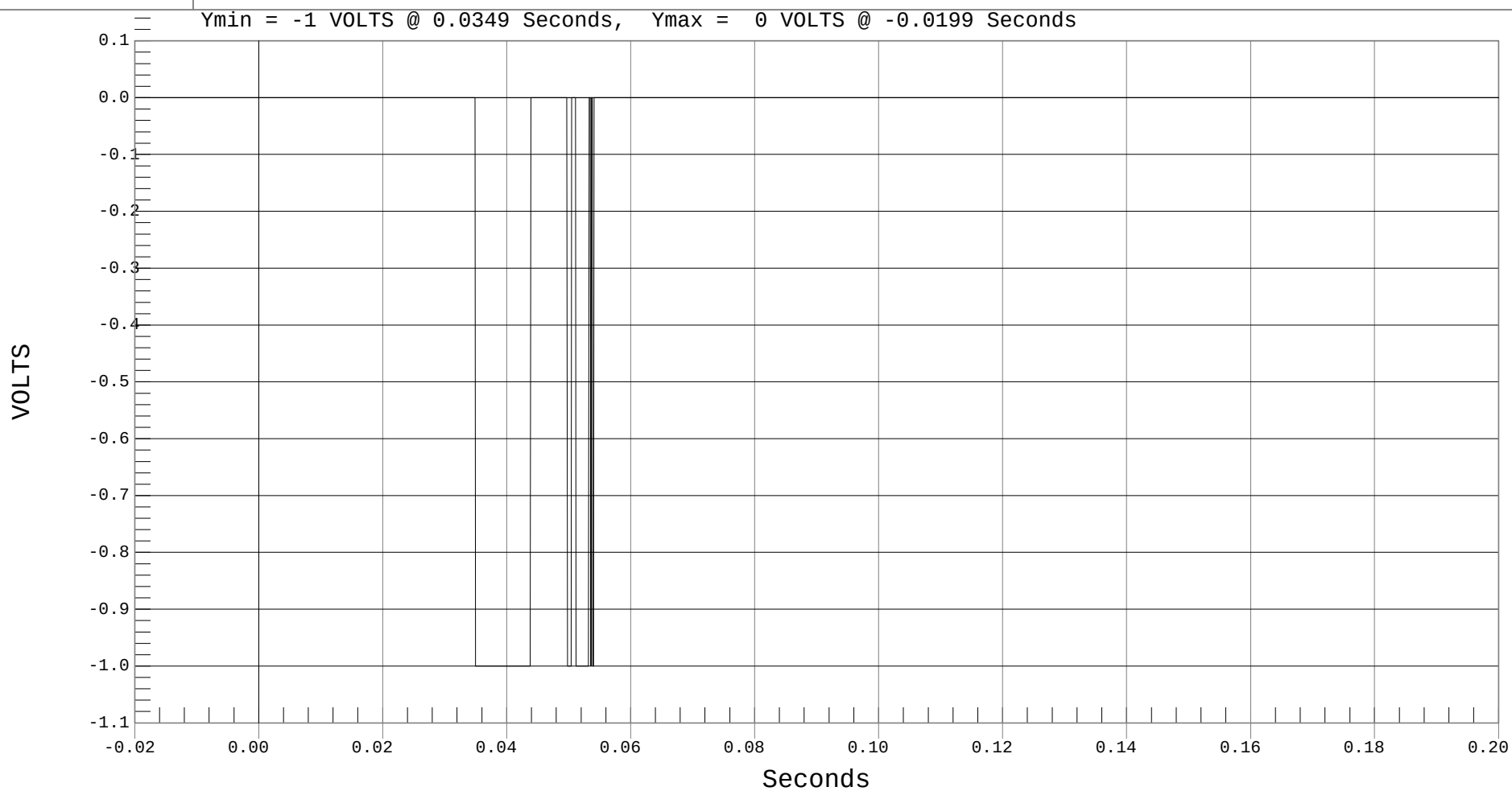


DRIVER HEAD CONTACT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER HEAD CONTACT, B010610T.001





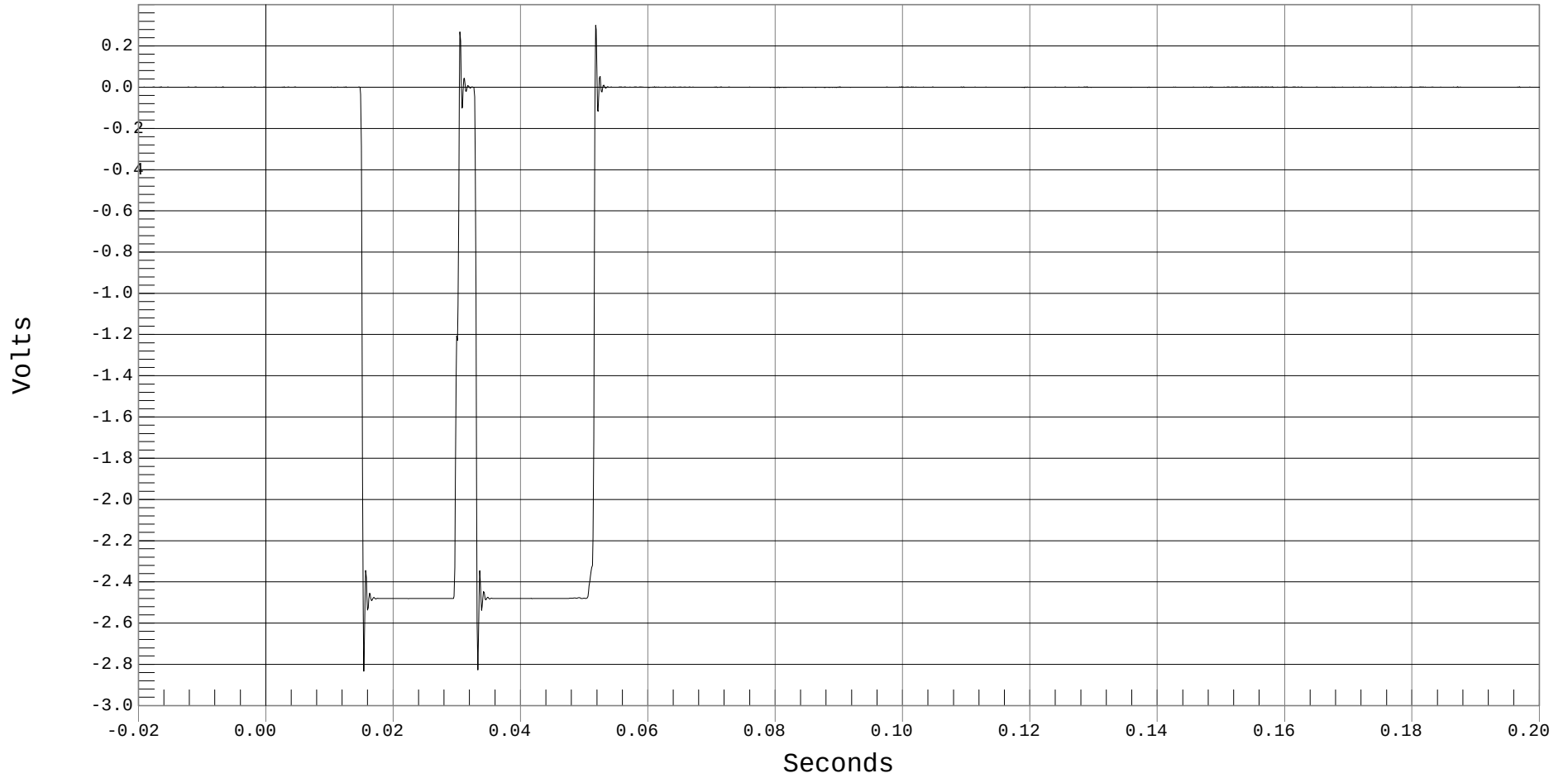
DRIVER ARM CONTACT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER ARM CONTACT, B010610T.019

Ymin = -2.83 Volts @ 0.0153 Seconds, Ymax = .3 Volts @ 0.0517 Seconds





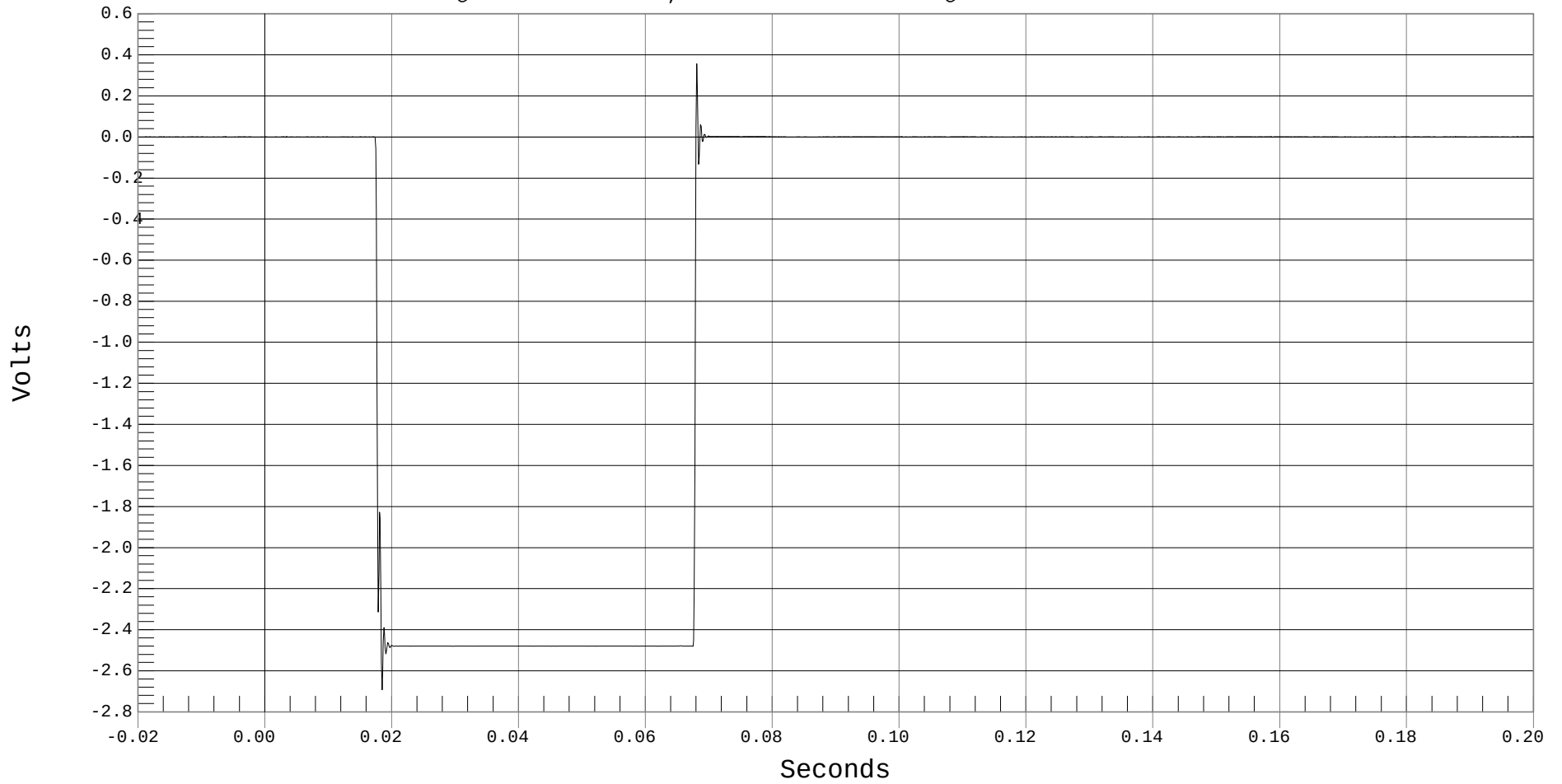
DRIVER RIB CONTACT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER RIB CONTACT, B010610T.079

Ymin = -2.69 Volts @ 0.0184 Seconds, Ymax = .36 Volts @ 0.0680 Seconds





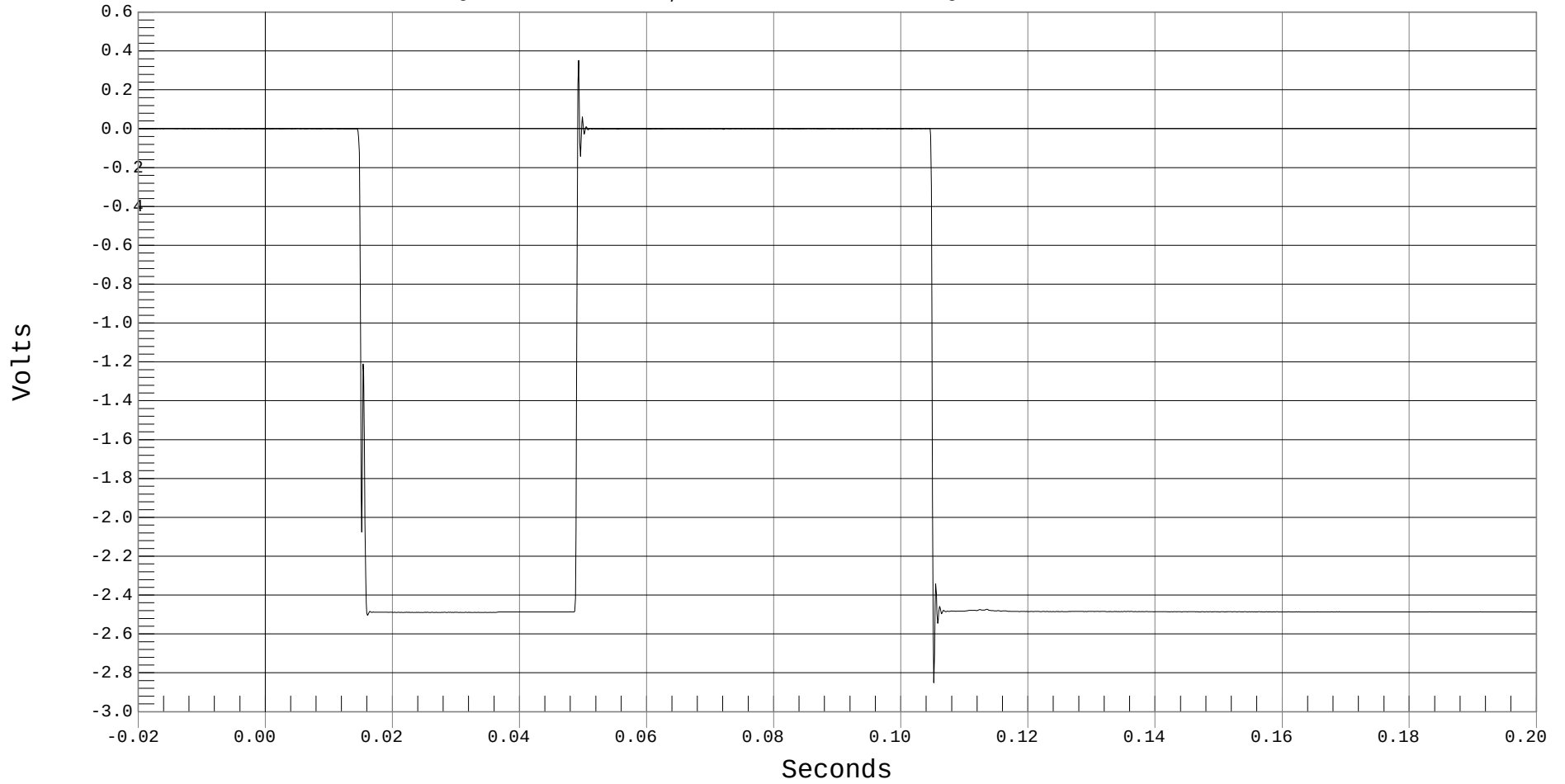
DRIVER PELVIS CONTACT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 DRIVER PELVIS CONTACT, B010610T.001

Ymin = -2.85 Volts @ 0.1051 Seconds, Ymax = .35 Volts @ 0.0492 Seconds





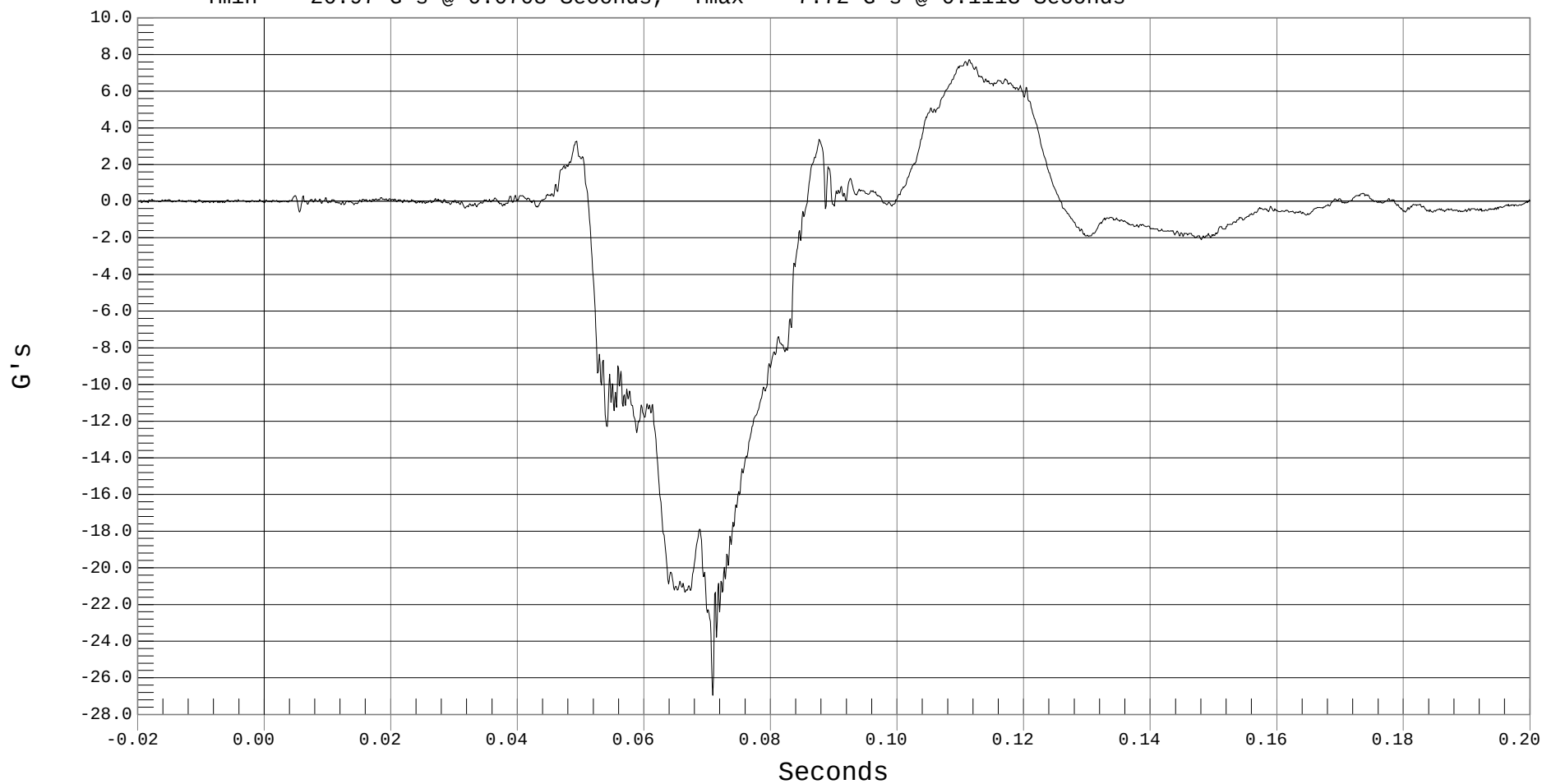
PASSENGER HEAD X ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 REAR PASSENGER HEAD X, B01061AT.A60

Ymin = -26.97 G's @ 0.0708 Seconds, Ymax = 7.72 G's @ 0.1113 Seconds





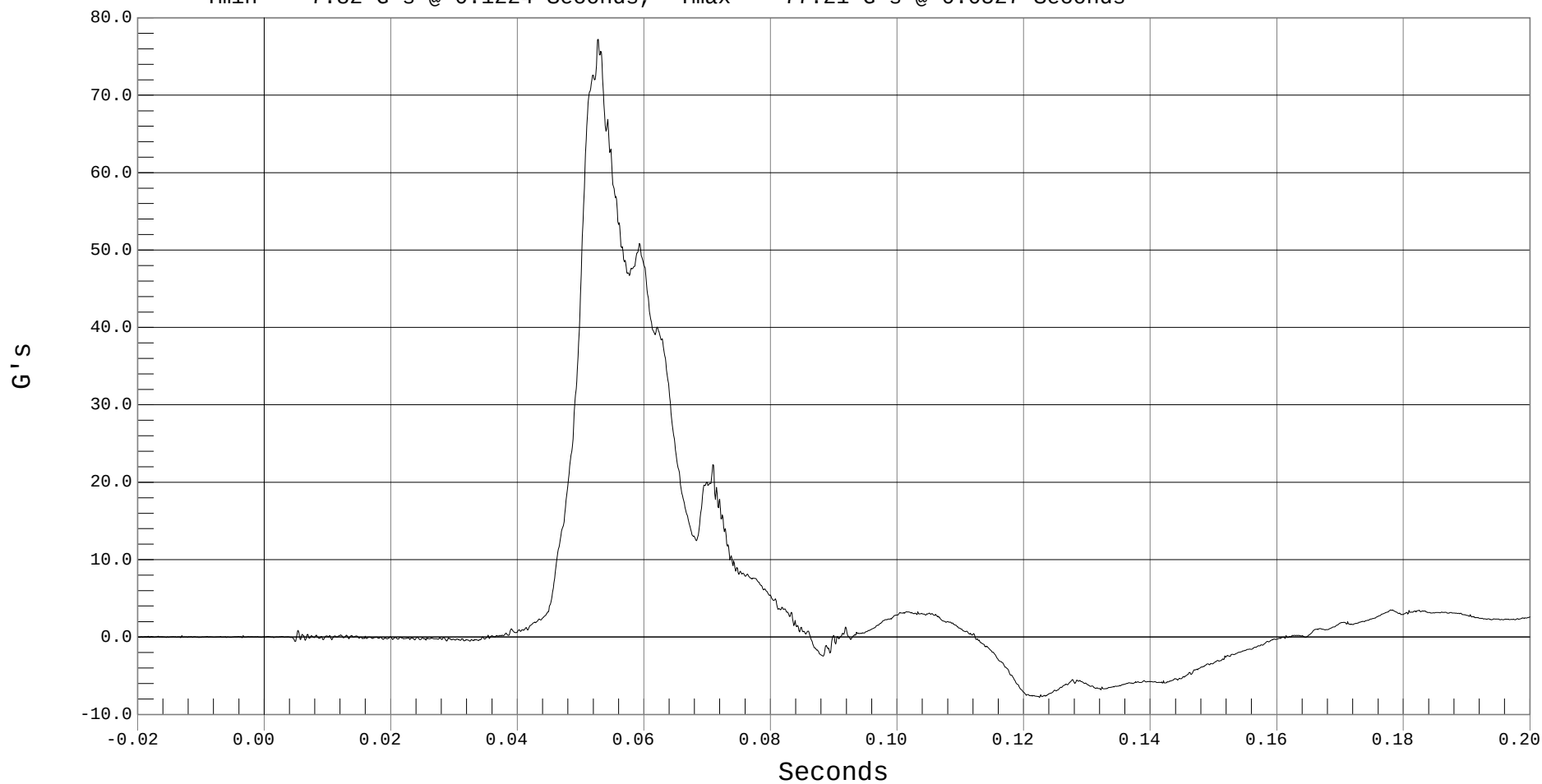
PASSENGER HEAD Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 REAR PASSENGER HEAD Y, B01061AT.A61

Ymin = -7.82 G's @ 0.1224 Seconds, Ymax = 77.21 G's @ 0.0527 Seconds





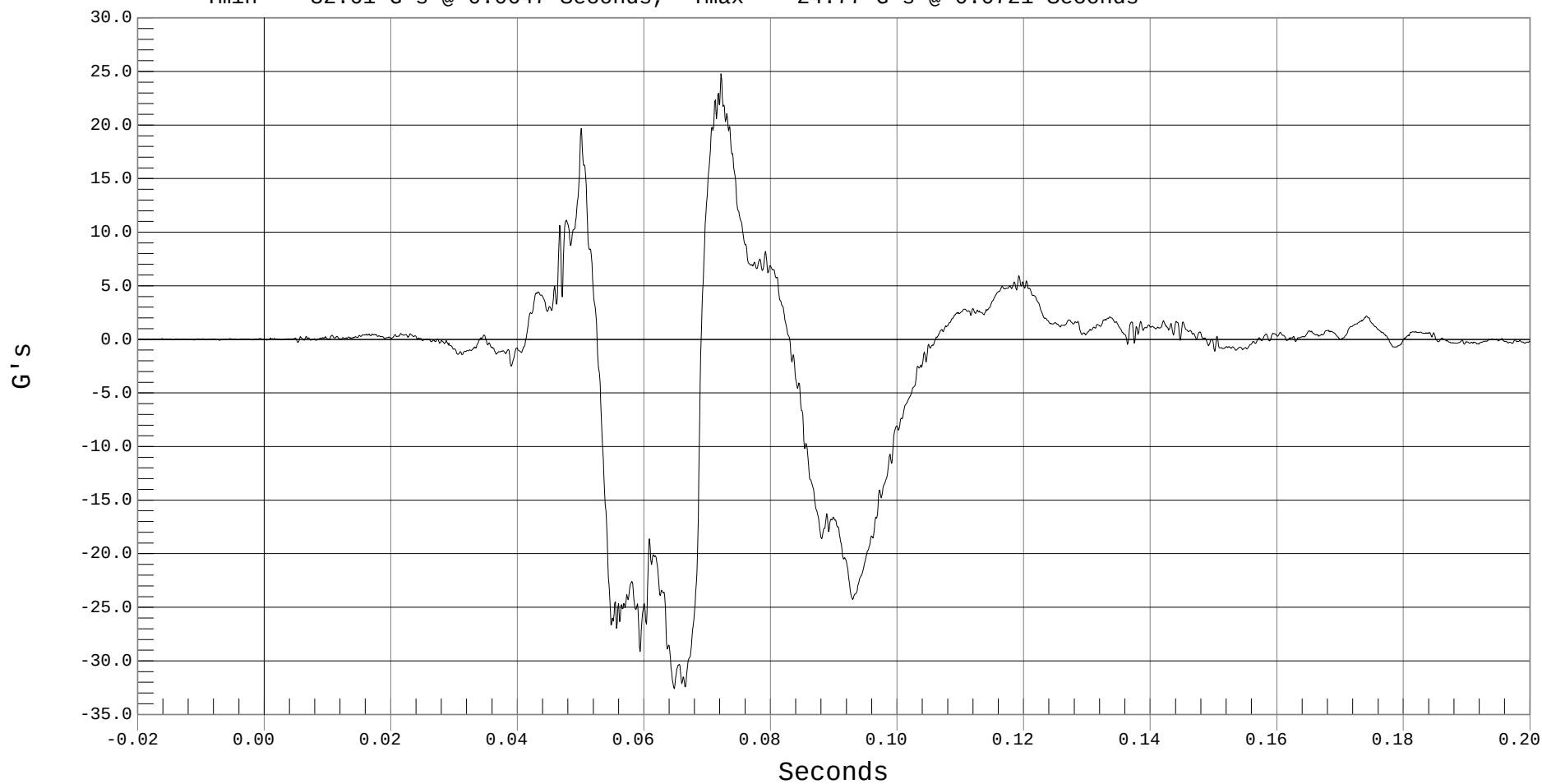
PASSENGER HEAD Z ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 REAR PASSENGER HEAD Z, B01061AT.A62

Ymin = -32.61 G's @ 0.0647 Seconds, Ymax = 24.77 G's @ 0.0721 Seconds





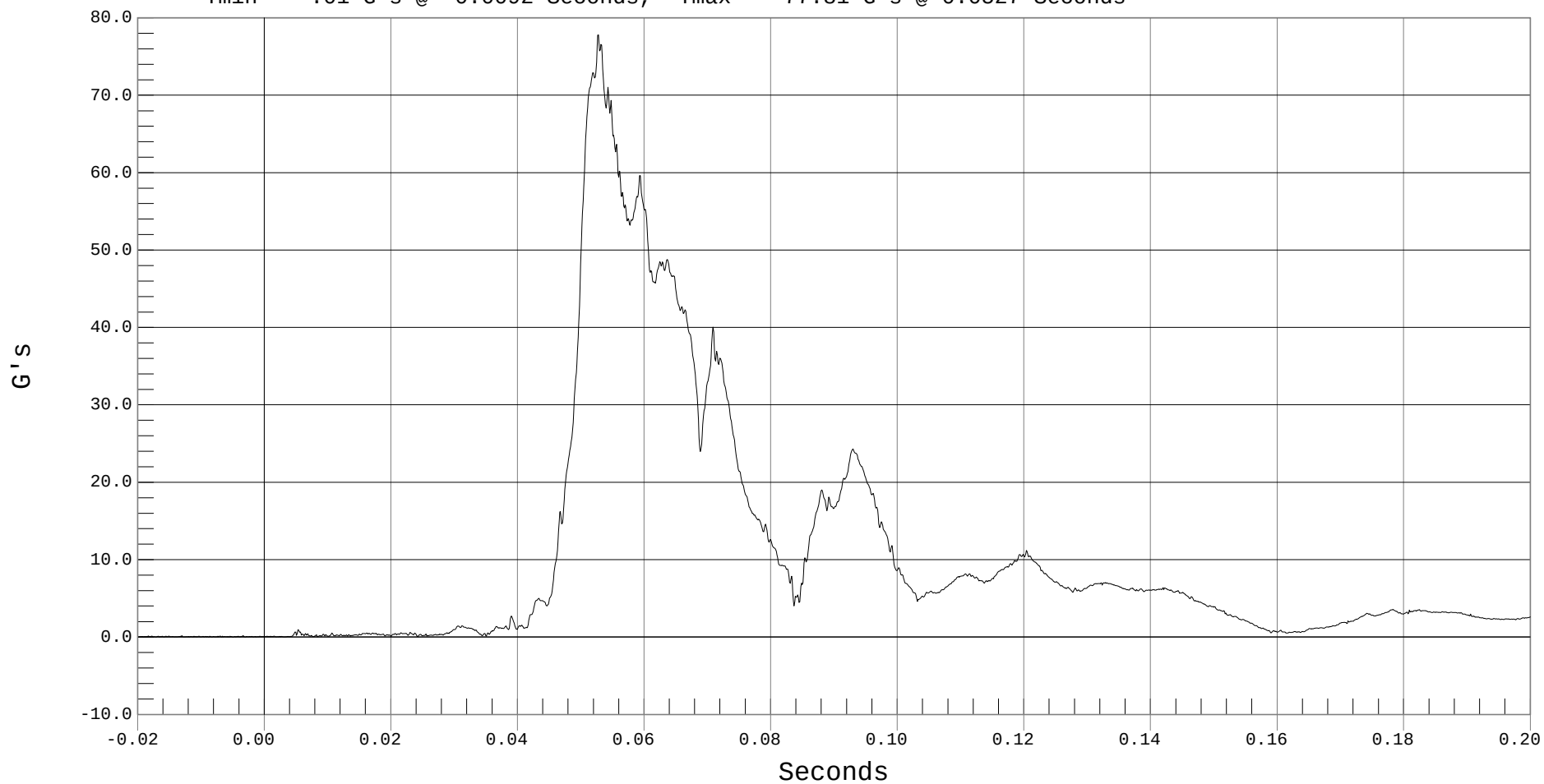
PASSENGER HEAD RESULTANT ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 PASSENGER HEAD RESULTANT, B01061AV.A60

Ymin = .01 G's @ -0.0092 Seconds, Ymax = 77.81 G's @ 0.0527 Seconds





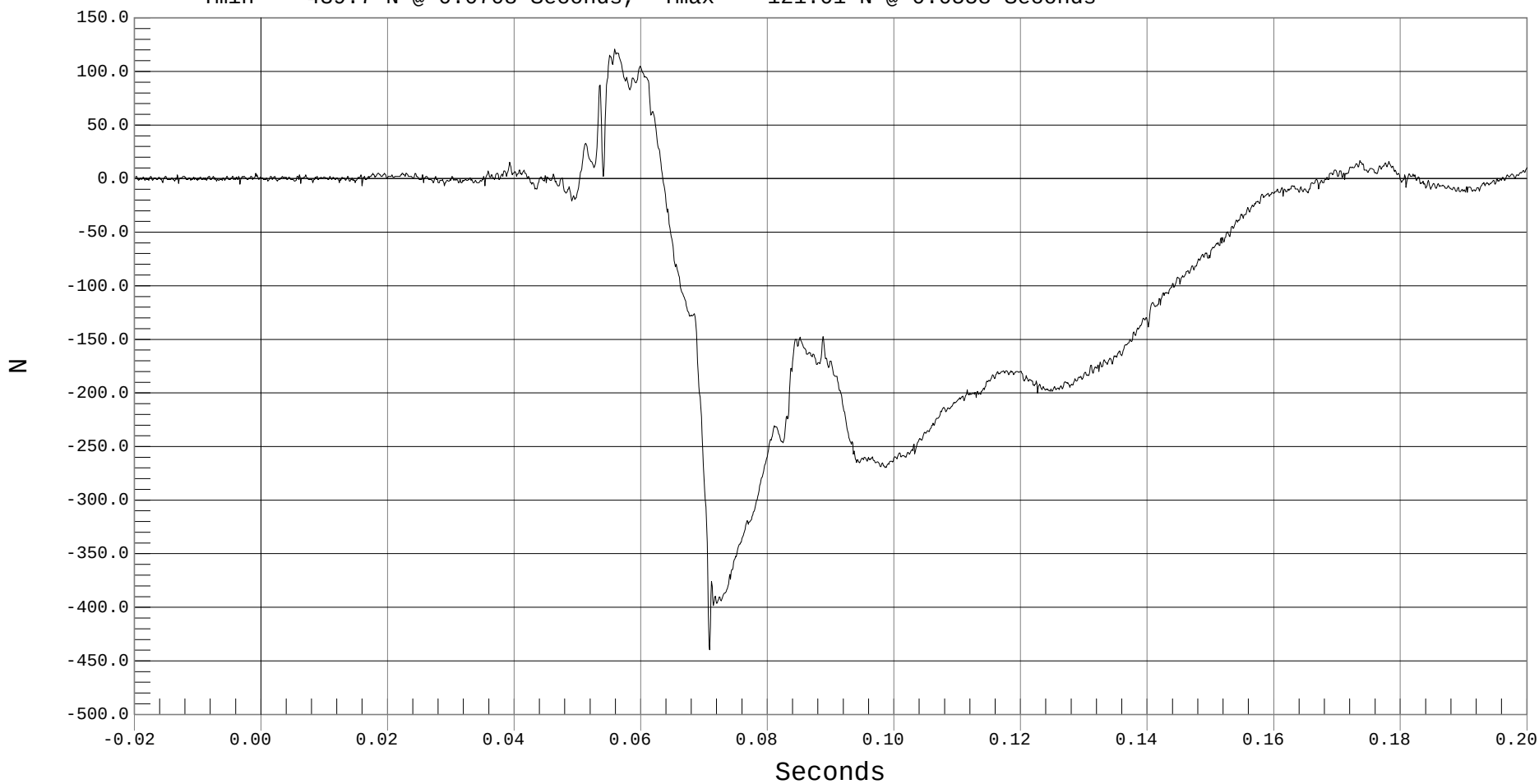
PASSENGER UPPER NECK FORCE X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 REAR PASSENGER UPPER NECK FORCE X, B01061FT.F63

Ymin = -439.7 N @ 0.0708 Seconds, Ymax = 121.01 N @ 0.0558 Seconds





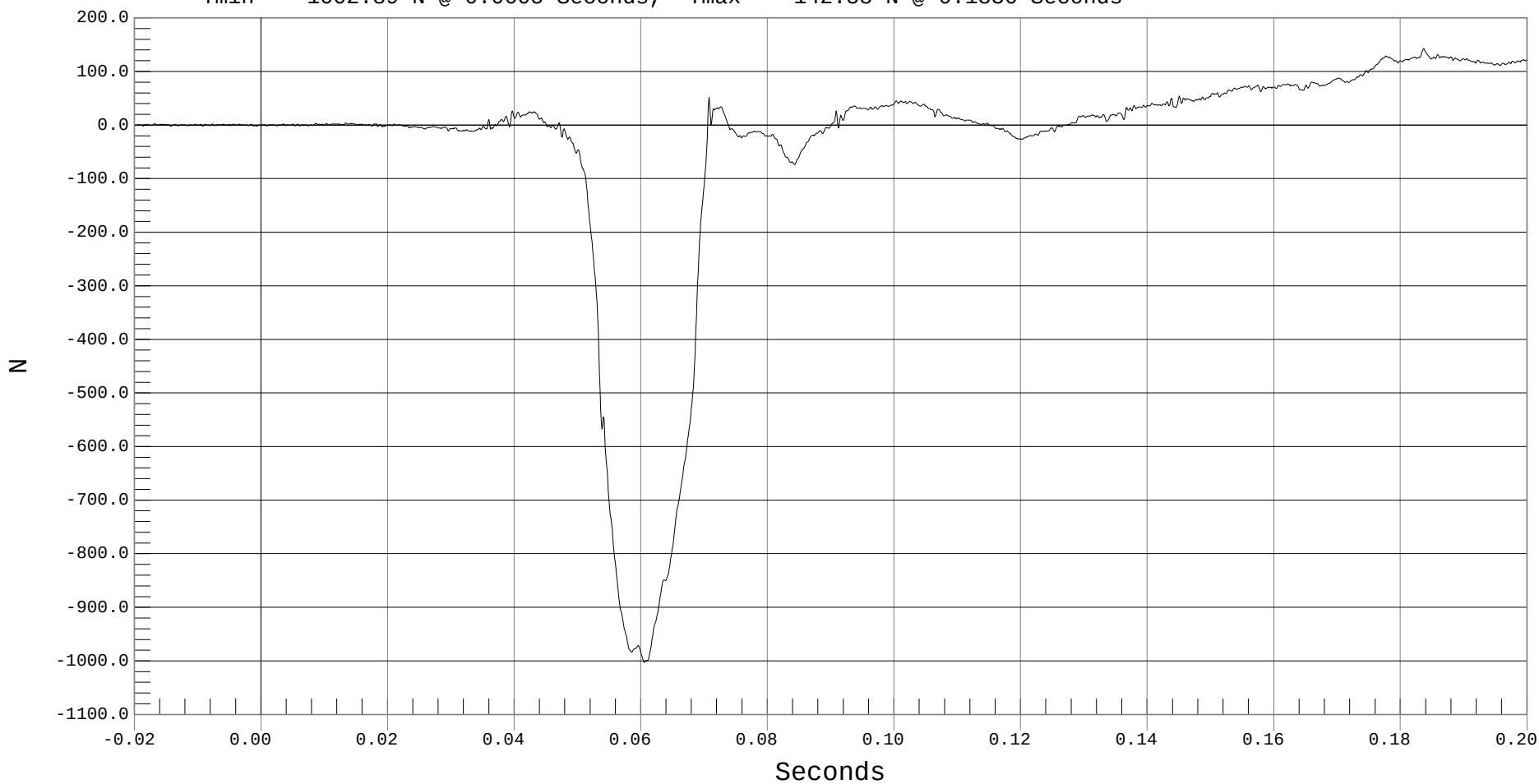
PASSENGER UPPER NECK FORCE Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 REAR PASSENGER UPPER NECK FORCE Y, B01061FT.F65

Ymin = -1002.89 N @ 0.0605 Seconds, Ymax = 142.58 N @ 0.1836 Seconds





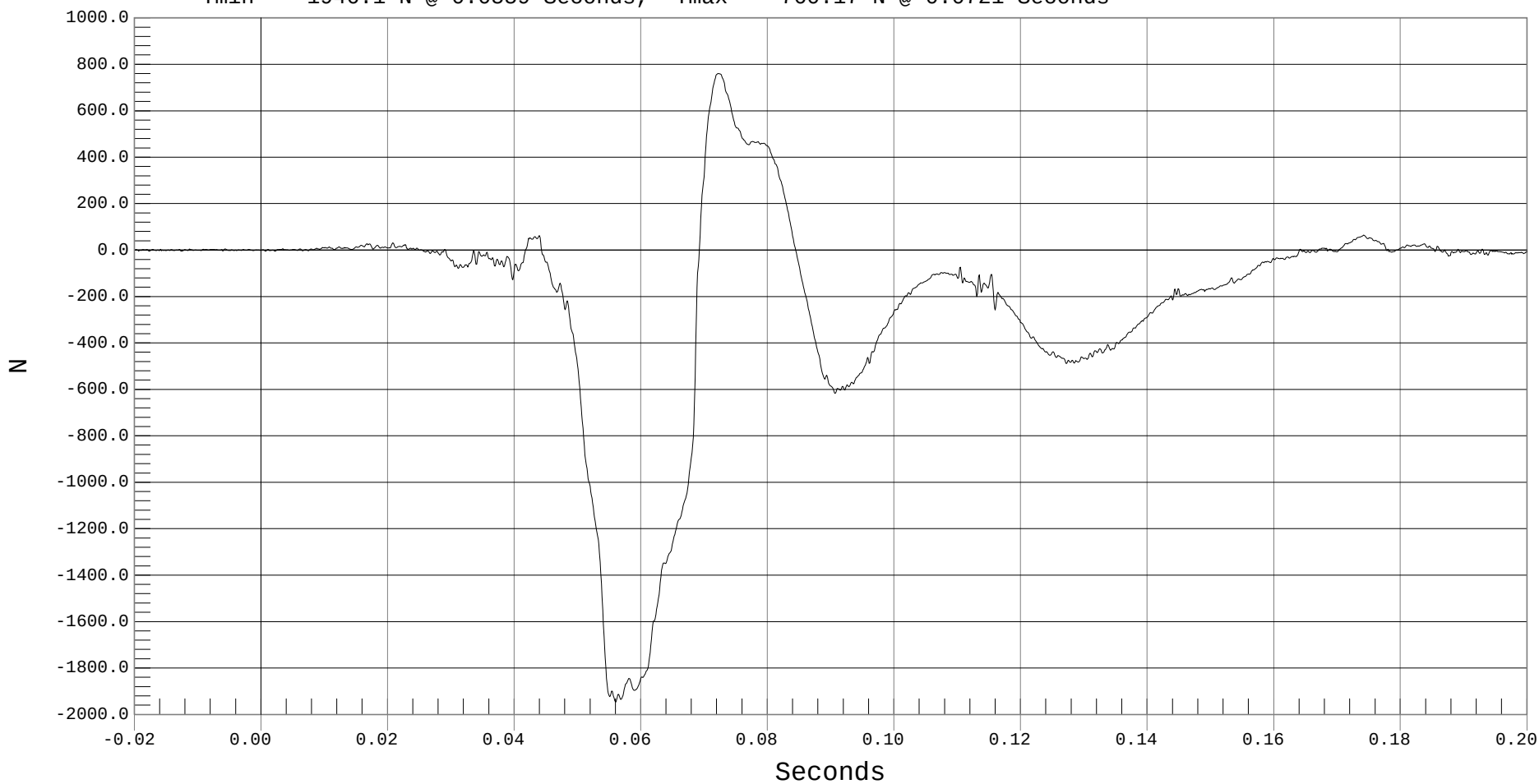
PASSENGER UPPER NECK FORCE Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 REAR PASSENGER UPPER NECK FORCE Z, B01061FT.F66

Ymin = -1946.1 N @ 0.0559 Seconds, Ymax = 760.17 N @ 0.0721 Seconds





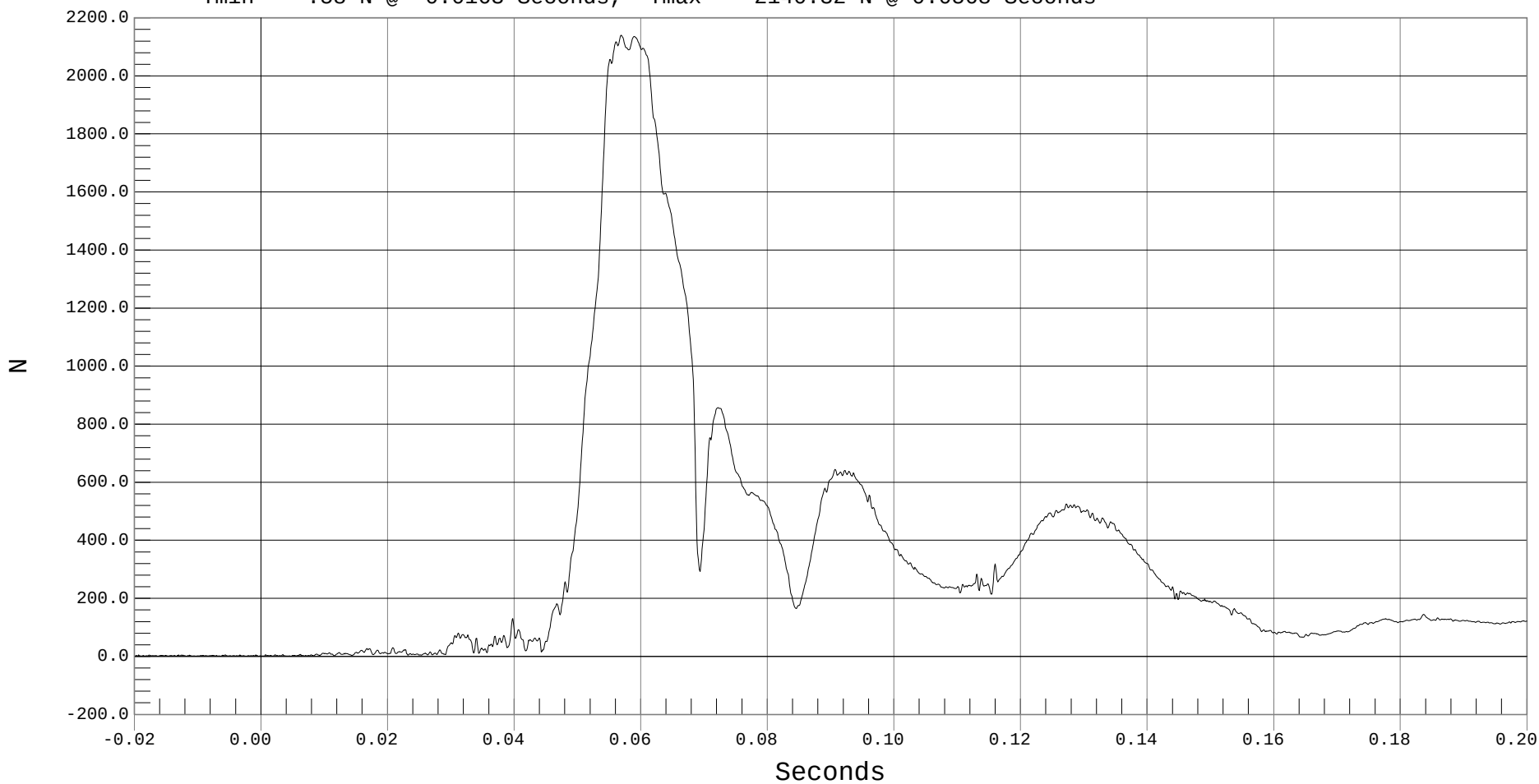
PASSENGER UPPER NECK FORCE RESULTANT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 PASSENGER UPPER NECK FORCE RESULTANT, B01061FV.F63

Ymin = .58 N @ -0.0163 Seconds, Ymax = 2140.32 N @ 0.0568 Seconds





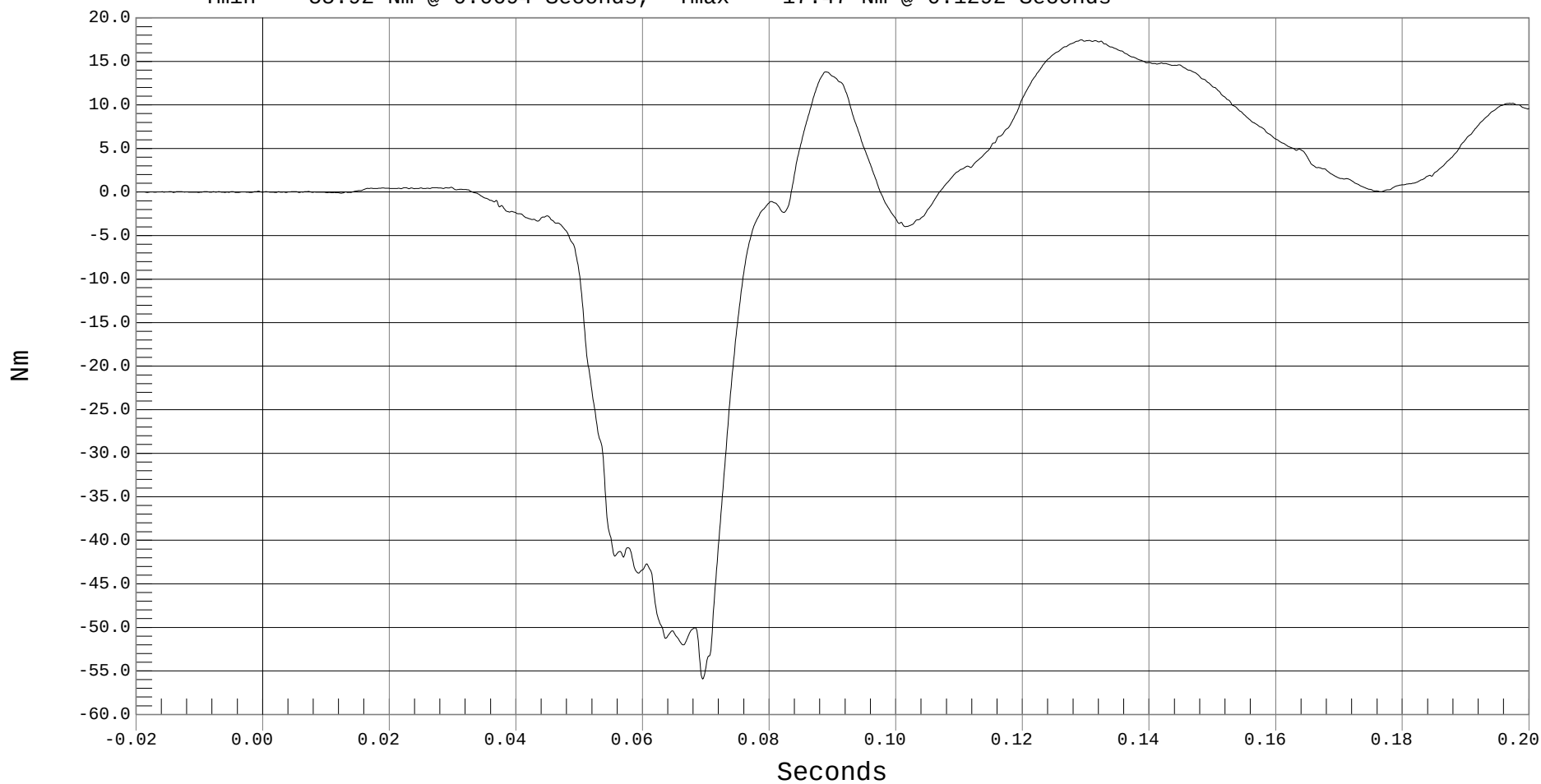
PASSENGER UPPER NECK MOMENT X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER UPPER NECK MOMENT X, B01061MF.M67

Ymin = -55.92 Nm @ 0.0694 Seconds, Ymax = 17.47 Nm @ 0.1292 Seconds





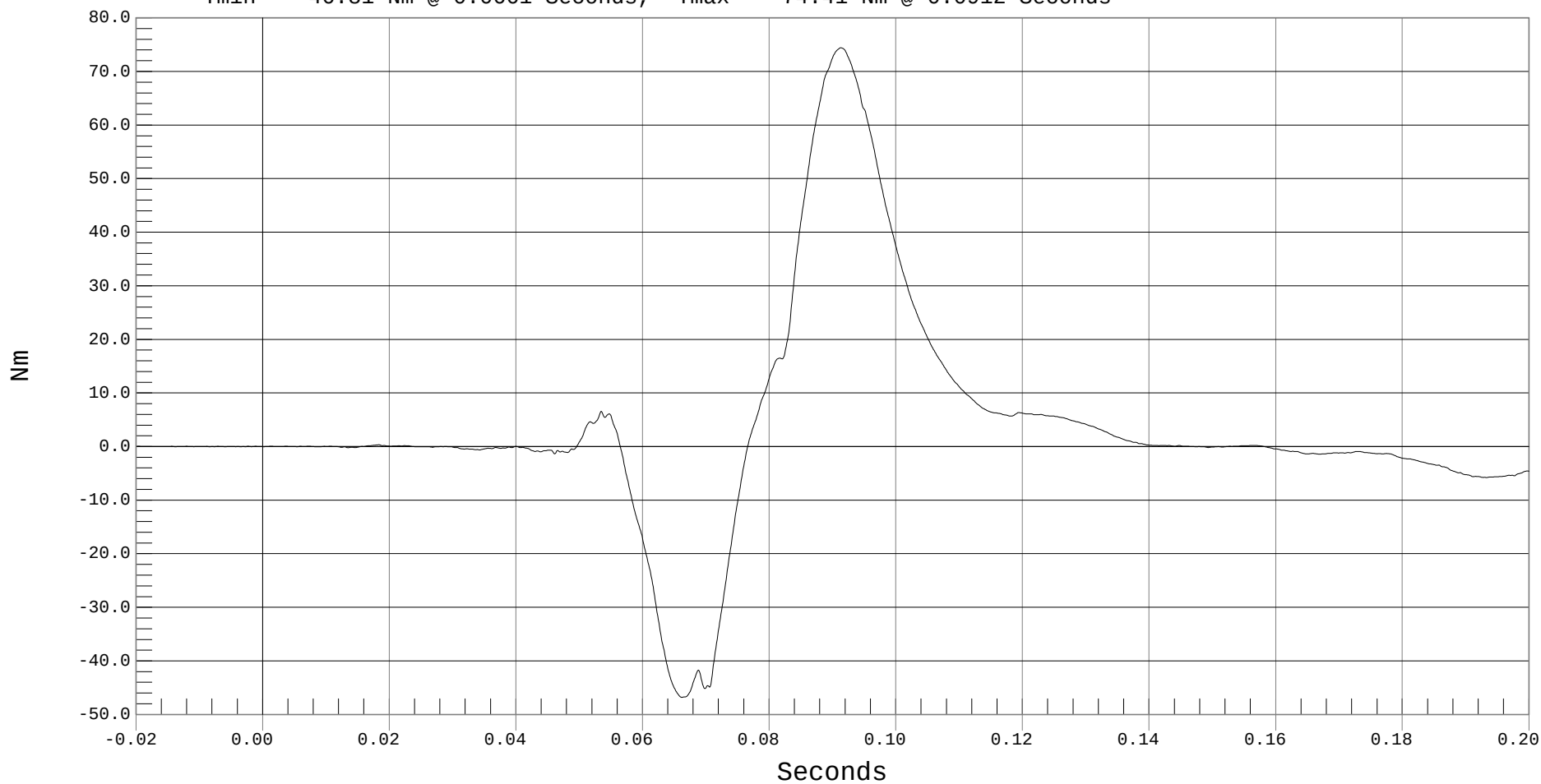
PASSENGER UPPER NECK MOMENT Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER UPPER NECK MOMENT Y, B01061MF.M68

Ymin = -46.81 Nm @ 0.0661 Seconds, Ymax = 74.41 Nm @ 0.0912 Seconds





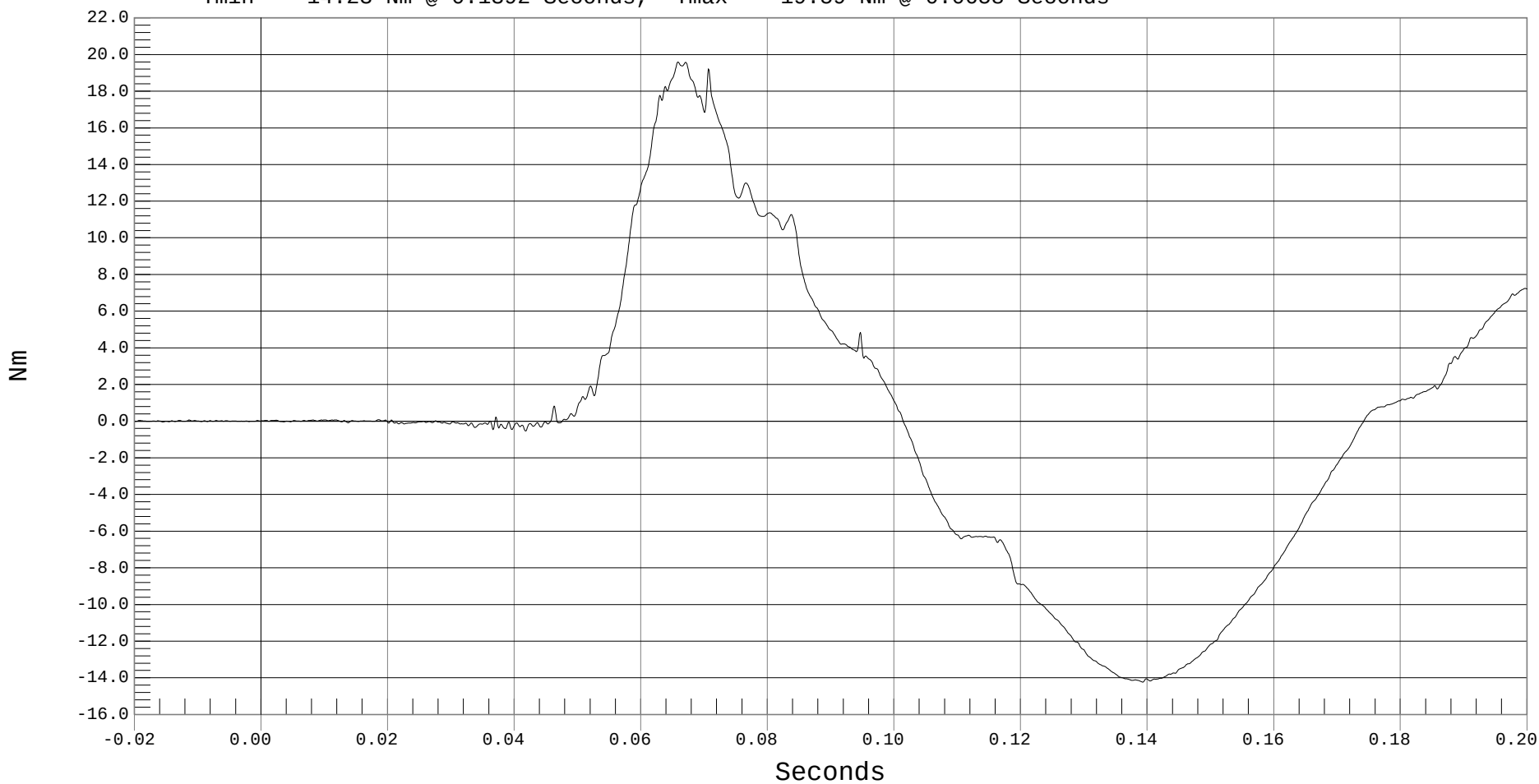
PASSENGER UPPER NECK MOMENT Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER UPPER NECK MOMENT Z, B01061MF.M69

Ymin = -14.23 Nm @ 0.1392 Seconds, Ymax = 19.59 Nm @ 0.0658 Seconds





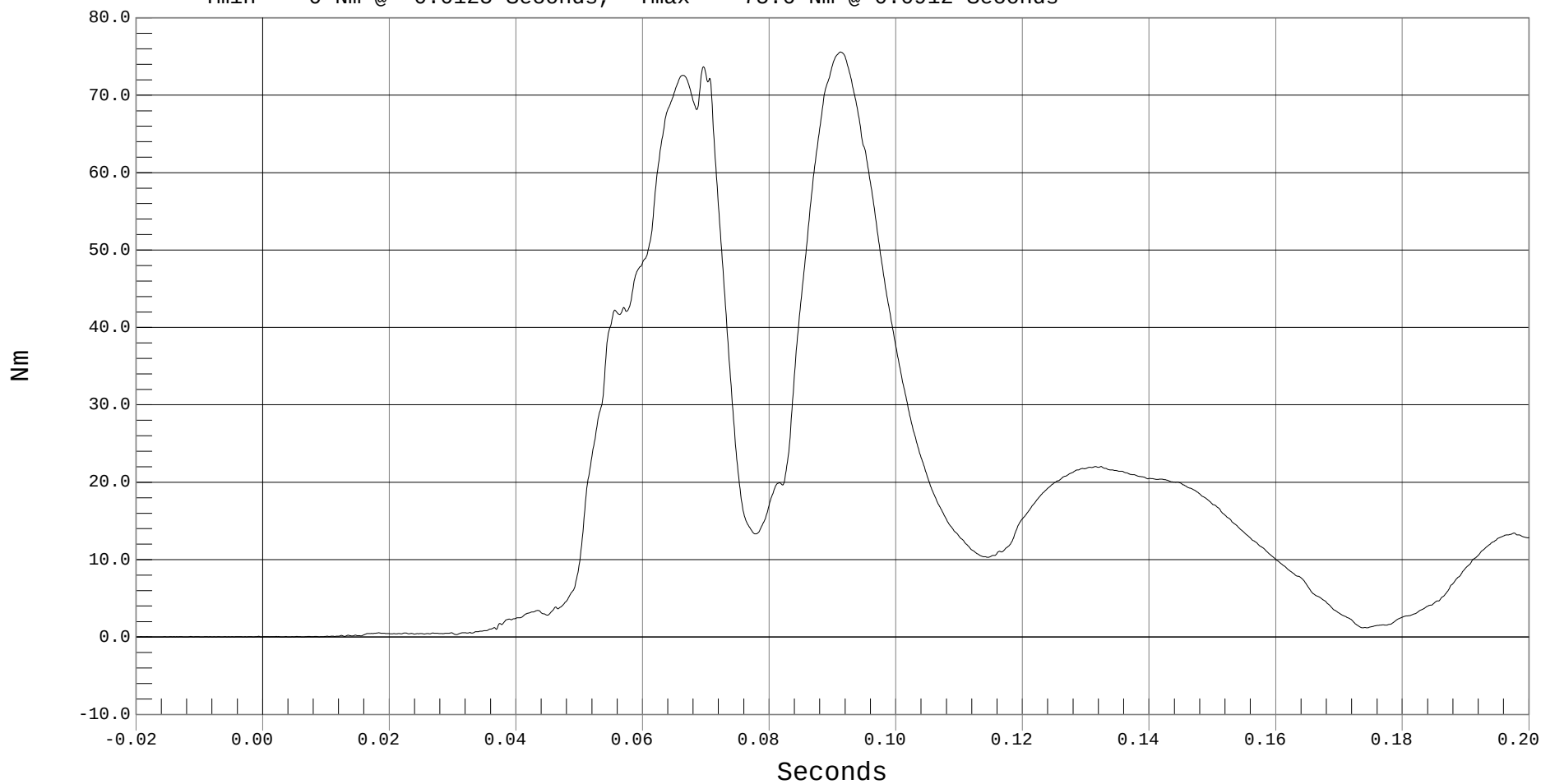
PASSENGER UPPER NECK MOMENT RESULTANT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 PASSENGER UPPER NECK MOMENT RESULTANT, B01061MV.M67

Ymin = 0 Nm @ -0.0125 Seconds, Ymax = 75.6 Nm @ 0.0912 Seconds





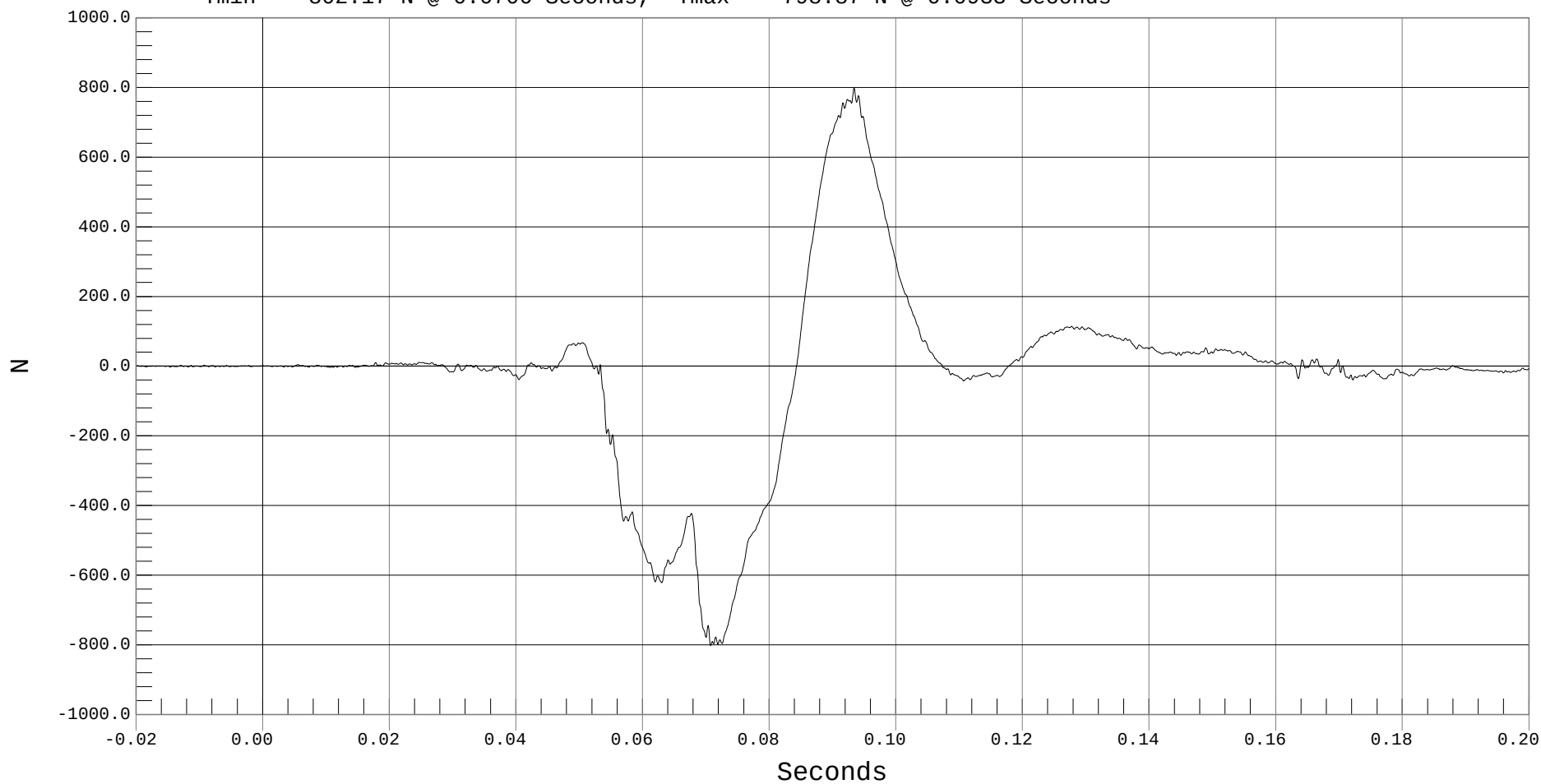
PASSENGER LOWER NECK FORCE X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 REAR PASSENGER LOWER NECK FORCE X, B01061FT.F70

Ymin = -802.17 N @ 0.0706 Seconds, Ymax = 798.87 N @ 0.0933 Seconds





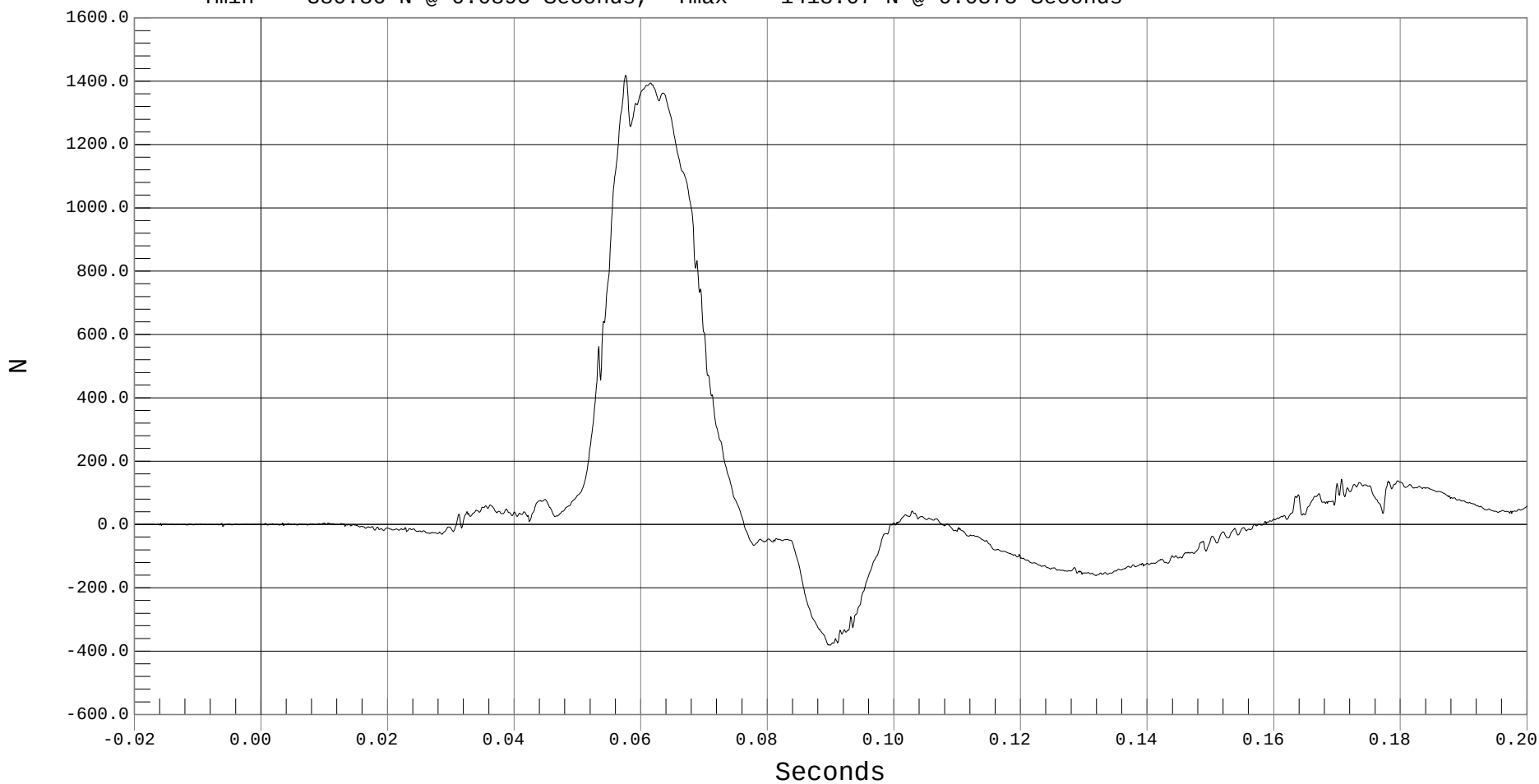
PASSENGER LOWER NECK FORCE Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 REAR PASSENGER LOWER NECK FORCE Y, B01061FT.F71

Ymin = -380.86 N @ 0.0895 Seconds, Ymax = 1418.07 N @ 0.0575 Seconds





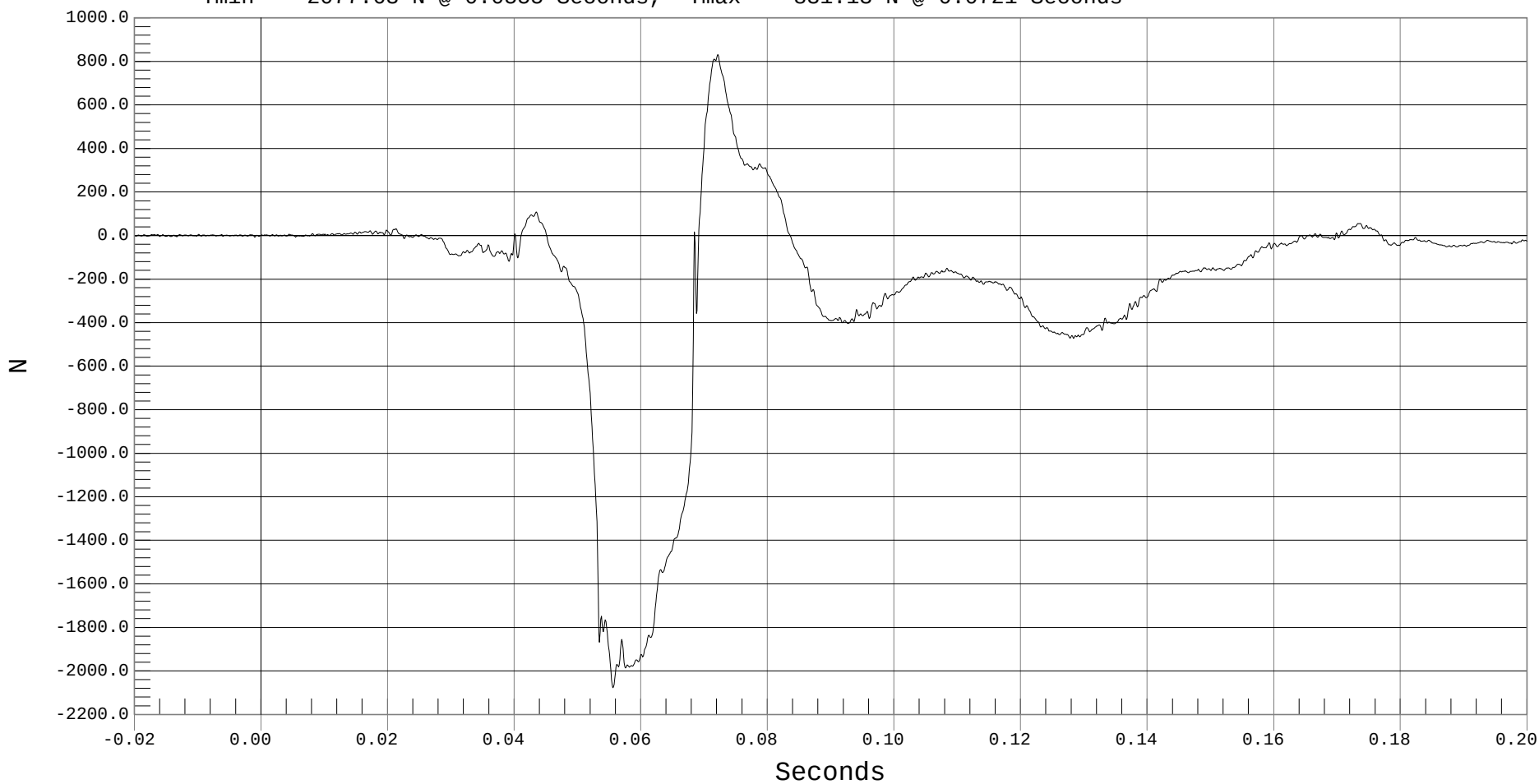
PASSENGER LOWER NECK FORCE Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 REAR PASSENGER LOWER NECK FORCE Z, B01061FT.F72

Ymin = -2077.63 N @ 0.0555 Seconds, Ymax = 831.13 N @ 0.0721 Seconds





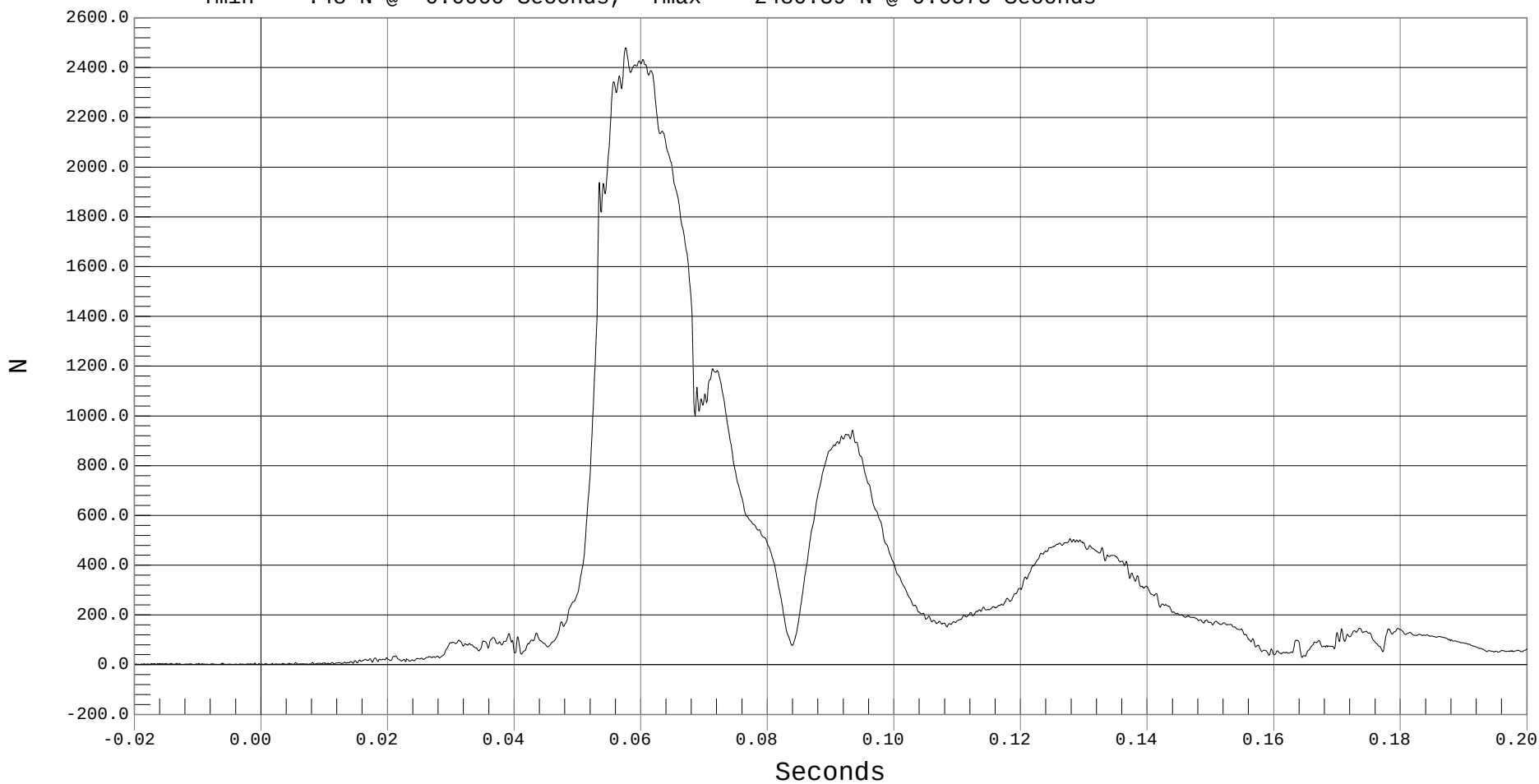
PASSENGER LOWER NECK FORCE RESULTANT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 PASSENGER LOWER NECK FORCE RESULTANT, B01061FV.F70

Ymin = .48 N @ -0.0060 Seconds, Ymax = 2480.39 N @ 0.0575 Seconds





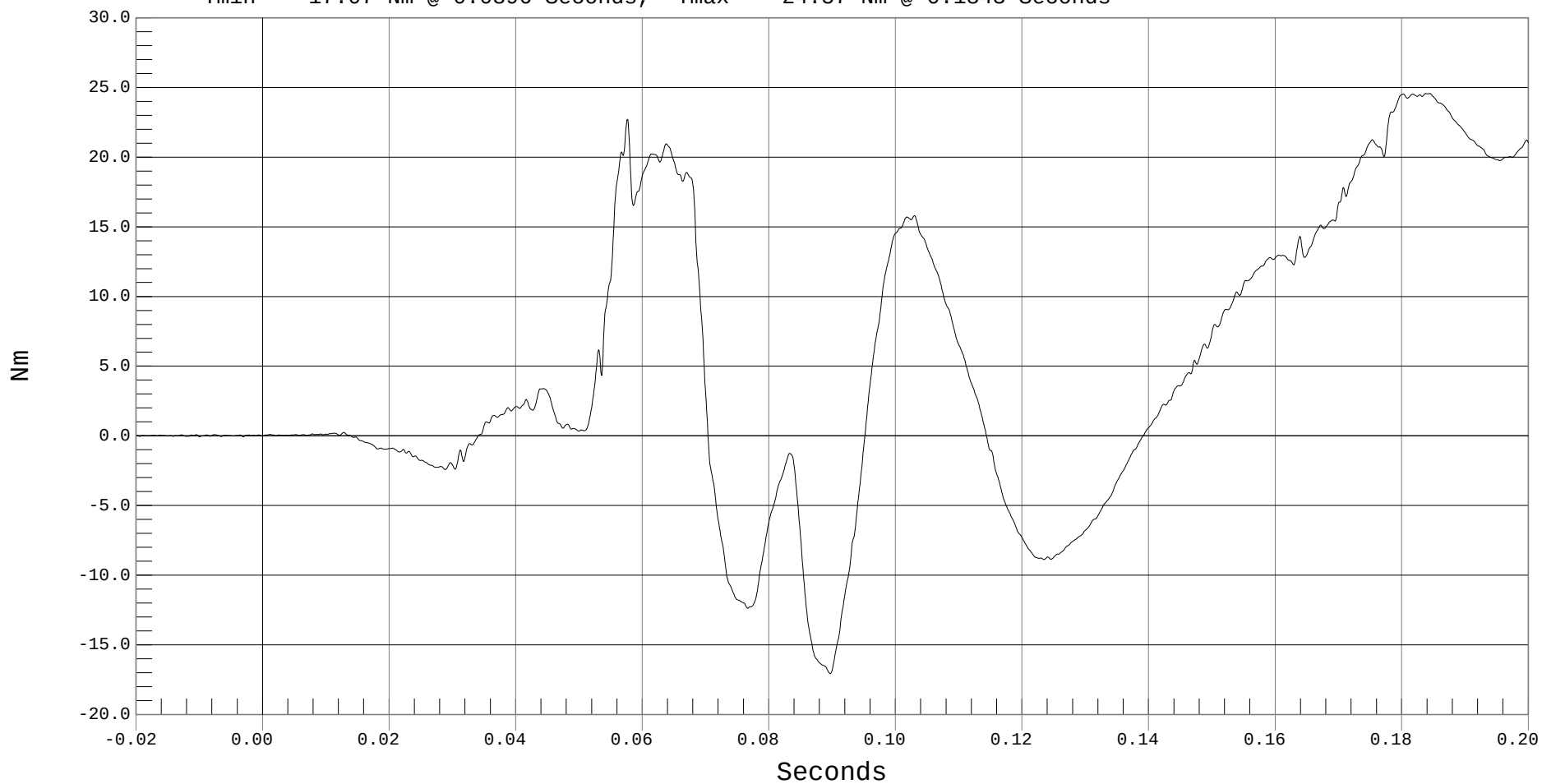
PASSENGER LOWER NECK MOMENT X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER LOWER NECK MOMENT X, B01061MF.M73

Ymin = -17.07 Nm @ 0.0896 Seconds, Ymax = 24.57 Nm @ 0.1843 Seconds





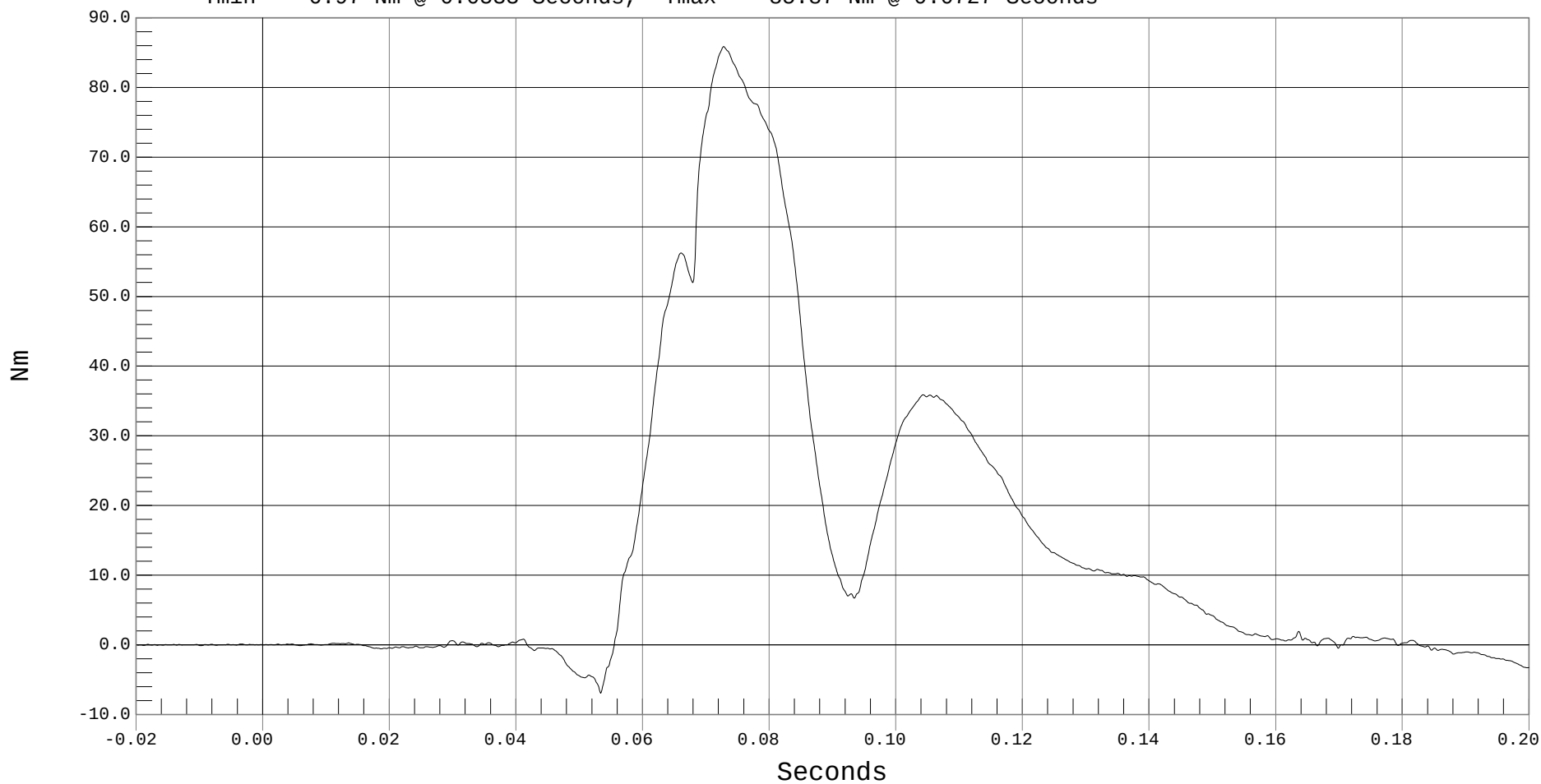
PASSENGER LOWER NECK MOMENT Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER LOWER NECK MOMENT Y, B01061MF.M74

Ymin = -6.97 Nm @ 0.0533 Seconds, Ymax = 85.87 Nm @ 0.0727 Seconds





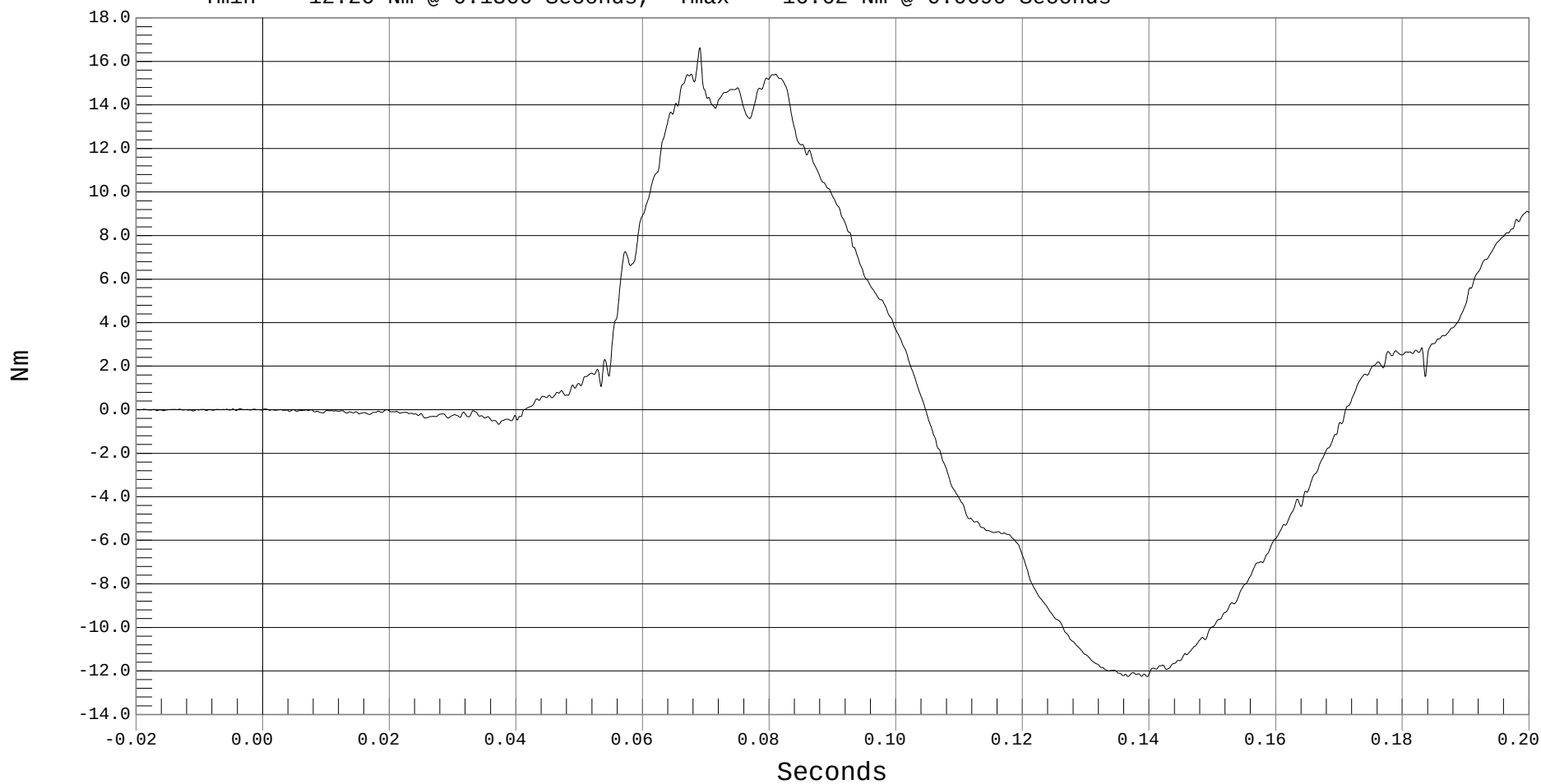
PASSENGER LOWER NECK MOMENT Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER LOWER NECK MOMENT Z, B01061MF.M75

Ymin = -12.26 Nm @ 0.1366 Seconds, Ymax = 16.62 Nm @ 0.0690 Seconds





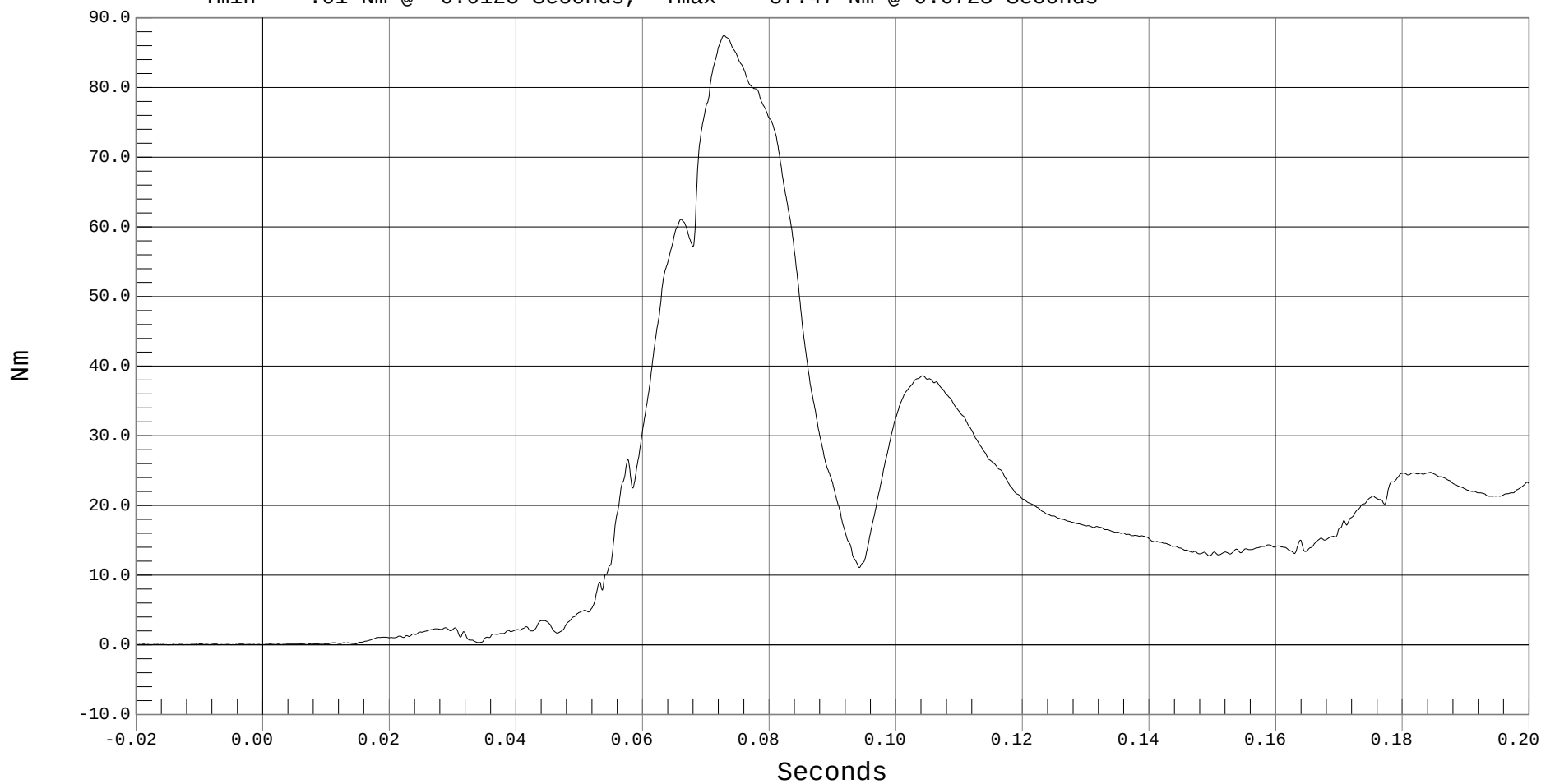
PASSENGER LOWER NECK MOMENT RESULTANT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 PASSENGER LOWER NECK MOMENT RESULTANT, B01061MV.M73

Ymin = .01 Nm @ -0.0125 Seconds, Ymax = 87.47 Nm @ 0.0728 Seconds





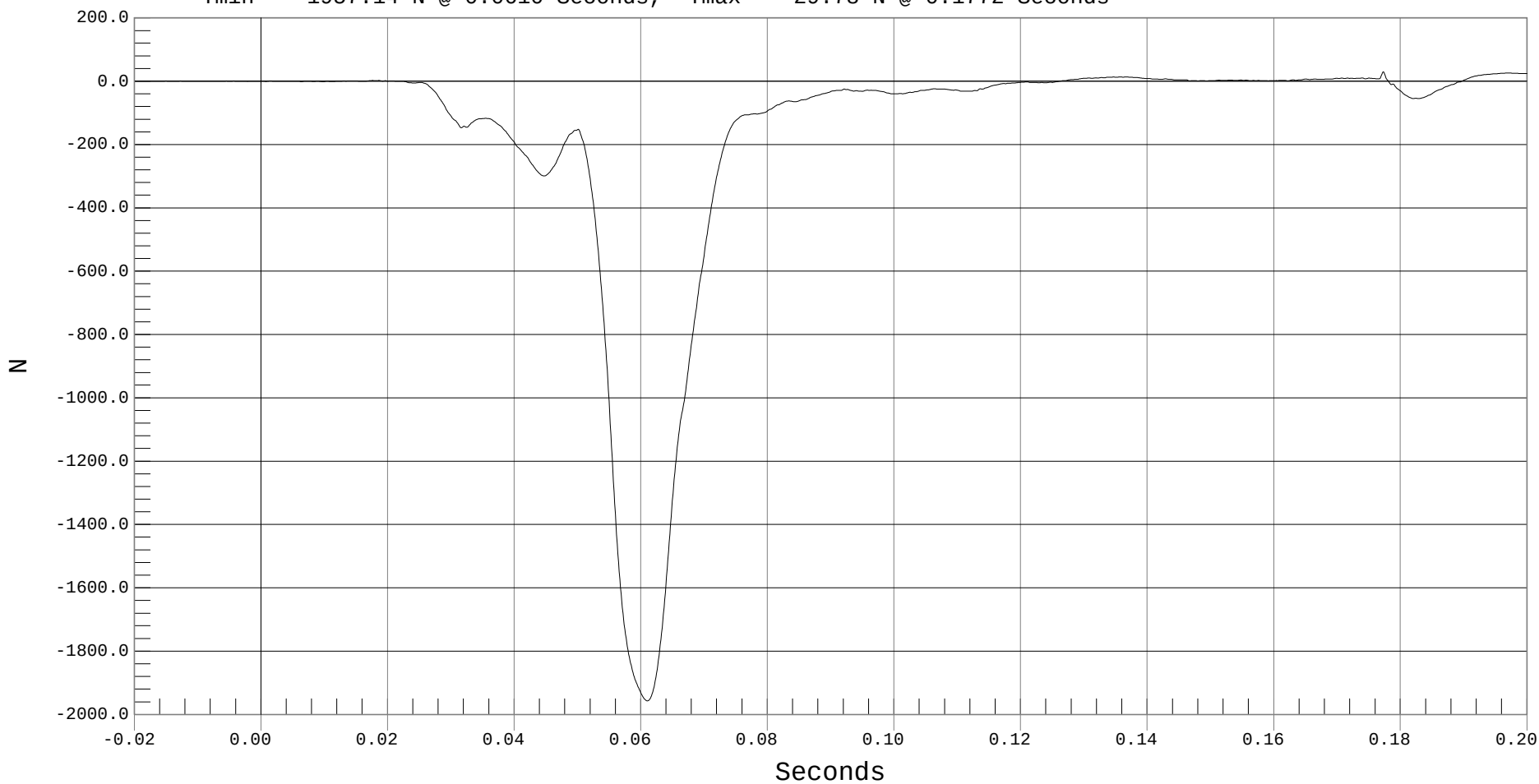
PASSENGER SHOULDER FORCE X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER SHOULDER FORCE X, B01061FF.F76

Ymin = -1957.14 N @ 0.0610 Seconds, Ymax = 29.78 N @ 0.1772 Seconds





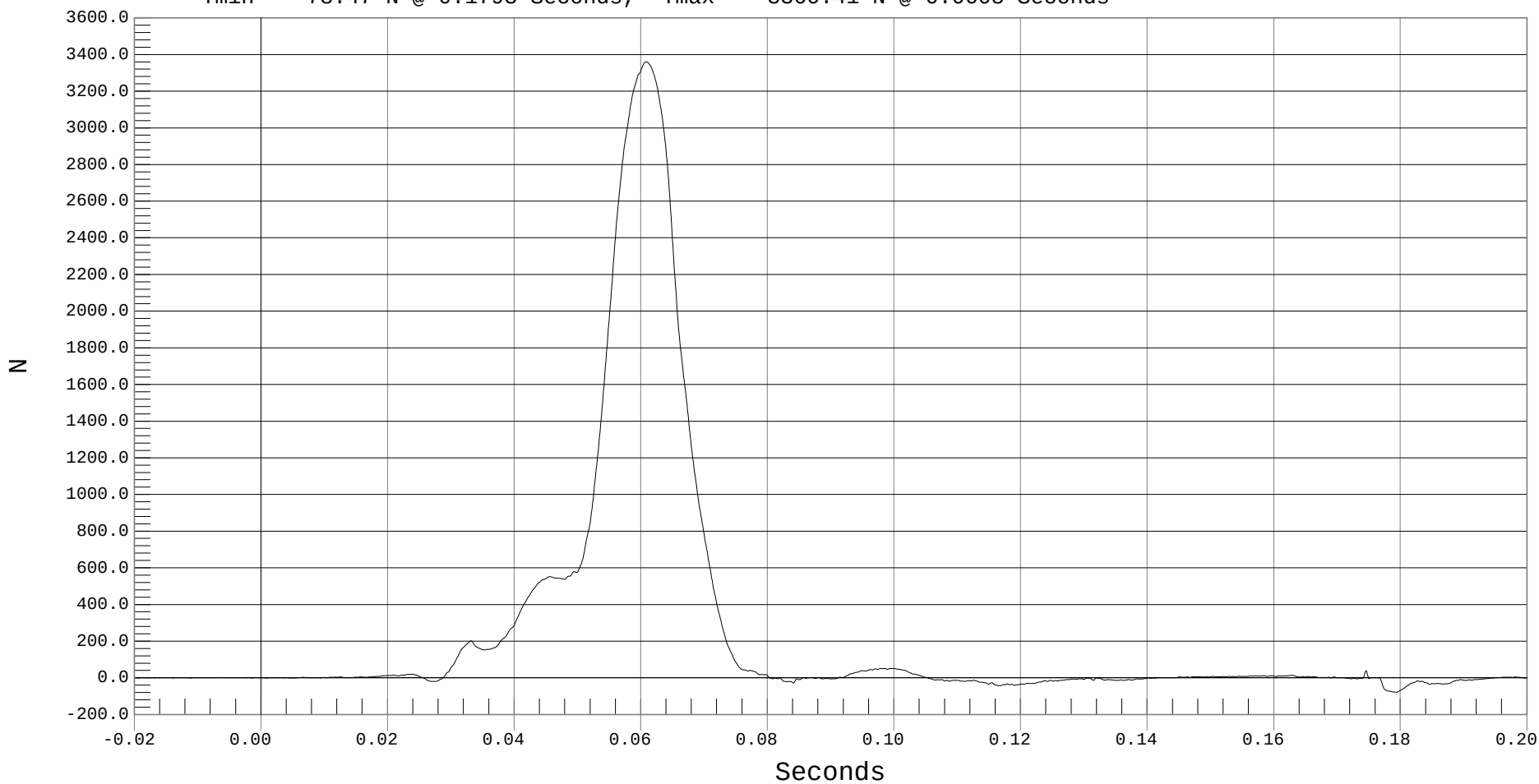
PASSENGER SHOULDER FORCE Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER SHOULDER FORCE Y, B01061FF.F77

Ymin = -78.47 N @ 0.1793 Seconds, Ymax = 3360.41 N @ 0.0608 Seconds





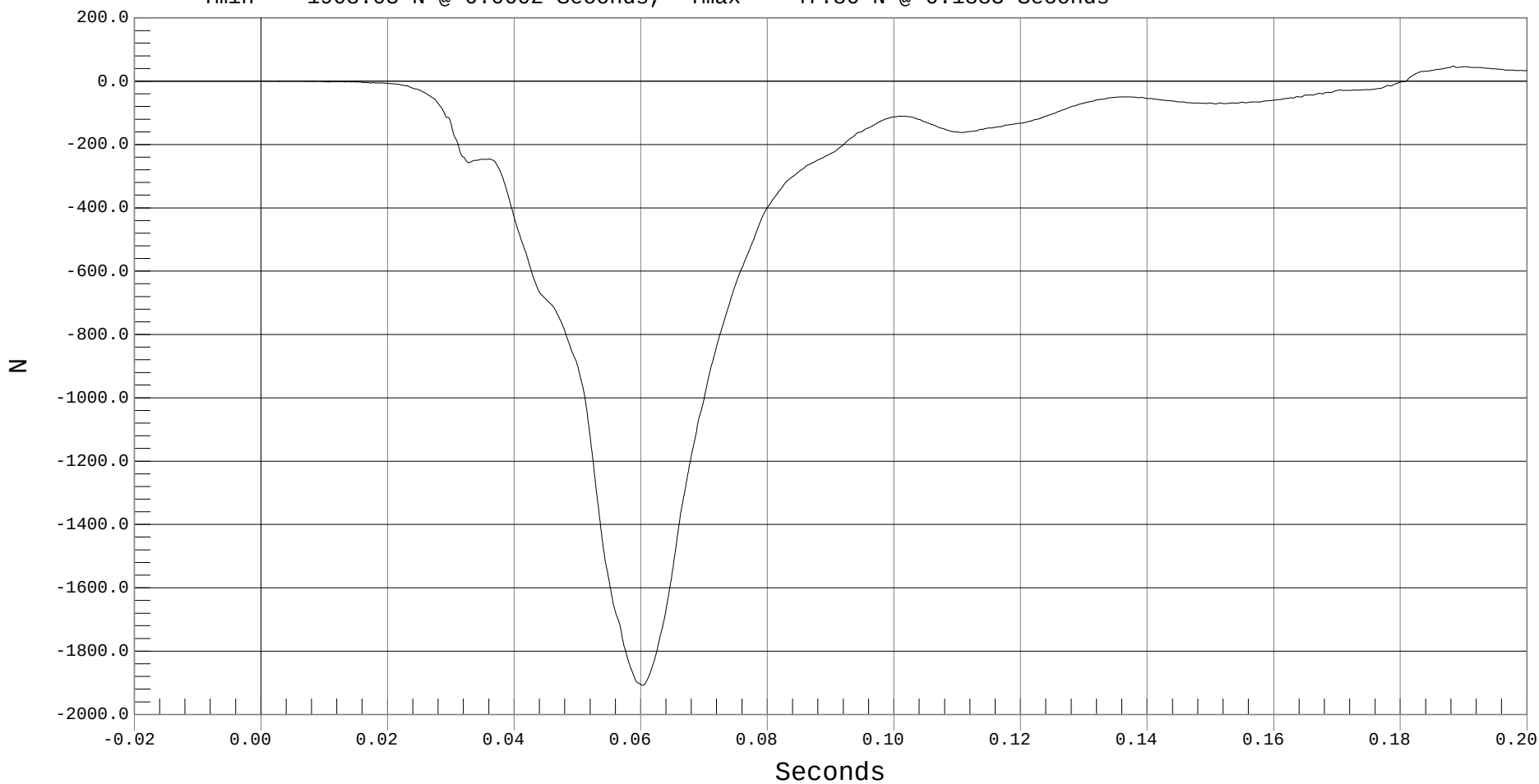
PASSENGER SHOULDER FORCE Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER SHOULDER FORCE Z, B01061FF.F78

Ymin = -1908.03 N @ 0.0602 Seconds, Ymax = 47.86 N @ 0.1883 Seconds





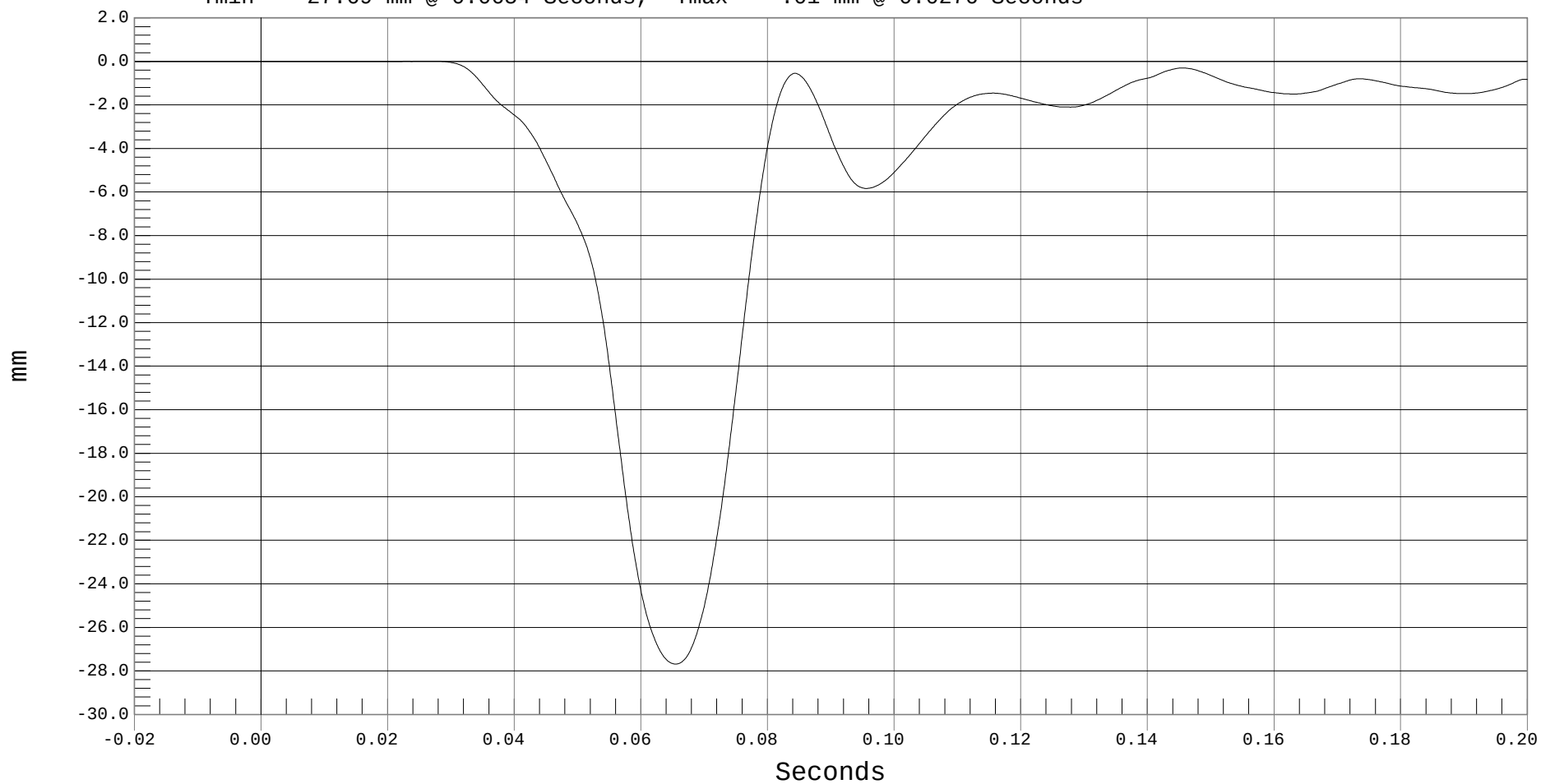
PASSENGER UPPER RIB DISPLACEMENT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 180

— 1 REAR PASSENGER UPPER RIB DISPLACEMENT, B01061DF.D86

Ymin = -27.69 mm @ 0.0654 Seconds, Ymax = .01 mm @ 0.0276 Seconds





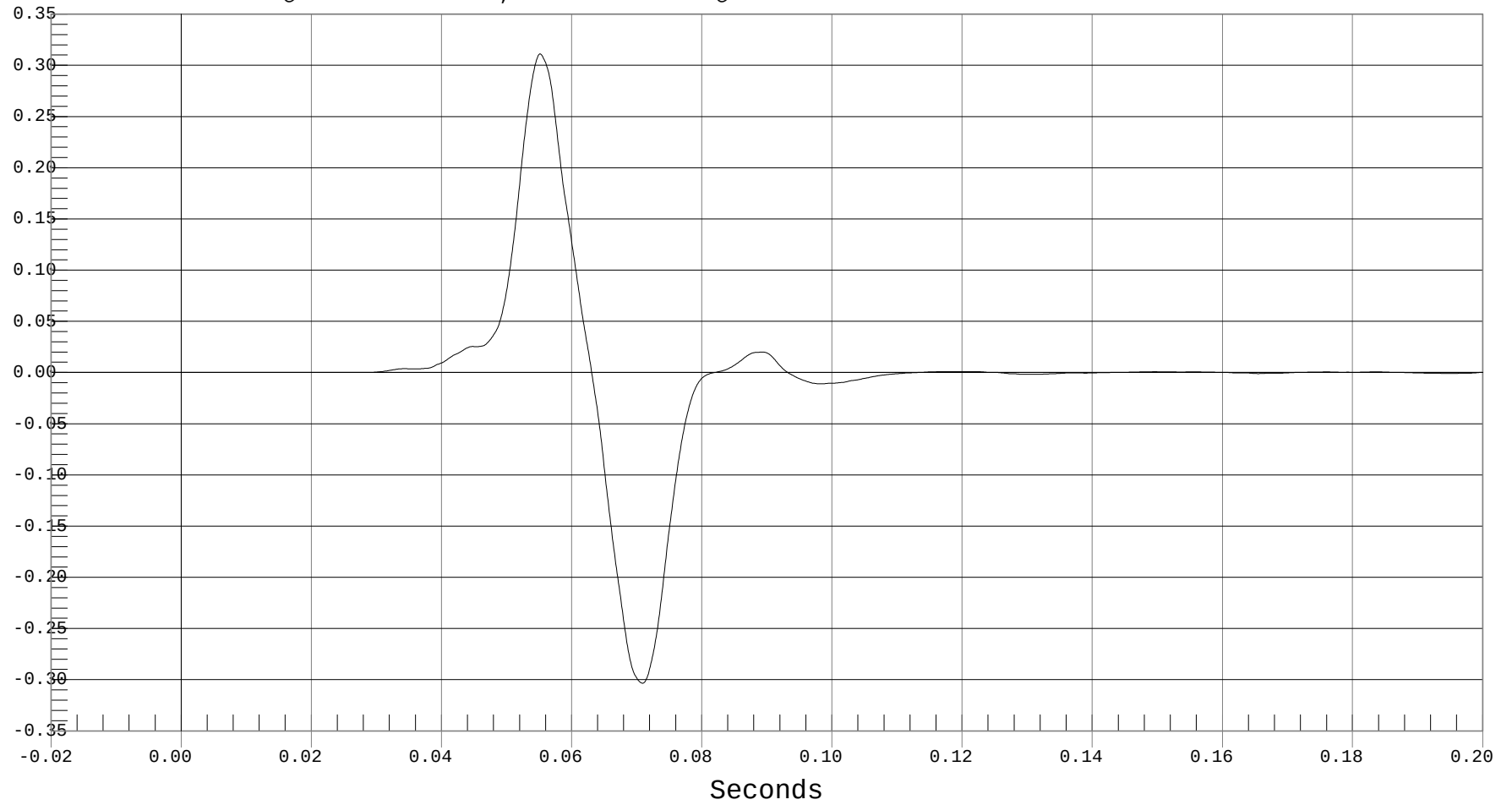
PASSENGER UPPER RIB VISCOUS CRITERIA

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 180

— 1 Viscous Criterion, B01061DV.C86

Ymin = -.3 @ 0.0708 Seconds, Ymax = .31 @ 0.0550 Seconds





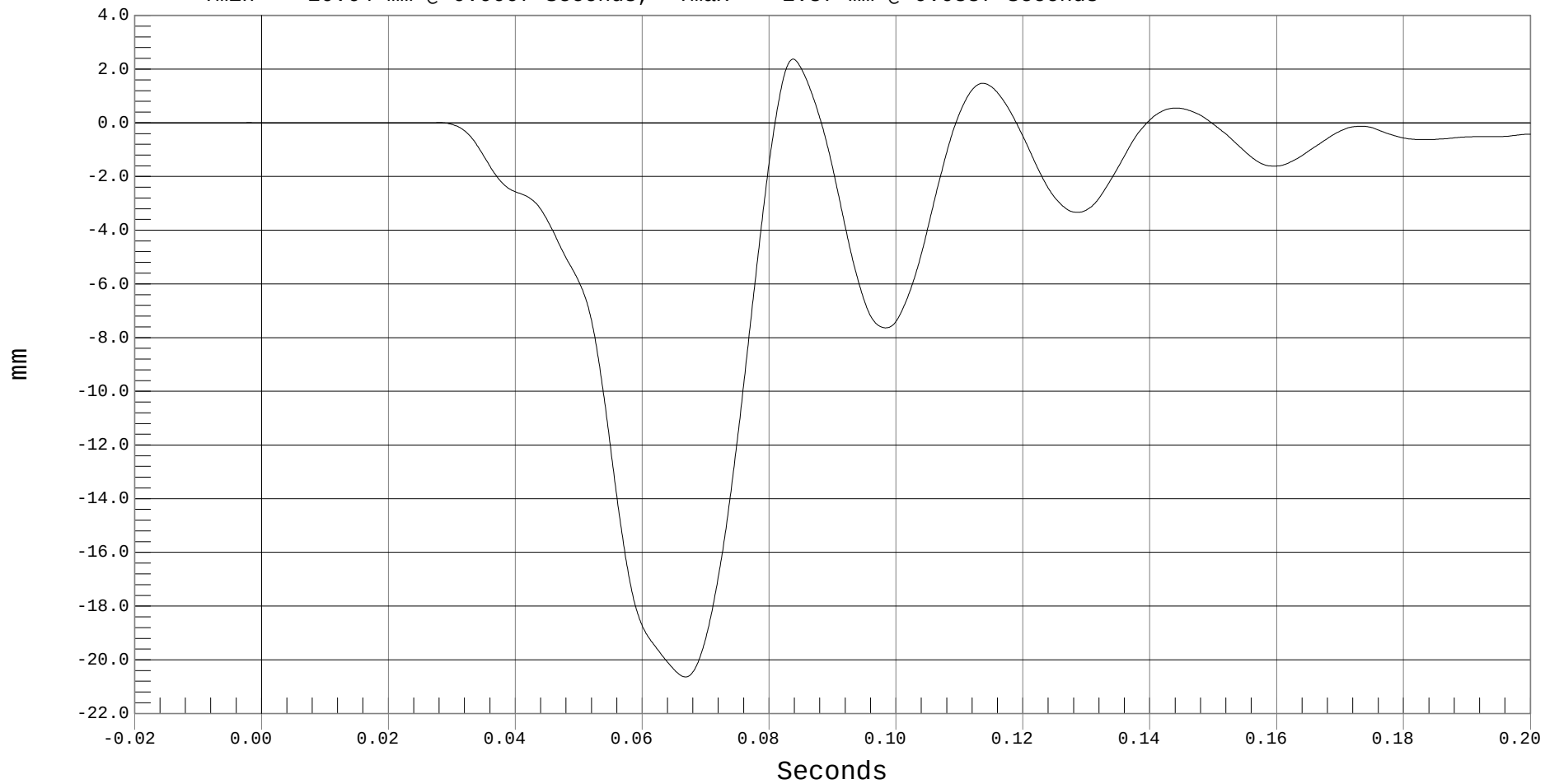
PASSENGER MID RIB DISPLACEMENT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 180

— 1 REAR PASSENGER MID RIB DISPLACEMENT, B01061DF.D87

Ymin = -20.64 mm @ 0.0667 Seconds, Ymax = 2.37 mm @ 0.0837 Seconds





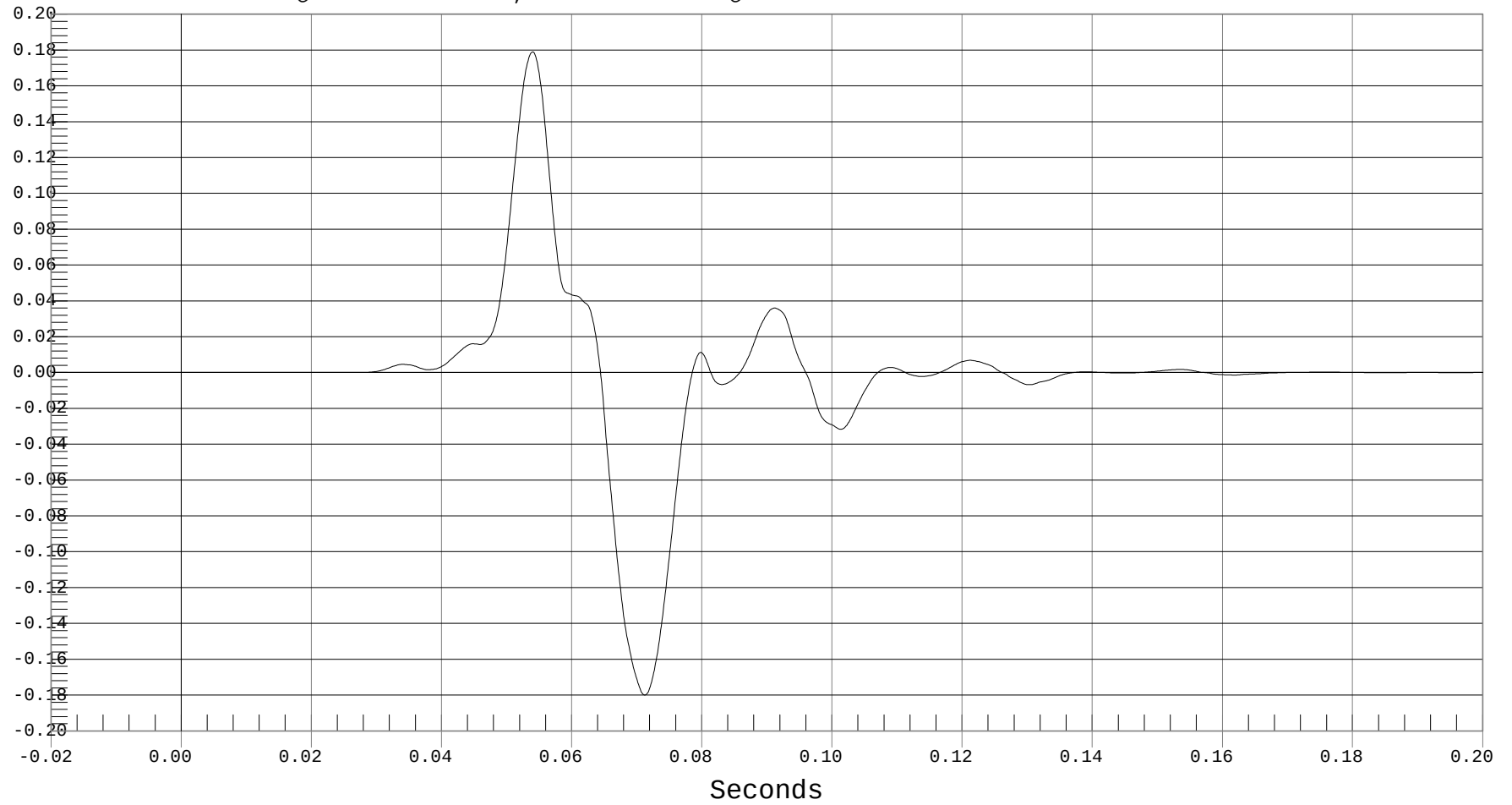
PASSENGER MID RIB VISCOUS CRITERIA

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 180

— 1 Viscous Criterion, B01061DV.C87

Ymin = -.18 @ 0.0711 Seconds, Ymax = .18 @ 0.0539 Seconds





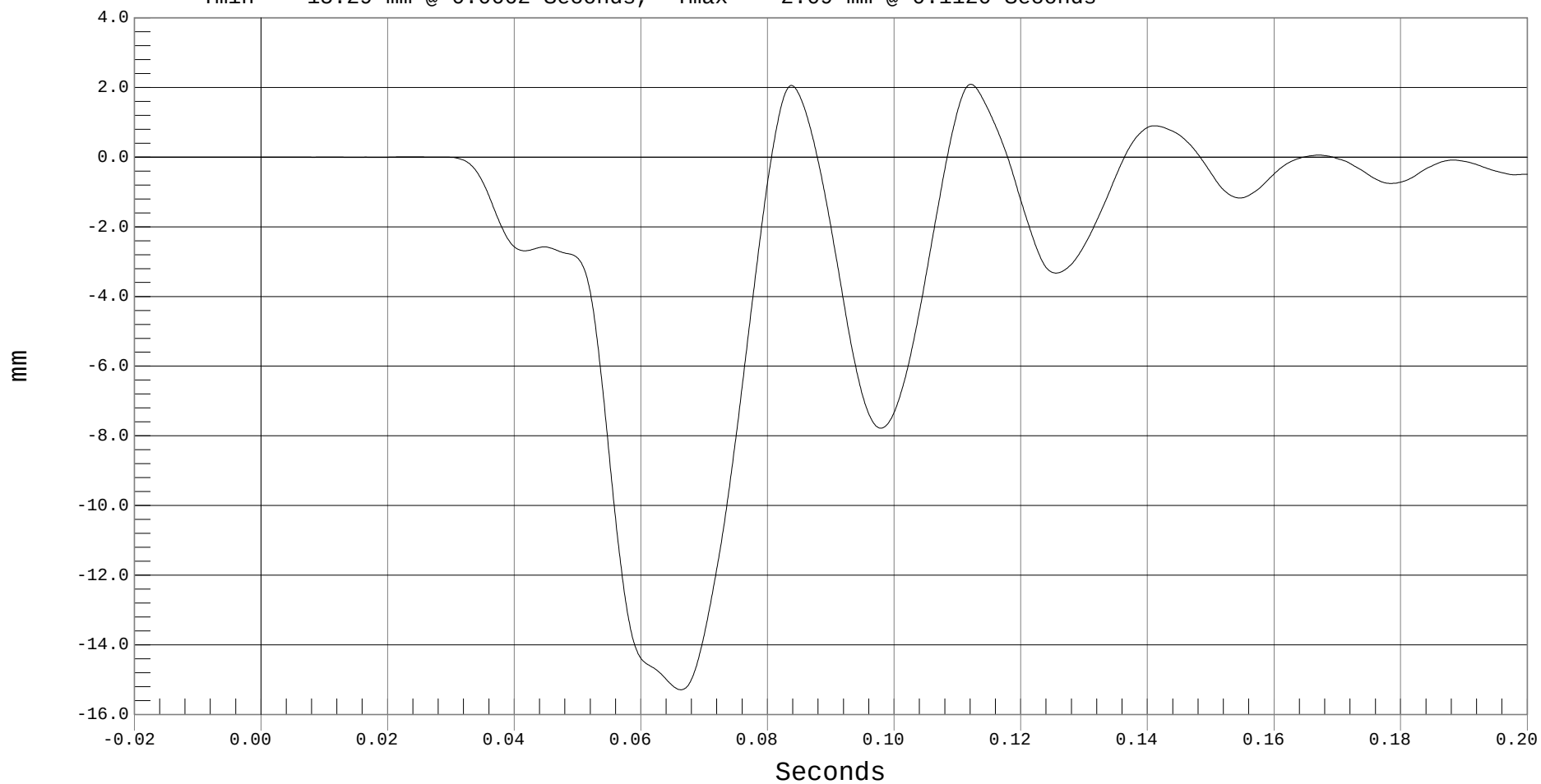
PASSENGER LOWER RIB DISPLACEMENT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 180

— 1 REAR PASSENGER LOWER RIB DISPLACEMENT, B01061DF.D88

Ymin = -15.29 mm @ 0.0662 Seconds, Ymax = 2.09 mm @ 0.1120 Seconds





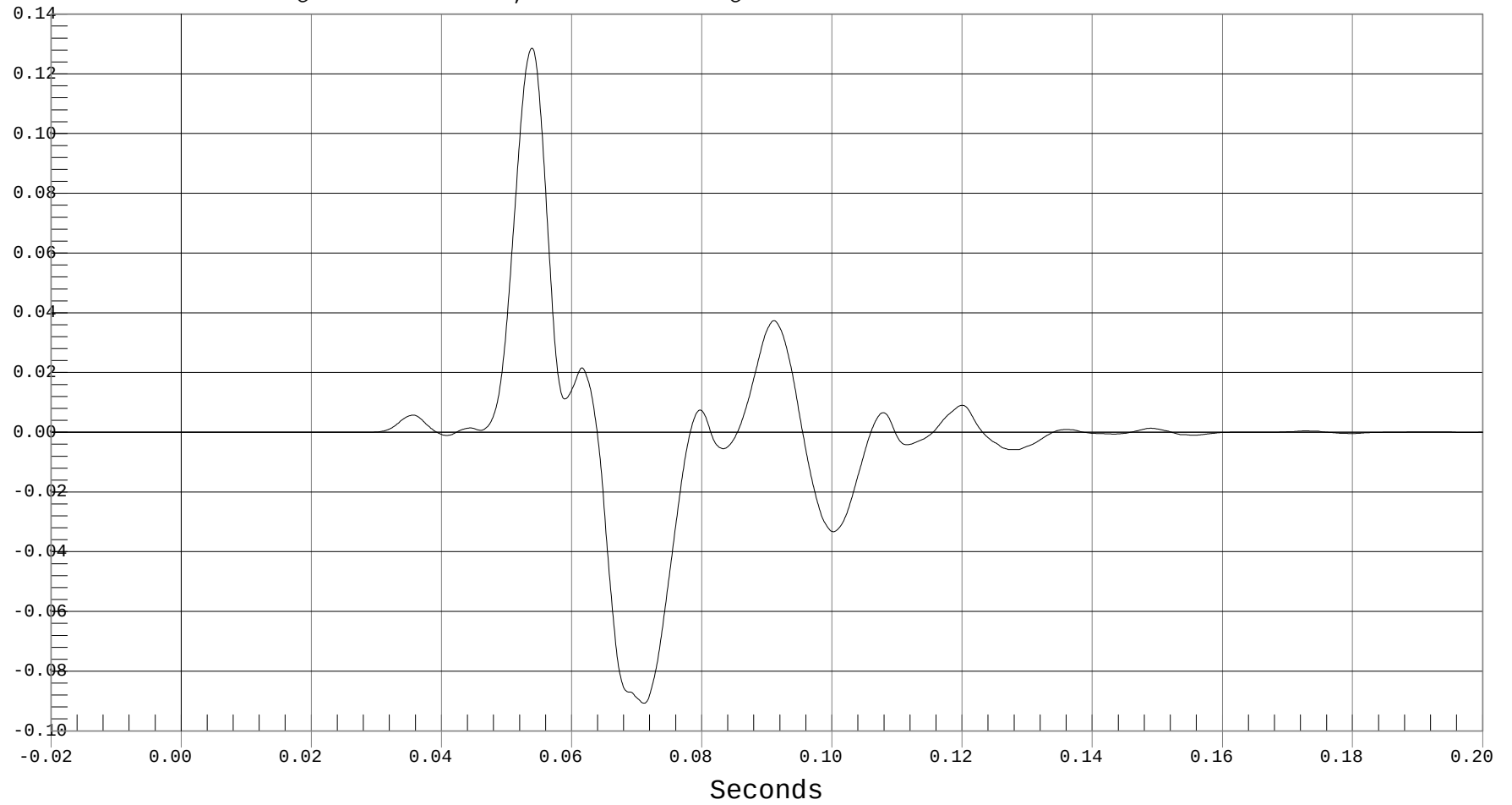
PASSENGER LOWER RIB VISCOUS CRITERIA

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 180

— 1 Viscous Criterion, B01061DV.C88

Ymin = -.09 @ 0.0710 Seconds, Ymax = .13 @ 0.0538 Seconds





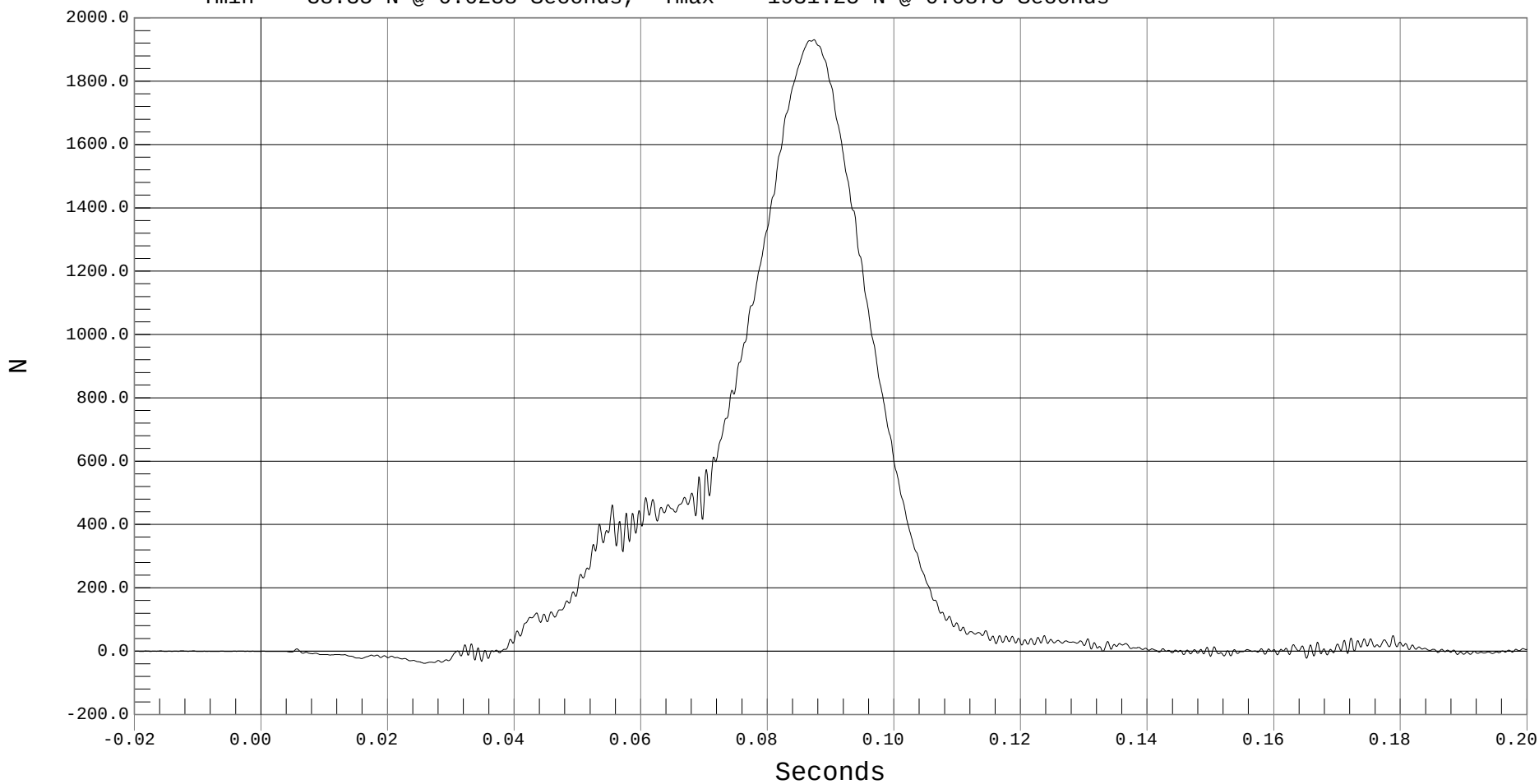
PASSENGER TORSO FORCE X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER TORSO FORCE X, B01061FF.F92

Ymin = -38.35 N @ 0.0258 Seconds, Ymax = 1931.25 N @ 0.0873 Seconds





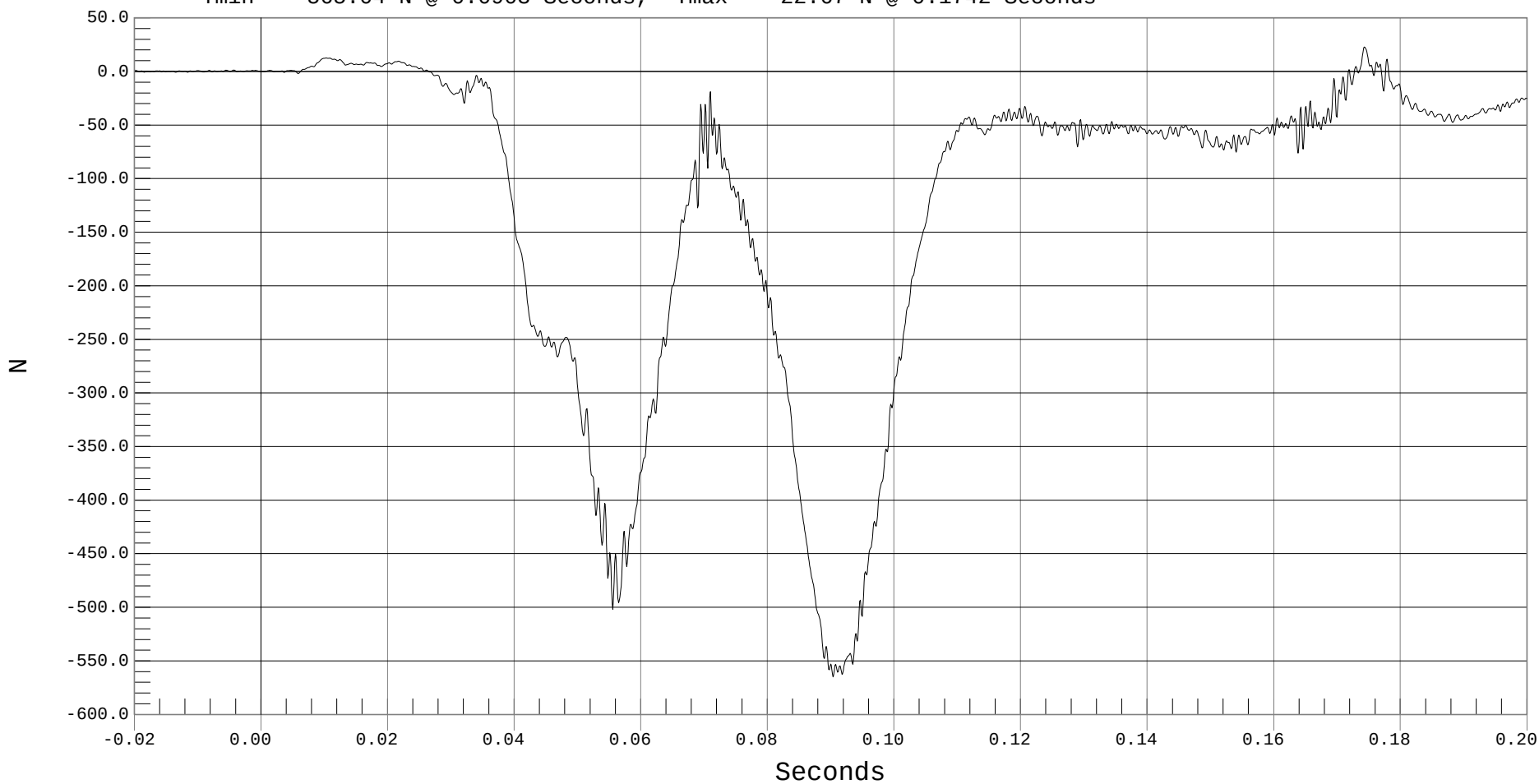
PASSENGER TORSO FORCE Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER TORSO FORCE Y, B01061FF.F93

Ymin = -565.04 N @ 0.0903 Seconds, Ymax = 22.67 N @ 0.1742 Seconds





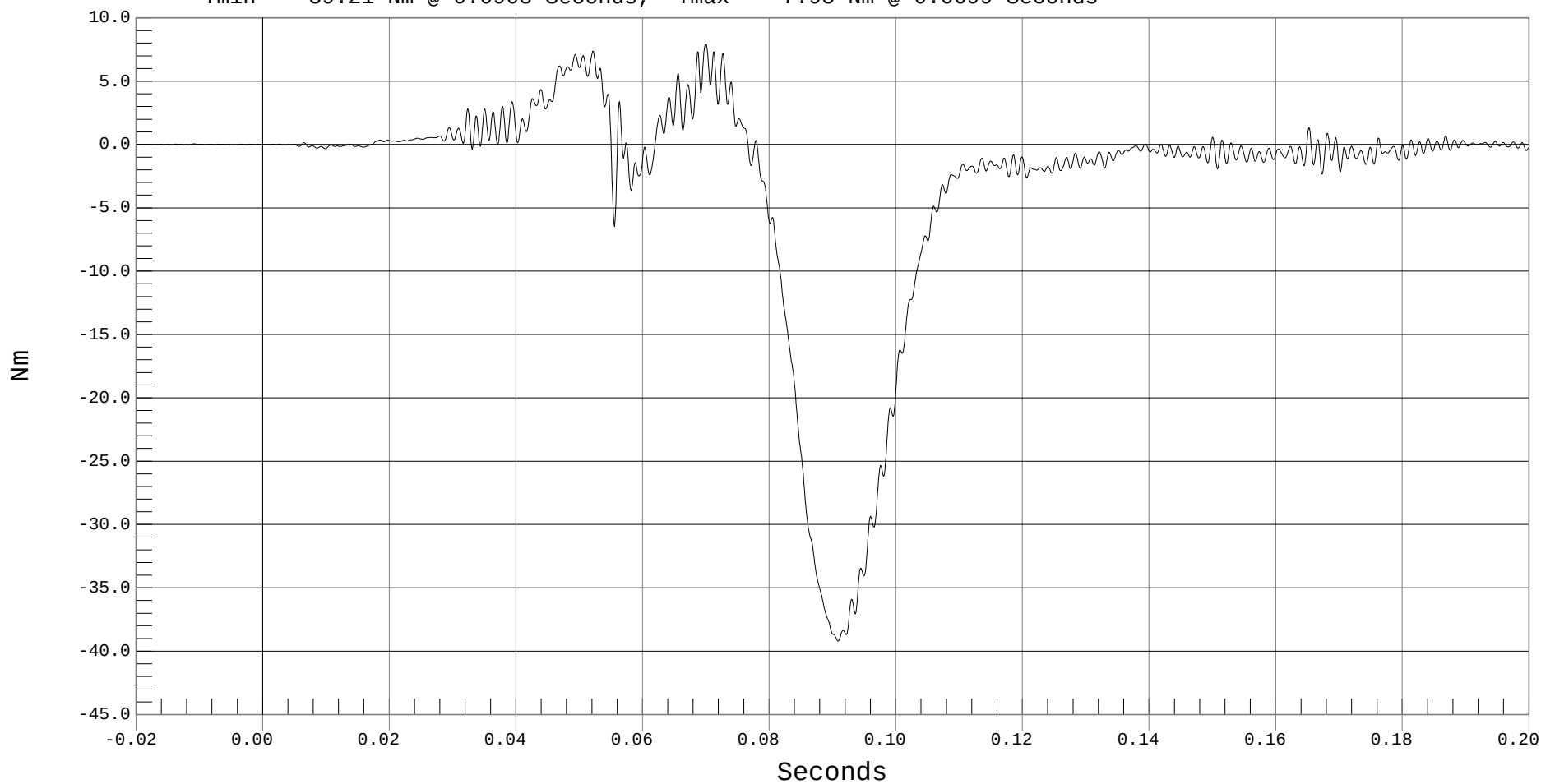
PASSENGER TORSO MOMENT Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER TORSO MOMENT Y, B01061MF.M94

Ymin = -39.21 Nm @ 0.0908 Seconds, Ymax = 7.95 Nm @ 0.0699 Seconds





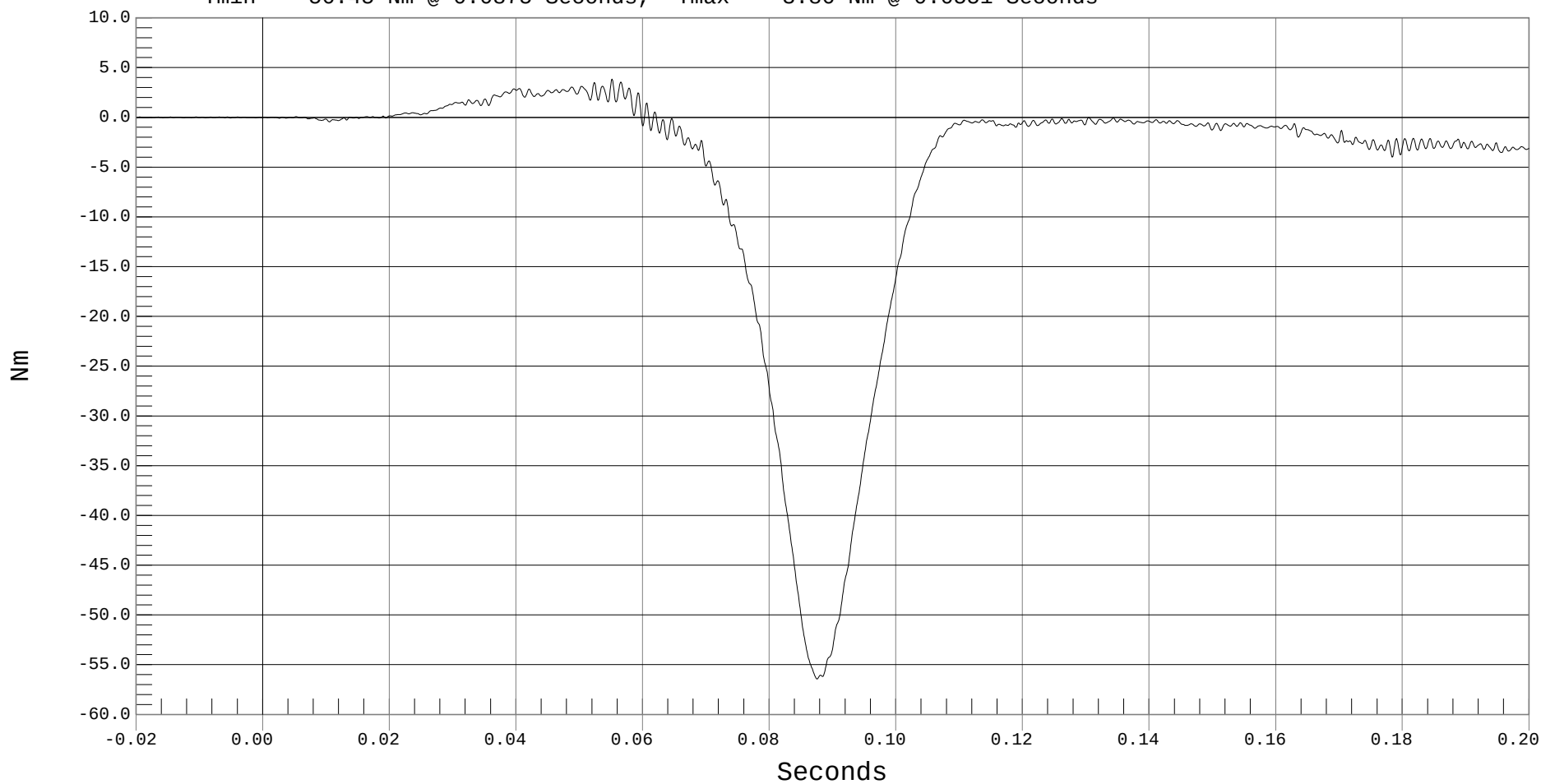
PASSENGER TORSO MOMENT Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER TORSO MOMENT Z, B01061MF.M95

Ymin = -56.45 Nm @ 0.0875 Seconds, Ymax = 3.86 Nm @ 0.0551 Seconds





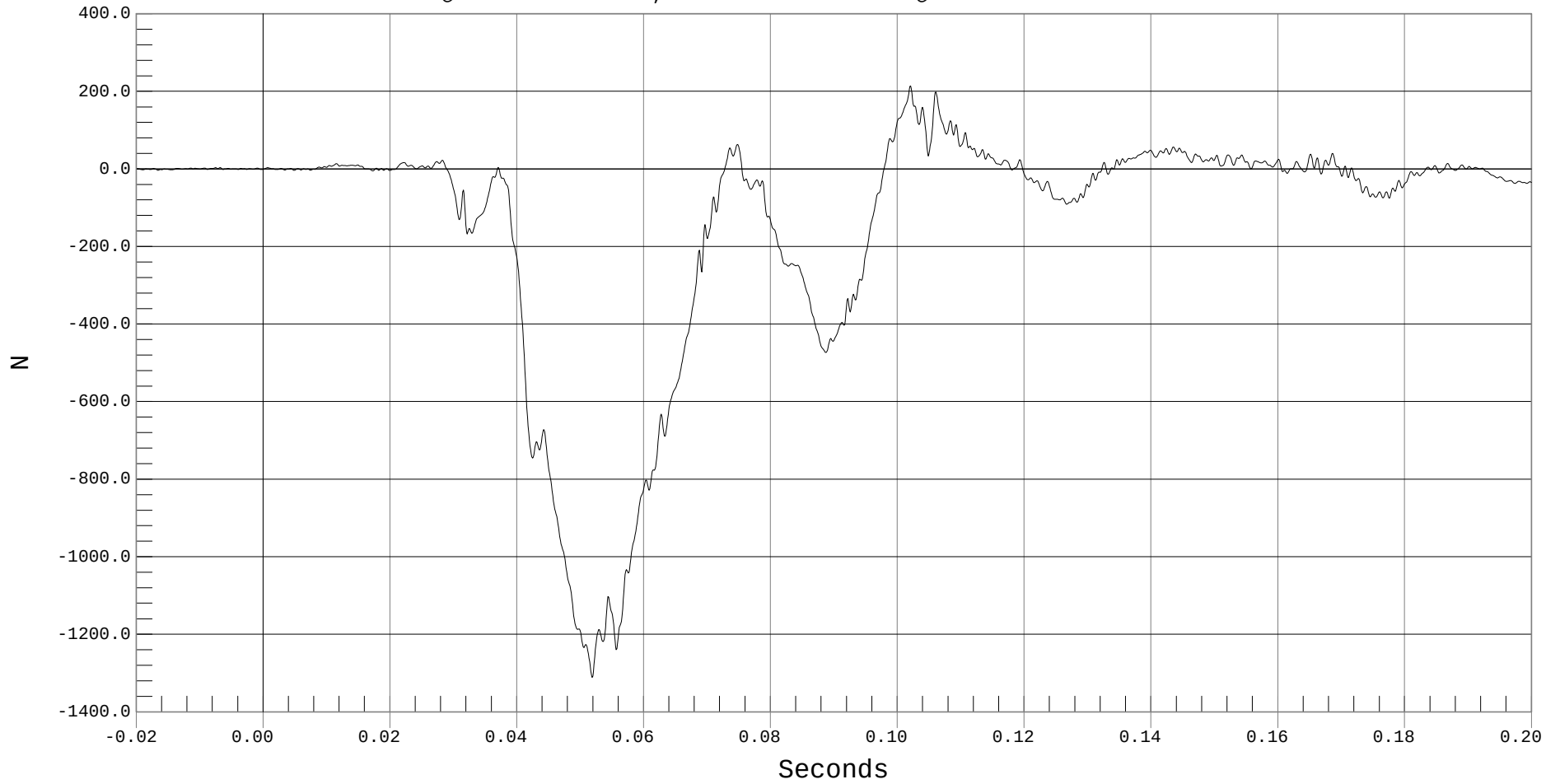
PASSENGER T-12 FORCE X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER T-12 FORCE X, B01061FF.F02

Ymin = -1311.22 N @ 0.0518 Seconds, Ymax = 213.99 N @ 0.1020 Seconds





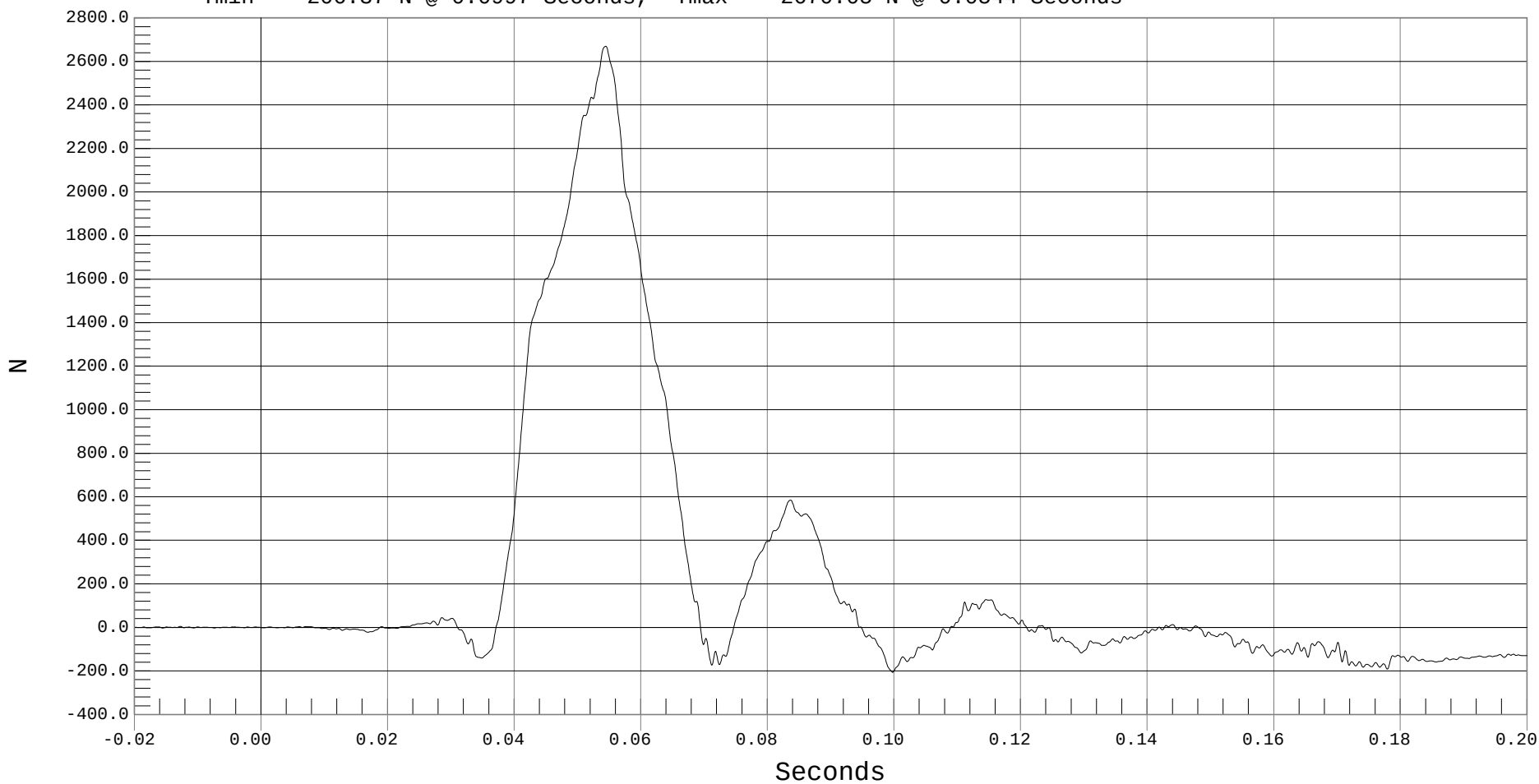
PASSENGER T-12 FORCE Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER T-12 FORCE Y, B01061FF.F03

Ymin = -206.37 N @ 0.0997 Seconds, Ymax = 2670.05 N @ 0.0544 Seconds





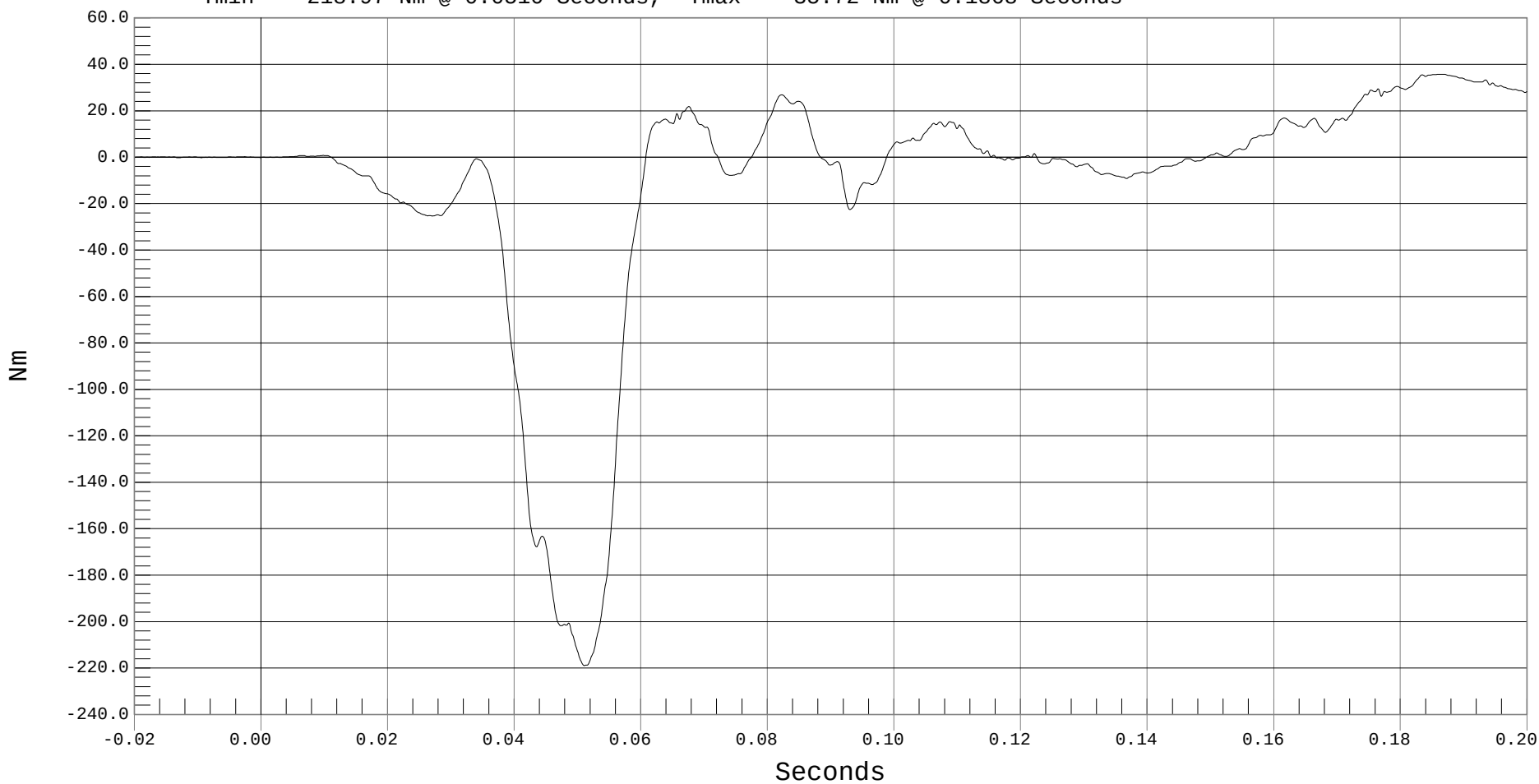
PASSENGER T-12 MOMENT X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER T-12 MOMENT X, B01061MF.M04

Ymin = -218.97 Nm @ 0.0510 Seconds, Ymax = 35.72 Nm @ 0.1868 Seconds





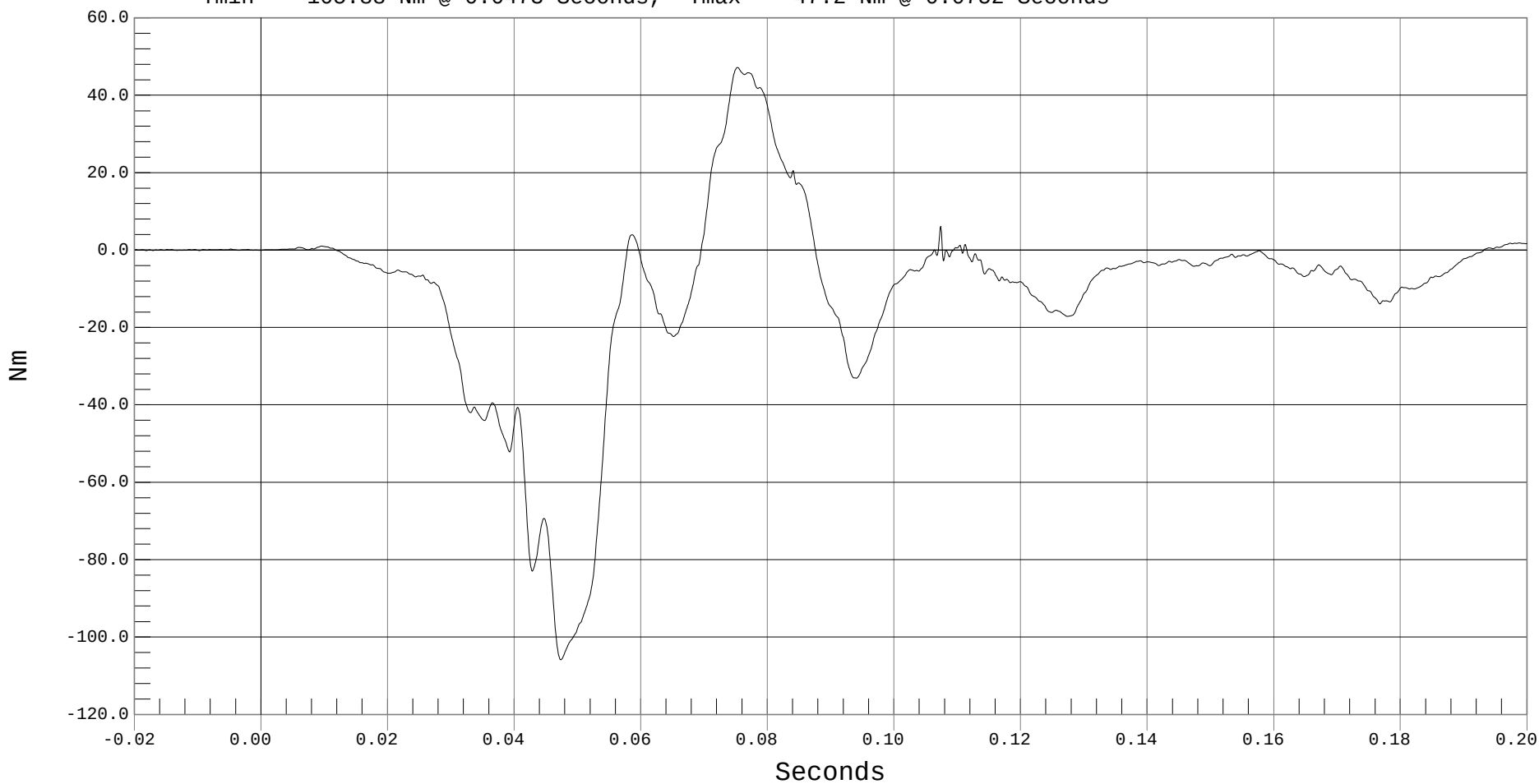
PASSENGER T-12 MOMENT Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER T-12 MOMENT Y, B01061MF.M05

Ymin = -105.88 Nm @ 0.0473 Seconds, Ymax = 47.2 Nm @ 0.0752 Seconds





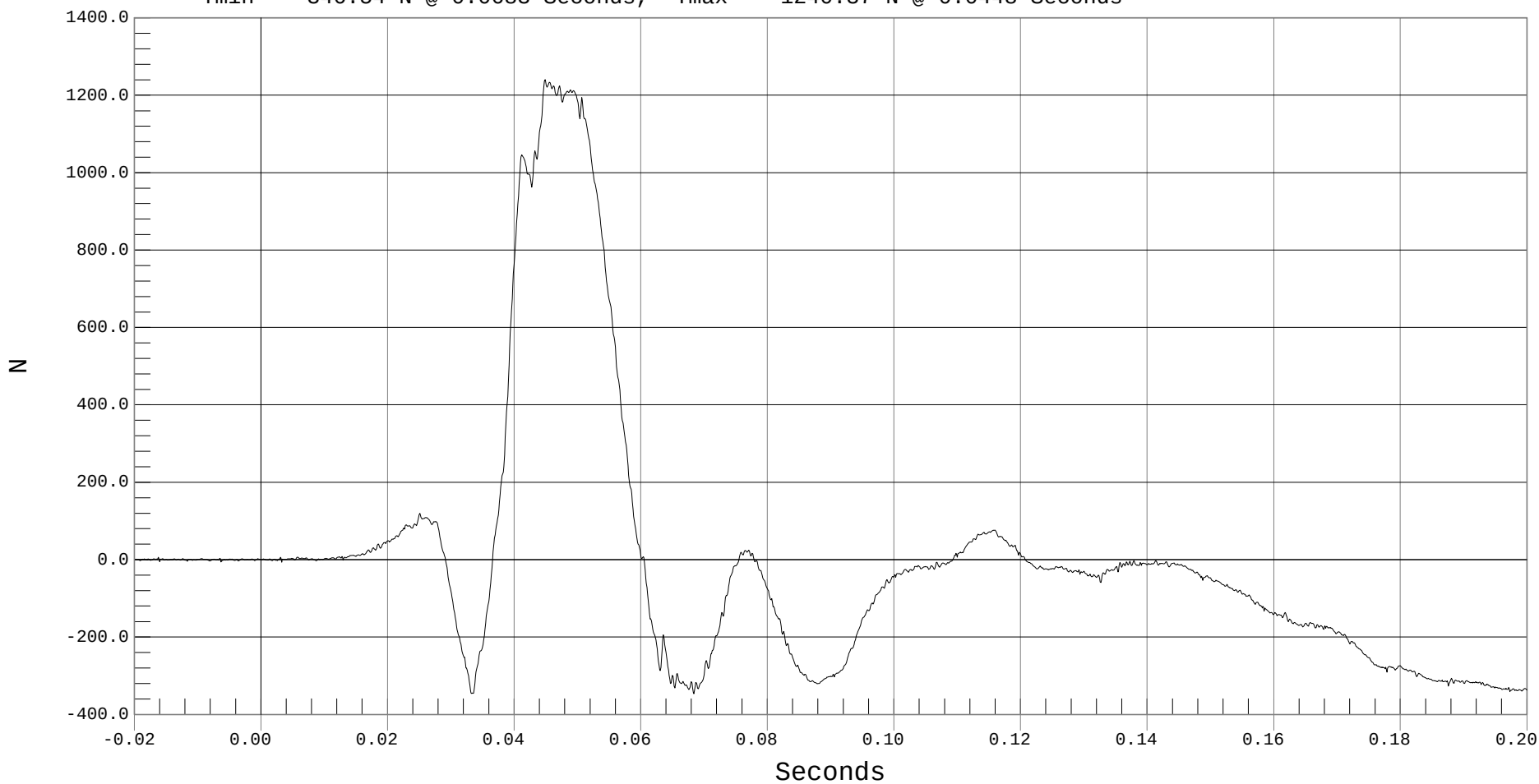
PASSENGER LUMBAR FORCE Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 REAR PASSENGER LUMBAR FORCE Y, B01061FT.F59

Ymin = -346.54 N @ 0.0683 Seconds, Ymax = 1240.37 N @ 0.0448 Seconds





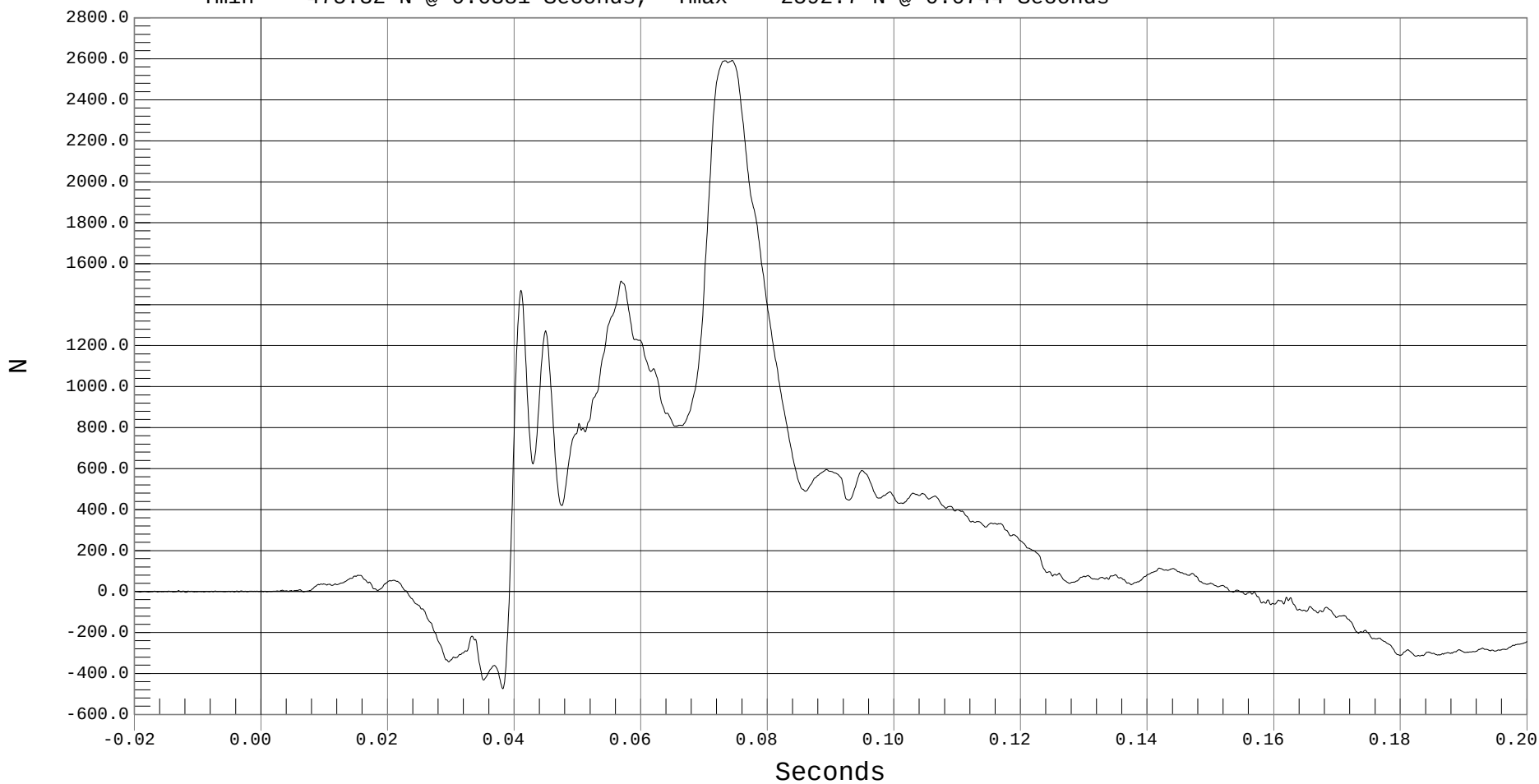
PASSENGER LUMBAR FORCE Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 REAR PASSENGER LUMBAR FORCE Z, B01061FT.F60

Ymin = -475.32 N @ 0.0381 Seconds, Ymax = 2592.7 N @ 0.0744 Seconds





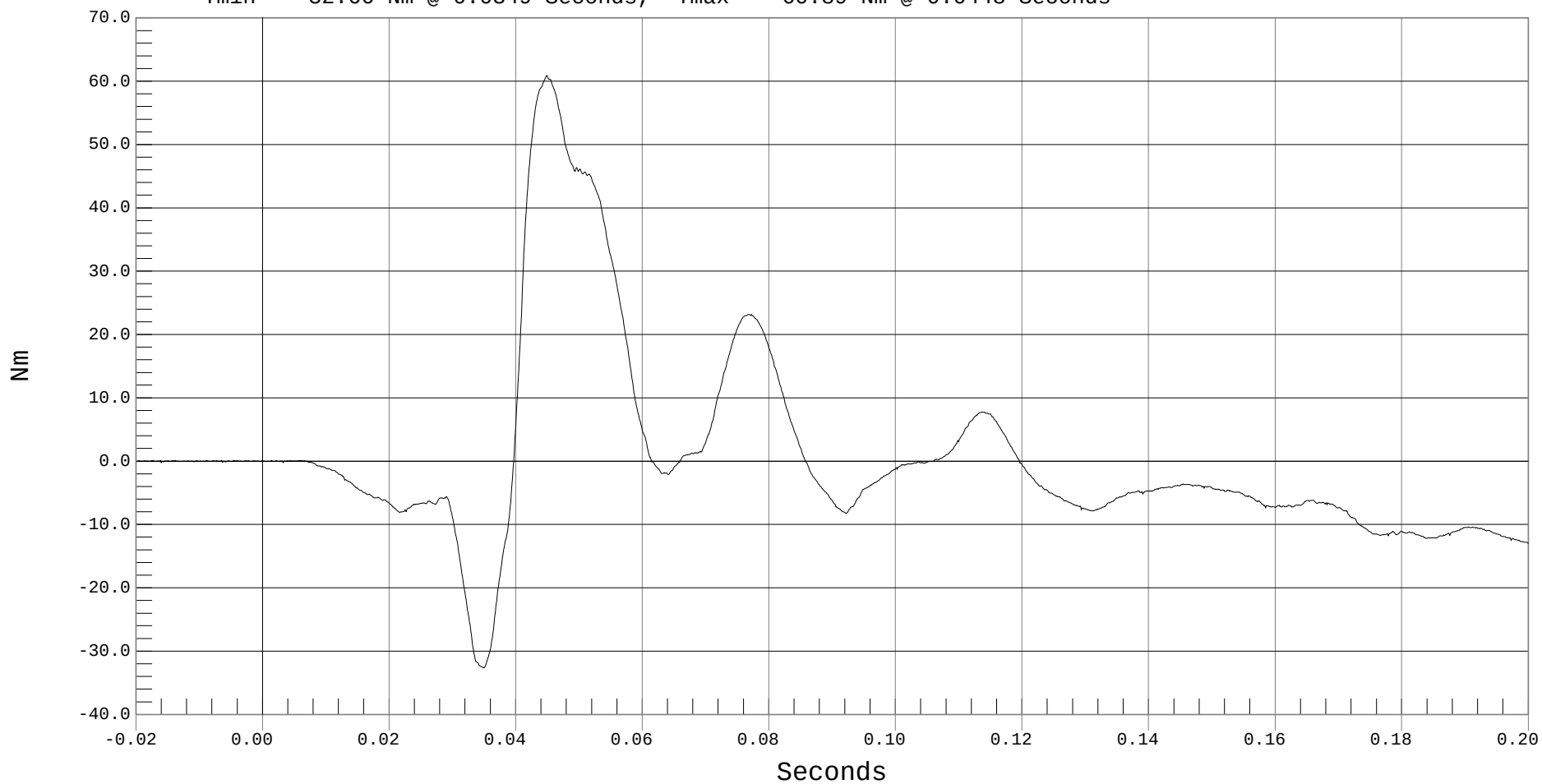
PASSENGER LUMBAR MOMENT X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 REAR PASSENGER LUMBAR MOMENT X, B01061MT.M61

Ymin = -32.66 Nm @ 0.0349 Seconds, Ymax = 60.89 Nm @ 0.0448 Seconds





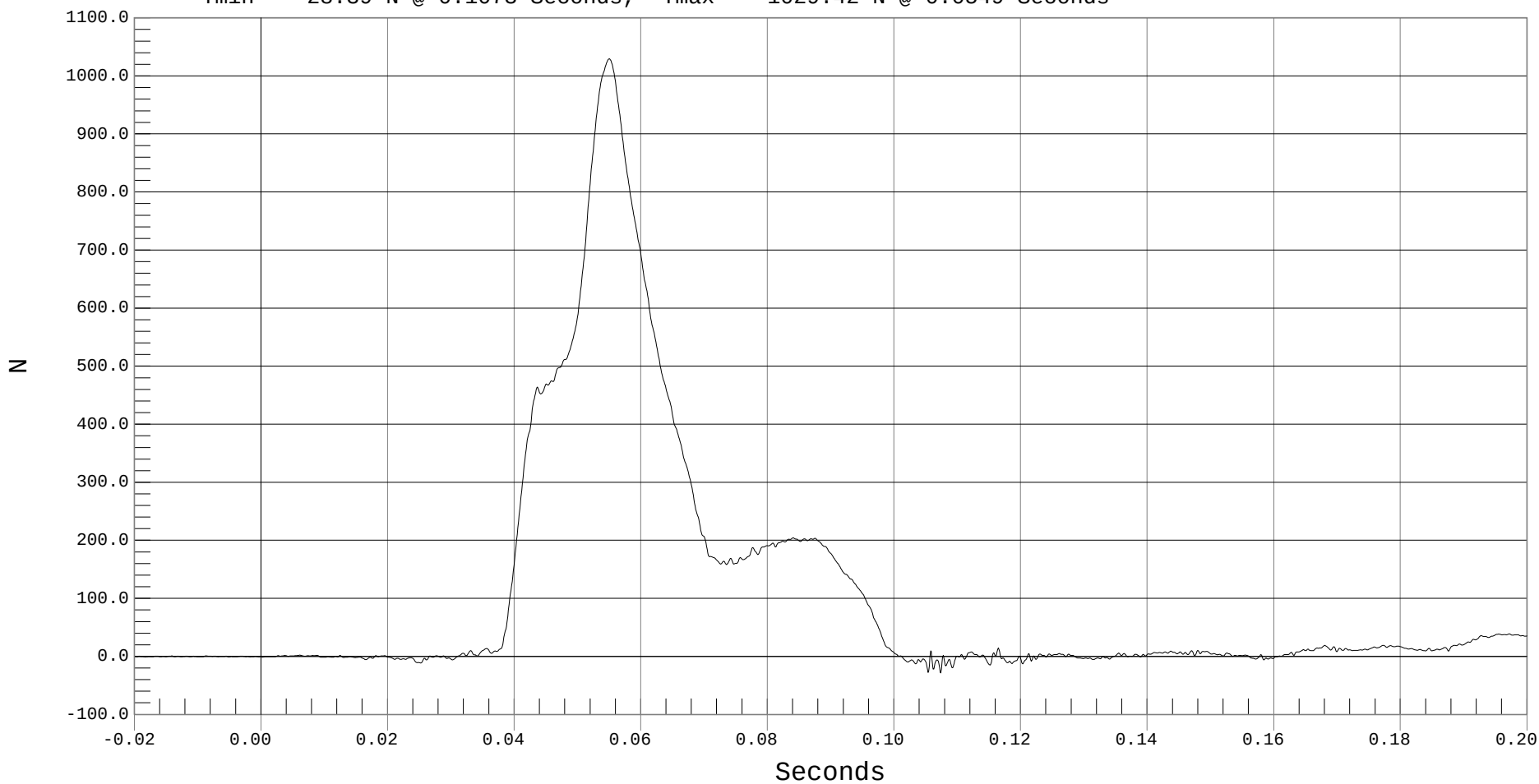
PASSENGER ABDOMEN FRONT FORCE

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER FRONT ABDOMEN FORCE, B01061FF.F06

Ymin = -28.39 N @ 0.1073 Seconds, Ymax = 1029.42 N @ 0.0549 Seconds





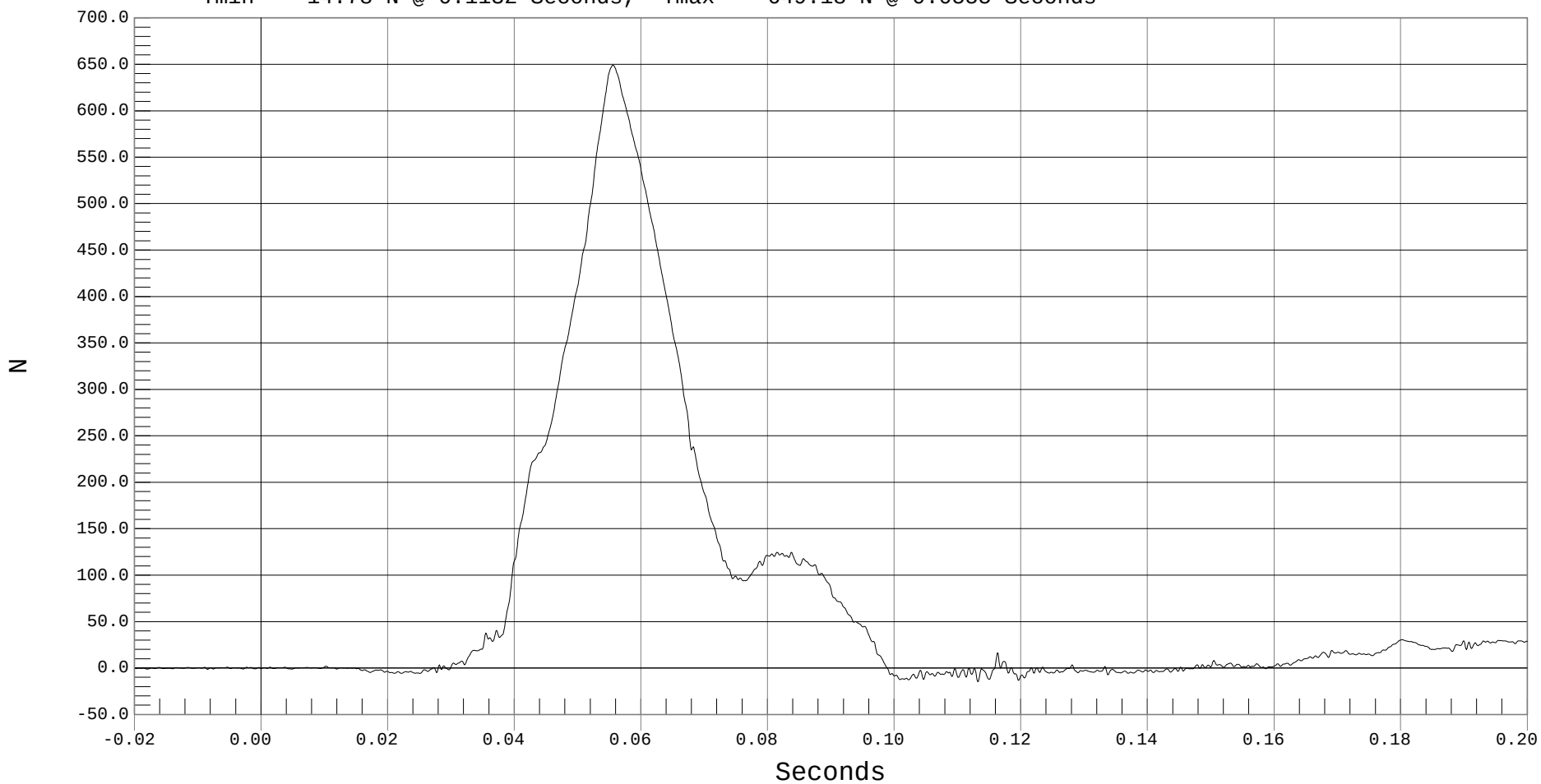
PASSENGER ABDOMEN MID FORCE

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER MID ABDOMEN FORCE, B01061FF.F07

Ymin = -14.78 N @ 0.1132 Seconds, Ymax = 649.18 N @ 0.0555 Seconds





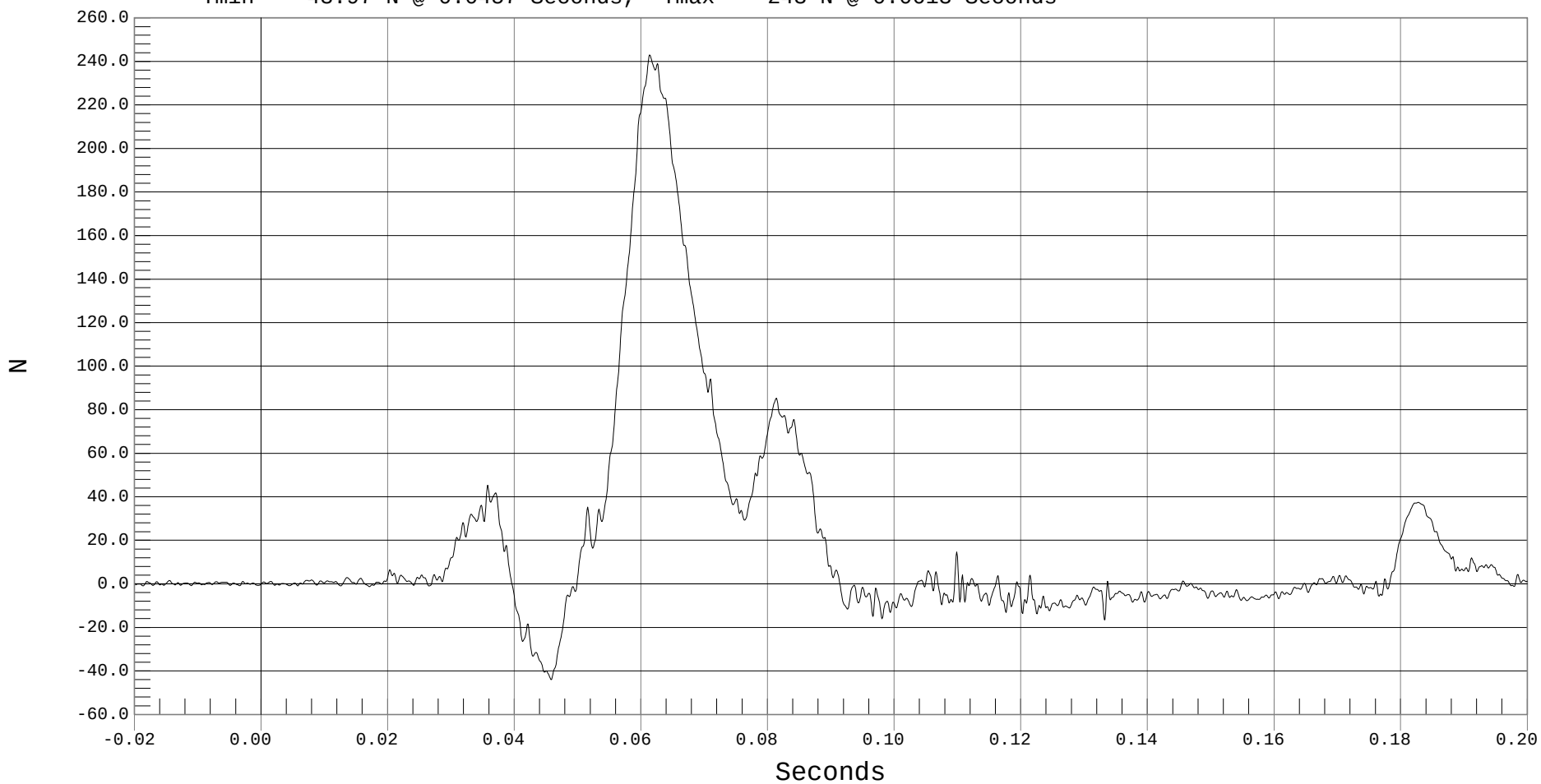
PASSENGER ABDOMEN REAR FORCE

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER REAR ABDOMEN FORCE, B01061FF.F08

Ymin = -43.97 N @ 0.0457 Seconds, Ymax = 243 N @ 0.0613 Seconds





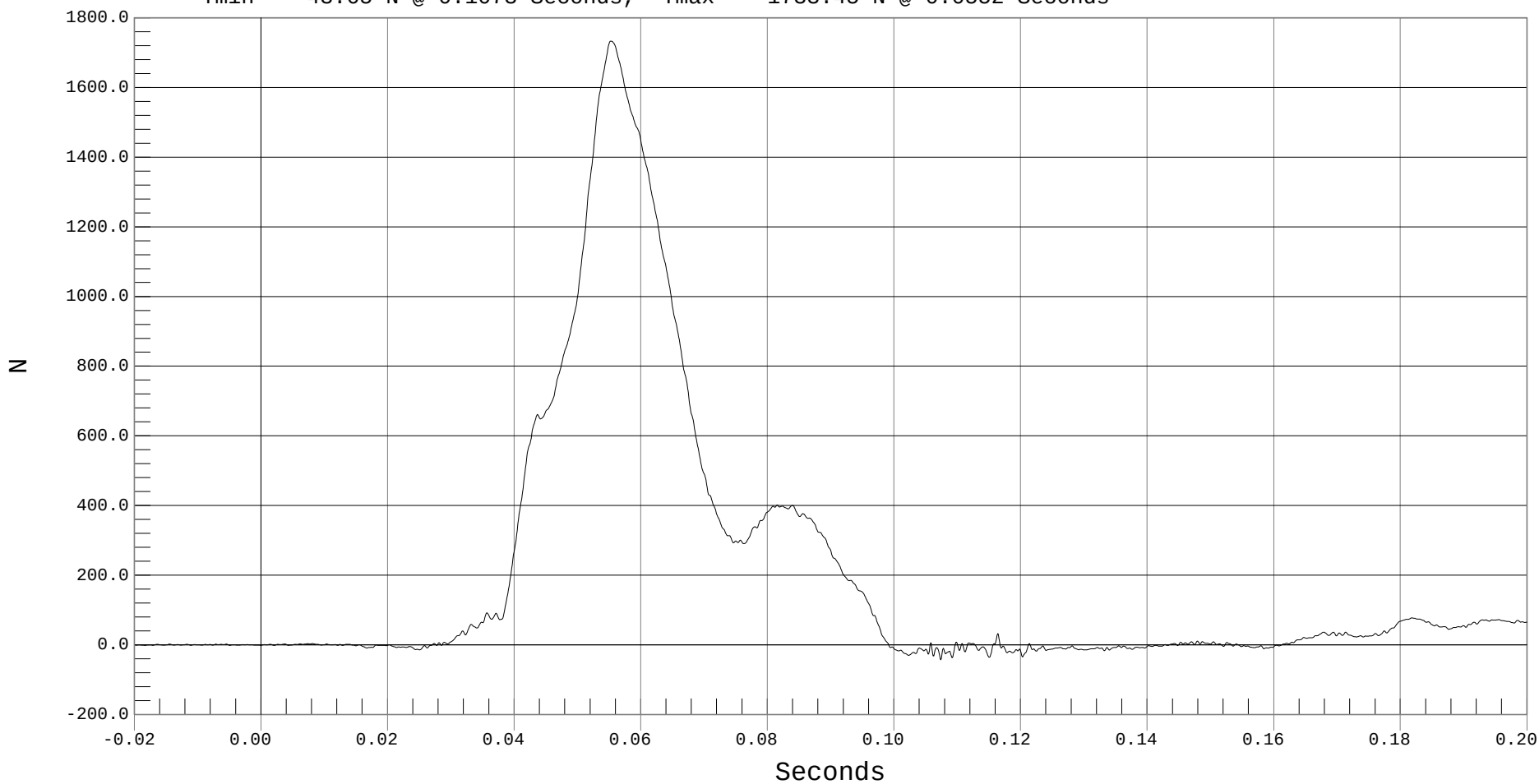
PASSENGER SUMMED ABDOMEN FORCE

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 PASSENGER SUMMED ABDOMEN FORCE, B01061FU.F06

Ymin = -43.65 N @ 0.1073 Seconds, Ymax = 1733.45 N @ 0.0552 Seconds





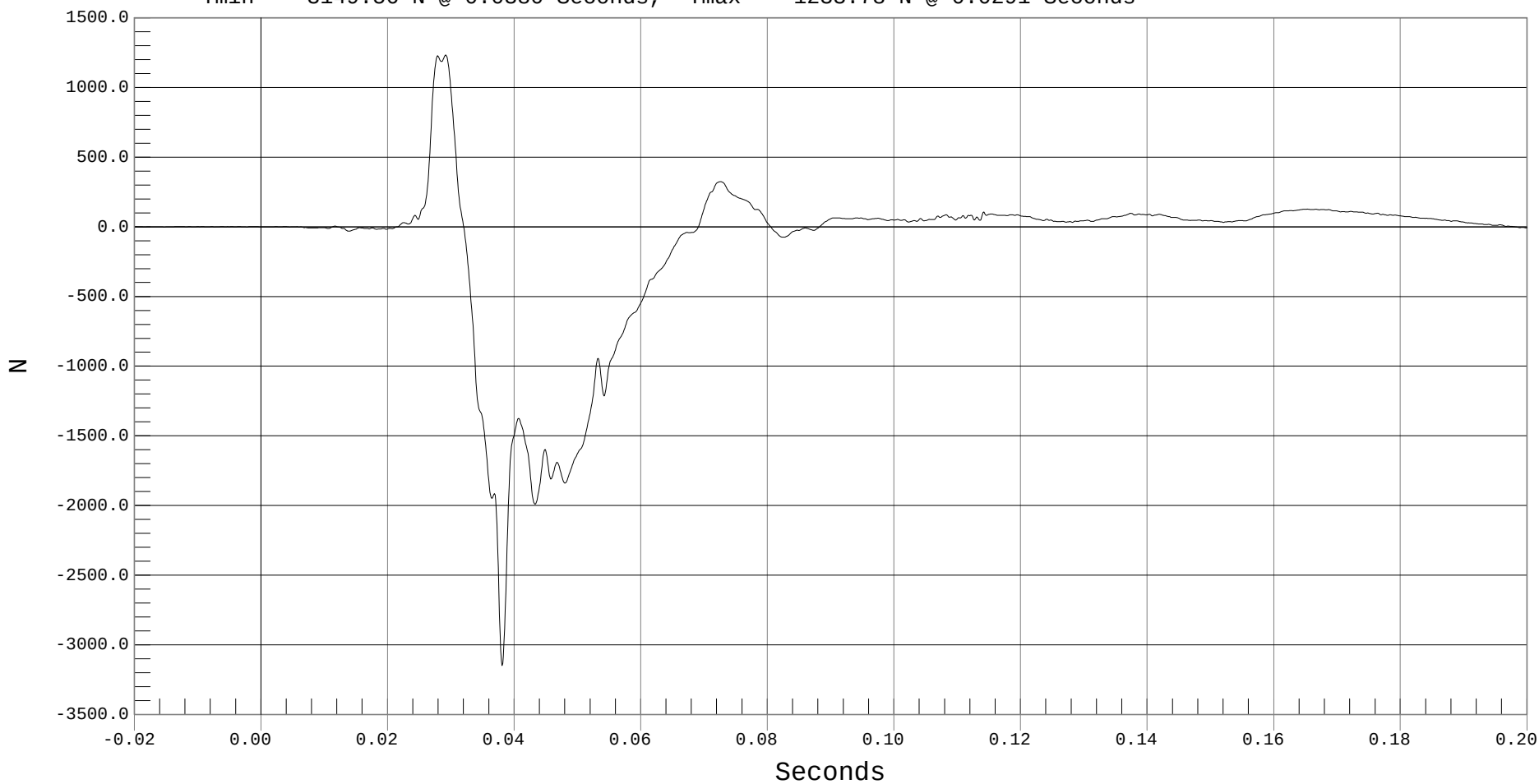
PASSENGER PUBIC SYMPHYSIS FORCE

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER PUBIC SYMPHYSIS FORC, B01061FF.F09

Ymin = -3149.56 N @ 0.0380 Seconds, Ymax = 1233.78 N @ 0.0291 Seconds





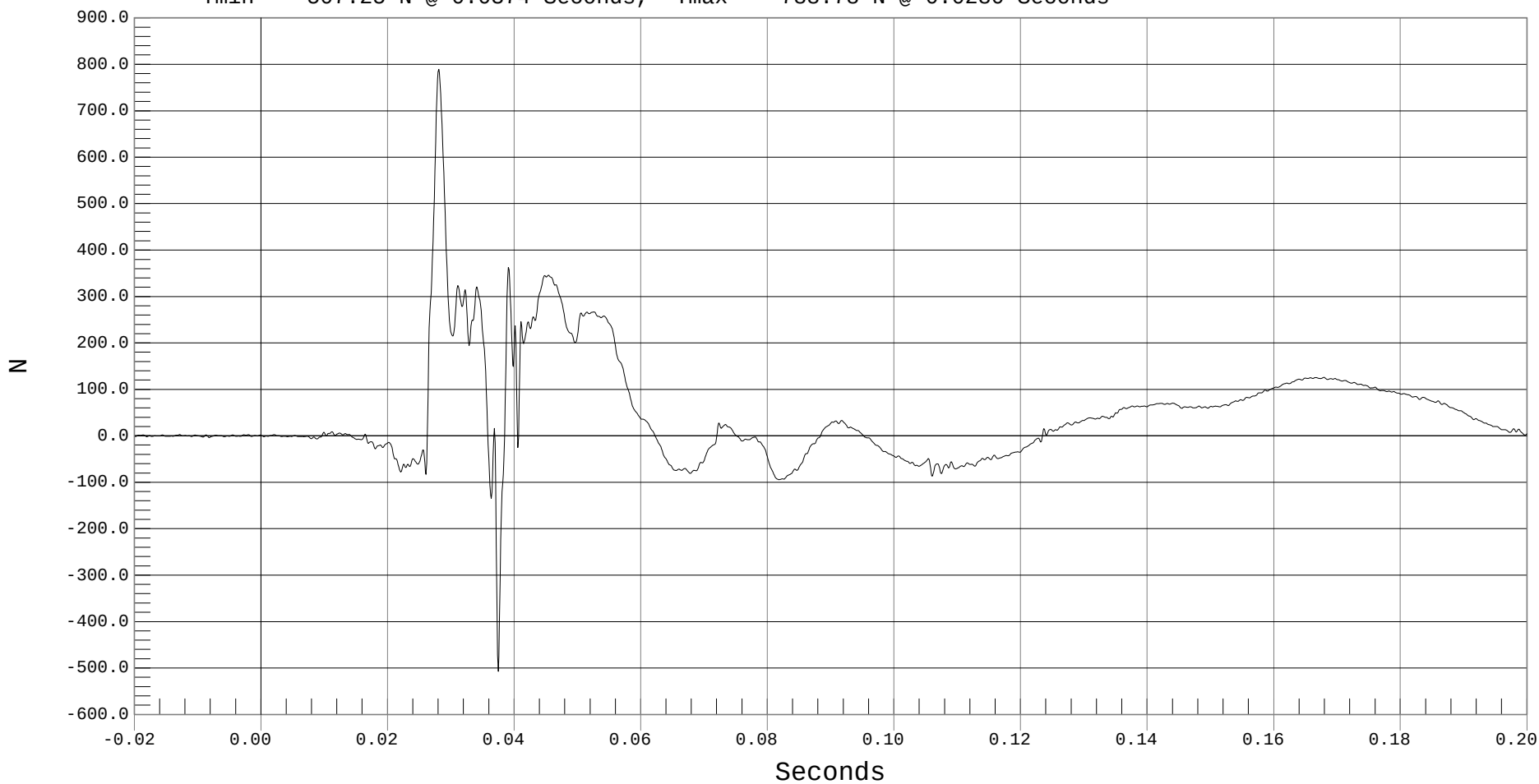
PASSENGER LEFT FEMUR FORCE X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER LEFT FEMUR FORCE X, B01061FF.F19

Ymin = -507.25 N @ 0.0374 Seconds, Ymax = 788.78 N @ 0.0280 Seconds





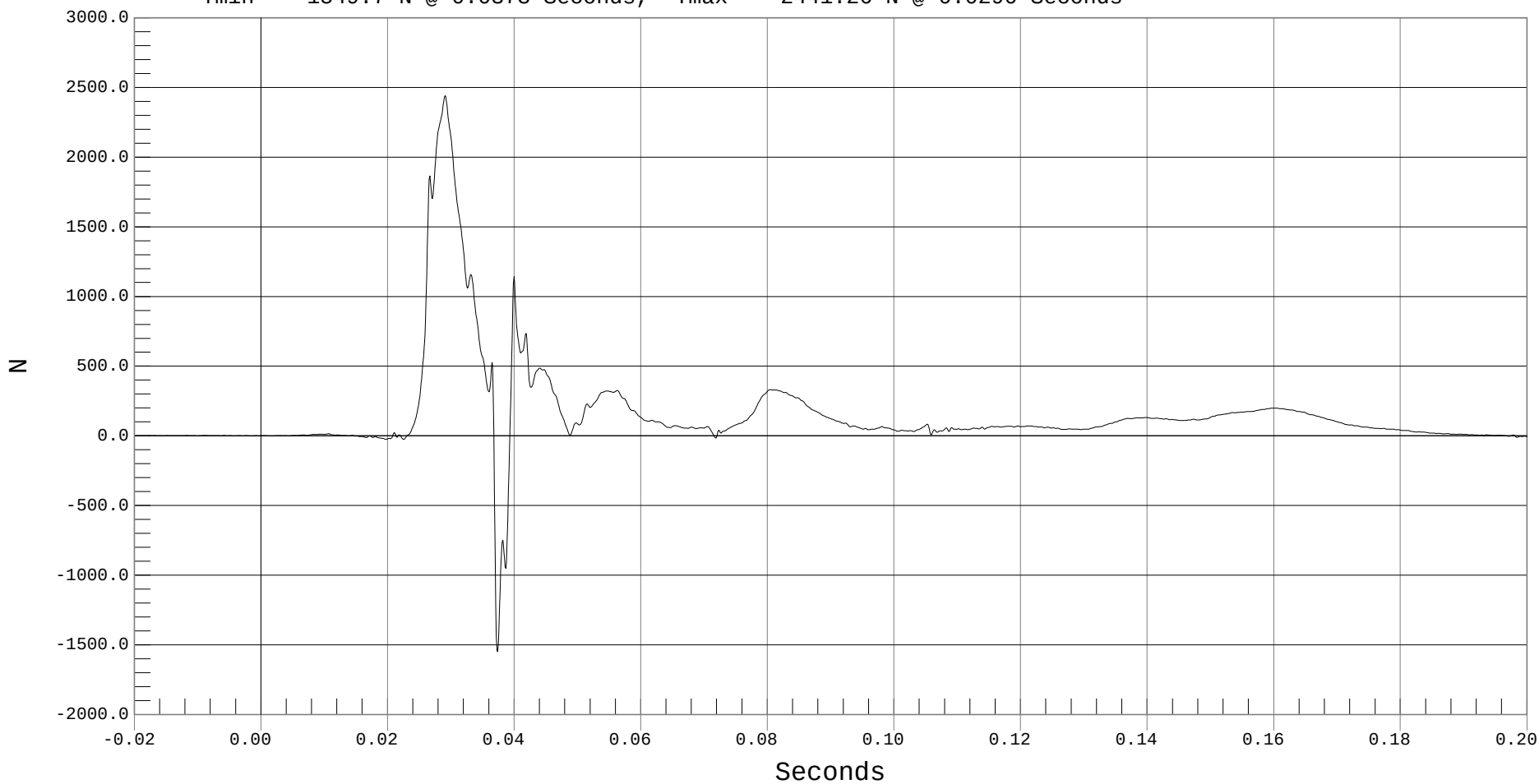
PASSENGER LEFT FEMUR FORCE Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER LEFT FEMUR FORCE Y, B01061FF.F20

Ymin = -1549.7 N @ 0.0373 Seconds, Ymax = 2441.26 N @ 0.0290 Seconds





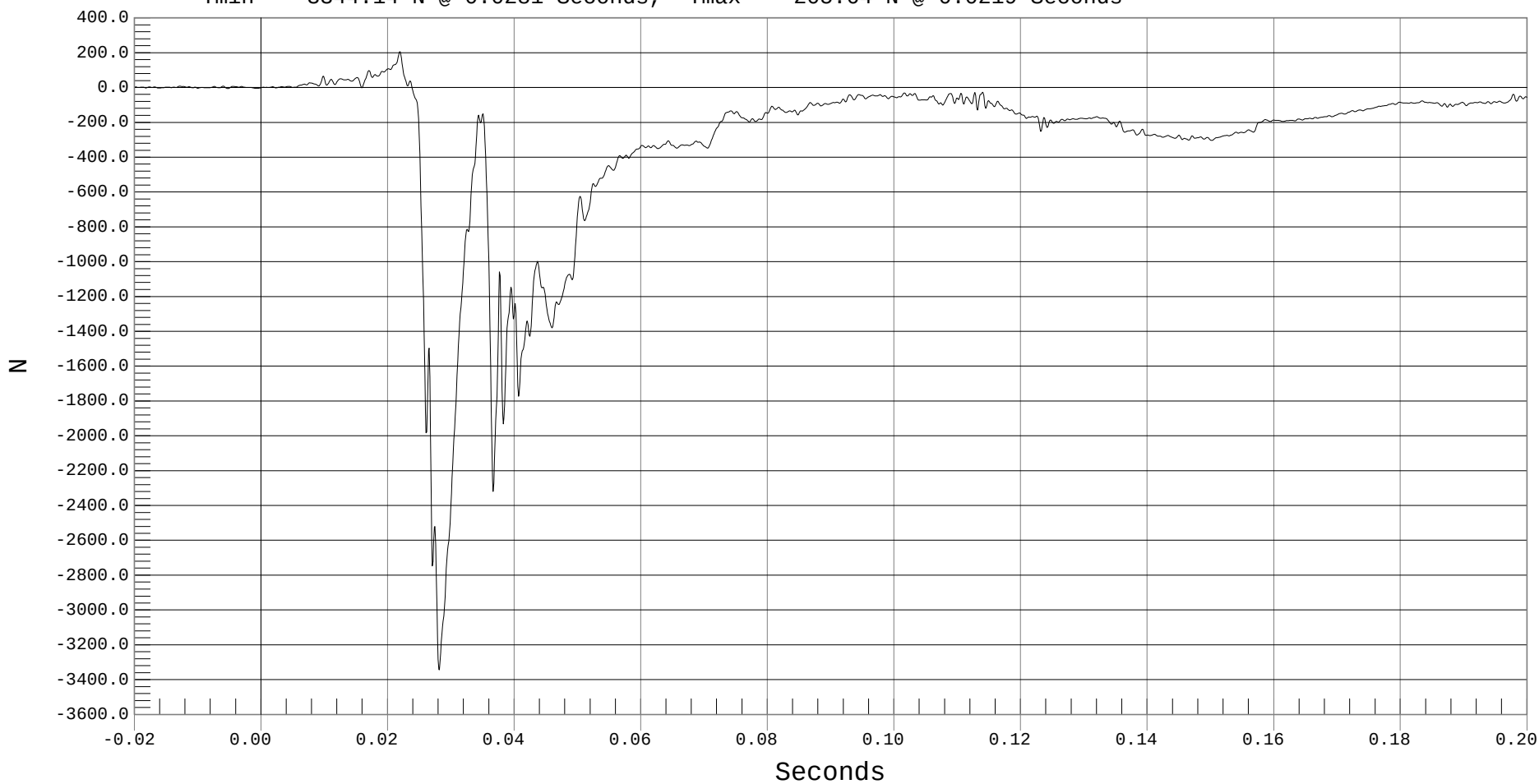
PASSENGER LEFT FEMUR FORCE Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER LEFT FEMUR FORCE Z, B01061FF.F21

Ymin = -3344.14 N @ 0.0281 Seconds, Ymax = 205.64 N @ 0.0219 Seconds





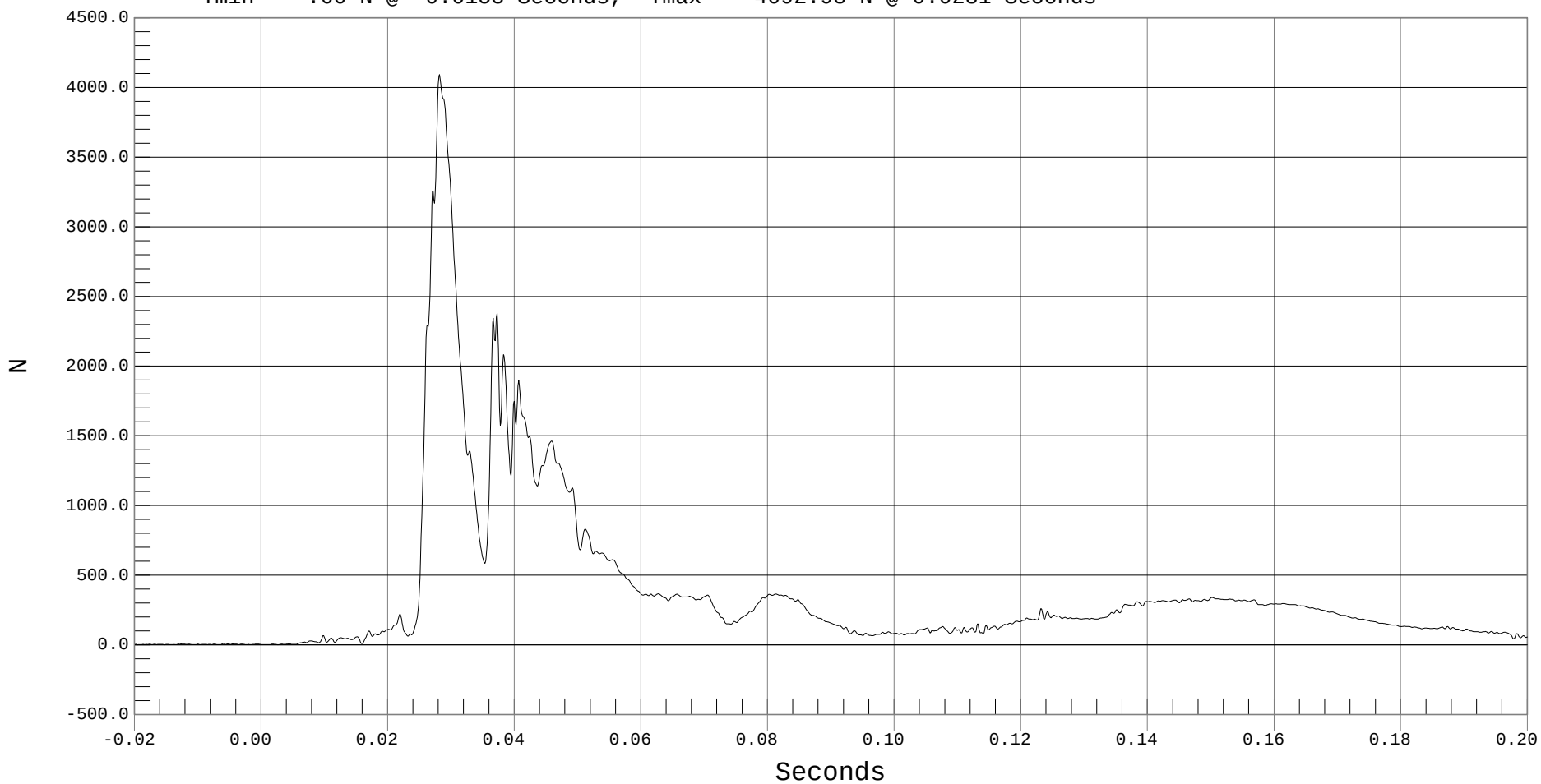
PASSENGER LEFT FEMUR FORCE RESULTANT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 PASSENGER LEFT FEMUR FORCE RESULTANT, B01061FV.F19

Ymin = .66 N @ -0.0153 Seconds, Ymax = 4092.98 N @ 0.0281 Seconds





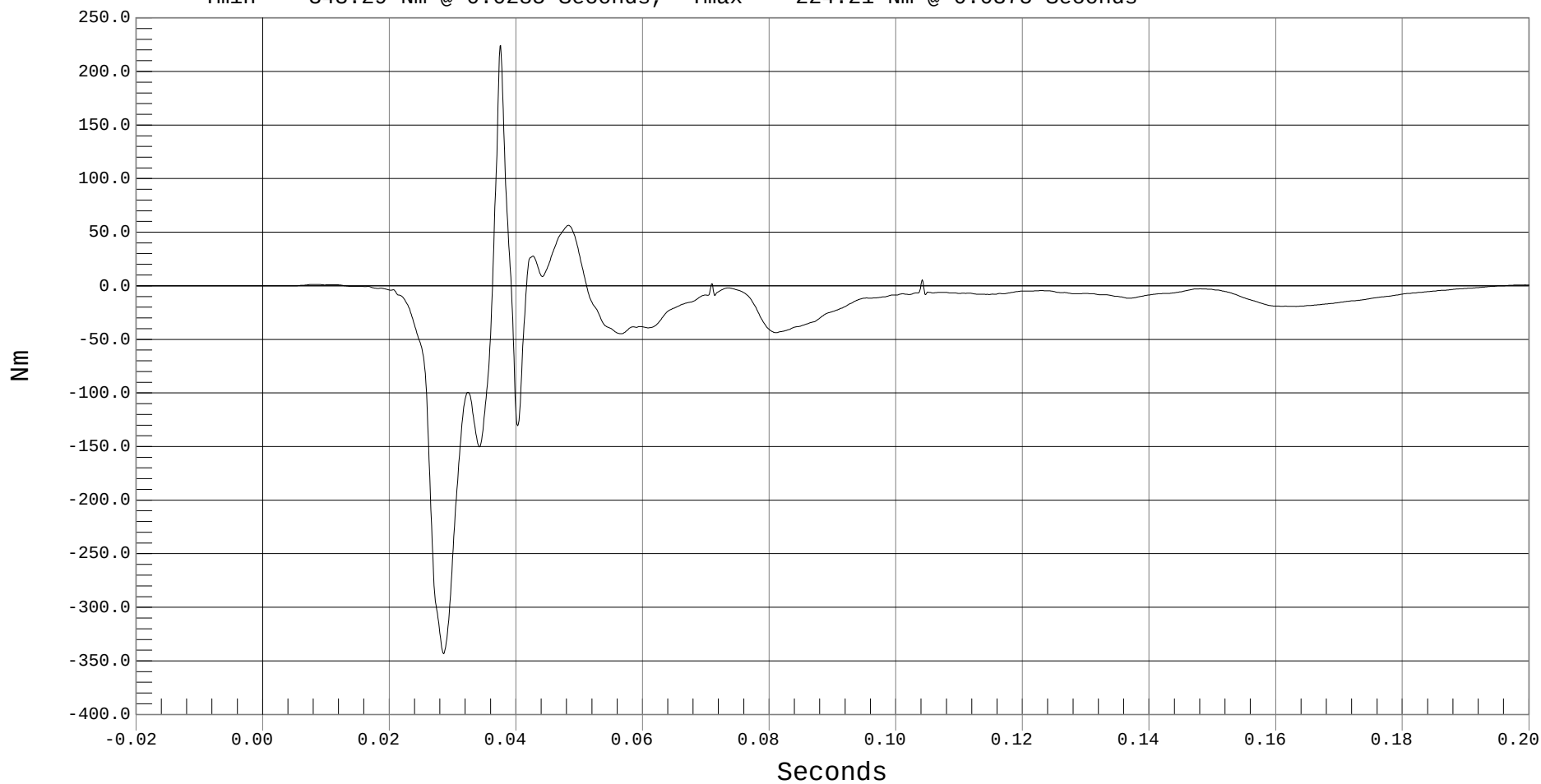
PASSENGER LEFT FEMUR MOMENT X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER LEFT FEMUR MOMENT X, B01061MF.M22

Ymin = -343.29 Nm @ 0.0285 Seconds, Ymax = 224.21 Nm @ 0.0375 Seconds





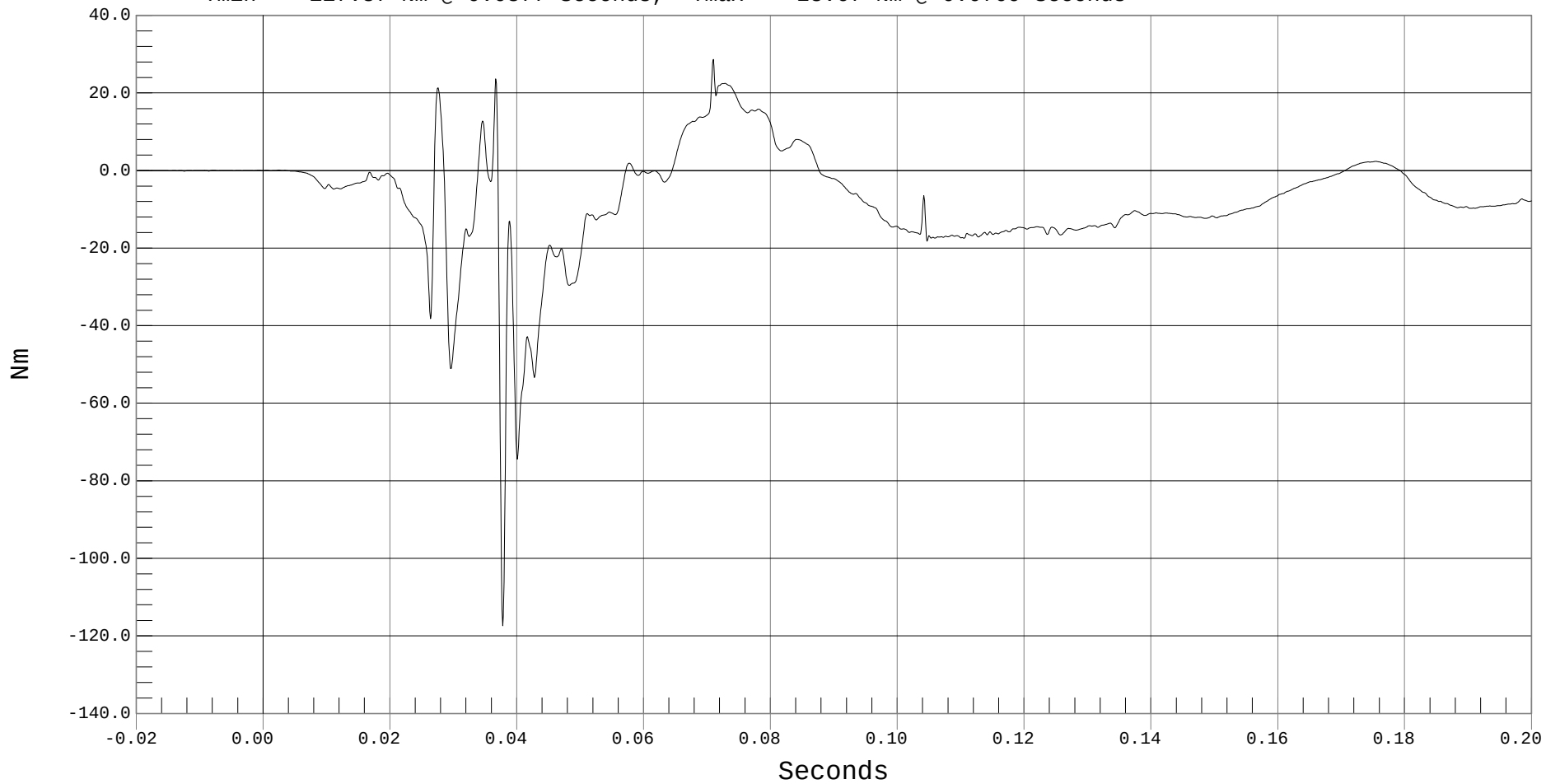
PASSENGER LEFT FEMUR MOMENT Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER LEFT FEMUR MOMENT Y, B01061MF.M23

Ymin = -117.37 Nm @ 0.0377 Seconds, Ymax = 28.67 Nm @ 0.0709 Seconds





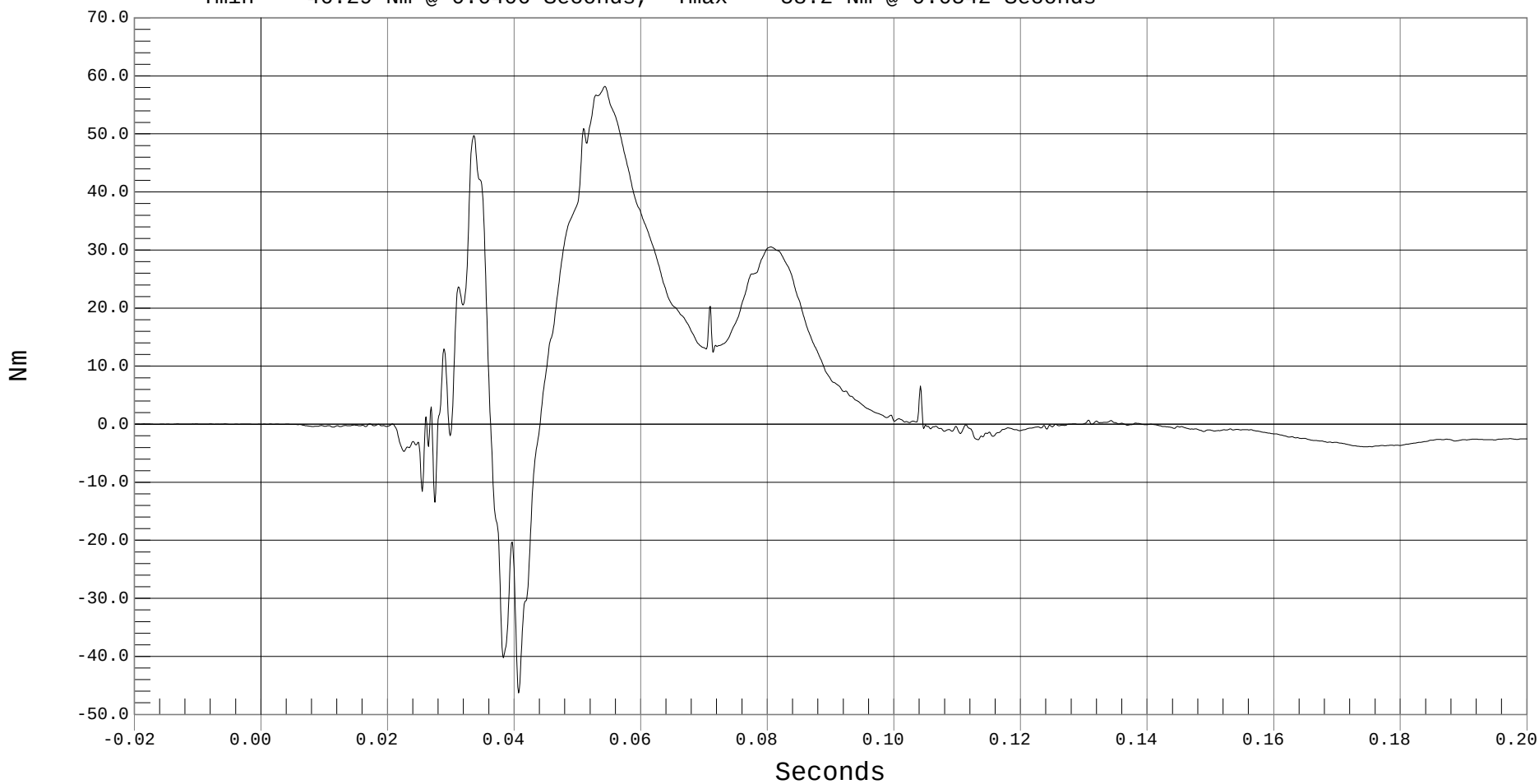
PASSENGER LEFT FEMUR MOMENT Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER LEFT FEMUR MOMENT Z, B01061MF.M24

Ymin = -46.29 Nm @ 0.0406 Seconds, Ymax = 58.2 Nm @ 0.0542 Seconds





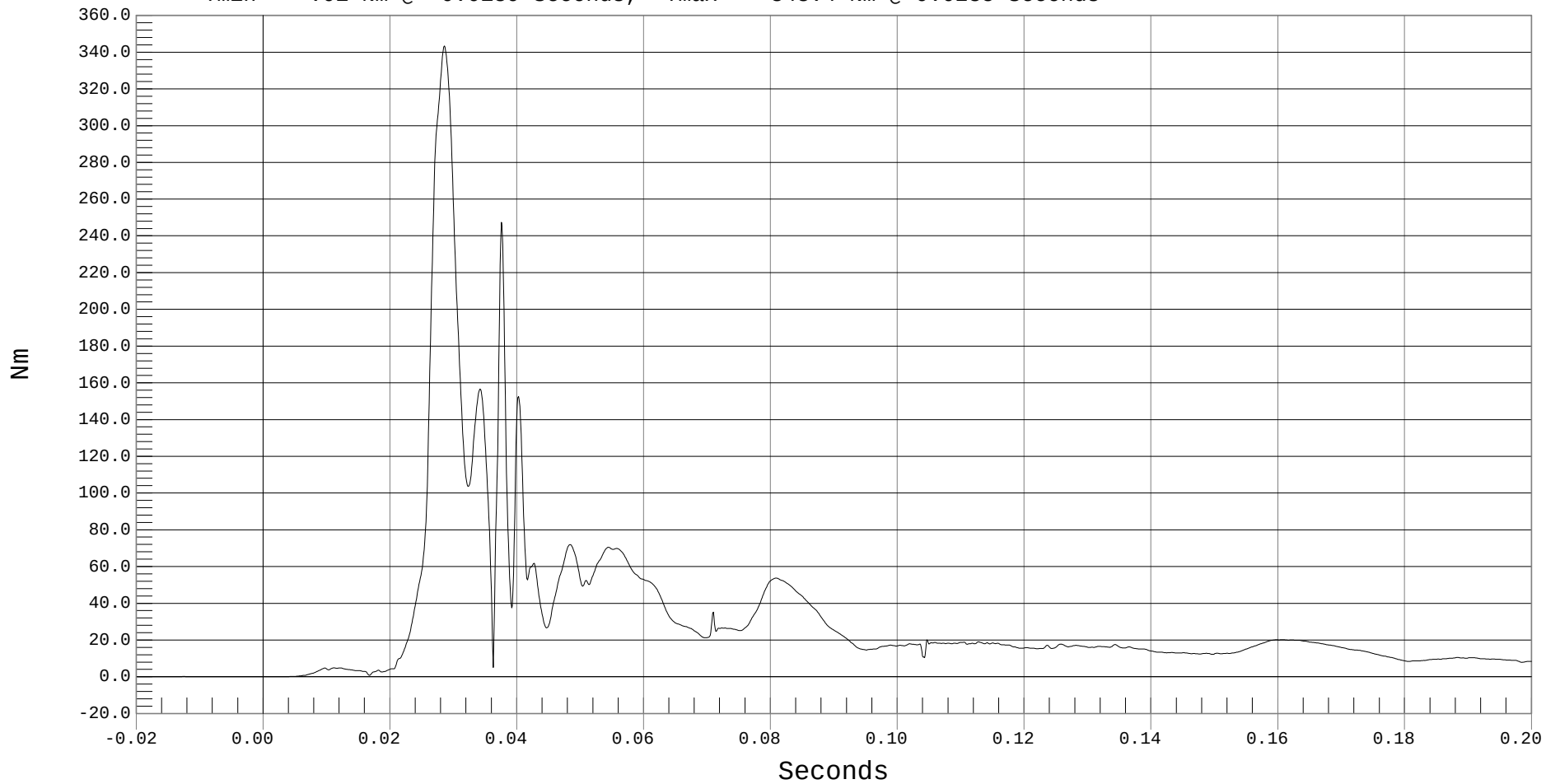
PASSENGER LEFT FEMUR MOMENT RESULTANT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 PASSENGER LEFT FEMUR MOMENT RESULTANT, B01061MV.M22

Ymin = .01 Nm @ -0.0189 Seconds, Ymax = 343.4 Nm @ 0.0285 Seconds





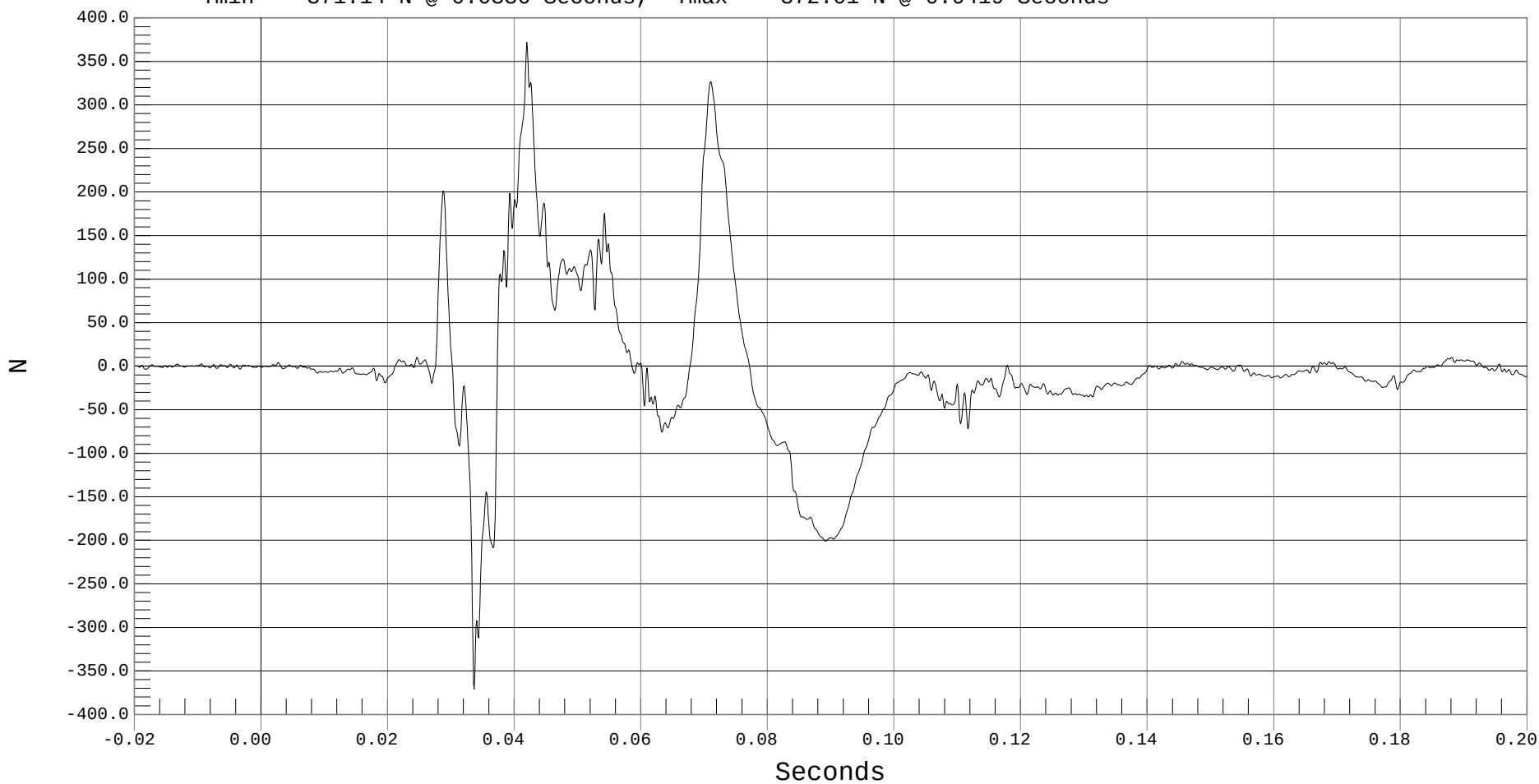
PASSENGER RIGHT FEMUR FORCE X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

1 REAR PASSENGER RIGHT FEMUR FORCE X, B01061FF.F32

Ymin = -371.14 N @ 0.0336 Seconds, Ymax = 372.01 N @ 0.0419 Seconds





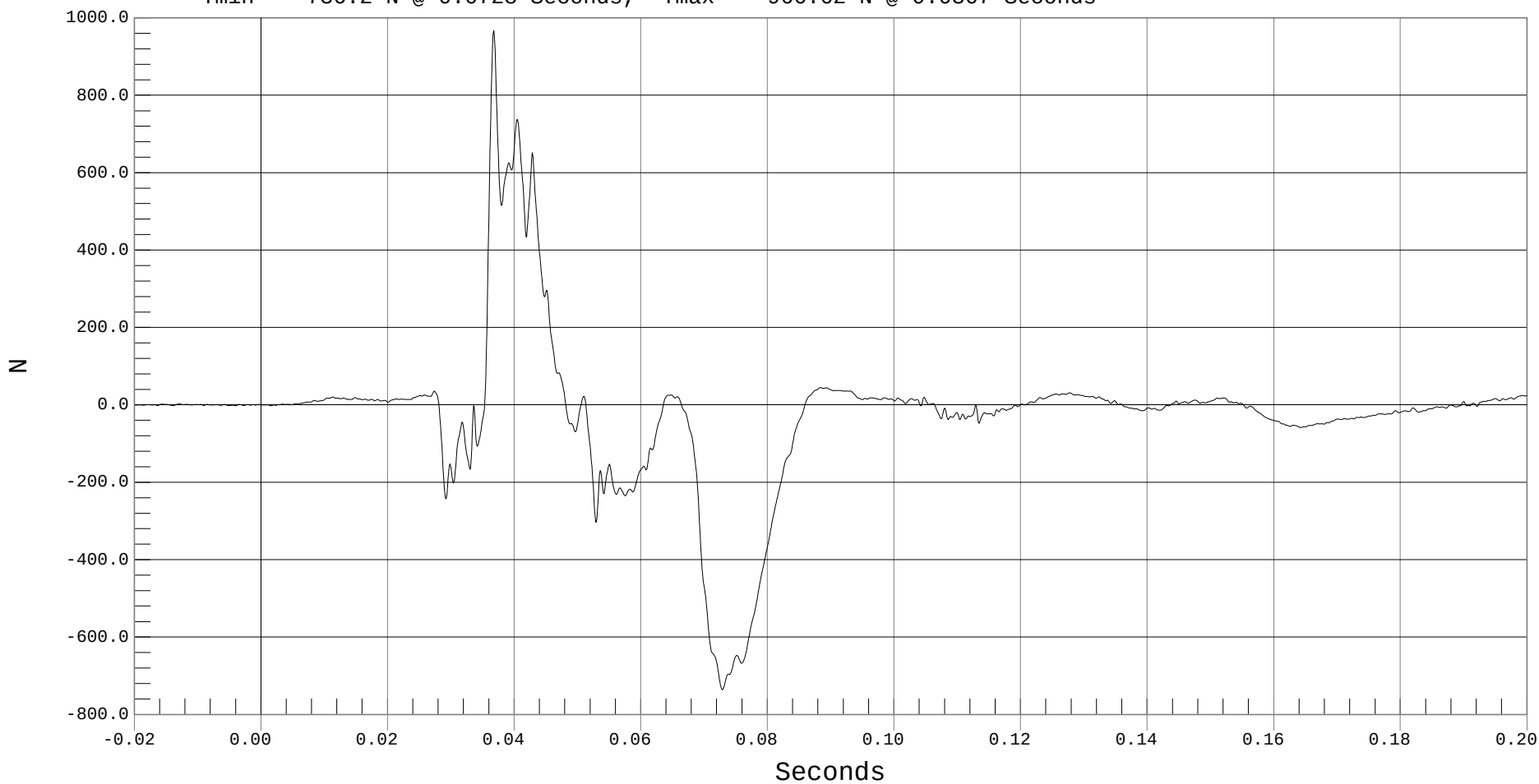
PASSENGER RIGHT FEMUR FORCE Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER RIGHT FEMUR FORCE Y, B01061FF.F14

Ymin = -736.2 N @ 0.0728 Seconds, Ymax = 966.62 N @ 0.0367 Seconds





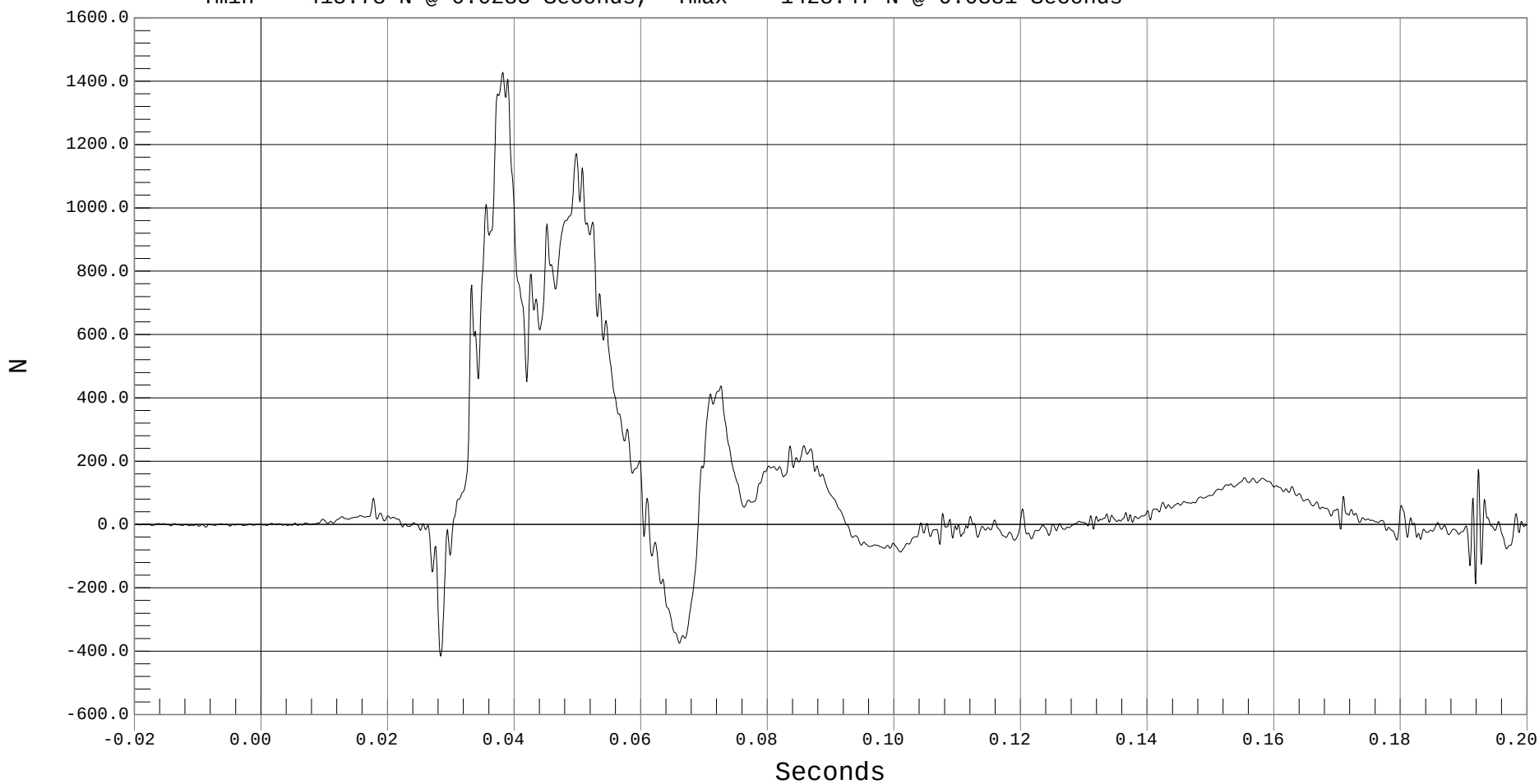
PASSENGER RIGHT FEMUR FORCE Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER RIGHT FEMUR FORCE Z, B01061FF.F15

Ymin = -415.78 N @ 0.0283 Seconds, Ymax = 1428.47 N @ 0.0381 Seconds





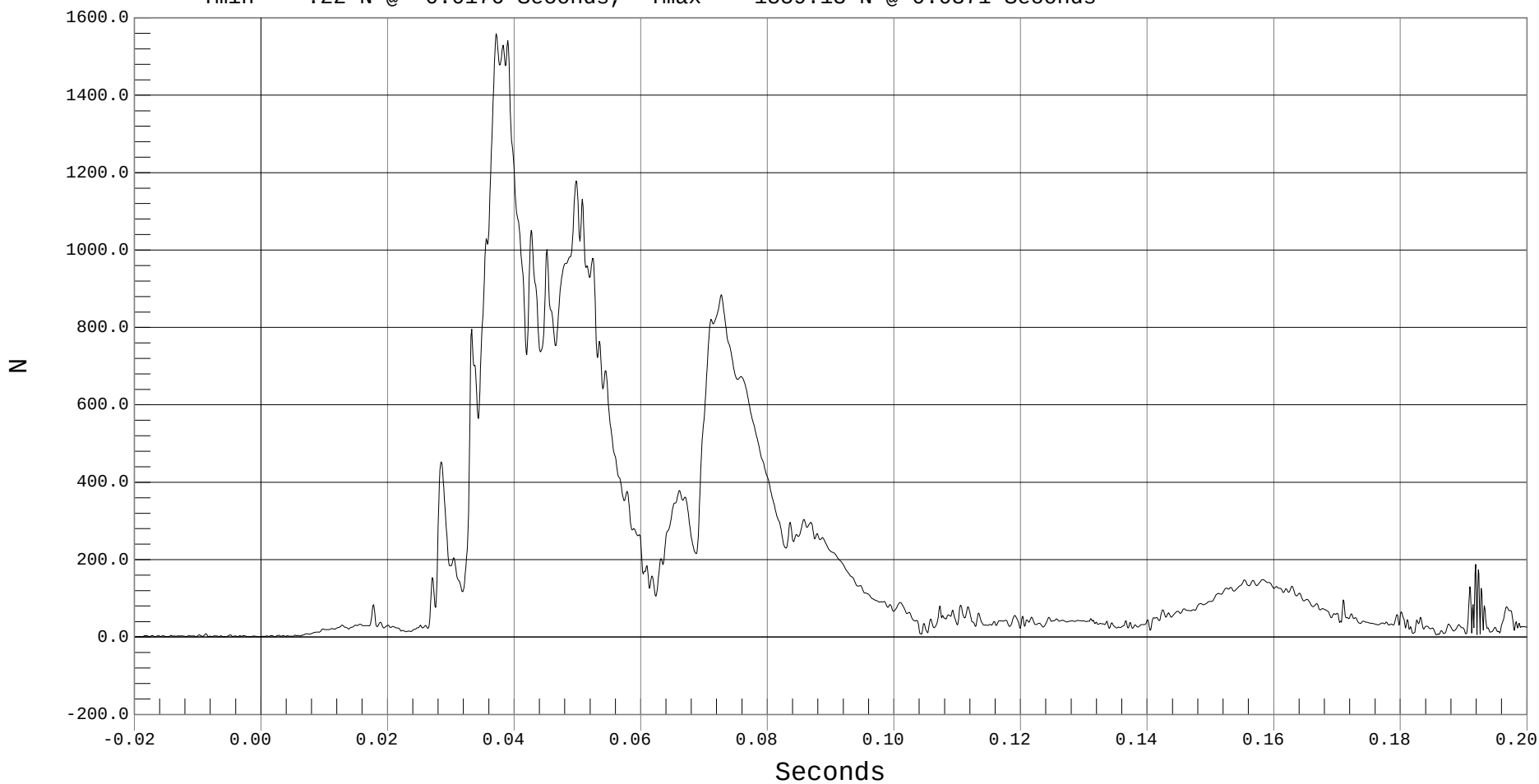
PASSENGER RIGHT FEMUR FORCE RESULTANT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 PASSENGER RIGHT FEMUR FORCE RESULTANT, B01061FV.F14

Ymin = .22 N @ -0.0176 Seconds, Ymax = 1559.13 N @ 0.0371 Seconds





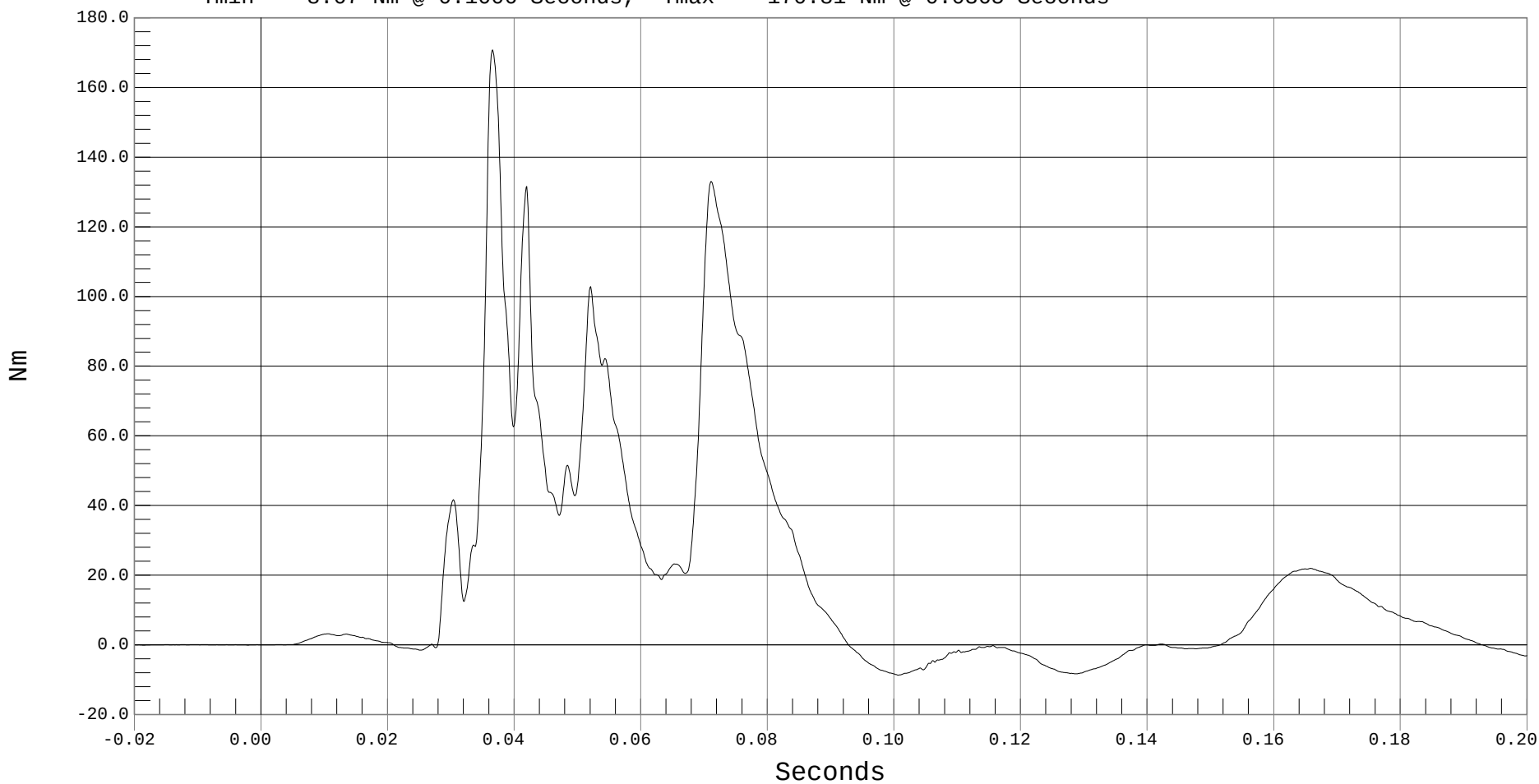
PASSENGER RIGHT FEMUR MOMENT X

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER RIGHT FEMUR MOMENT X, B01061MF.M16

Ymin = -8.67 Nm @ 0.1006 Seconds, Ymax = 170.81 Nm @ 0.0365 Seconds





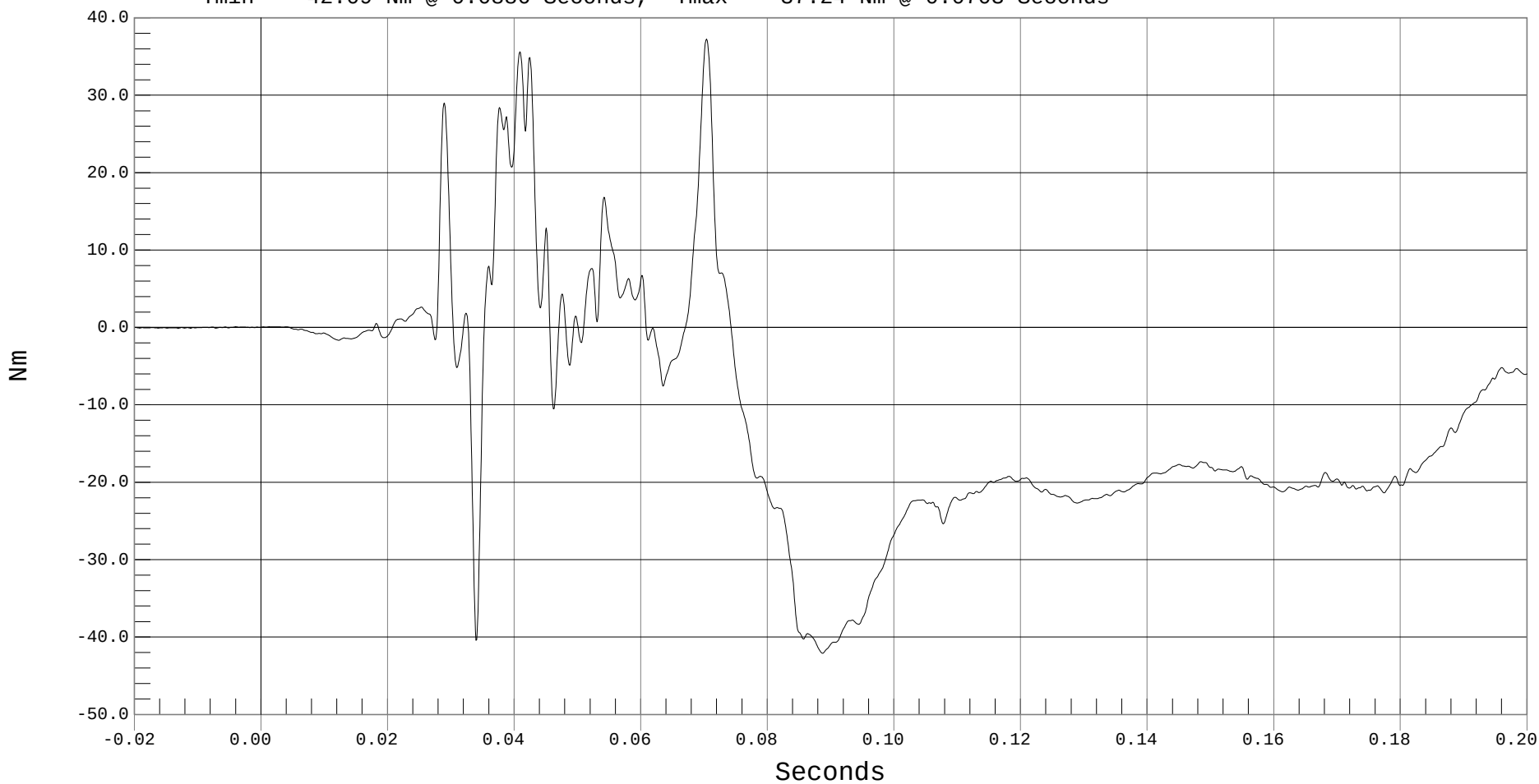
PASSENGER RIGHT FEMUR MOMENT Y

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER RIGHT FEMUR MOMENT Y, B01061MF.M17

Ymin = -42.09 Nm @ 0.0886 Seconds, Ymax = 37.24 Nm @ 0.0703 Seconds





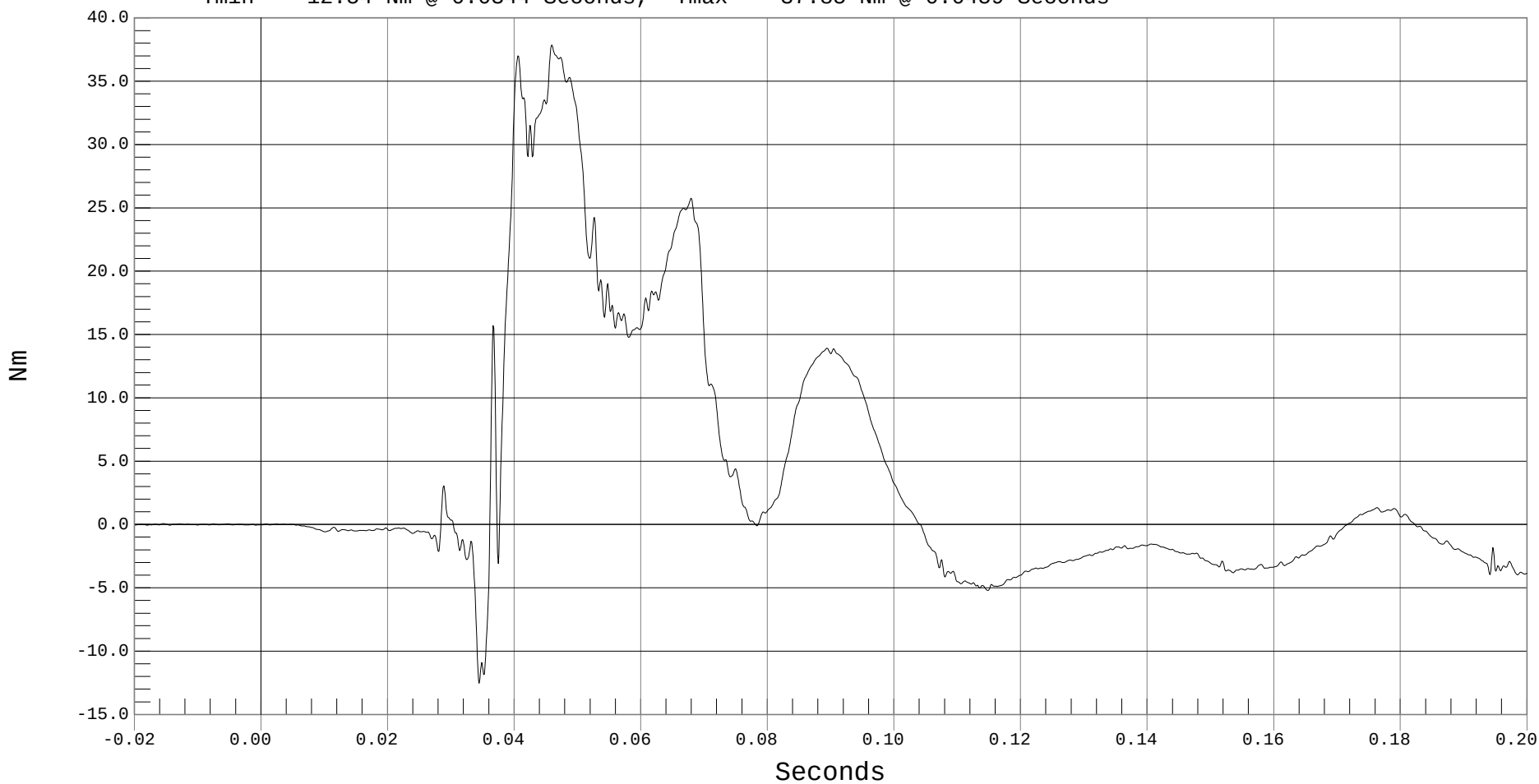
PASSENGER RIGHT FEMUR MOMENT Z

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 REAR PASSENGER RIGHT FEMUR MOMENT Z, B01061MF.M18

Ymin = -12.54 Nm @ 0.0344 Seconds, Ymax = 37.85 Nm @ 0.0459 Seconds





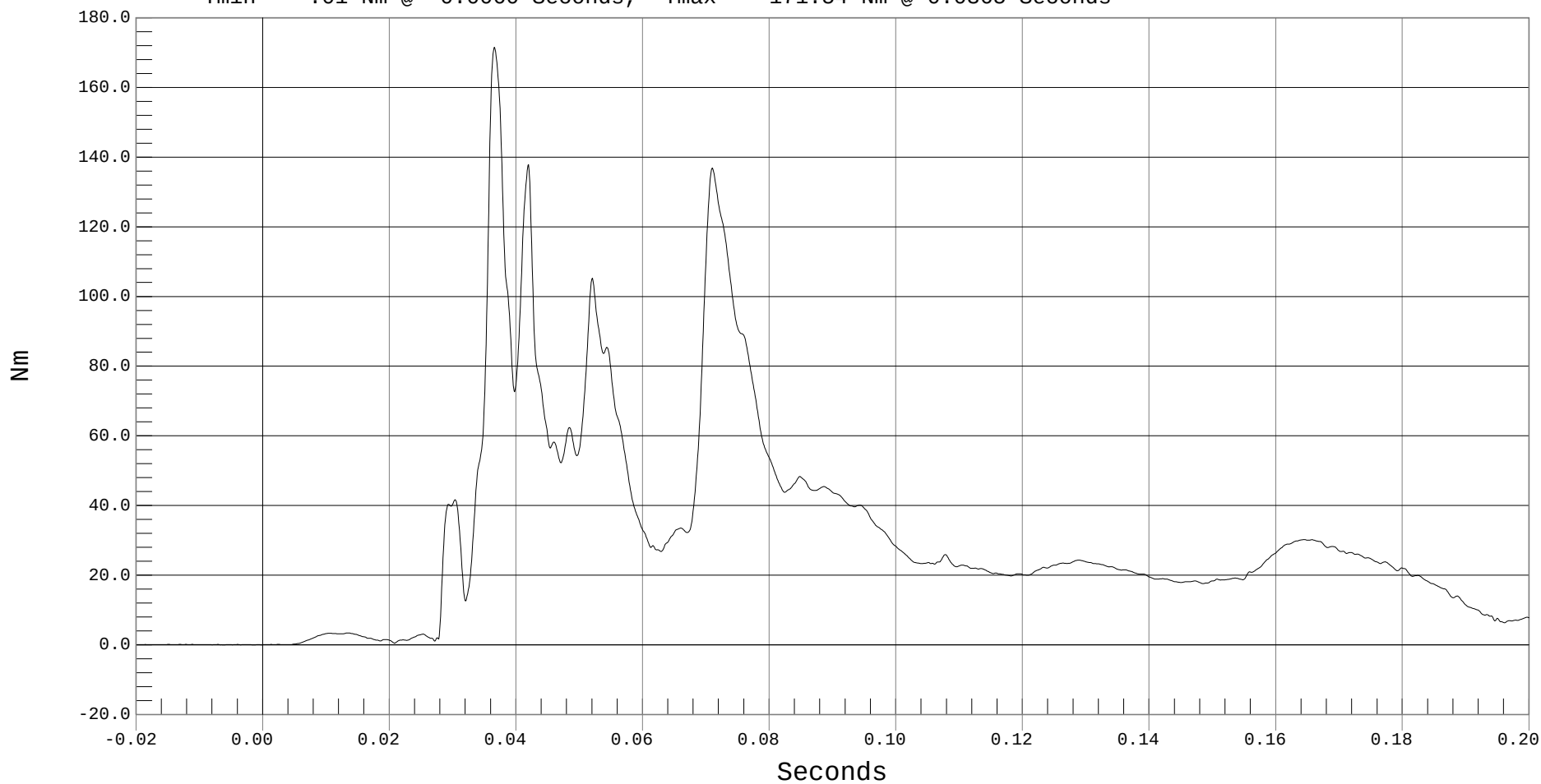
PASSENGER RIGHT FEMUR MOMENT RESULTANT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 600

— 1 PASSENGER RIGHT FEMUR MOMENT RESULTANT, B01061MV.M16

Ymin = .01 Nm @ -0.0060 Seconds, Ymax = 171.54 Nm @ 0.0365 Seconds





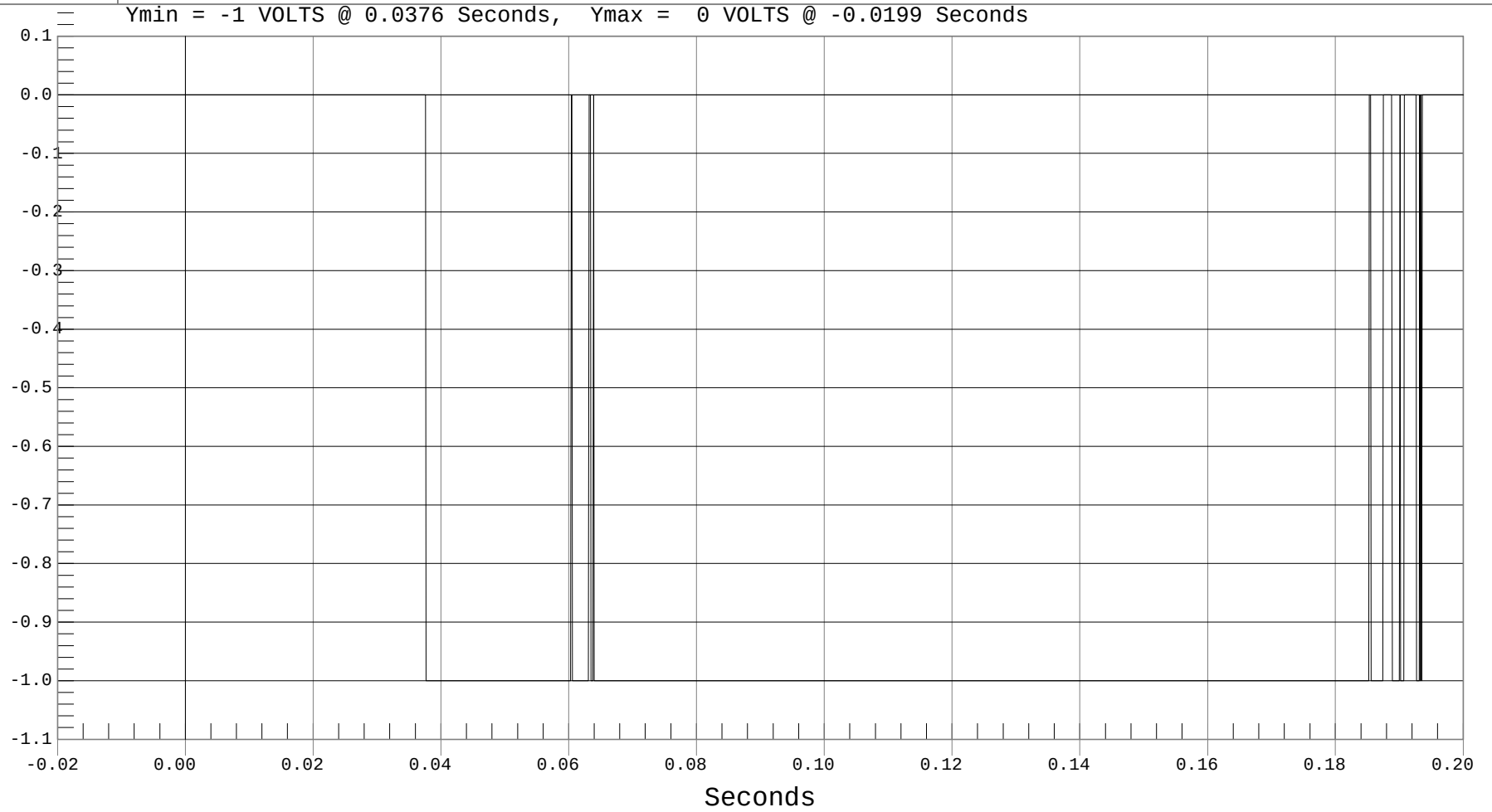
PASSENGER HEAD CONTACT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 PASSENGER HEAD CONTACT, B010610T.002

VOLTS





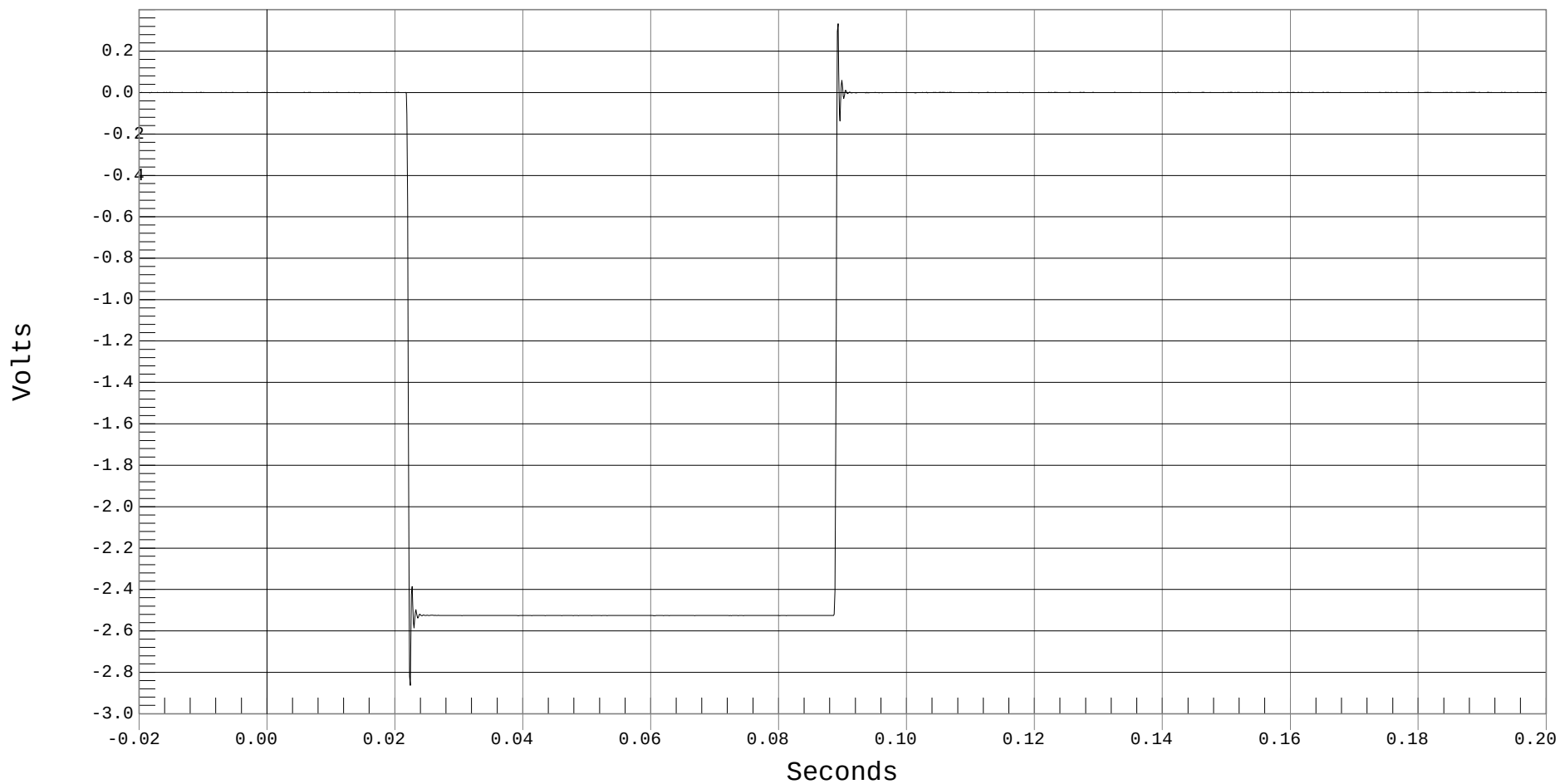
PASSENGER ARM CONTACT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 REAR PASSENGER ARM CONTACT, B010610T.064

Ymin = -2.86 Volts @ 0.0223 Seconds, Ymax = .33 Volts @ 0.0892 Seconds





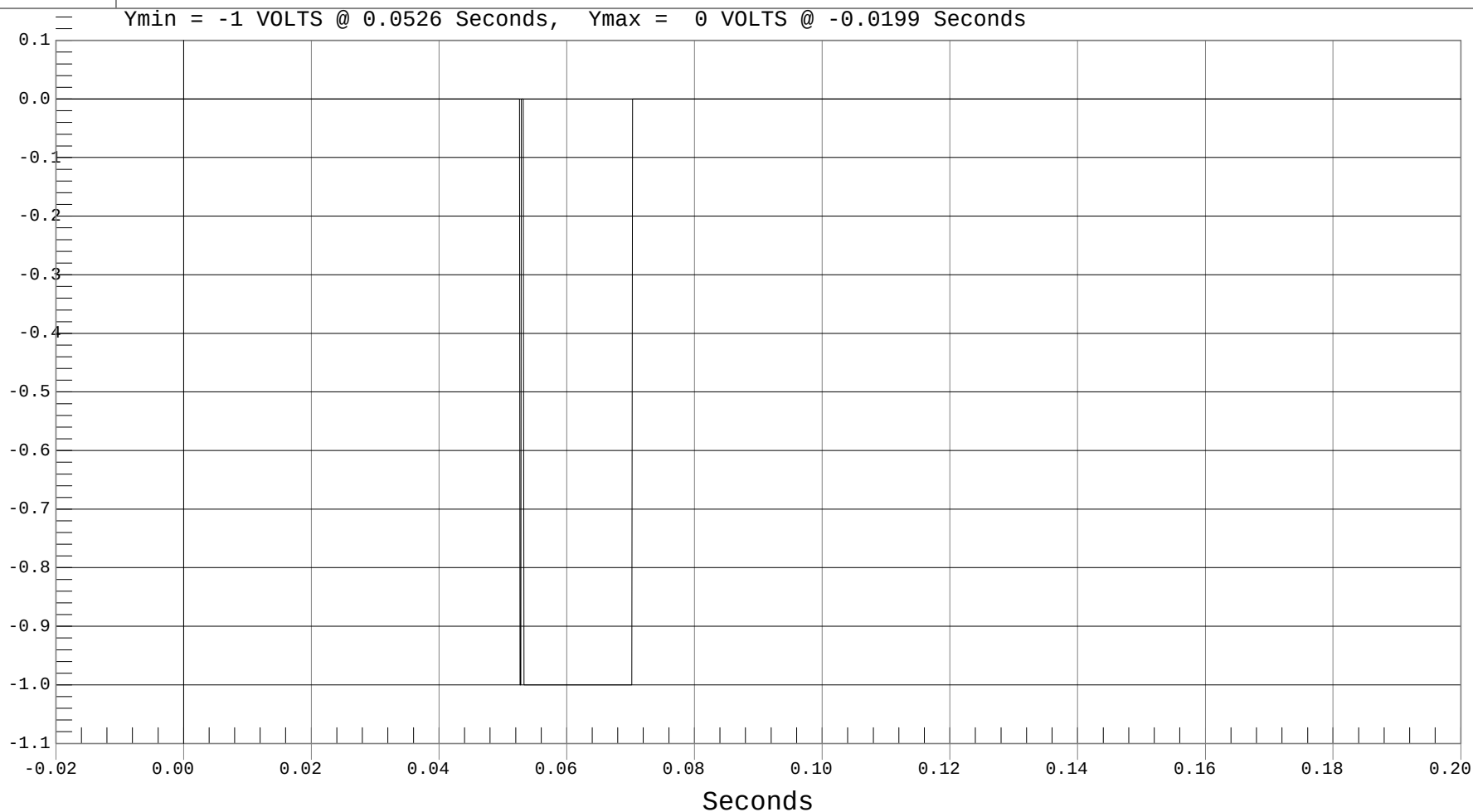
PASSENGER RIB CONTACT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 PASSENGER RIB CONTACT, B010610T.004

VOLTS





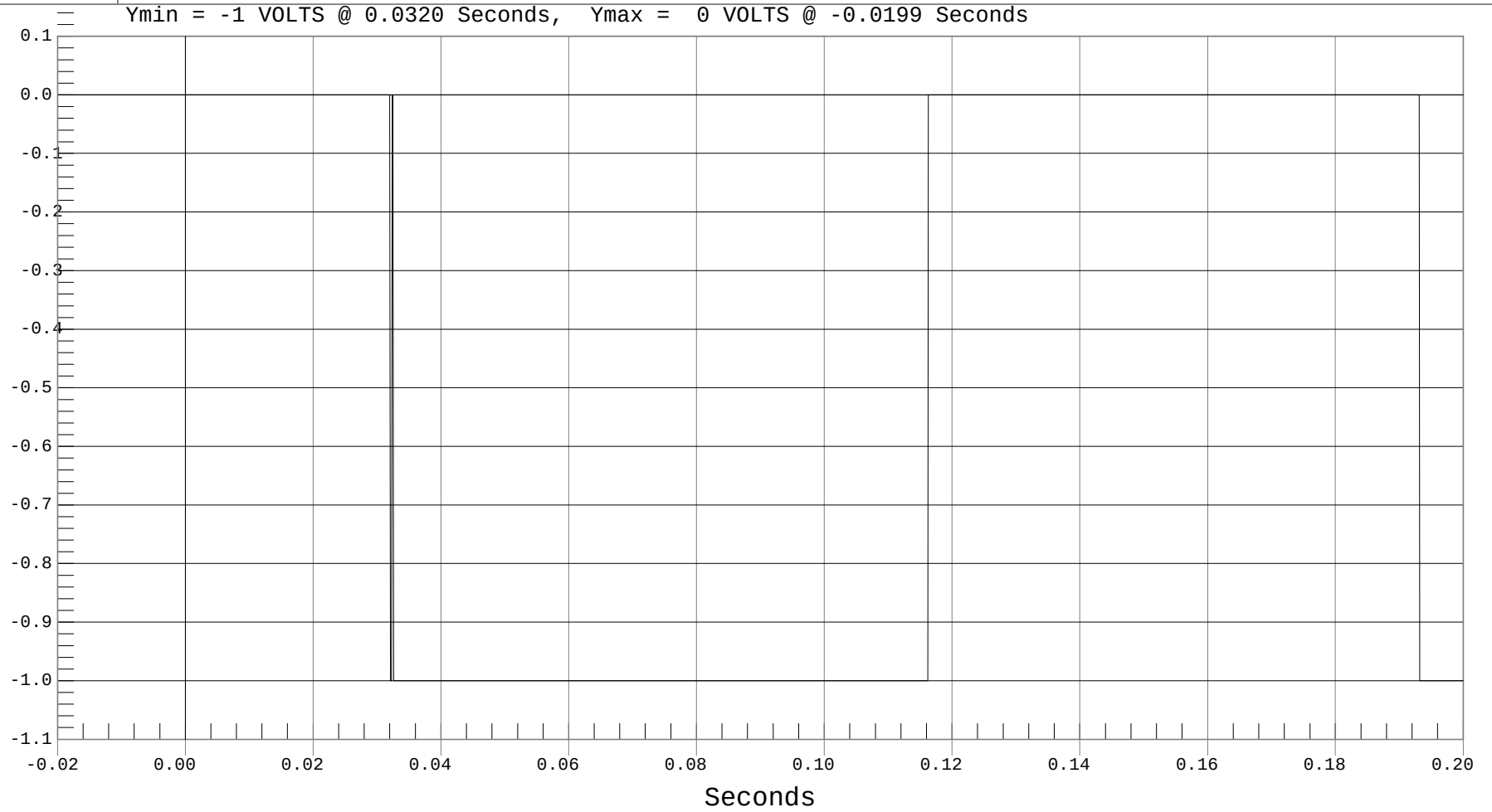
PASSENGER PELVIS CONTACT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 PASSENGER PELVIS CONTACT, B010610T.003

VOLTS





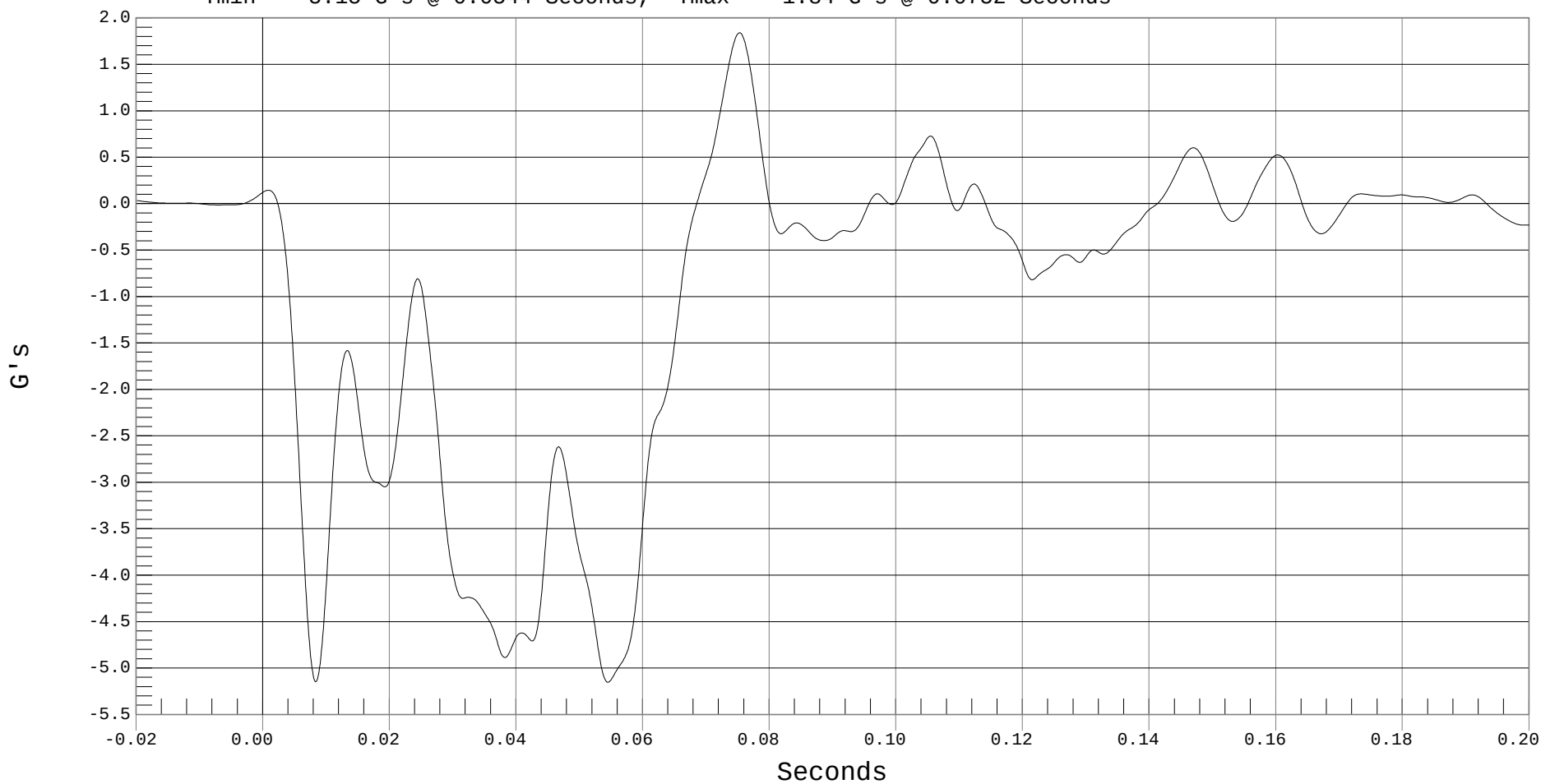
RIGHT SIDE SILL AT FRONT SEAT X ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 RIGHT FRONT SILL X, B01061AF.A25

Ymin = -5.15 G's @ 0.0544 Seconds, Ymax = 1.84 G's @ 0.0752 Seconds





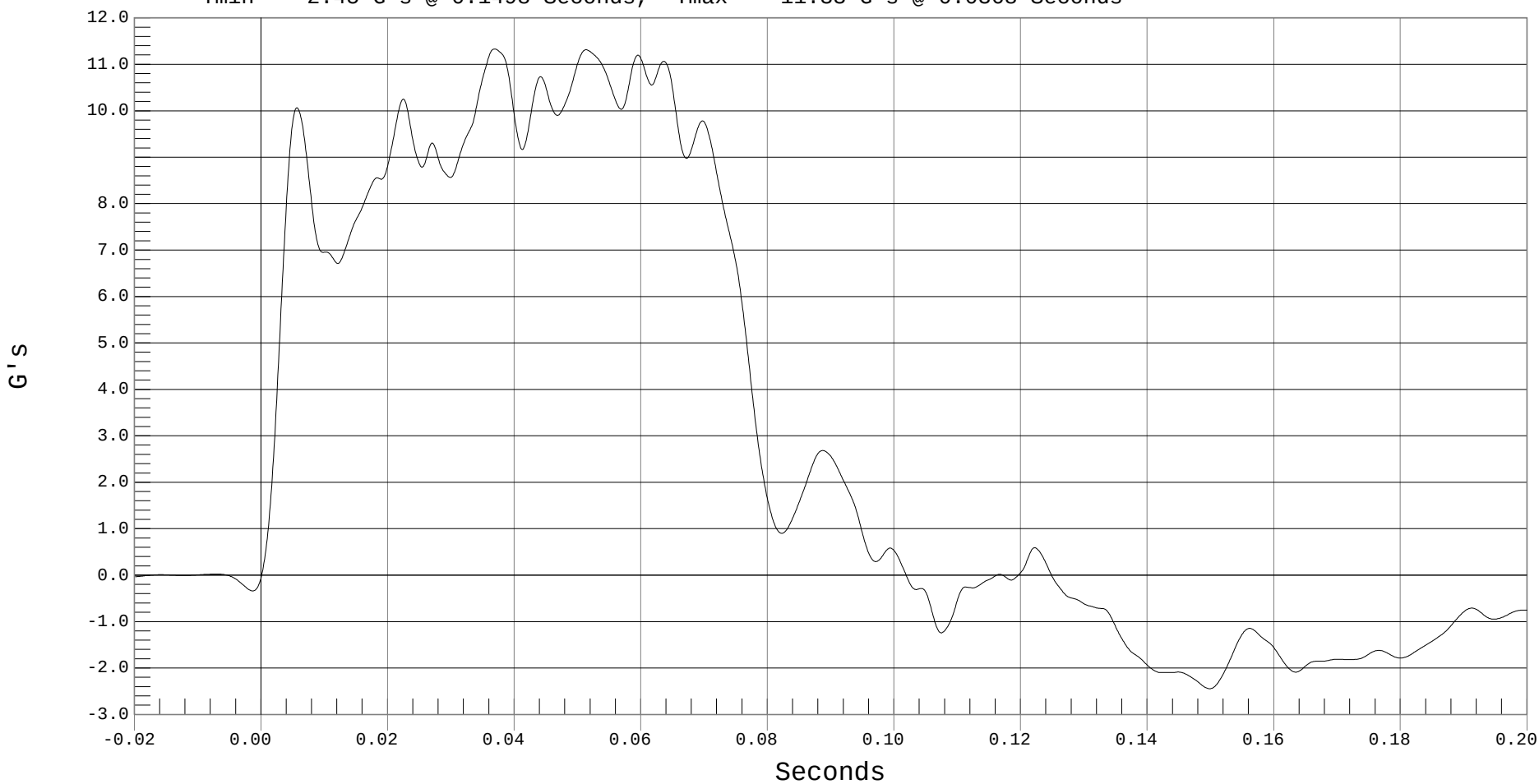
RIGHT SIDE SILL AT FRONT SEAT Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 RIGHT FRONT SILL Y, B01061AF.A26

Ymin = -2.45 G's @ 0.1498 Seconds, Ymax = 11.33 G's @ 0.0368 Seconds





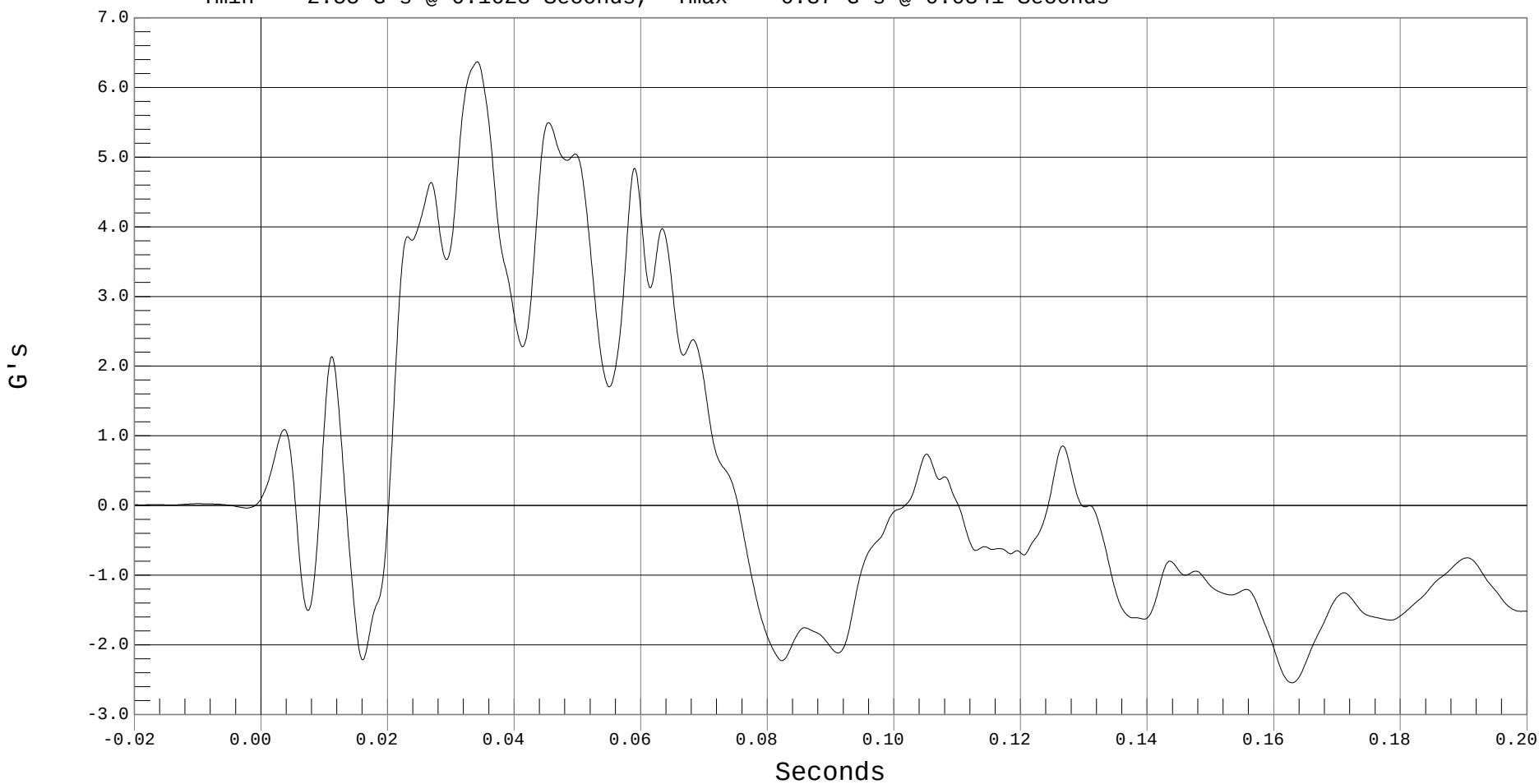
RIGHT SIDE SILL AT FRONT SEAT Z ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 RIGHT FRONT SILL Z, B01061AF.A27

Ymin = -2.55 G's @ 0.1628 Seconds, Ymax = 6.37 G's @ 0.0341 Seconds





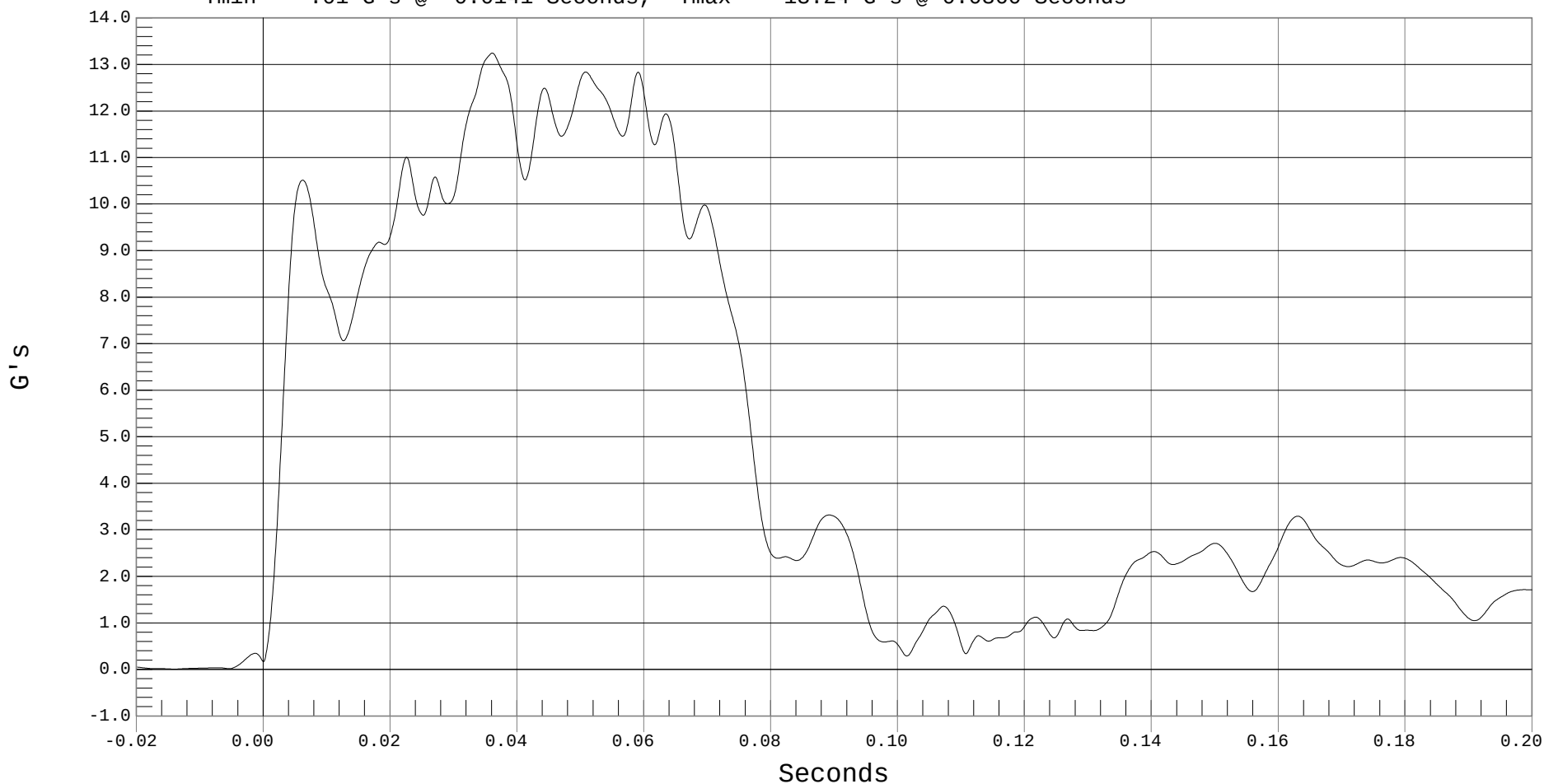
RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 RIGHT FRONT SILL RESULTANT ACCELERATION, B01061AV.A25

Ymin = .01 G's @ -0.0141 Seconds, Ymax = 13.24 G's @ 0.0360 Seconds





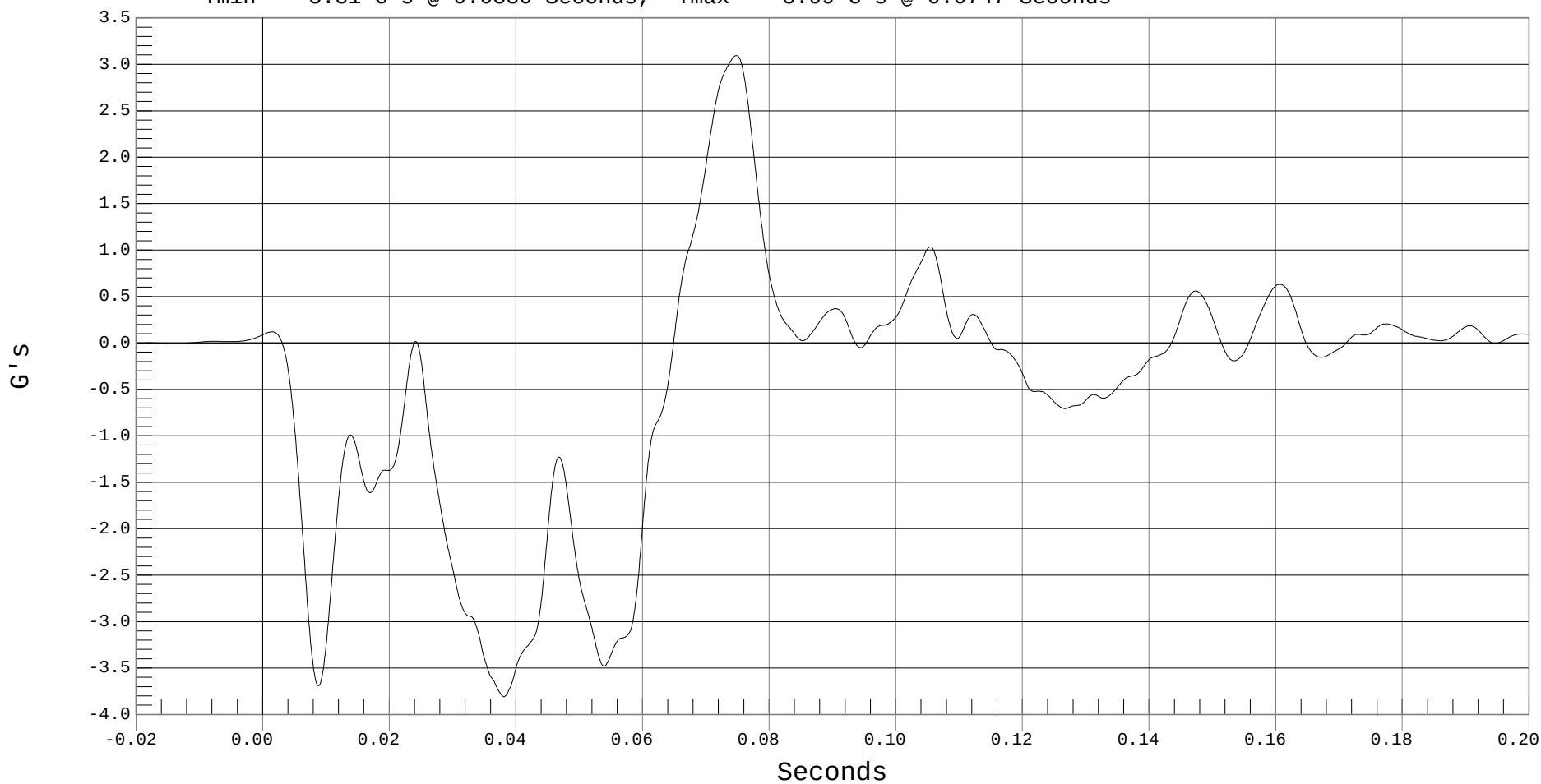
RIGHT SIDE SILL AT REAR SEAT X ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 RIGHT REAR SILL X, B01061AF.A28

Ymin = -3.81 G's @ 0.0380 Seconds, Ymax = 3.09 G's @ 0.0747 Seconds





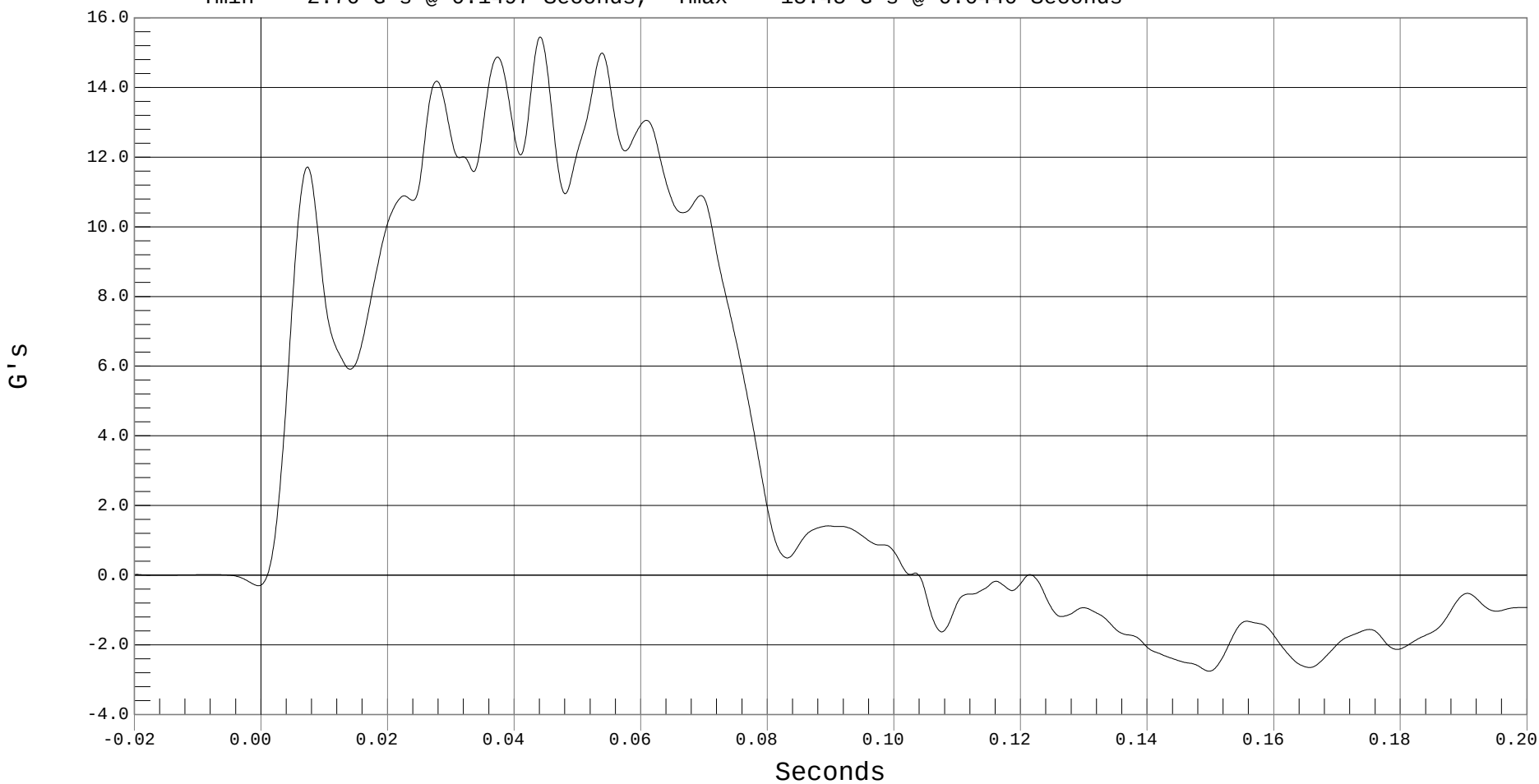
RIGHT SIDE SILL AT REAR SEAT Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 RIGHT REAR SILL Y, B01061AF.A29

Ymin = -2.76 G's @ 0.1497 Seconds, Ymax = 15.45 G's @ 0.0440 Seconds





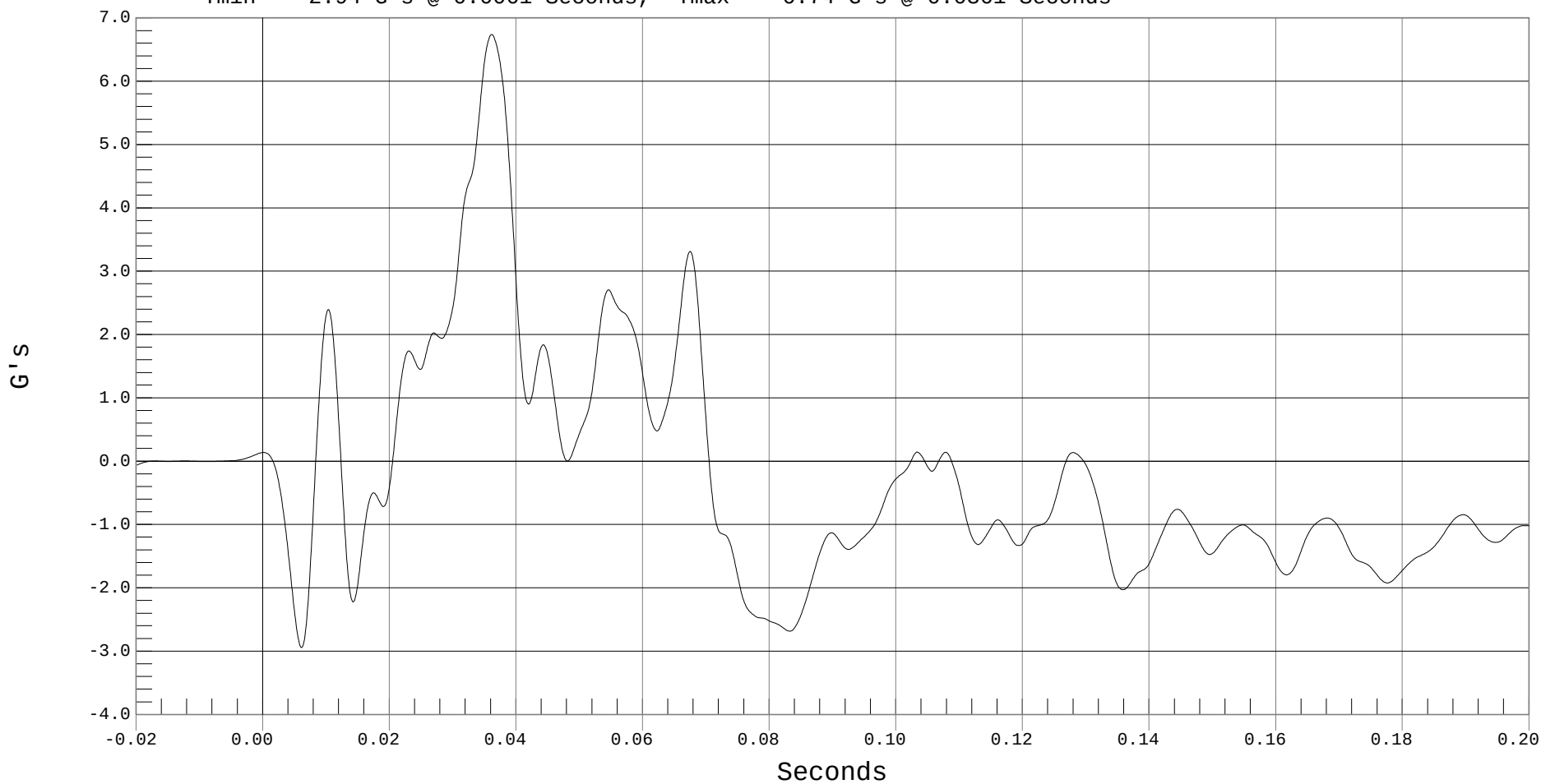
RIGHT SIDE SILL AT REAR SEAT Z ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 RIGHT REAR SILL Z, B01061AF.A30

Ymin = -2.94 G's @ 0.0061 Seconds, Ymax = 6.74 G's @ 0.0361 Seconds





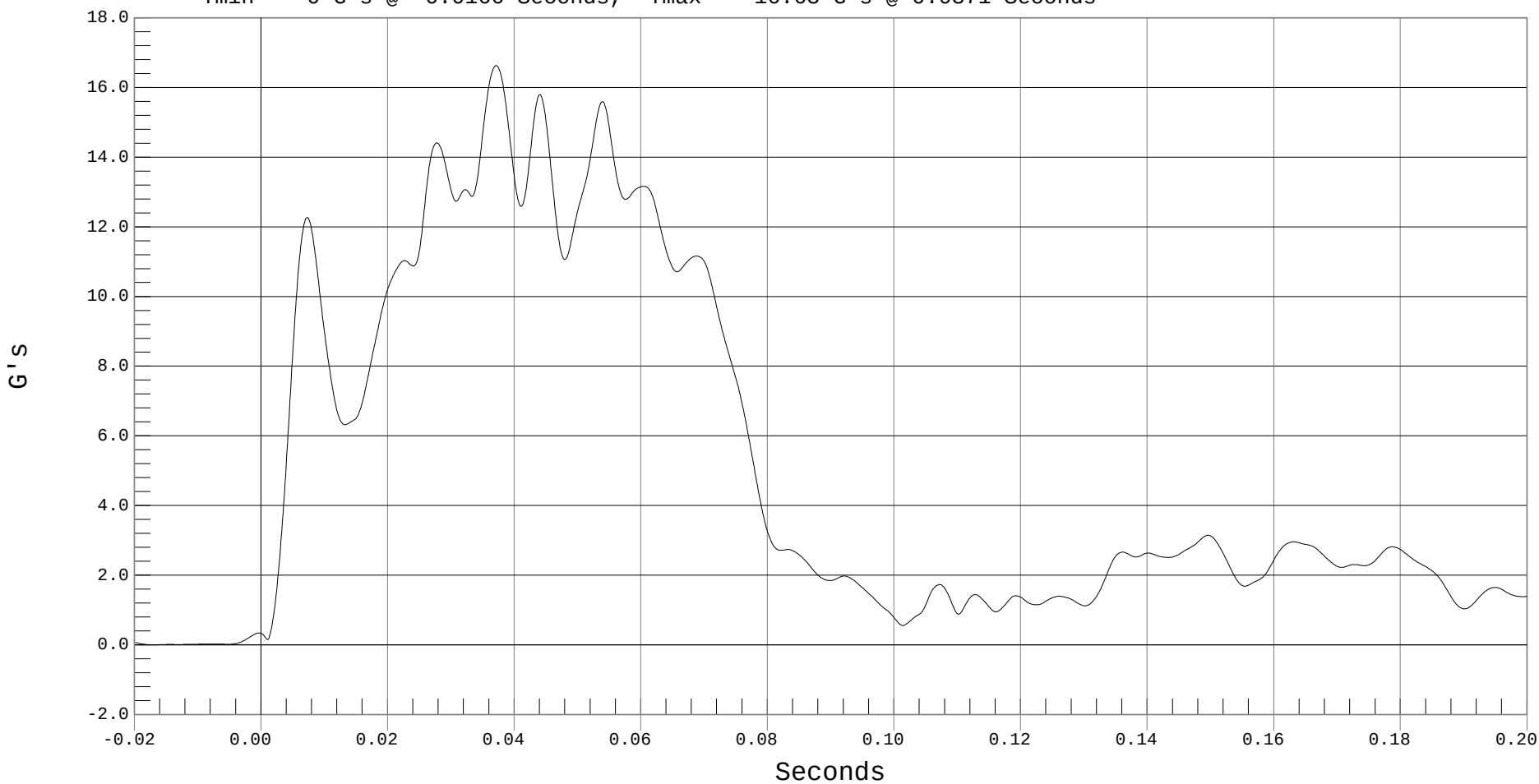
RIGHT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 RIGHT REAR SILL RESULTANT ACCELERATION, B01061AV.A28

Ymin = 0 G's @ -0.0166 Seconds, Ymax = 16.63 G's @ 0.0371 Seconds





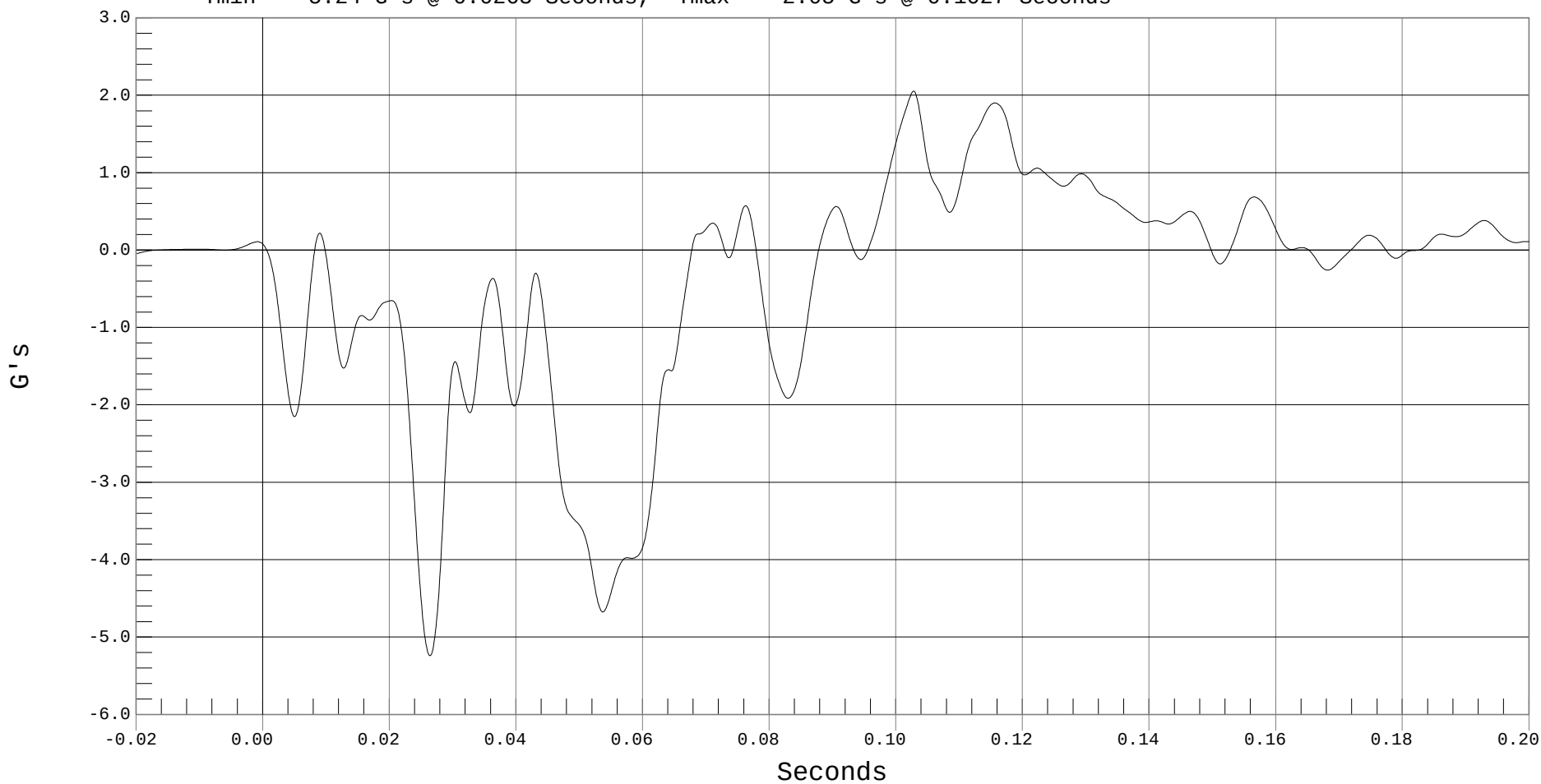
REAR FLOORPAN ABOVE AXLE X ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 FLOORPAN @ REAR AXLE X, B01061AF.A34

Ymin = -5.24 G's @ 0.0263 Seconds, Ymax = 2.05 G's @ 0.1027 Seconds





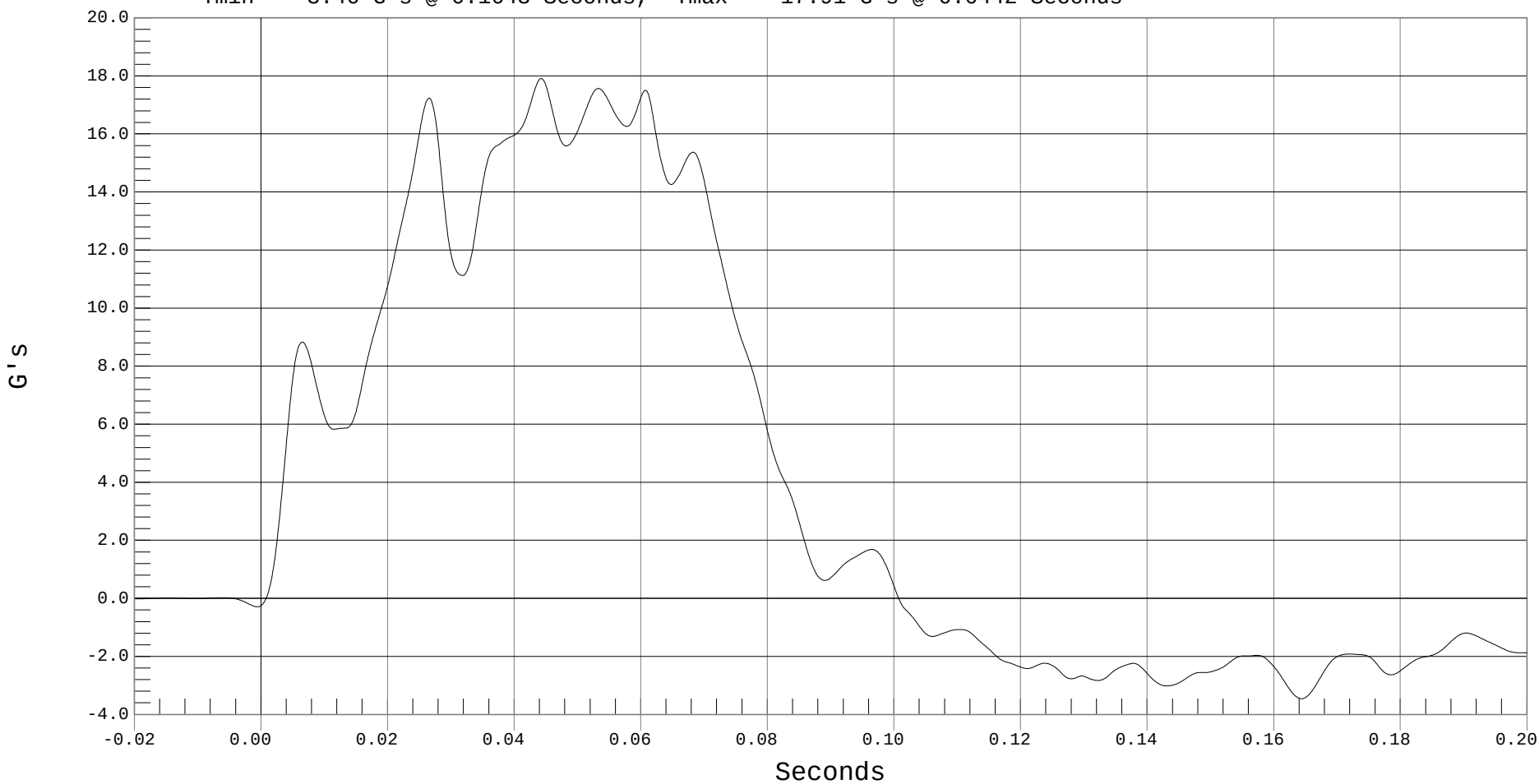
REAR FLOORPAN ABOVE AXLE Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 FLOORPAN @ REAR AXLE Y, B01061AF.A35

Ymin = -3.46 G's @ 0.1643 Seconds, Ymax = 17.91 G's @ 0.0442 Seconds





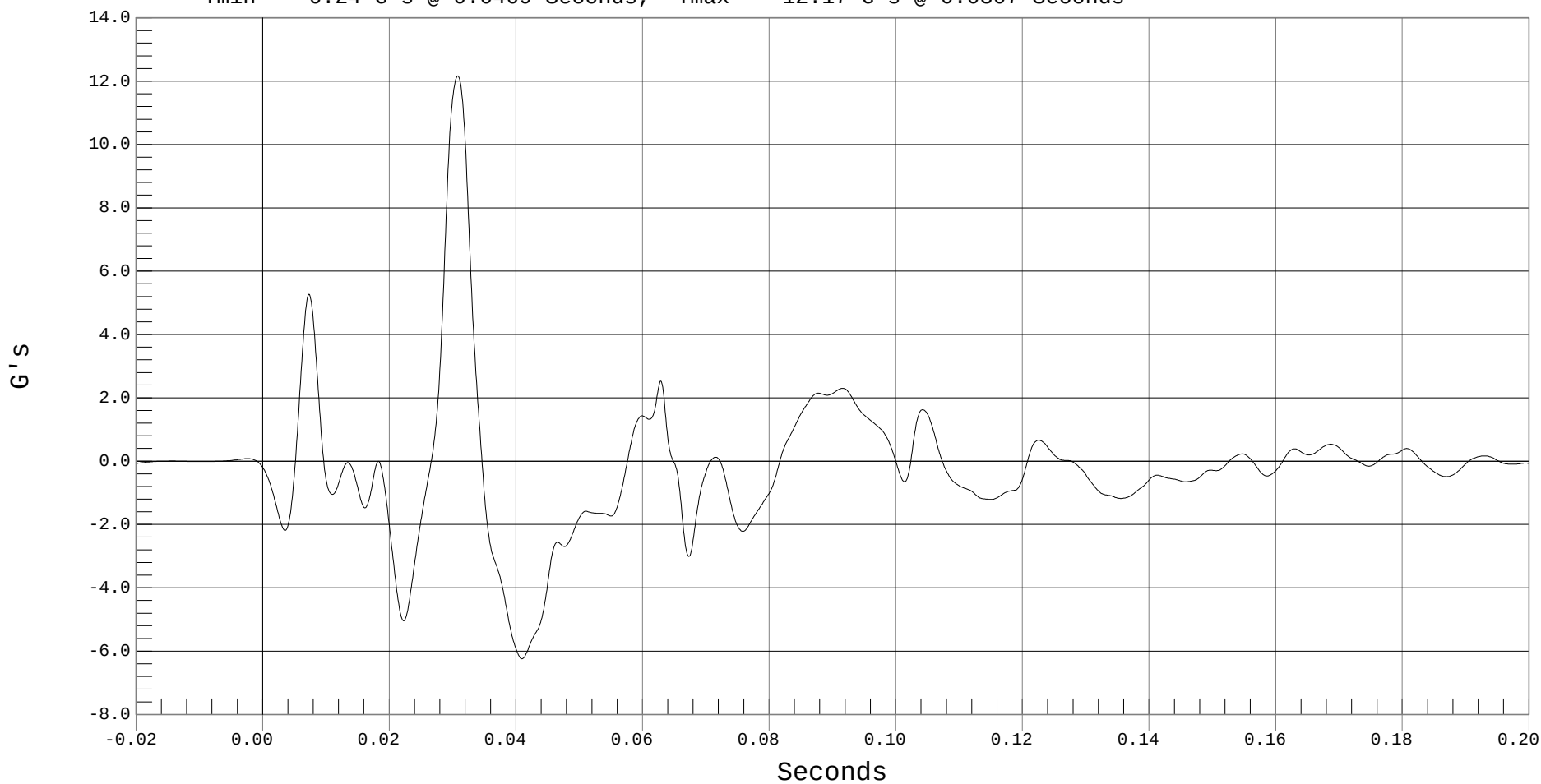
REAR FLOORPAN ABOVE AXLE Z ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 FLOORPAN @ REAR AXLE, B01061AF.A36

Ymin = -6.24 G's @ 0.0409 Seconds, Ymax = 12.17 G's @ 0.0307 Seconds





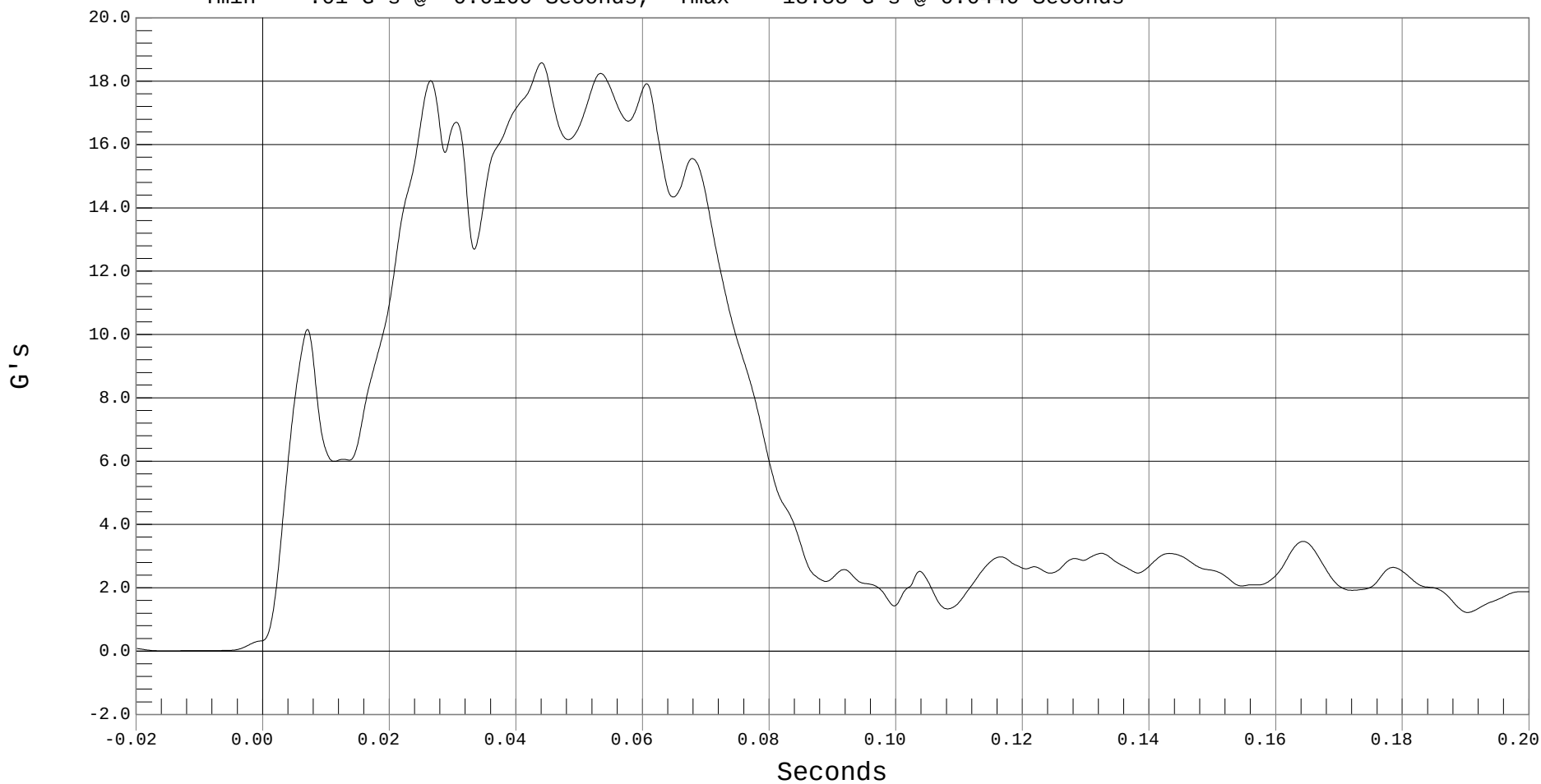
REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 FLOORPAN @ REAR AXLE ACCELERATION, B01061AV.A34

Ymin = .01 G's @ -0.0160 Seconds, Ymax = 18.58 G's @ 0.0440 Seconds





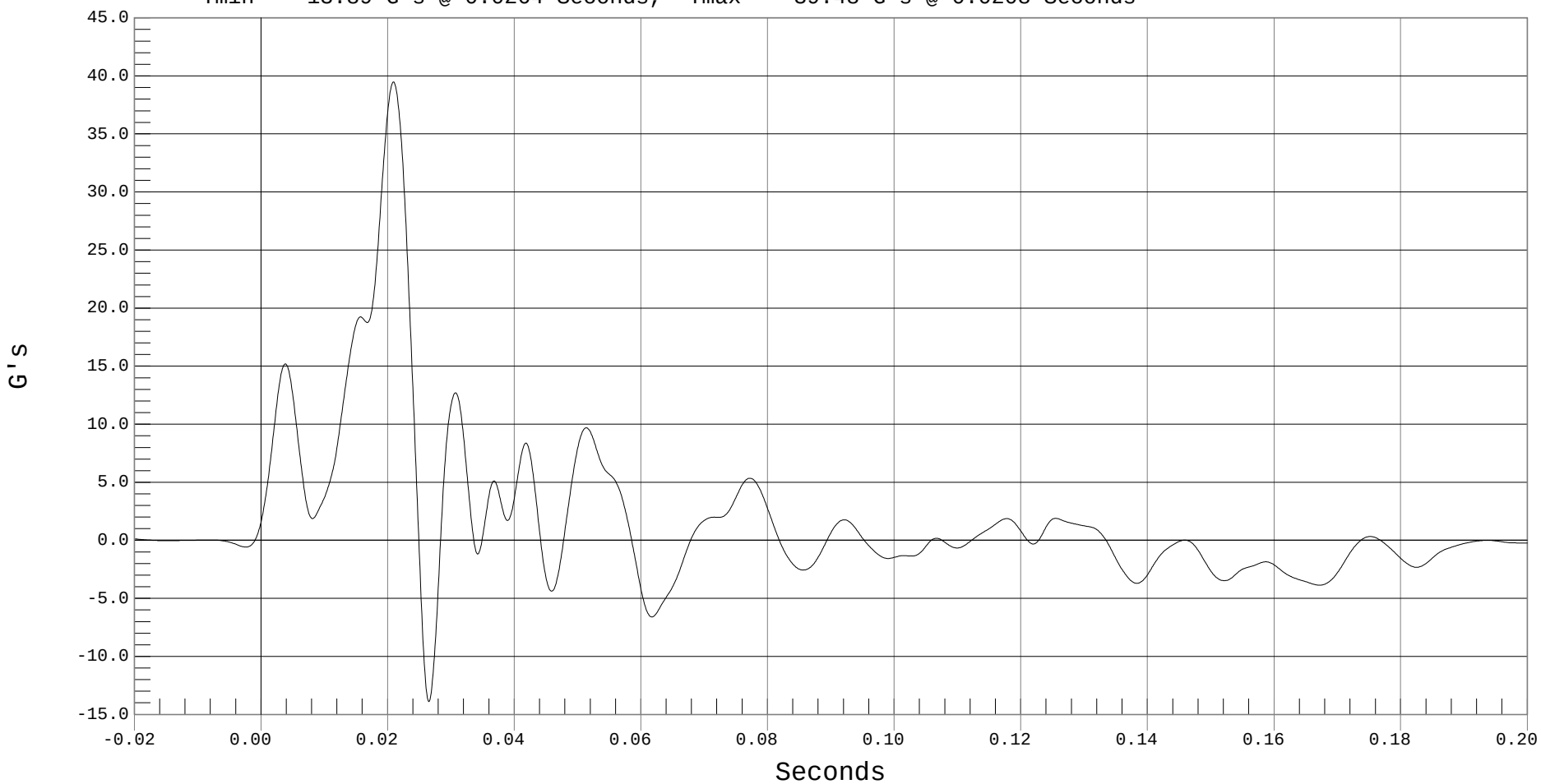
LEFT SIDE SILL AT FRONT SEAT Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LEFT FRONT SILL Y, B01061AF.A31

Ymin = -13.89 G's @ 0.0264 Seconds, Ymax = 39.48 G's @ 0.0208 Seconds





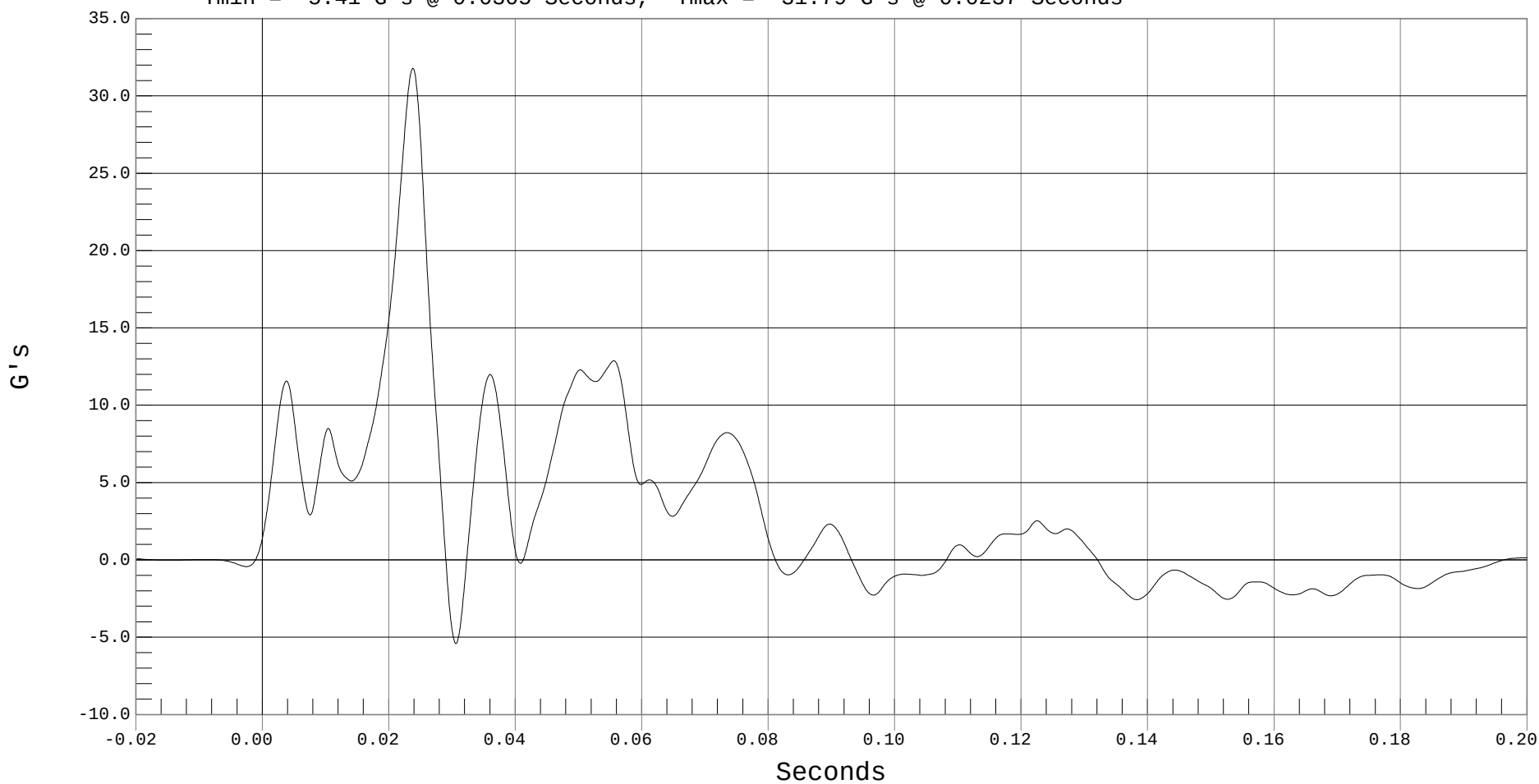
LEFT SIDE SILL AT REAR SEAT Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LEFT REAR SILL Y, B01061AF.A33

Ymin = -5.41 G's @ 0.0305 Seconds, Ymax = 31.79 G's @ 0.0237 Seconds





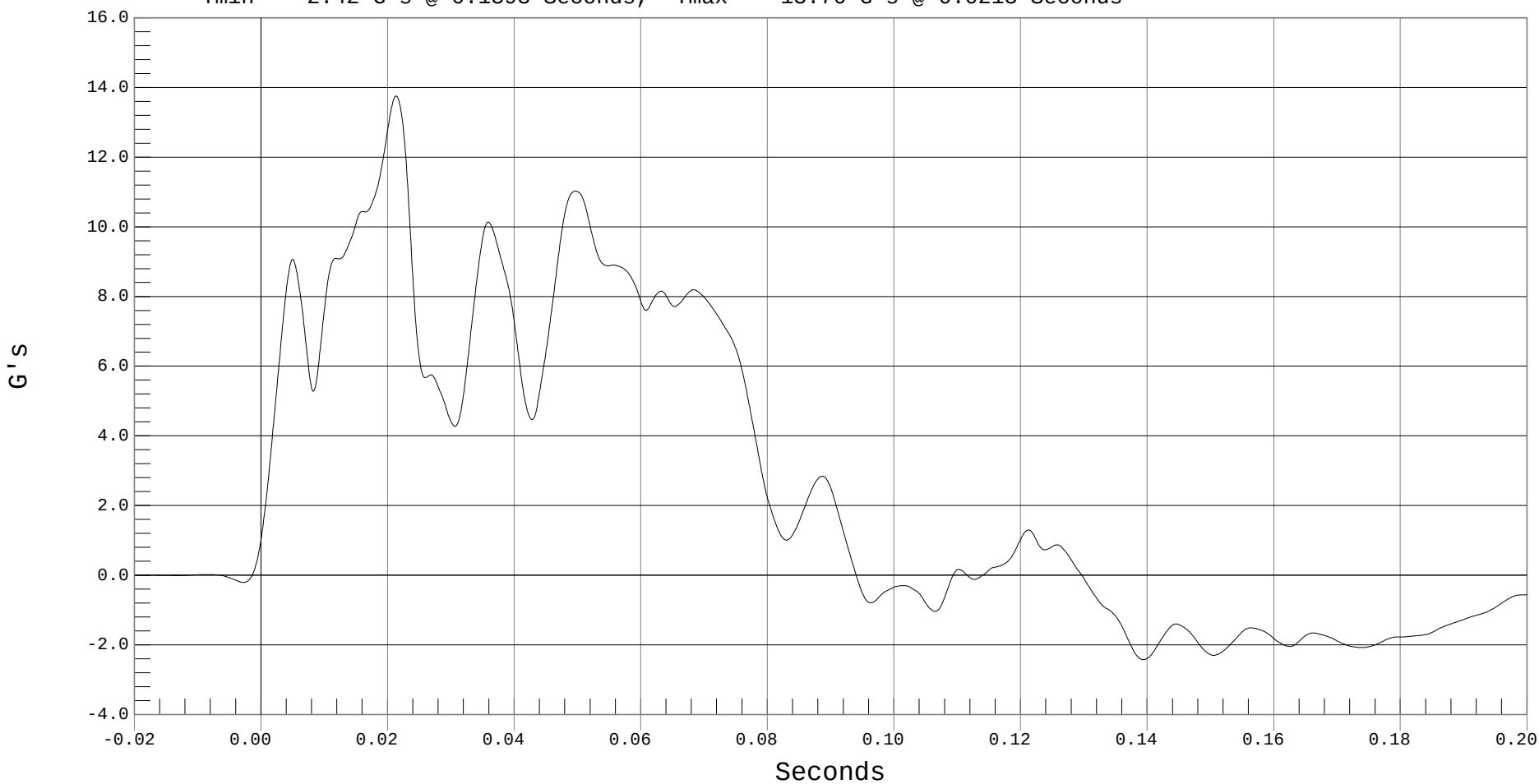
LEFT LOWER A-POST Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LEFT LOWER A-POST Y, B01061AF.A38

Ymin = -2.42 G's @ 0.1393 Seconds, Ymax = 13.76 G's @ 0.0213 Seconds





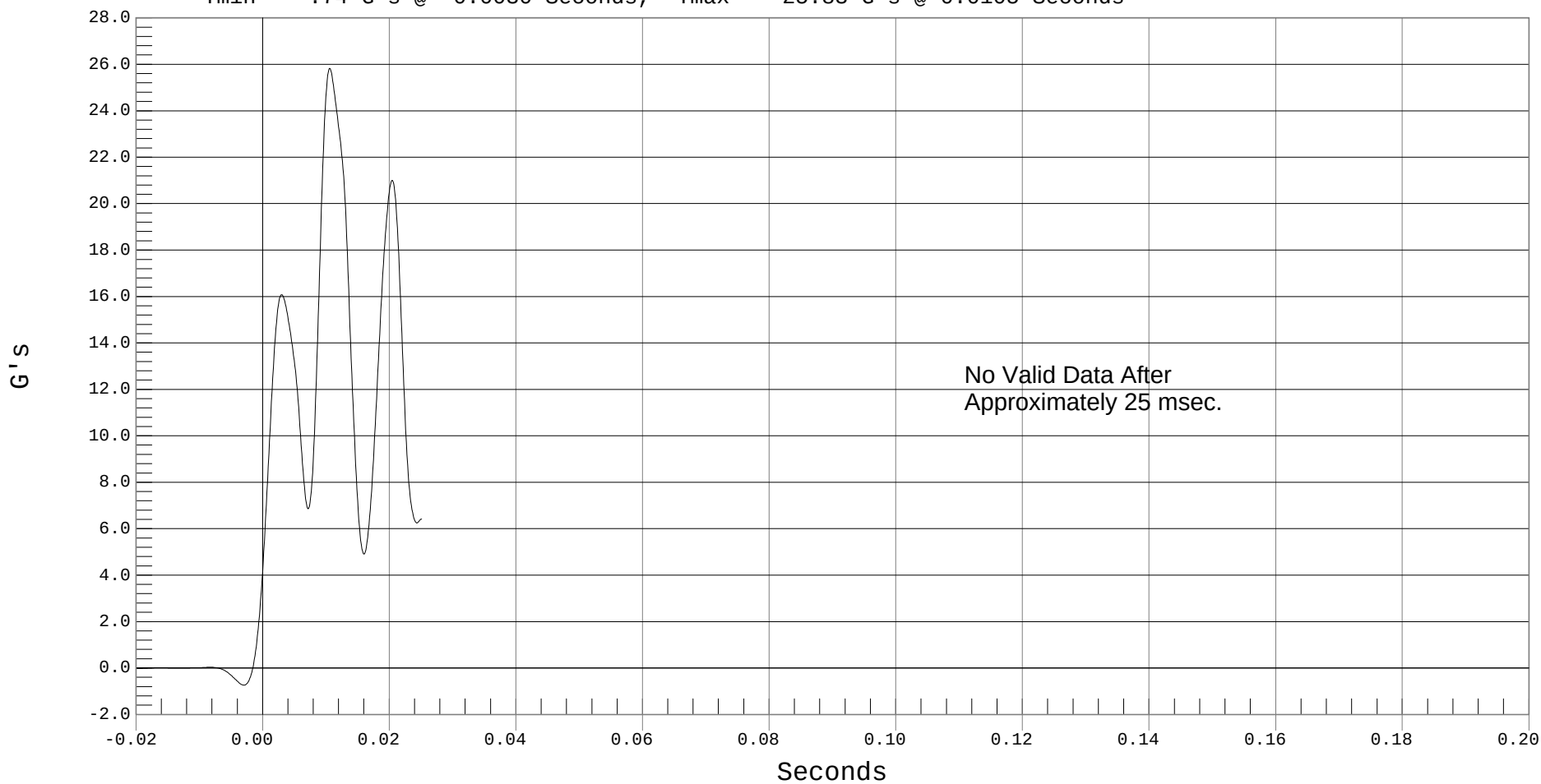
LEFT MID A-POST Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LEFT MID A-POST Y, B01061AF.A37

Ymin = -0.74 G's @ -0.0030 Seconds , Ymax = 25.83 G's @ 0.0105 Seconds





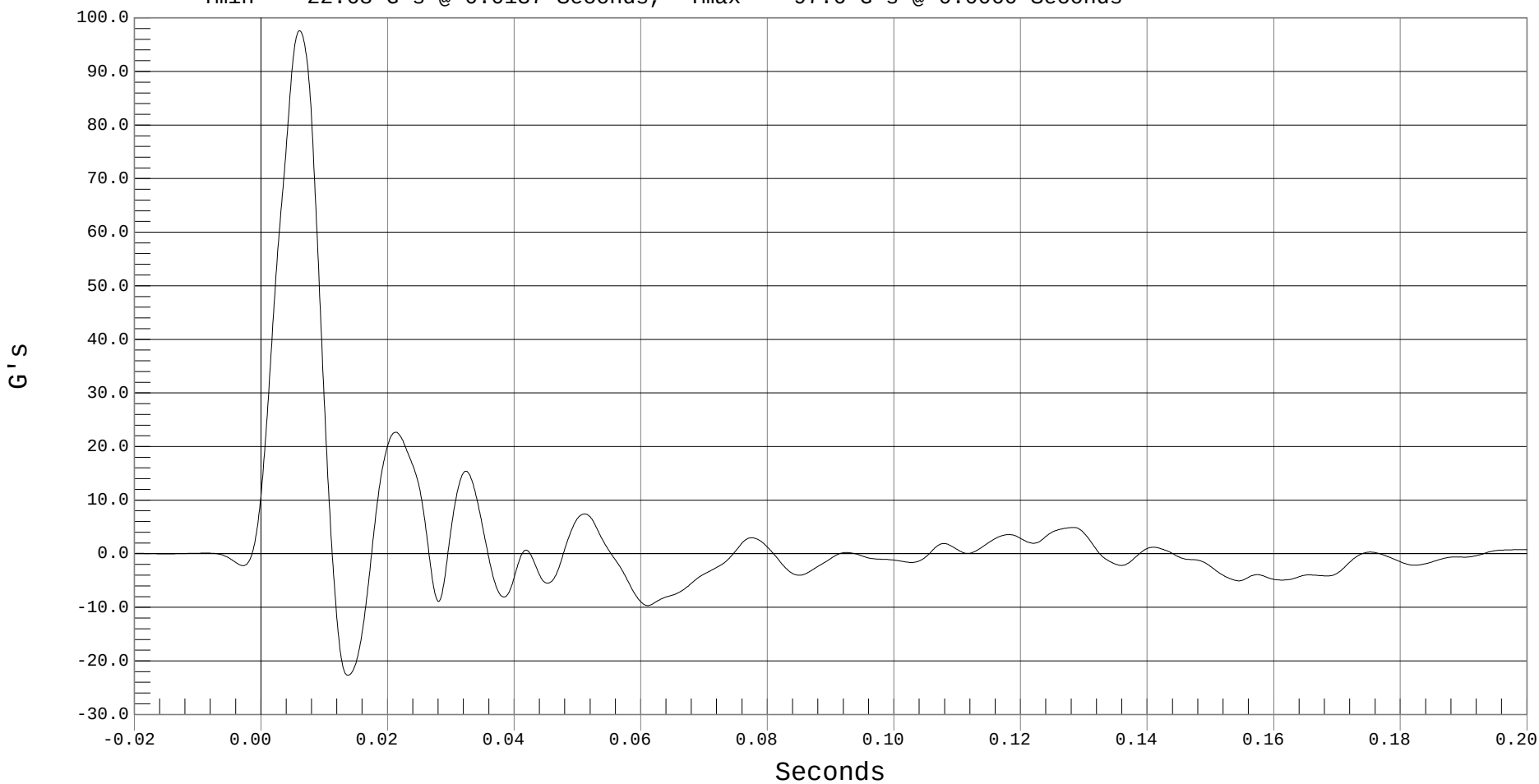
LEFT LOWER B-POST Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LOWER B-POST Y, B01061AF.A41

Ymin = -22.68 G's @ 0.0137 Seconds, Ymax = 97.6 G's @ 0.0060 Seconds





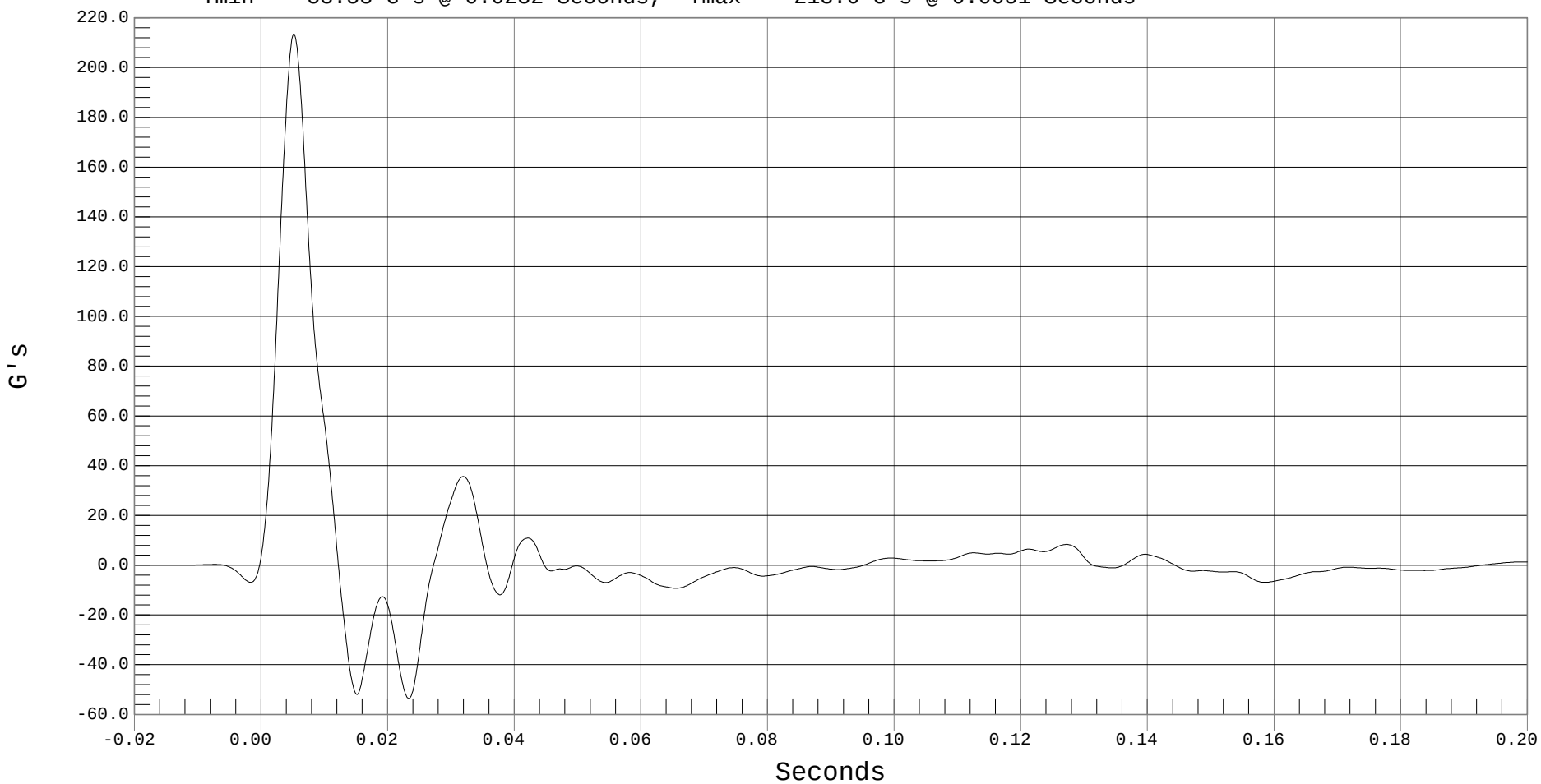
LEFT MID B-POST Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LEFT MID B-POST Y, B01061AF.A40

Ymin = -53.58 G's @ 0.0232 Seconds, Ymax = 213.6 G's @ 0.0051 Seconds





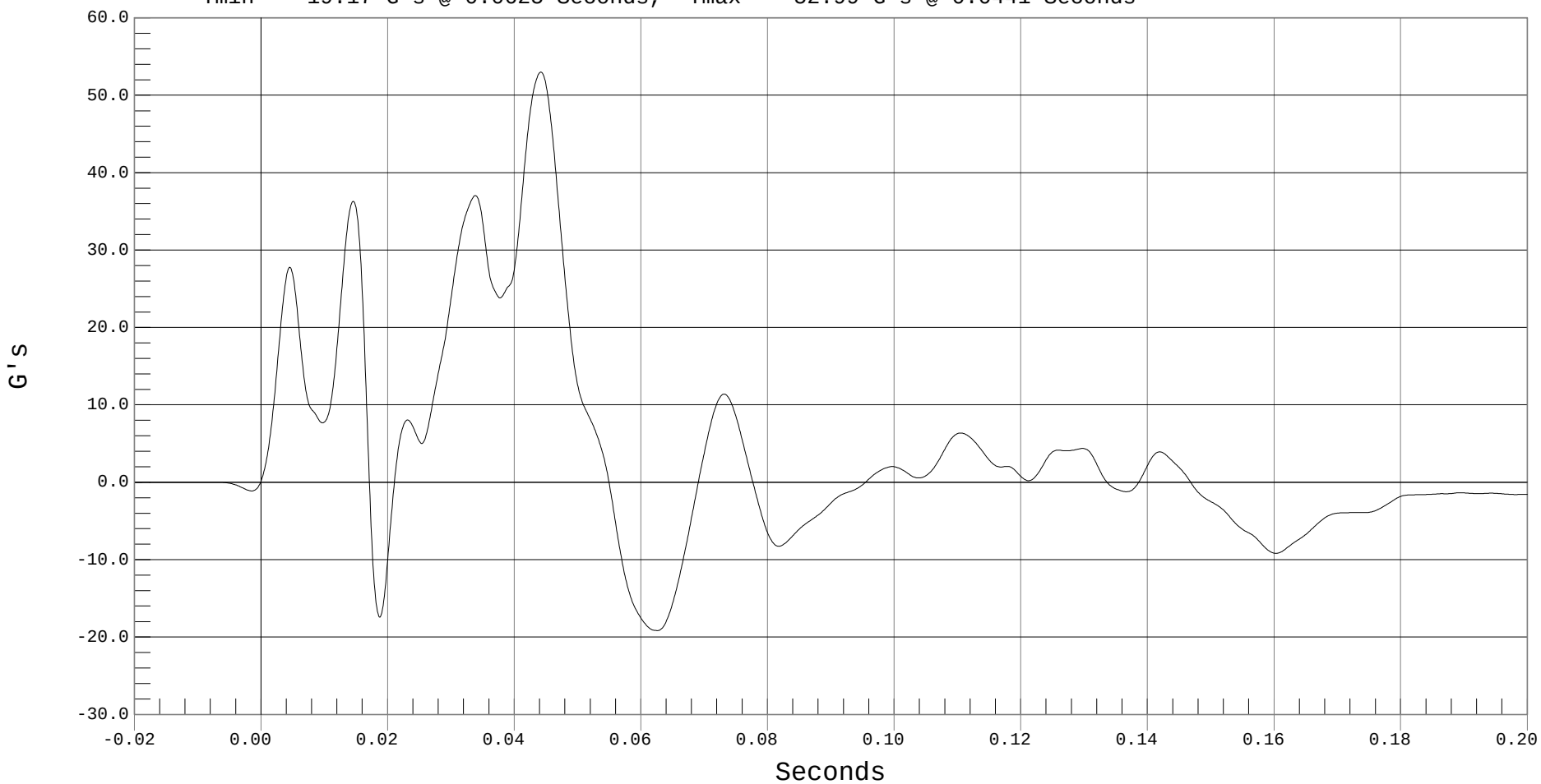
LEFT UPPER B-POST Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LEFT UPPER B-POST Y, B01061AF.A39

Ymin = -19.17 G's @ 0.0625 Seconds, Ymax = 52.99 G's @ 0.0441 Seconds





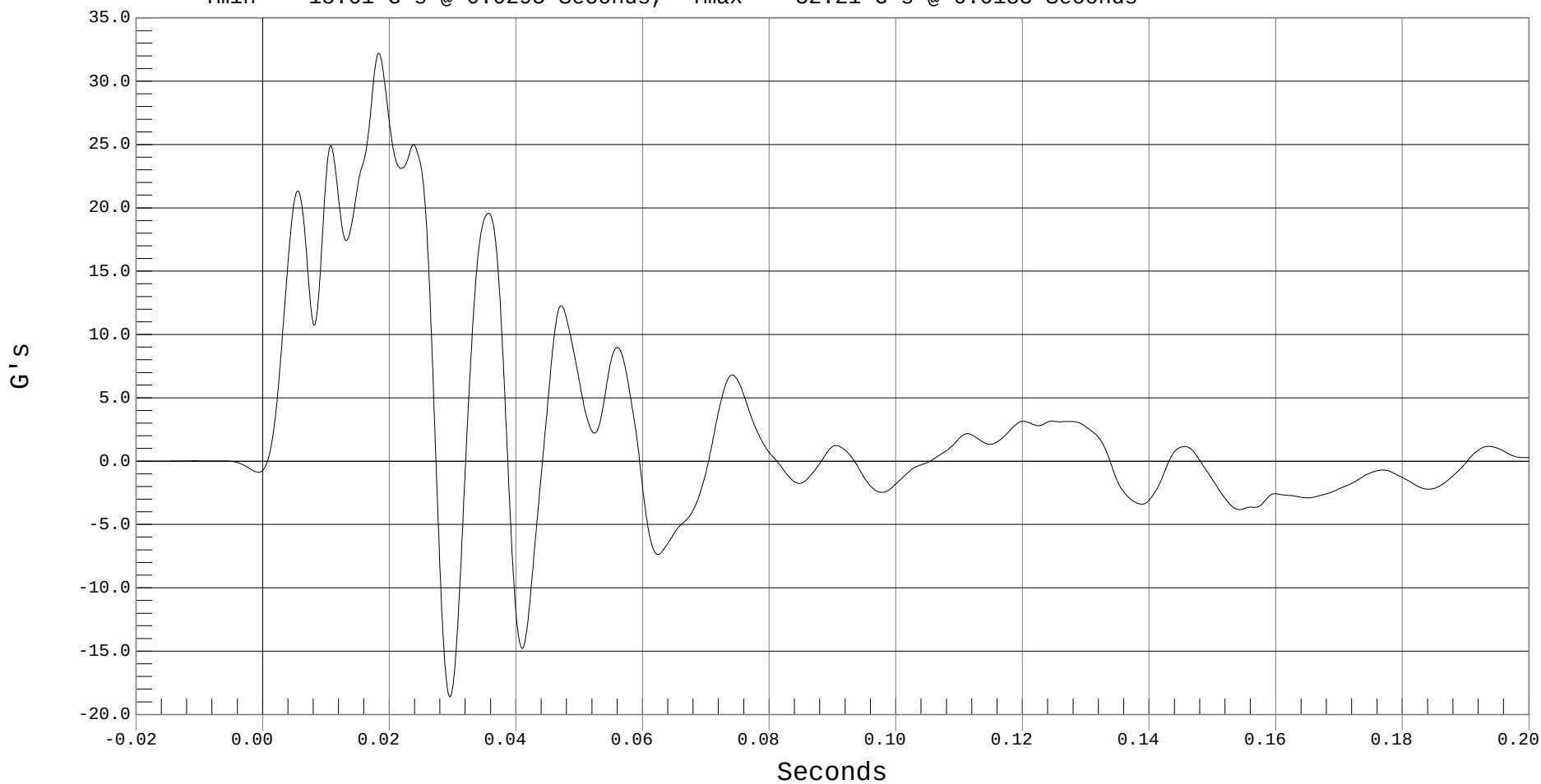
LEFT DRIVER SEAT TRACK Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 DRIVER SEAT TRACK Y, B01061AF.A42

Ymin = -18.61 G's @ 0.0295 Seconds, Ymax = 32.21 G's @ 0.0183 Seconds





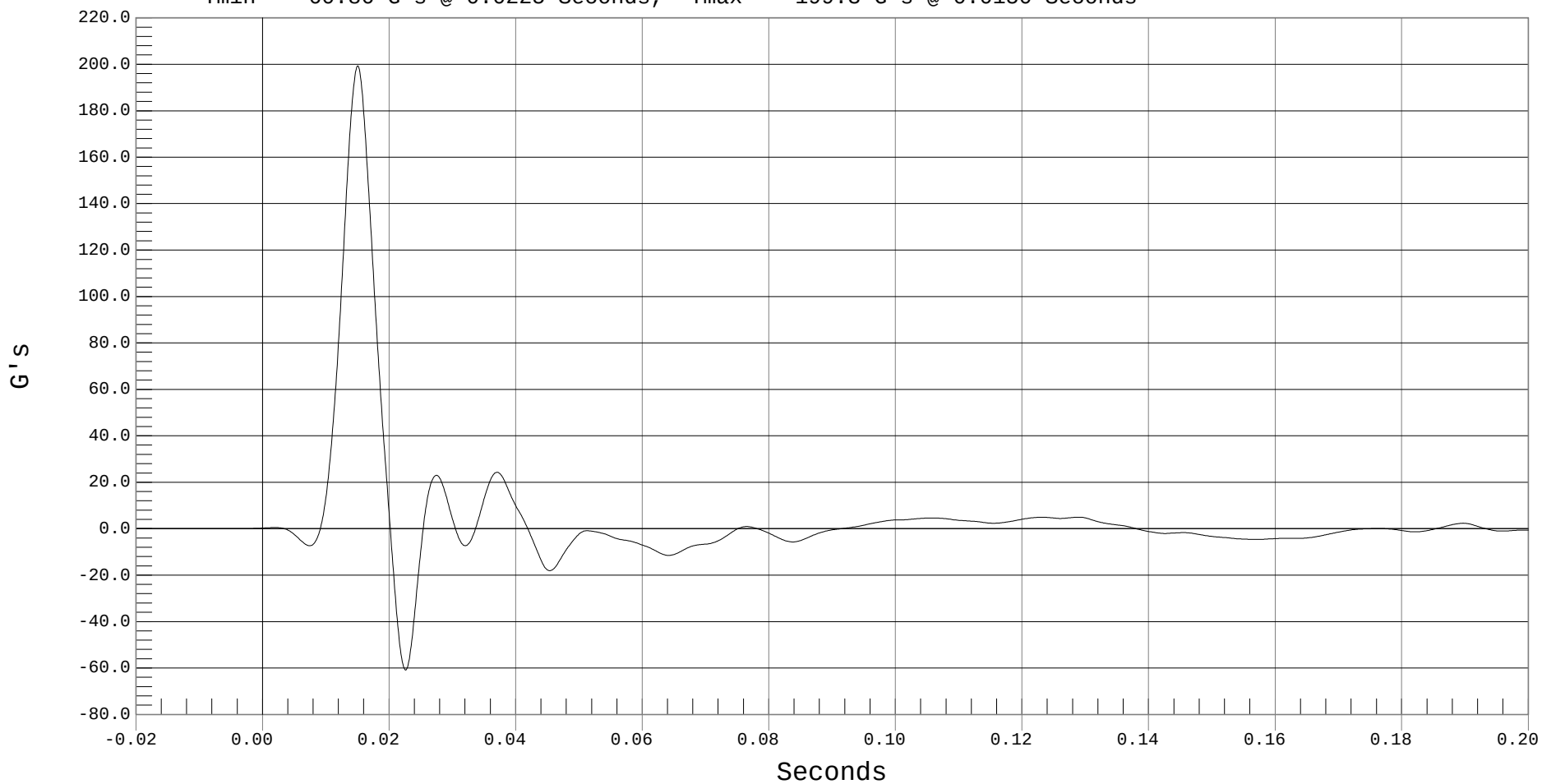
DRIVER LEFT SEAT FRAME Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 DRIVER LEFT SEAT FRAME Y, B01061AF.A55

Ymin = -60.86 G's @ 0.0225 Seconds, Ymax = 199.3 G's @ 0.0150 Seconds





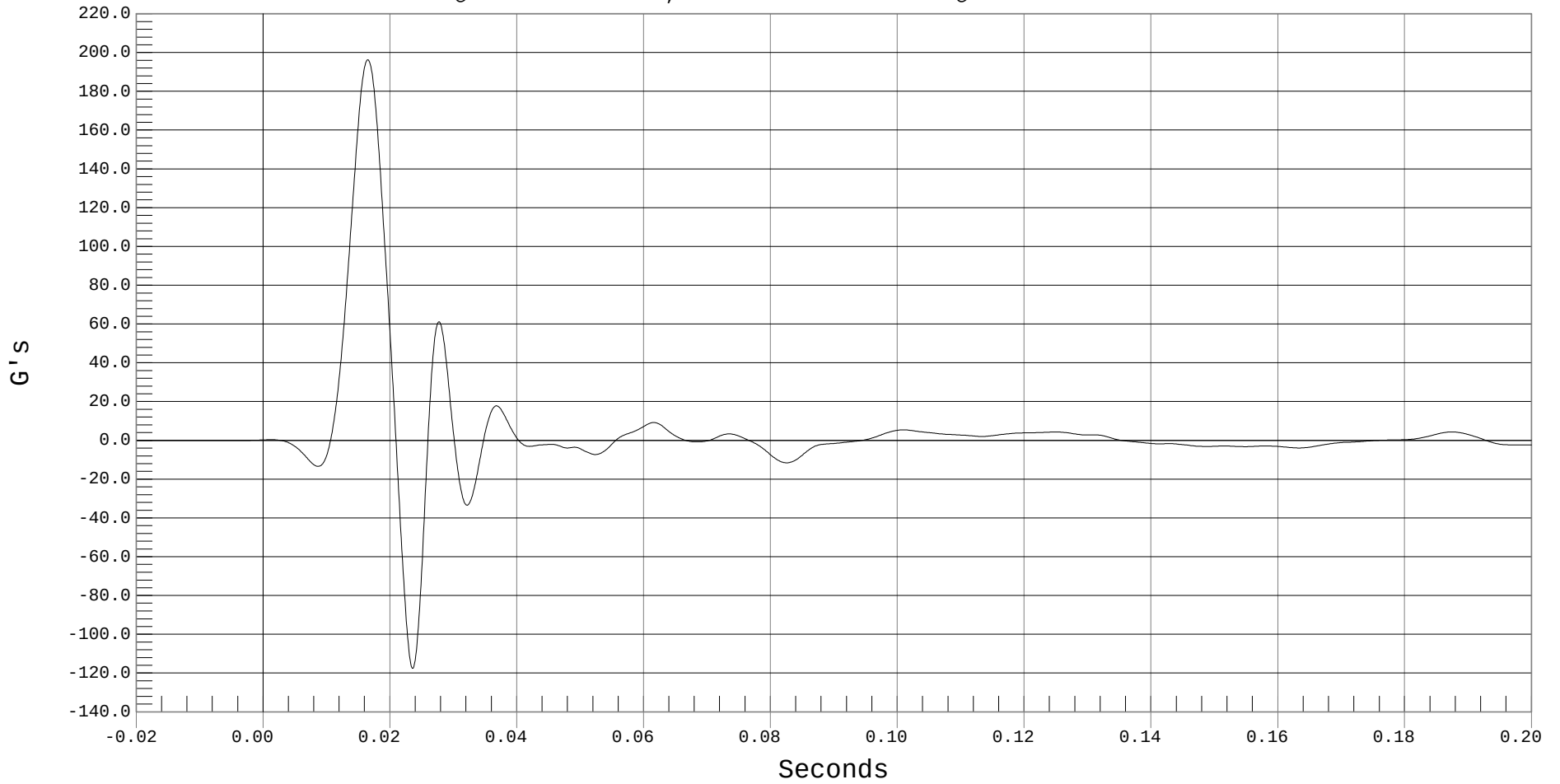
DRIVER RIGHT SEAT FRAME Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 DRIVER RIGHT SEAT FRAME Y, B01061AF.A43

Ymin = -117.64 G's @ 0.0235 Seconds, Ymax = 196.29 G's @ 0.0164 Seconds





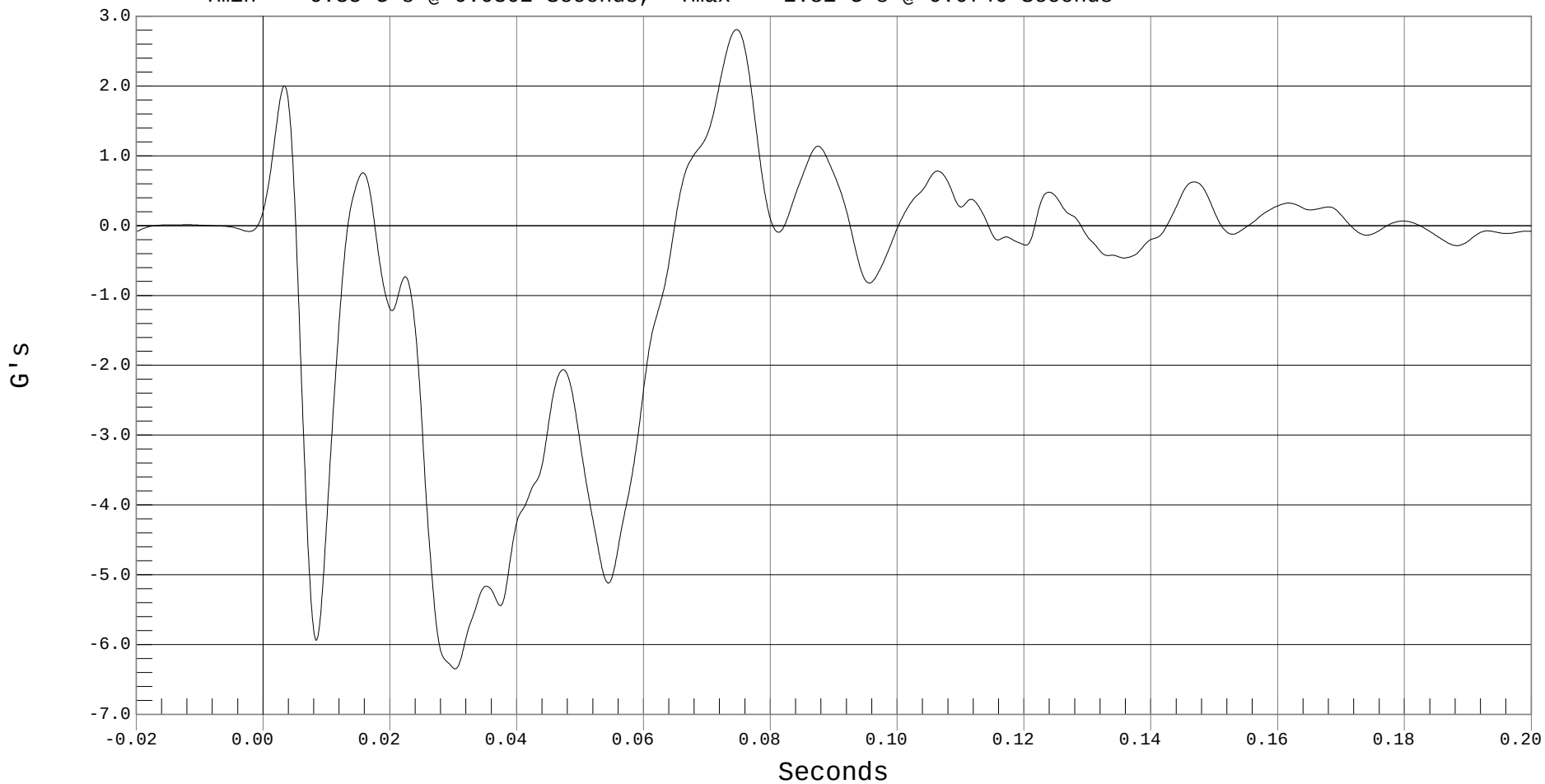
VEHICLE CG X ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 VEHICLE CG X, B01061AF.A44

Ymin = -6.35 G's @ 0.0302 Seconds, Ymax = 2.81 G's @ 0.0746 Seconds





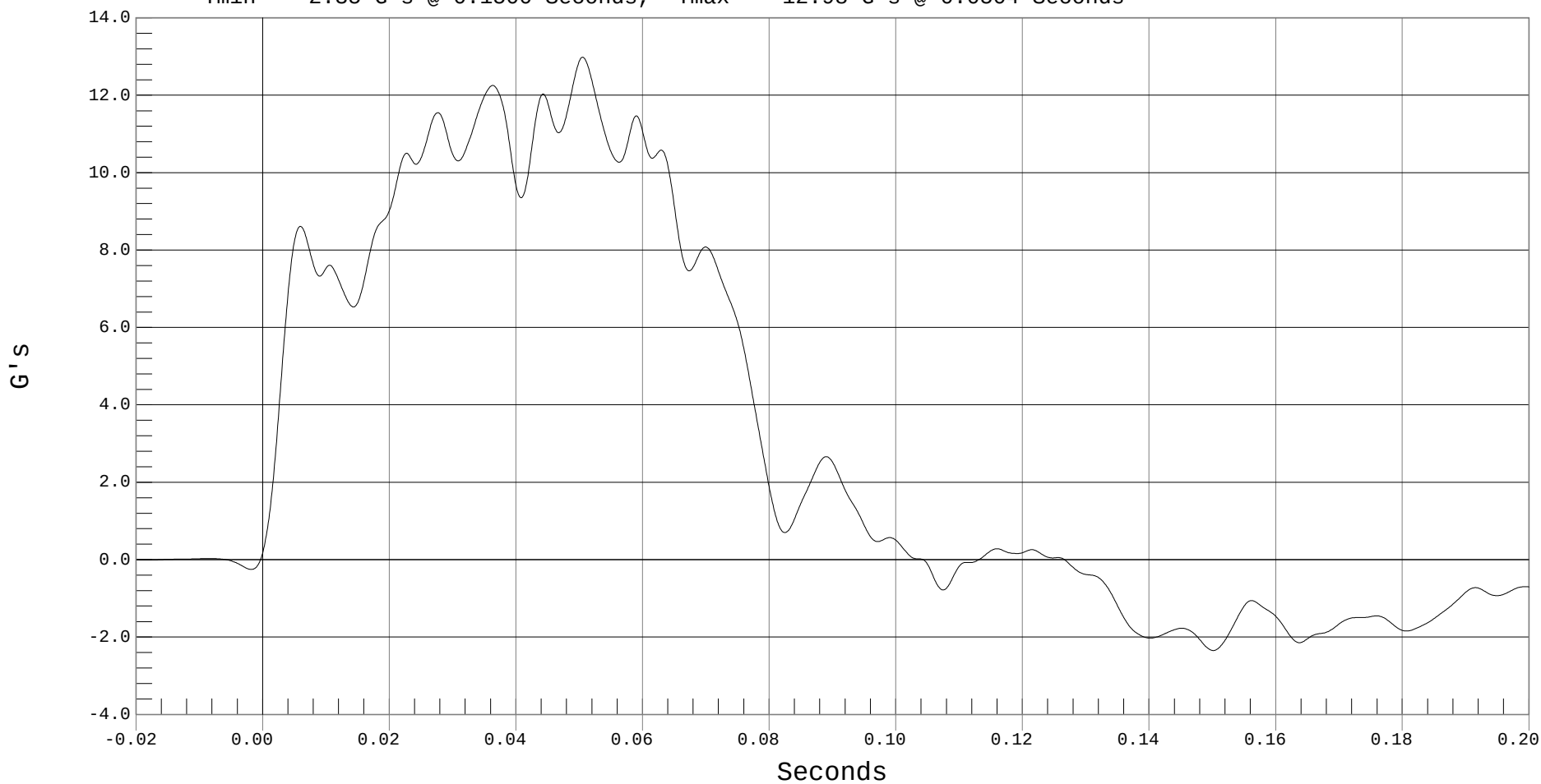
VEHICLE CG Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 VEHICLE CG Y, B01061AF.A45

Ymin = -2.35 G's @ 0.1500 Seconds, Ymax = 12.98 G's @ 0.0504 Seconds





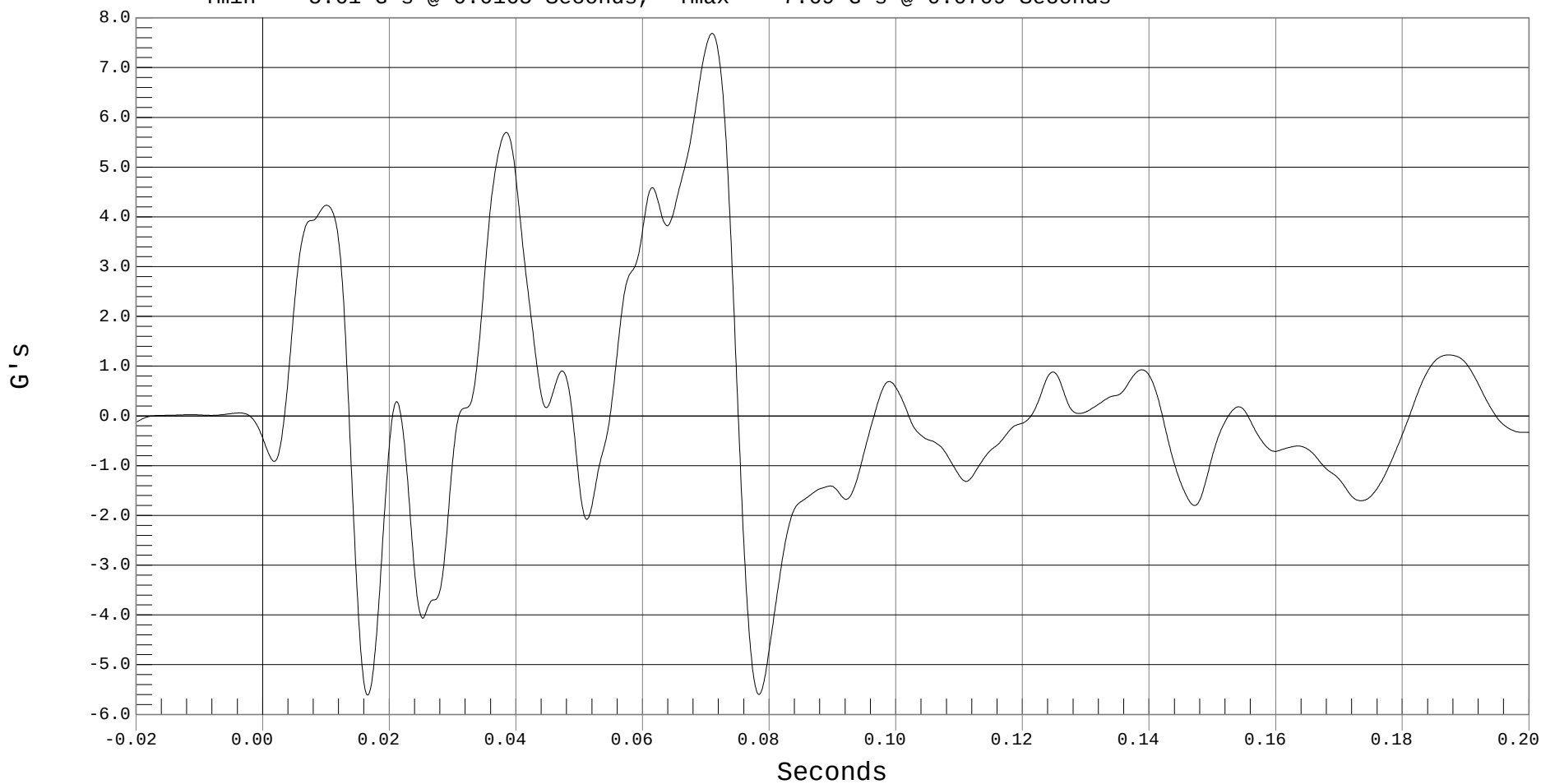
VEHICLE CG Z ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 VEHICLE CG Z, B01061AF.A46

Ymin = -5.61 G's @ 0.0165 Seconds, Ymax = 7.69 G's @ 0.0709 Seconds





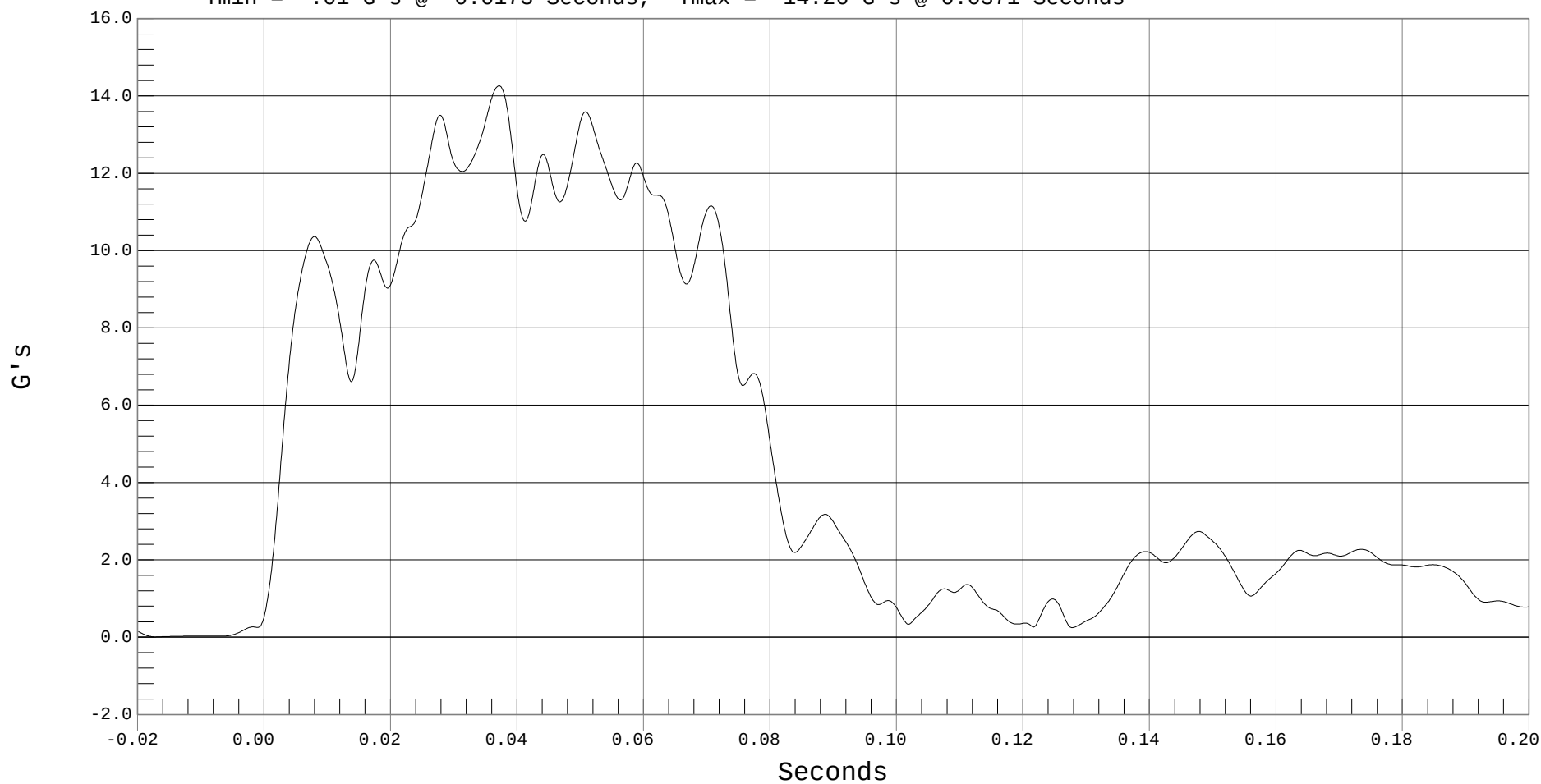
VEHICLE CG RESULTANT ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 VEHICLE CG RESULTANT ACCELERATION, B01061AV.A44

Ymin = .01 G's @ -0.0173 Seconds, Ymax = 14.26 G's @ 0.0371 Seconds





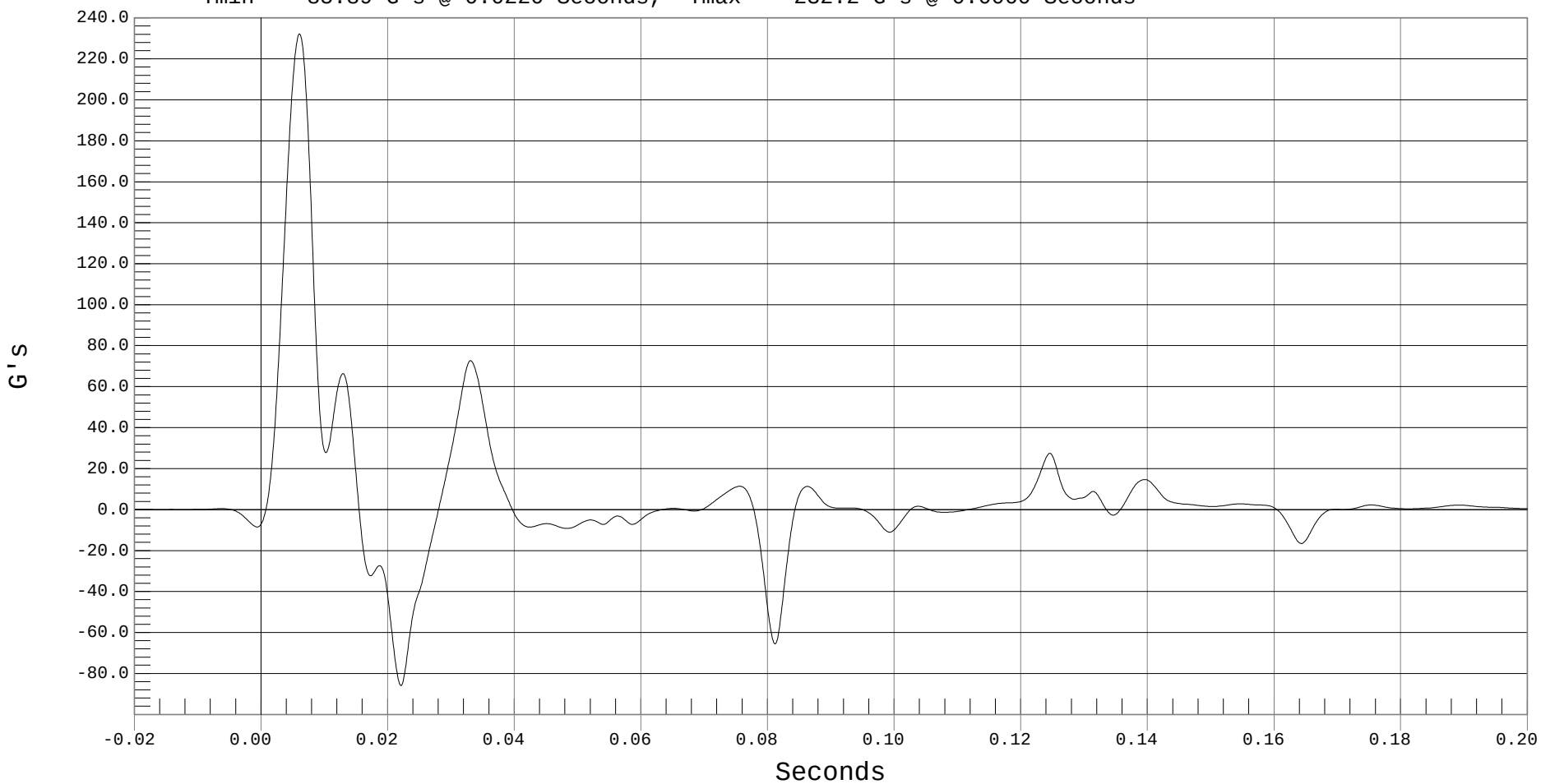
LEFT FRONT DOOR @ MID RIB Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LEFT FRONT DOOR @ MID RIB Y, B01061AF.A47

Ymin = -85.89 G's @ 0.0220 Seconds, Ymax = 232.2 G's @ 0.0060 Seconds





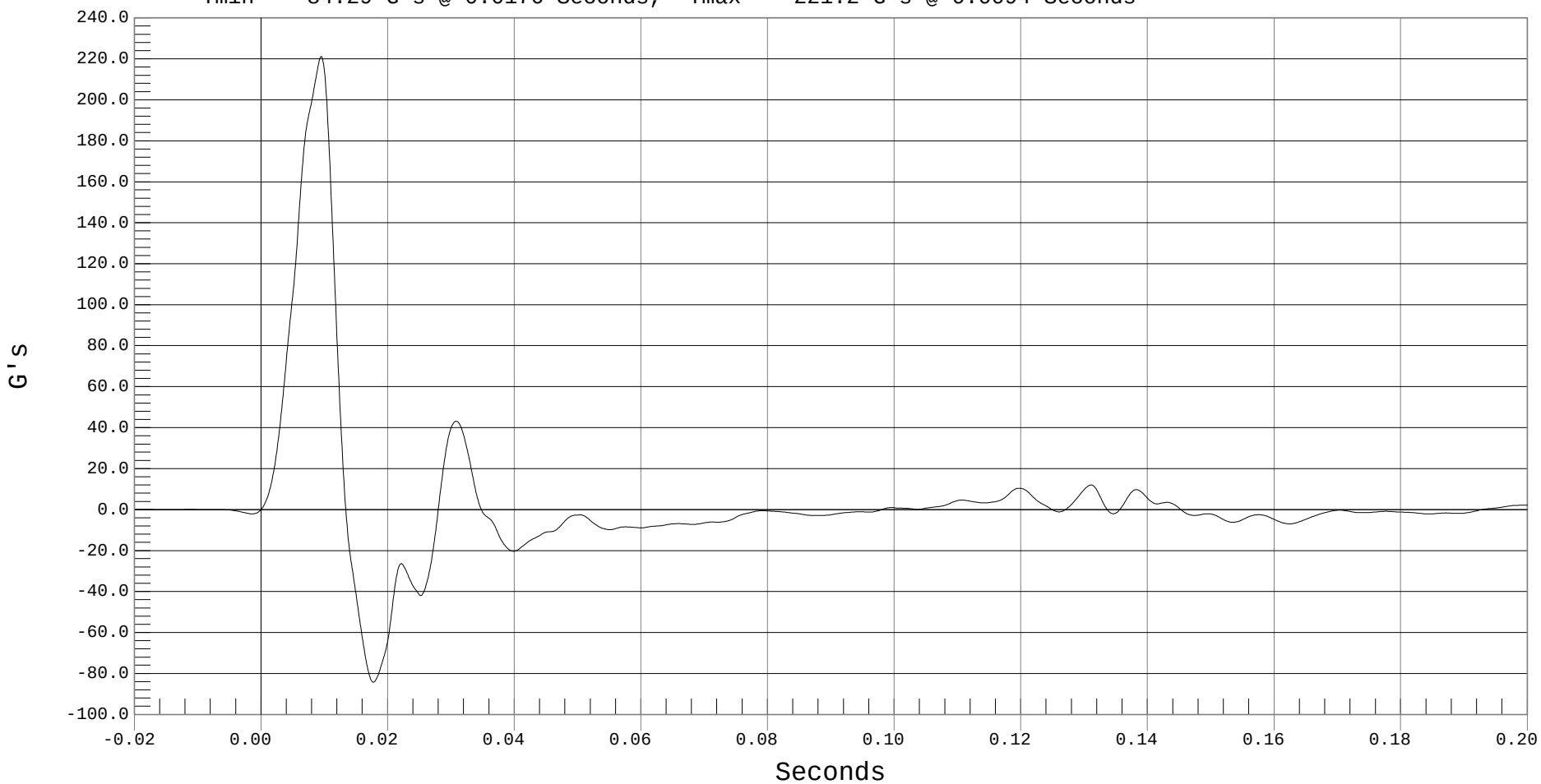
LEFT FRONT DOOR @ PELVIS Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LEFT FRONT DOOR @ PELVIS Y, B01061AF.A48

Ymin = -84.29 G's @ 0.0176 Seconds, Ymax = 221.2 G's @ 0.0094 Seconds





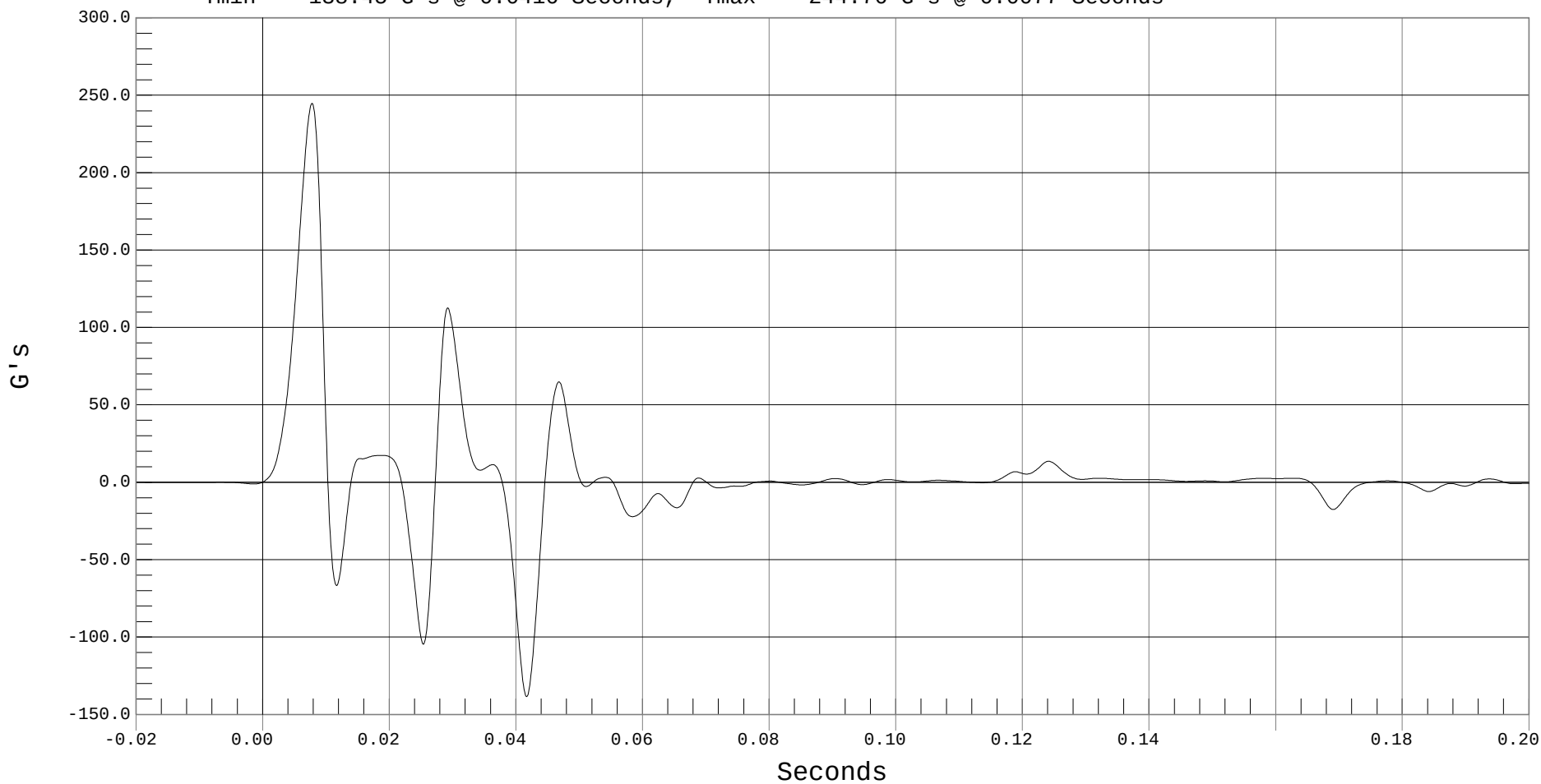
LEFT FRONT DOOR @ KNEE Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LEFT FRONT DOOR @ KNEE Y, B01061AF.A49

Ymin = -138.45 G's @ 0.0416 Seconds, Ymax = 244.76 G's @ 0.0077 Seconds





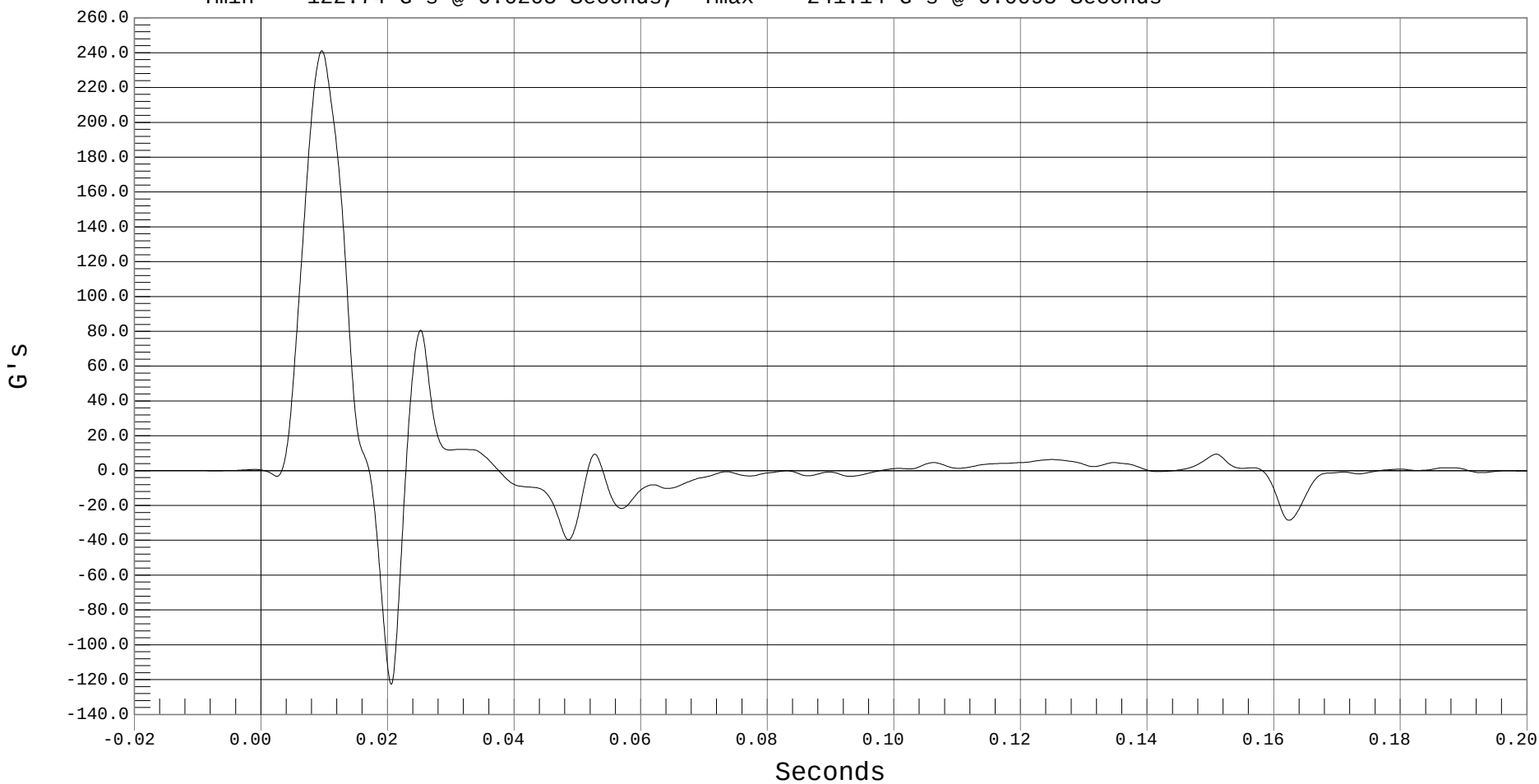
LEFT FRONT DOOR @ ARM Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LEFT FRONT DOOR @ END OF ARM Y, B01061AF.A50

Ymin = -122.74 G's @ 0.0205 Seconds, Ymax = 241.14 G's @ 0.0095 Seconds





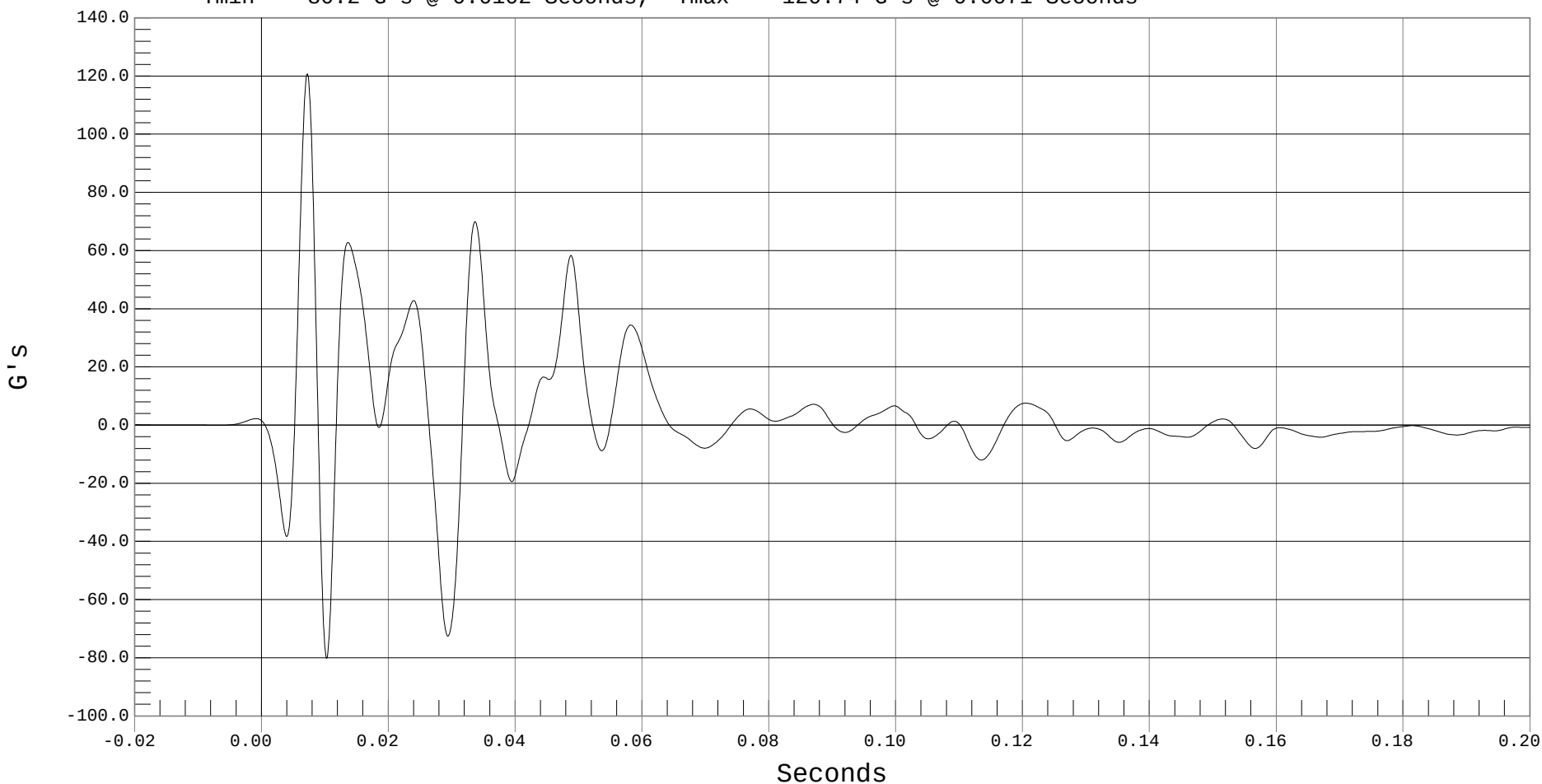
LEFT REAR DOOR @ MID RIB Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LEFT REAR DOOR @ MID RIB Y, B01061AF.A51

Ymin = -80.2 G's @ 0.0102 Seconds, Ymax = 120.74 G's @ 0.0071 Seconds





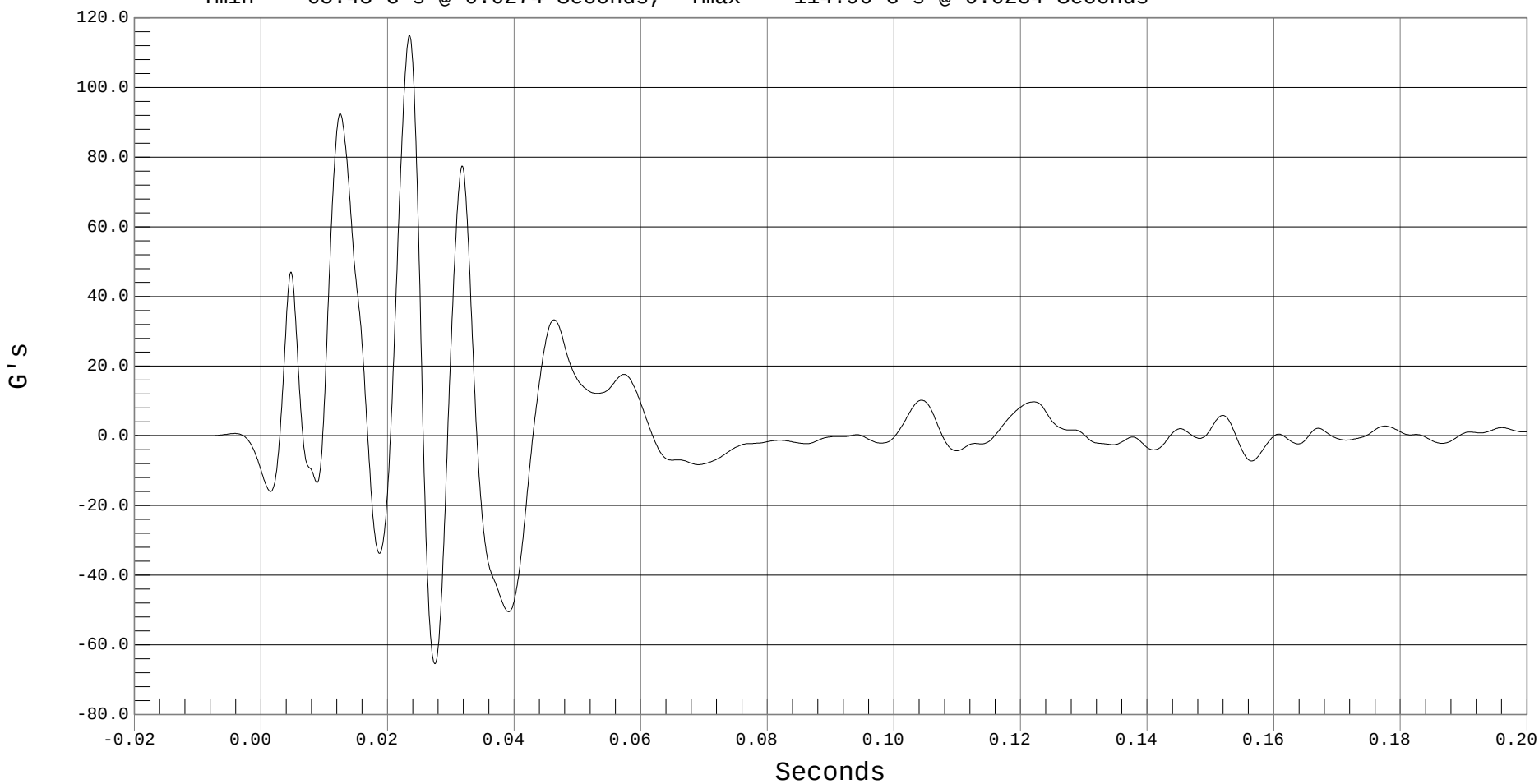
LEFT REAR DOOR @ PELVIS Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LEFT REAR DOOR @ PELVIS Y, B01061AF.A52

Ymin = -65.43 G's @ 0.0274 Seconds, Ymax = 114.96 G's @ 0.0234 Seconds





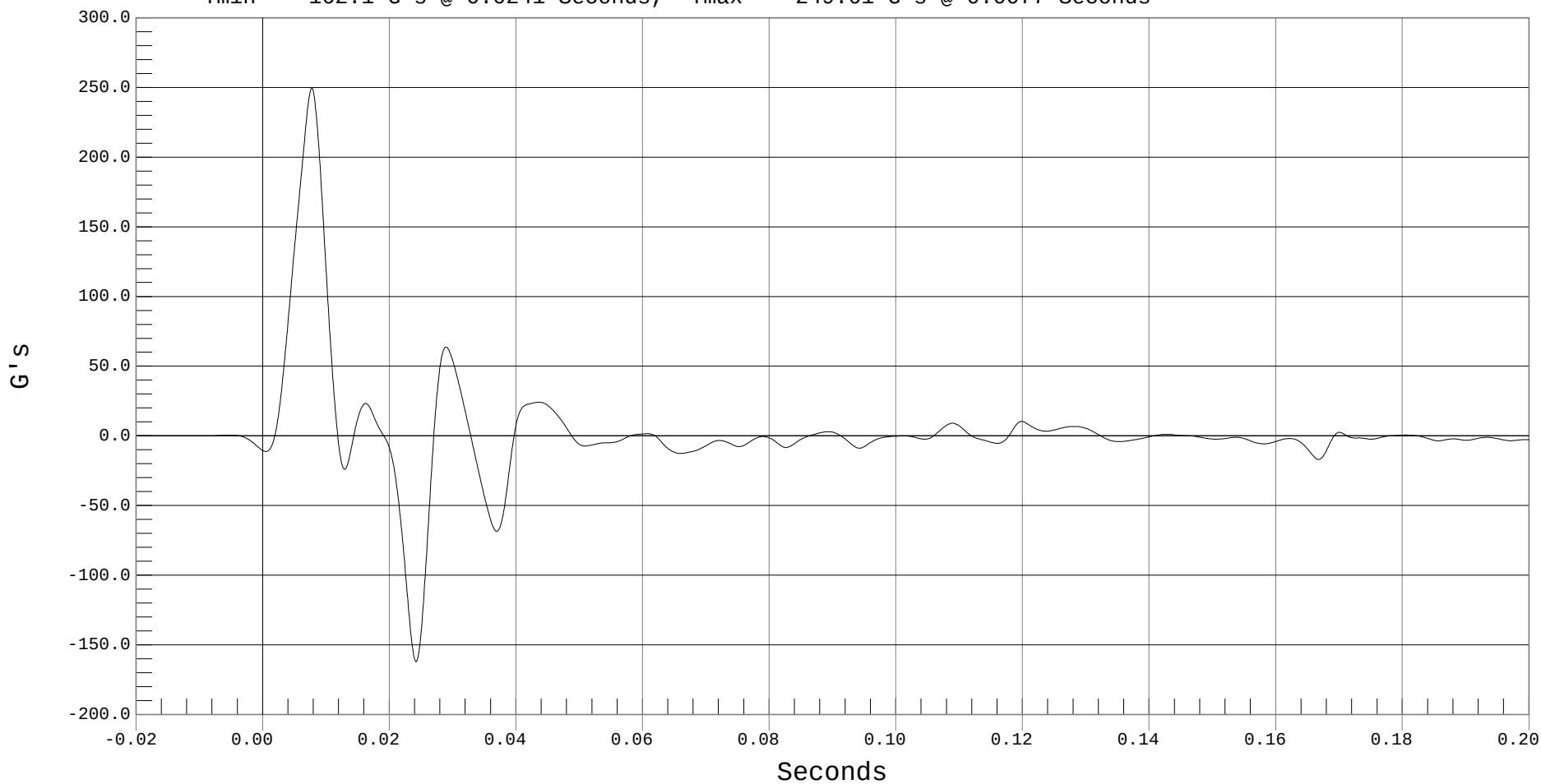
LEFT REAR DOOR @ KNEE Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LEFT REAR DOOR @ KNEE Y, B01061AF.A53

Ymin = -162.1 G's @ 0.0241 Seconds, Ymax = 249.61 G's @ 0.0077 Seconds





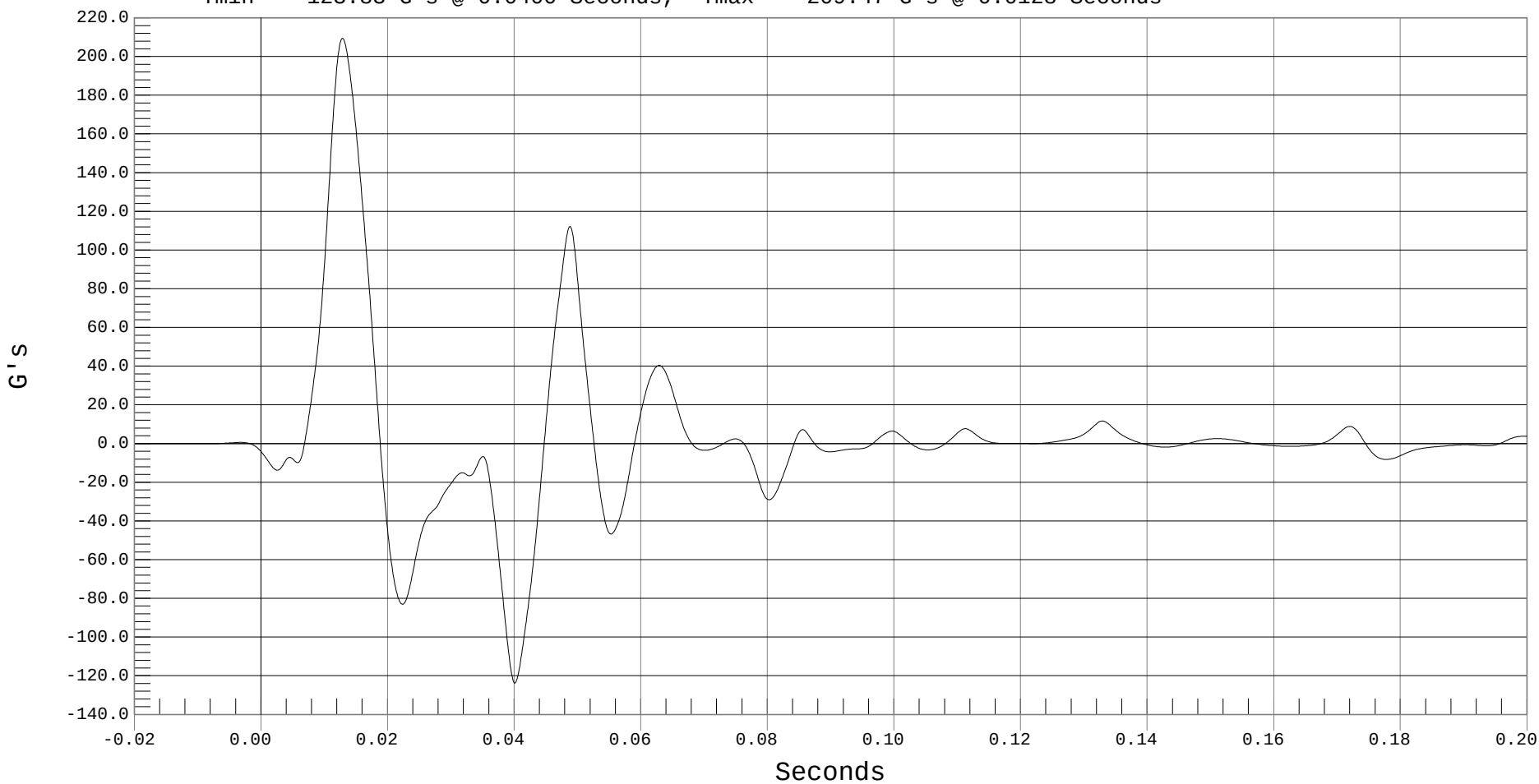
LEFT REAR DOOR @ ARM Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LEFT REAR DOOR @ END OF ARM Y, B01061AF.A54

Ymin = -123.83 G's @ 0.0400 Seconds, Ymax = 209.47 G's @ 0.0128 Seconds





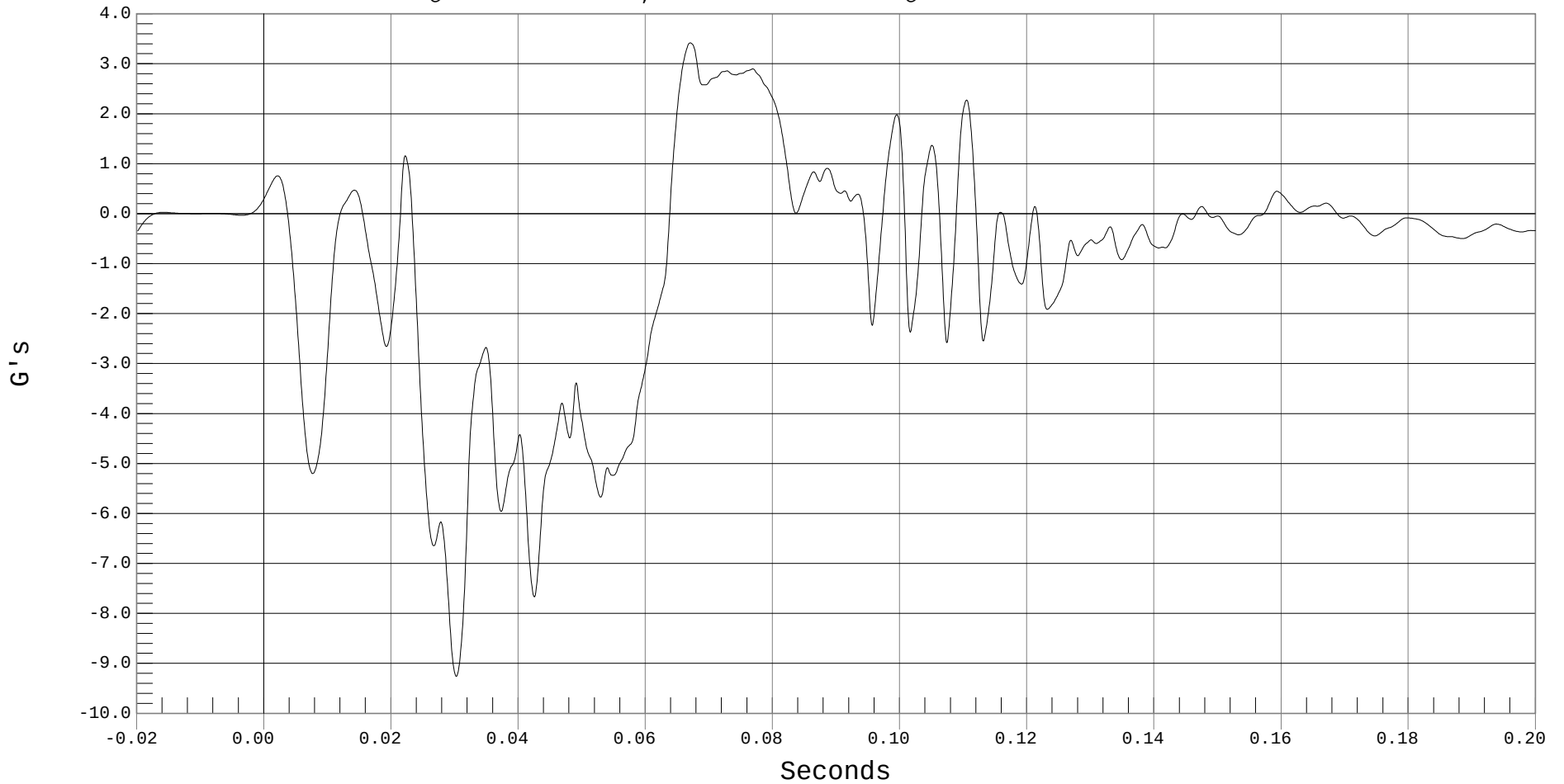
LOWER CENTER RADIATOR SUPPORT X ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LOWER CENTER RADIATOR SUPPORT X, B01061AF.A62

Ymin = -9.26 G's @ 0.0302 Seconds, Ymax = 3.42 G's @ 0.0670 Seconds





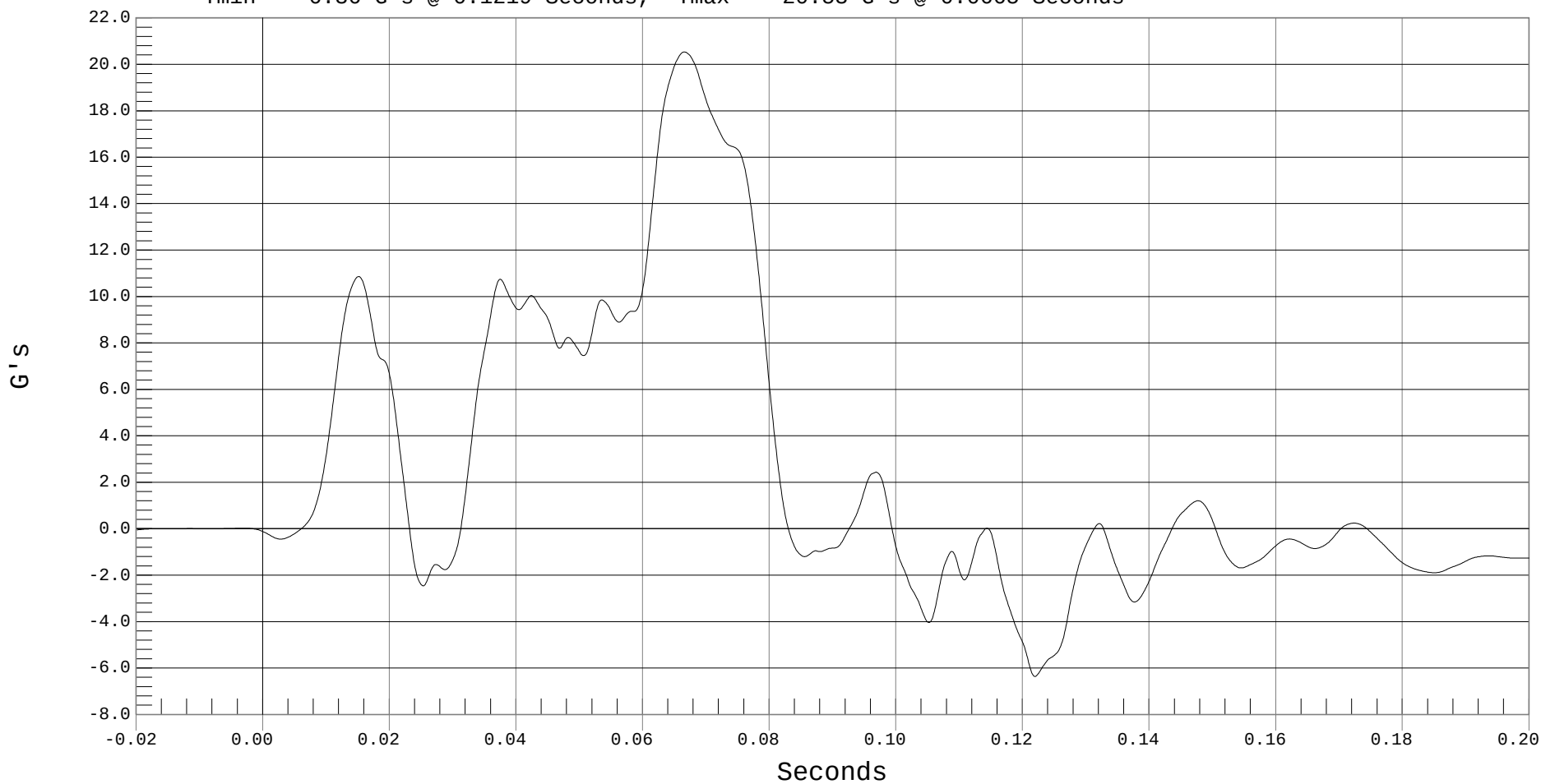
LOWER CENTER RADIATOR SUPPORT Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LOWER CENTER RADIATOR SUPPORT Y, B01061AF.A63

Ymin = -6.36 G's @ 0.1219 Seconds, Ymax = 20.53 G's @ 0.0665 Seconds



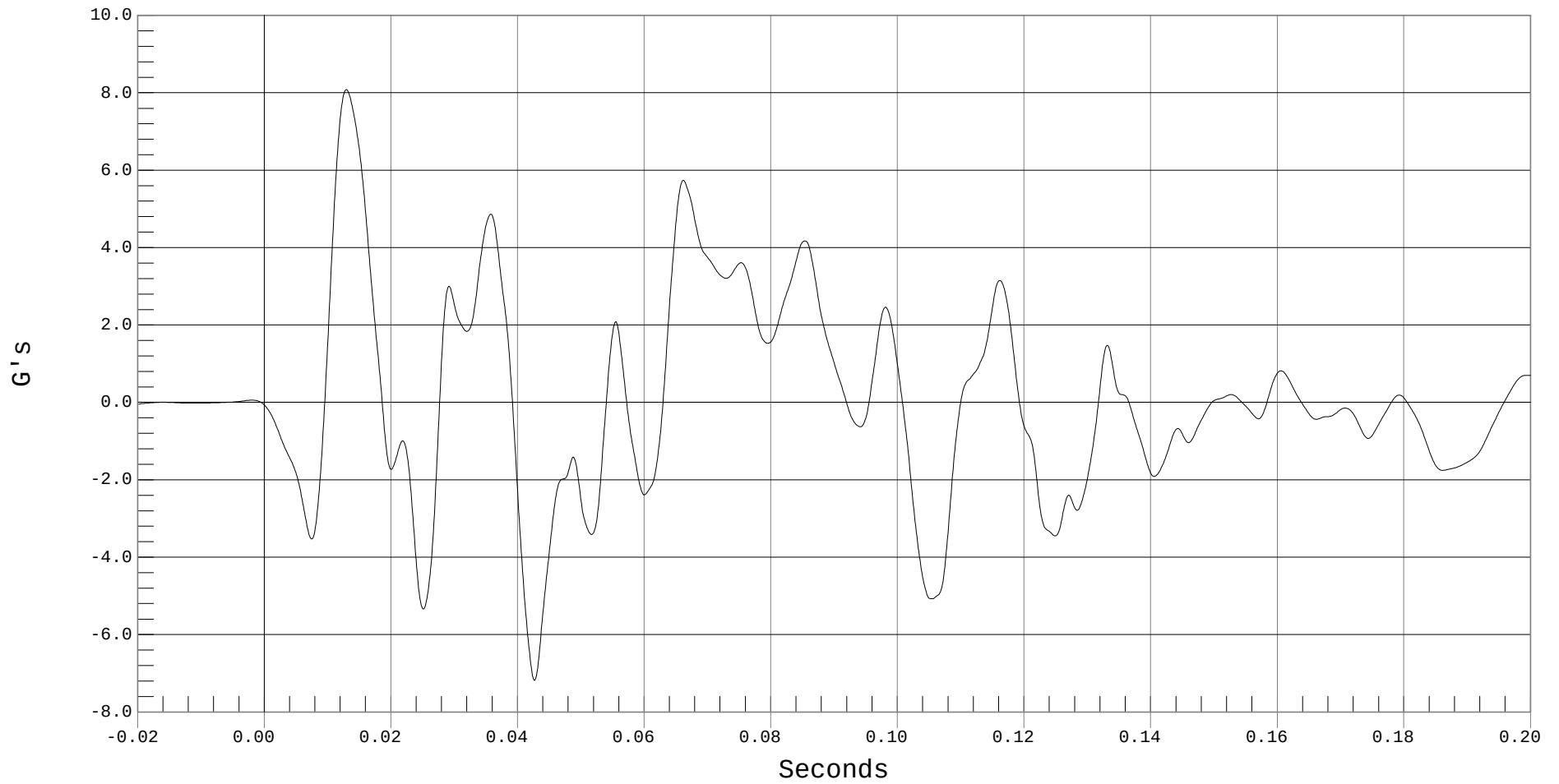


LOWER CENTER RADIATOR SUPPORT Z ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 LOWER CENTER RADIATOR SUPPORT Z, B01061AF.A64





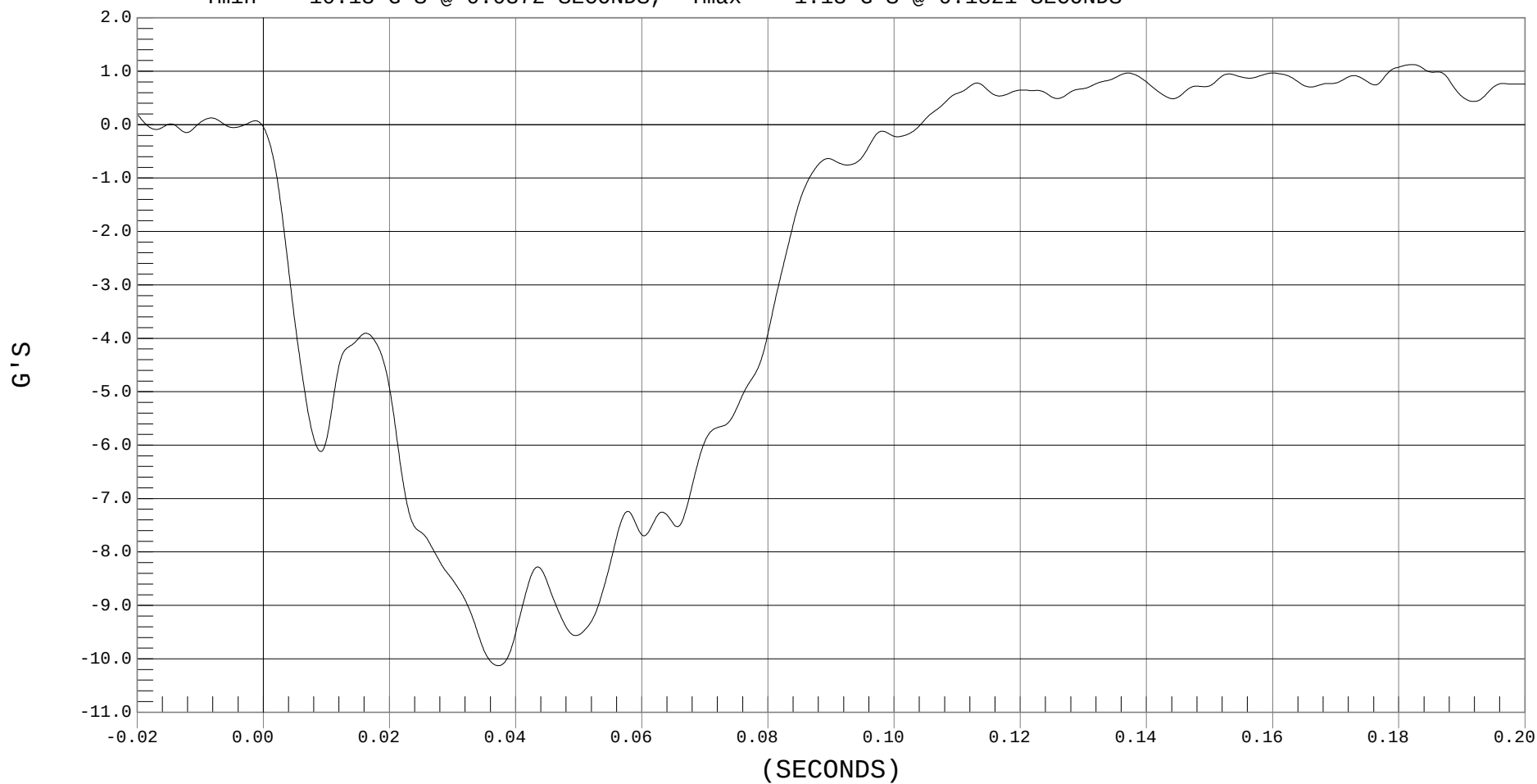
MOVING BARRIER CG X ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 CART CG X ACCELERATION, B01061AF.A07

Ymin = -10.13 G'S @ 0.0372 SECONDS, Ymax = 1.13 G'S @ 0.1821 SECONDS





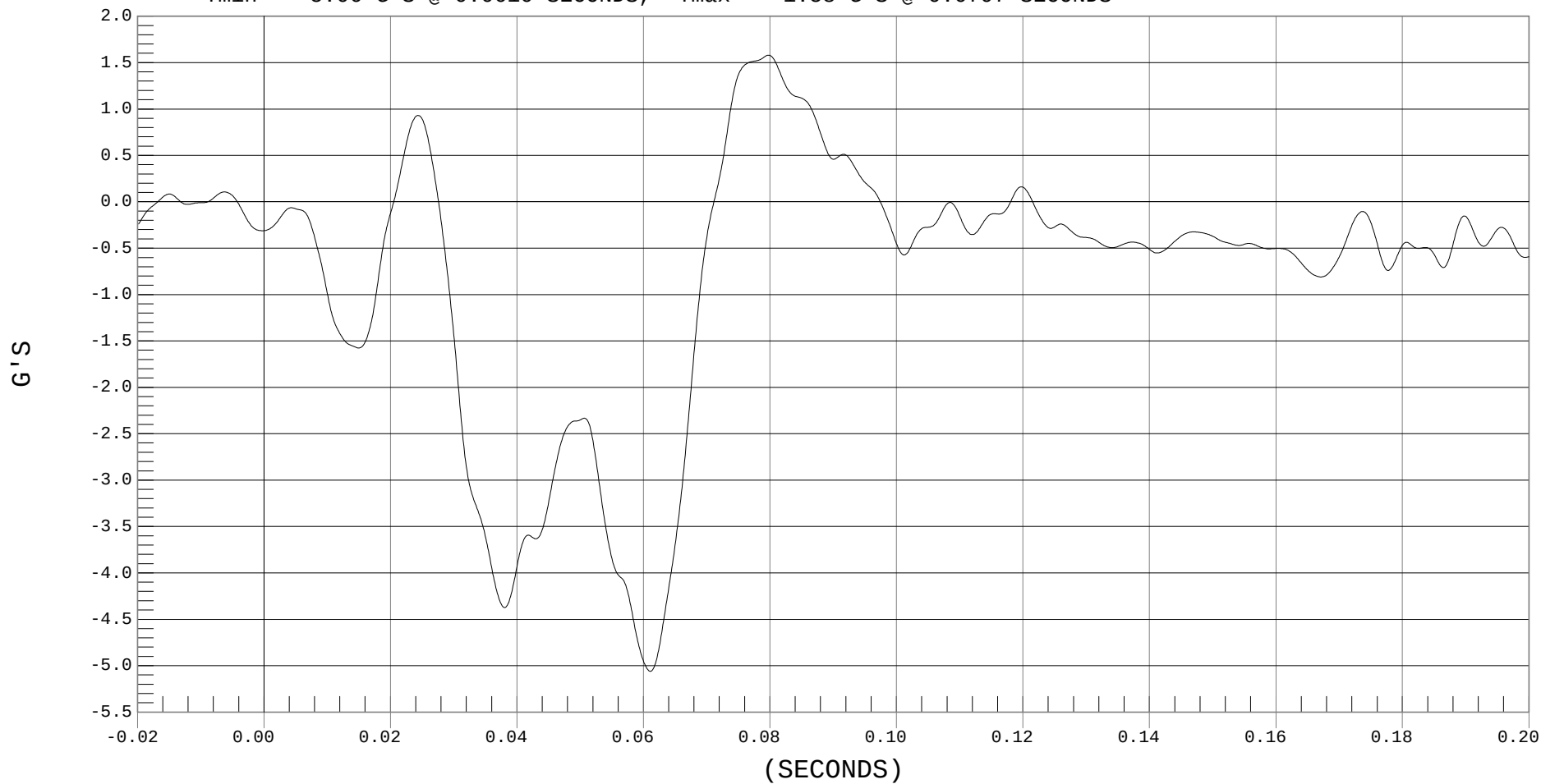
MOVING BARRIER CG Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 CART CG Y ACCELERATION, B01061AF.A03

Ymin = -5.06 G'S @ 0.0610 SECONDS, Ymax = 1.58 G'S @ 0.0797 SECONDS





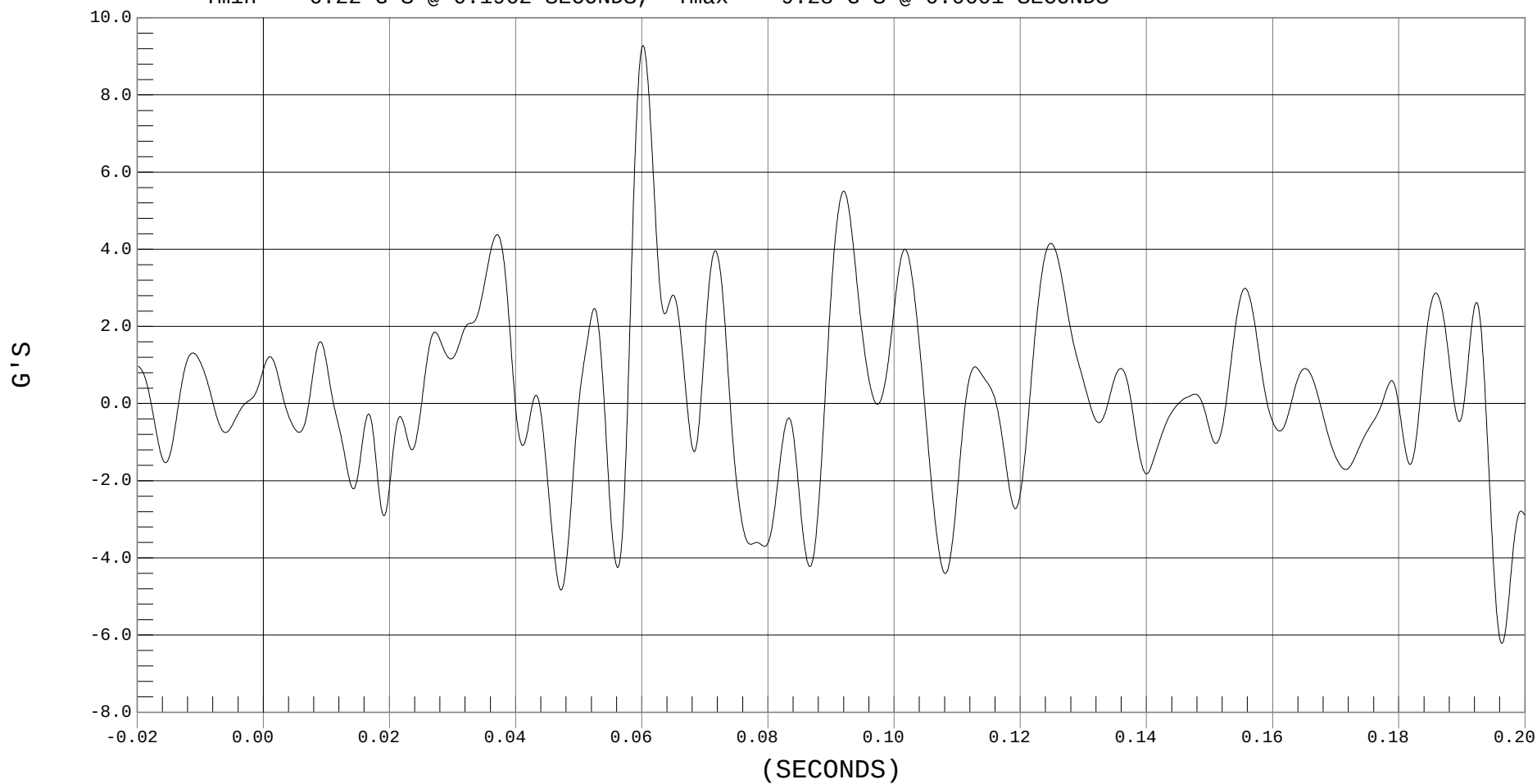
MOVING BARRIER CG Z ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 CART CG Z ACCELERATION, B01061AF.A04

Ymin = -6.22 G'S @ 0.1962 SECONDS, Ymax = 9.28 G'S @ 0.0601 SECONDS





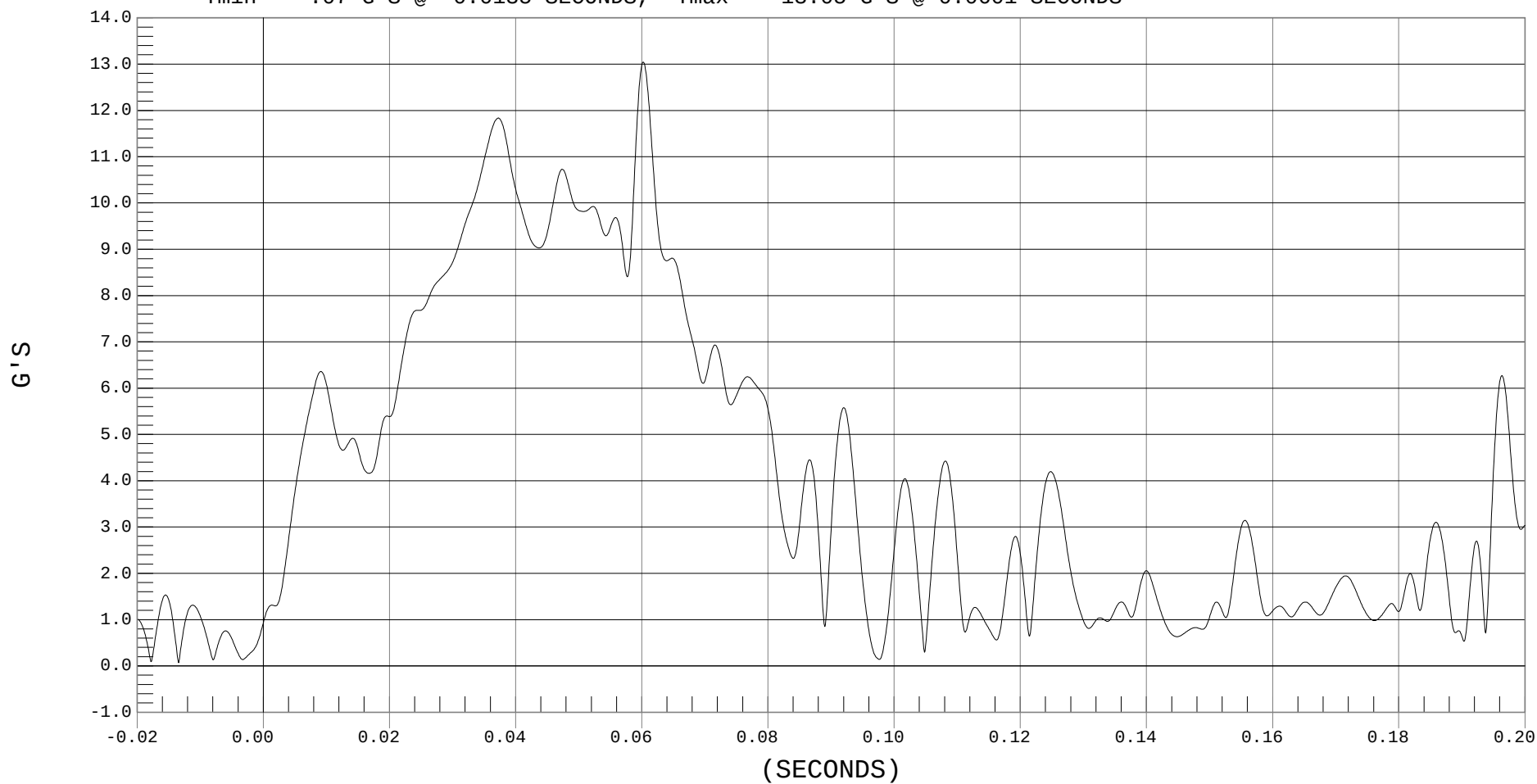
MOVING BARRIER CG RESULTANT ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 MOVING BARRIER CG RESULTANT ACCELERATION, B01061AV.A03

Ymin = .07 G'S @ -0.0135 SECONDS, Ymax = 13.05 G'S @ 0.0601 SECONDS





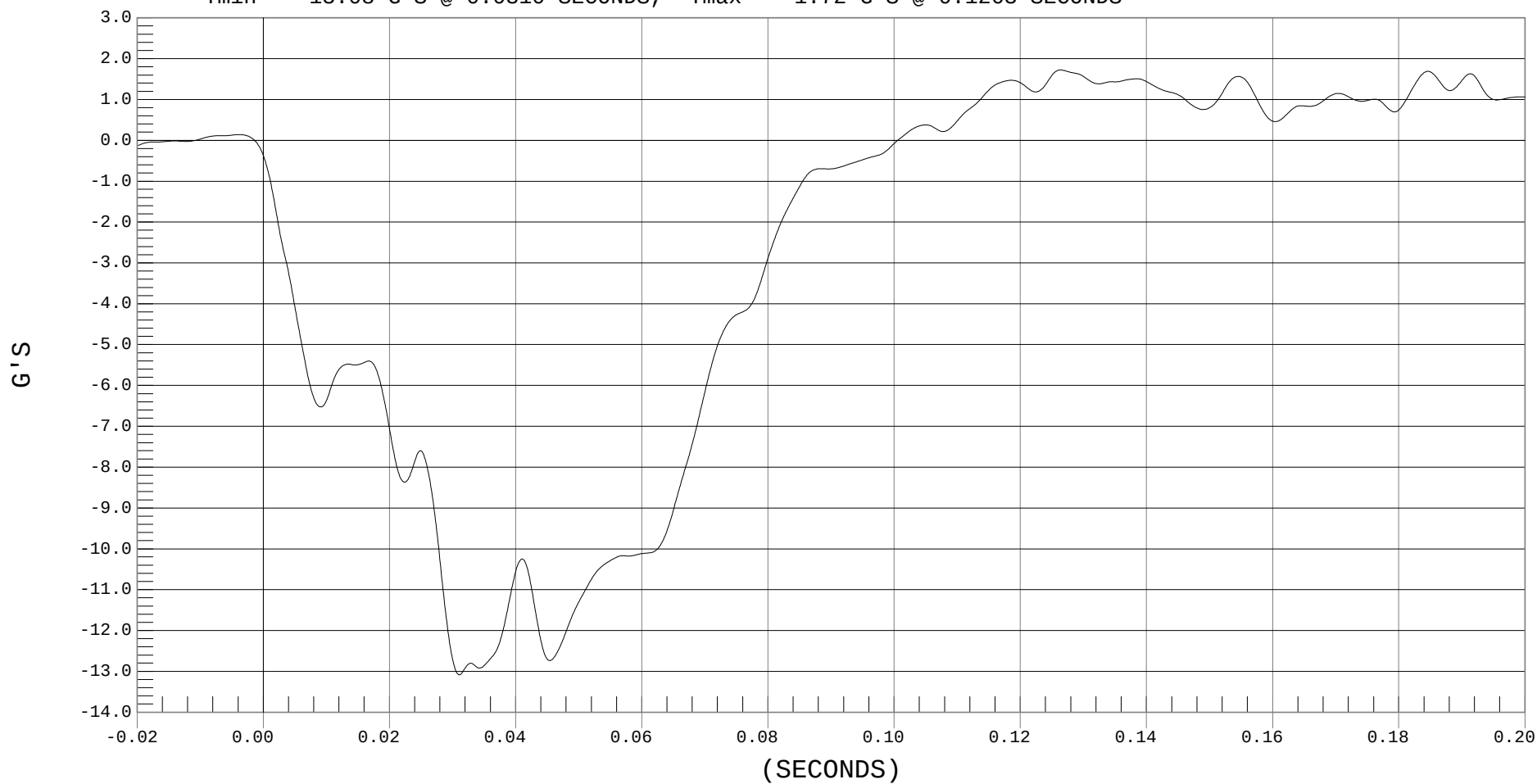
MOVING BARRIER REAR AXLE X ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 CART REAR AXLE X ACCELERATION, B01061AF.A05

Ymin = -13.08 G'S @ 0.0310 SECONDS, Ymax = 1.72 G'S @ 0.1263 SECONDS





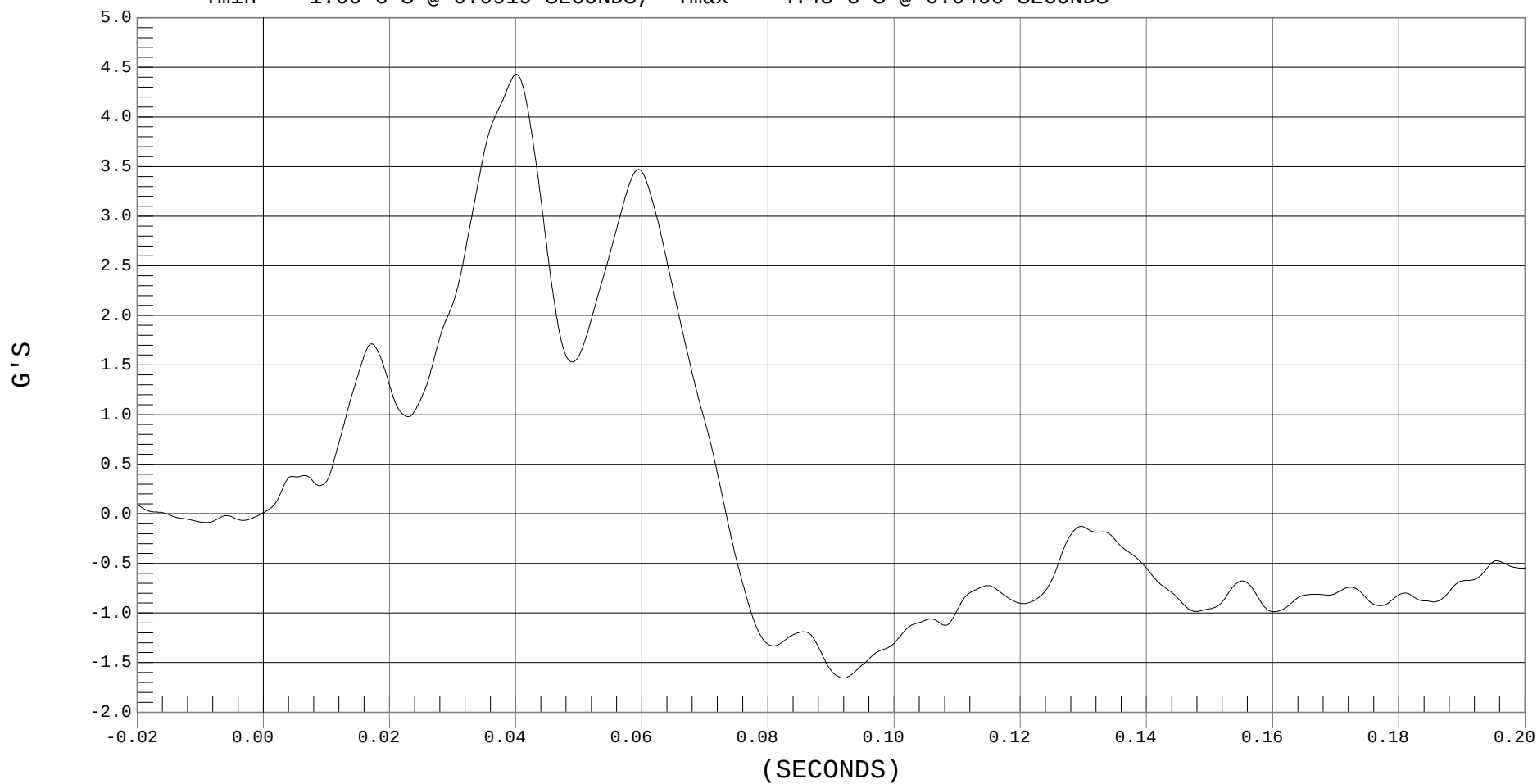
MOVING BARRIER REAR AXLE Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 60

— 1 CART REAR AXLE Y ACCELERATION, B01061AF.A06

Ymin = -1.66 G'S @ 0.0919 SECONDS, Ymax = 4.43 G'S @ 0.0400 SECONDS





LEFT BARRIER CONTACT

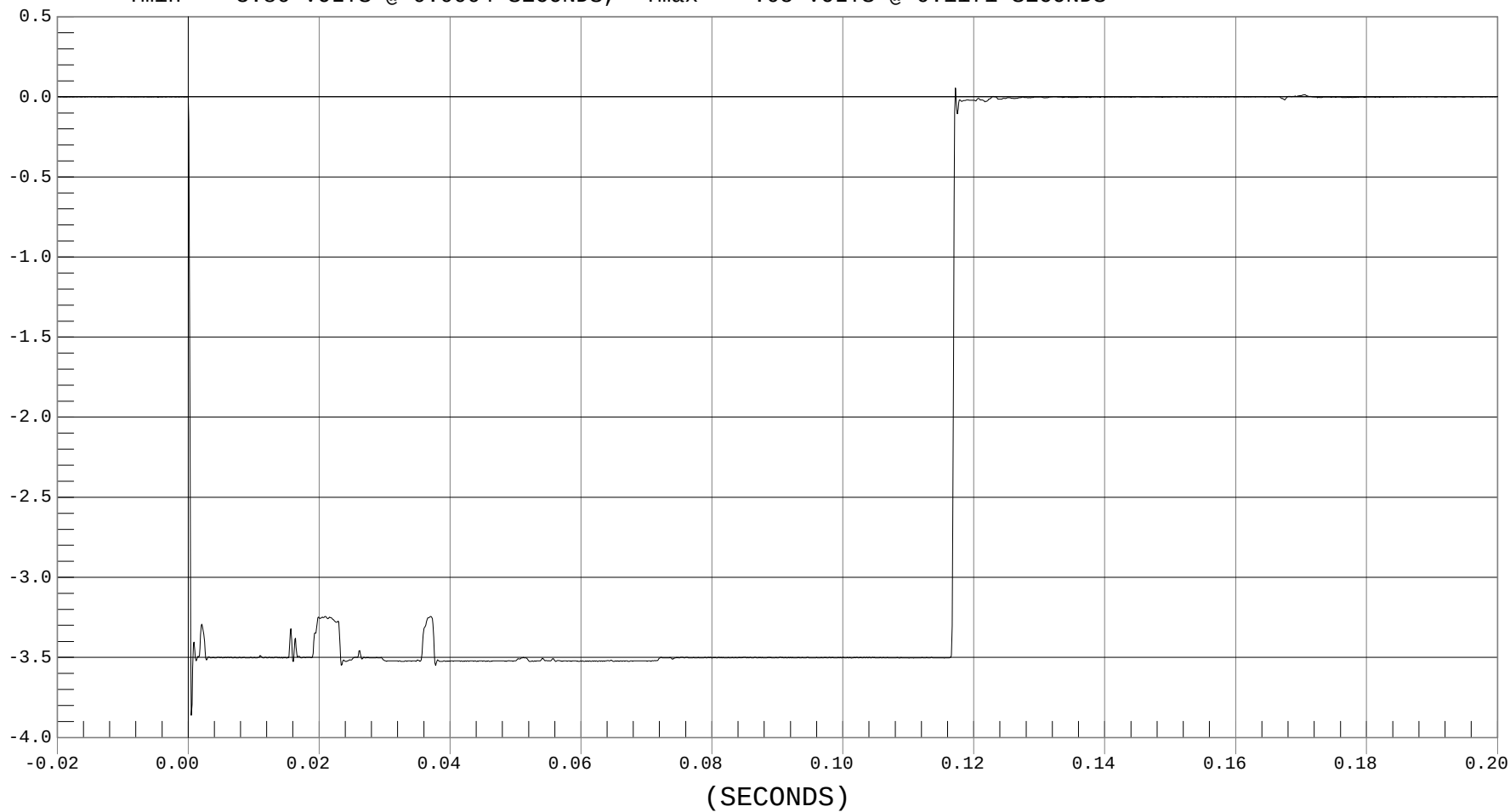
Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 CONTACT, B010610T.009

Ymin = -3.86 VOLTS @ 0.0004 SECONDS, Ymax = .05 VOLTS @ 0.1171 SECONDS

VOLTS





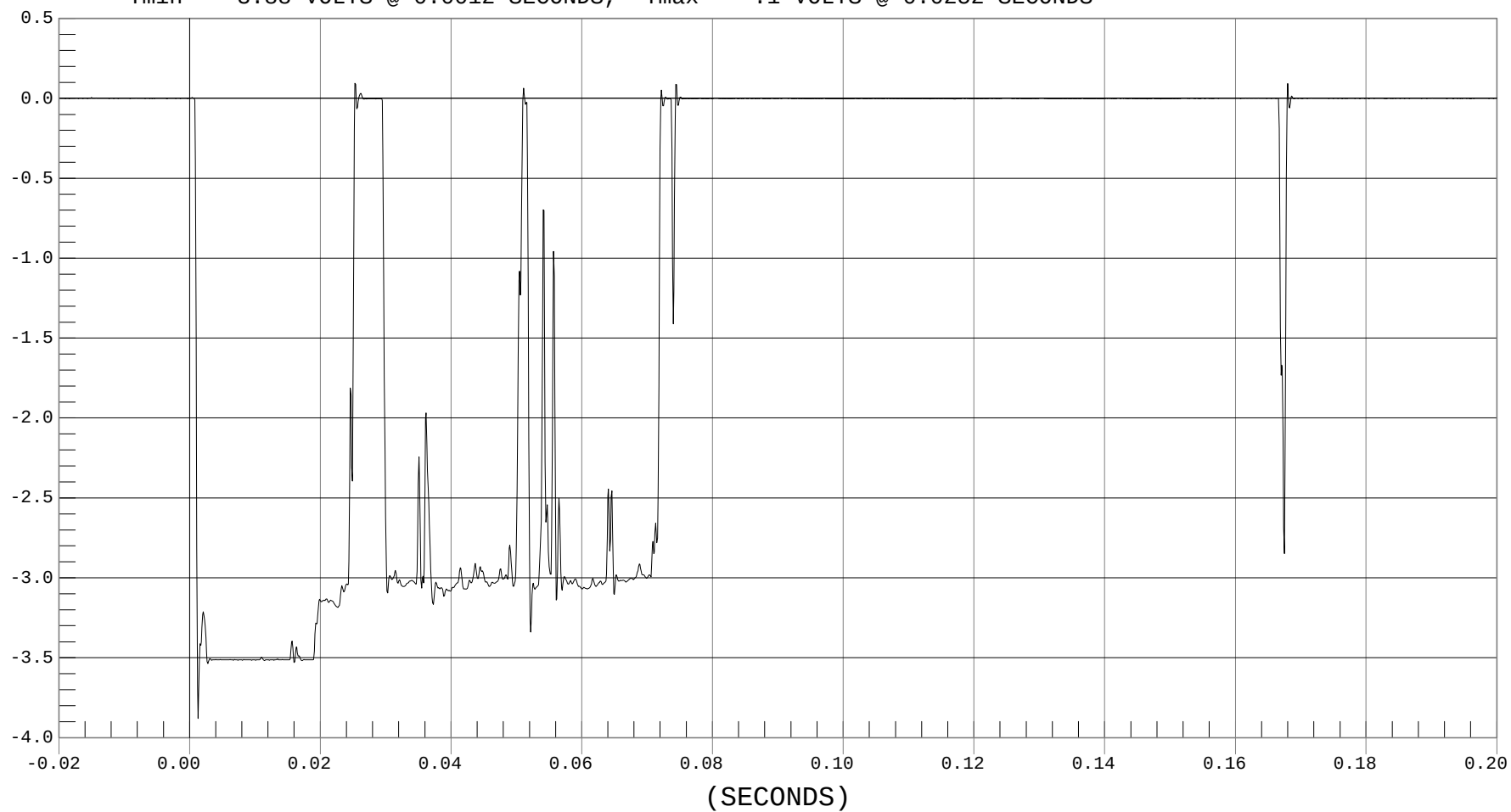
RIGHT BARRIER CONTACT

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Filter Class: 1000

— 1 CONTACT, B010610T.010

Ymin = -3.88 VOLTS @ 0.0012 SECONDS, Ymax = .1 VOLTS @ 0.0252 SECONDS





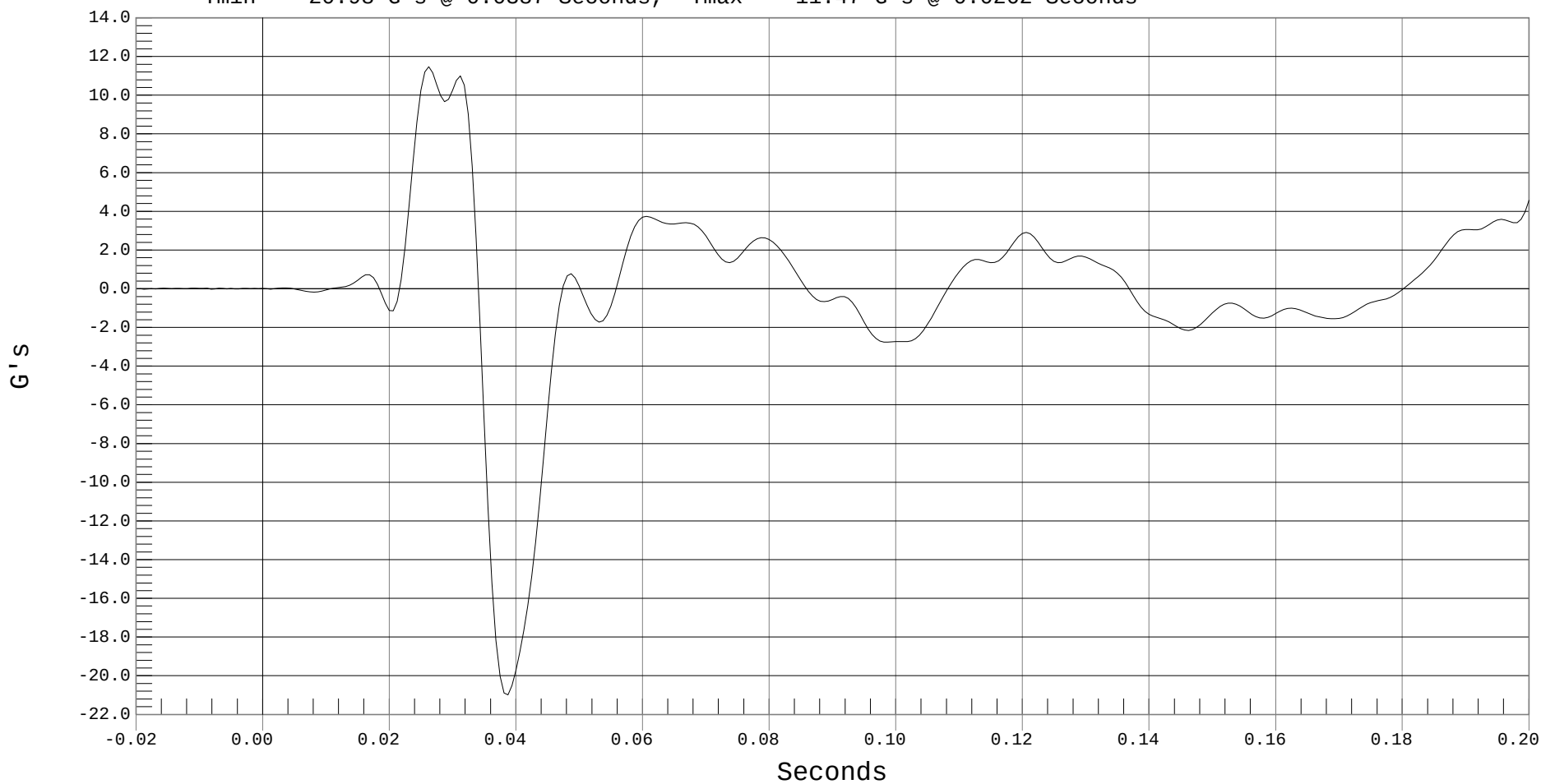
DRIVER UPPER SPINE X ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 DRIVER UPPER SPINE X, B01061FI.R20

Ymin = -20.98 G's @ 0.0387 Seconds, Ymax = 11.47 G's @ 0.0262 Seconds





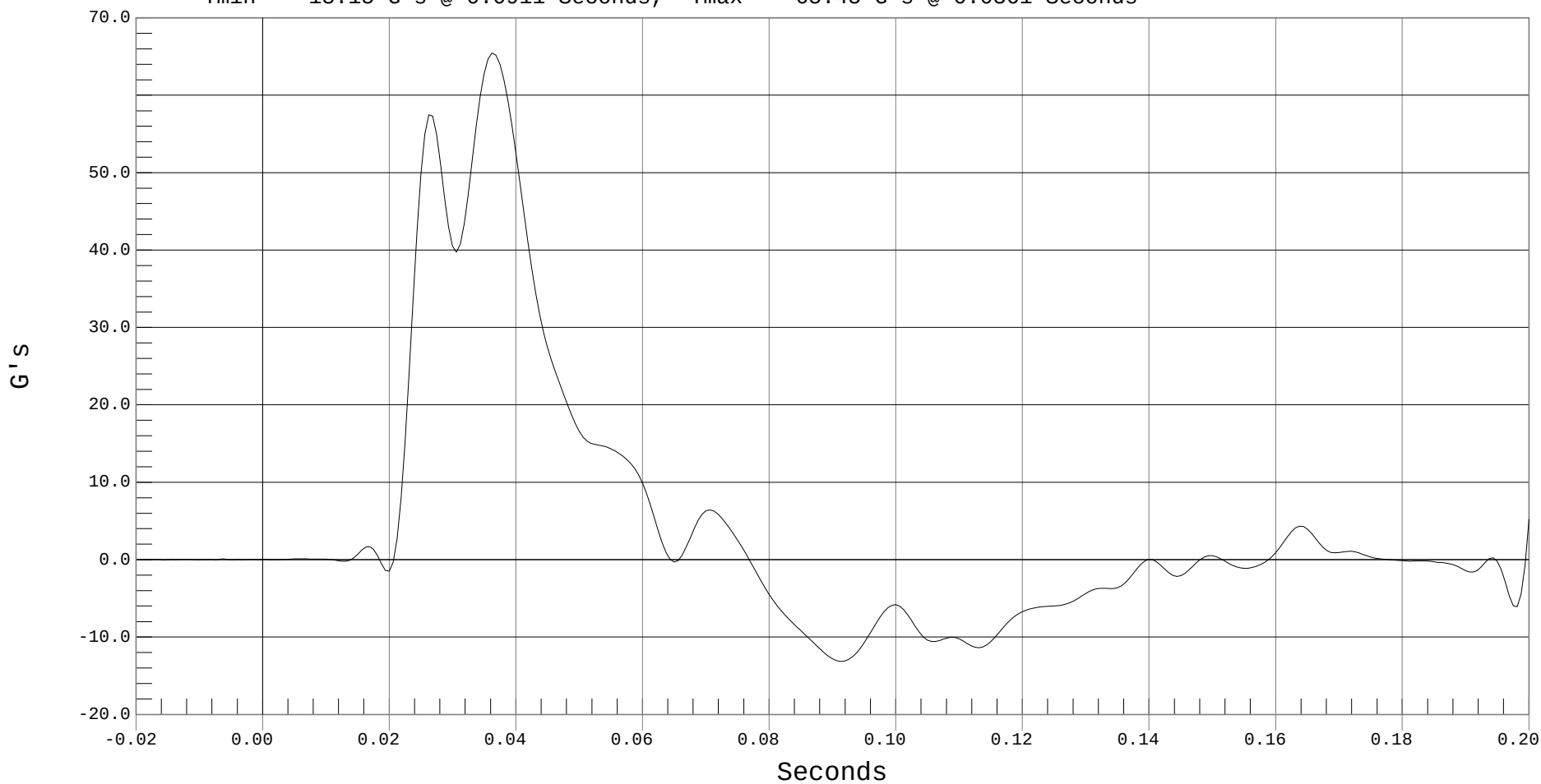
DRIVER UPPER SPINE Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 DRIVER UPPER SPINE Y, B01061FI.R21

Ymin = -13.15 G's @ 0.0911 Seconds, Ymax = 65.45 G's @ 0.0361 Seconds





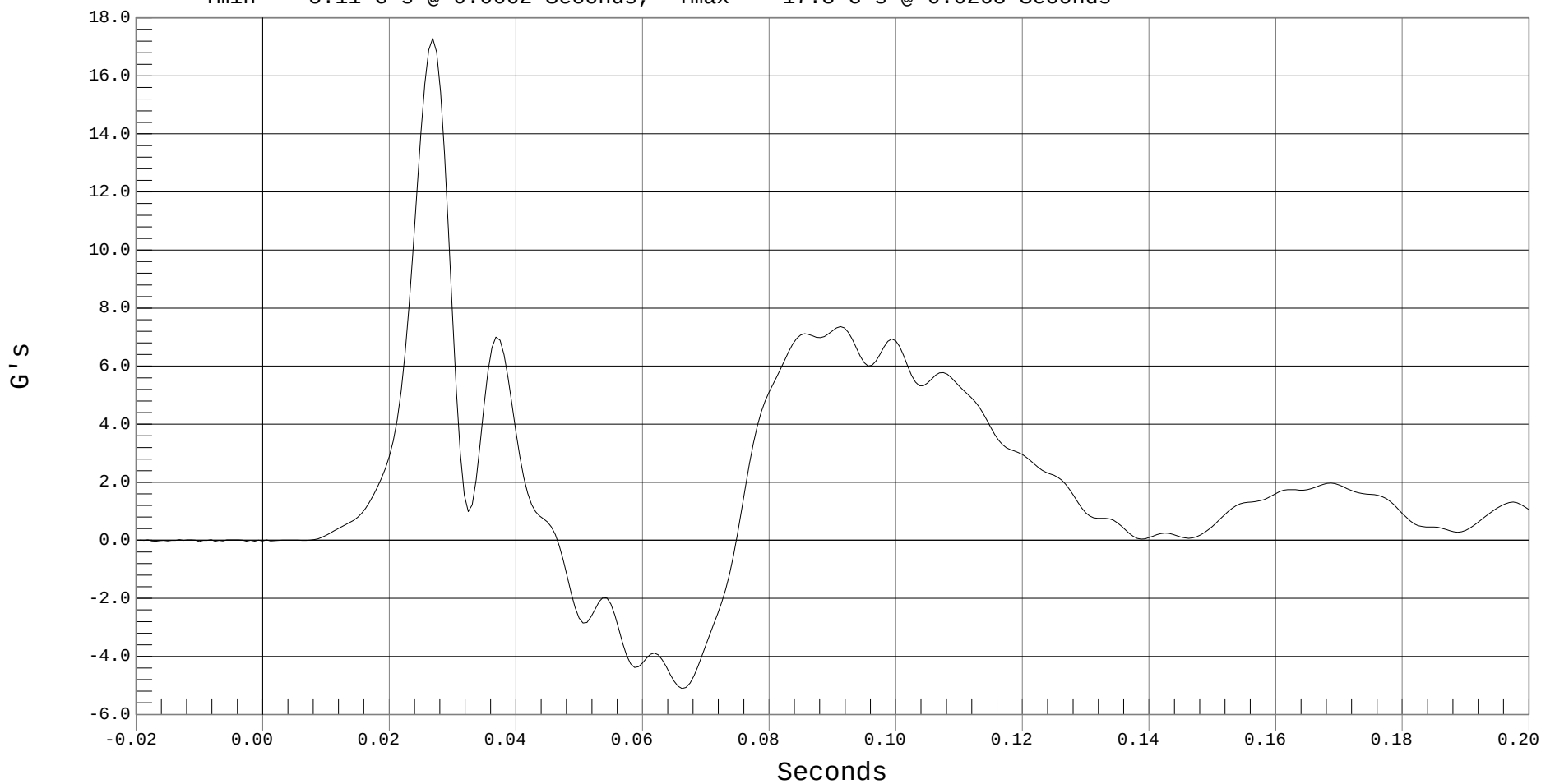
DRIVER UPPER SPINE Z ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 DRIVER UPPER SPINE Z, B01061FI.R22

Ymin = -5.11 G's @ 0.0662 Seconds, Ymax = 17.3 G's @ 0.0268 Seconds





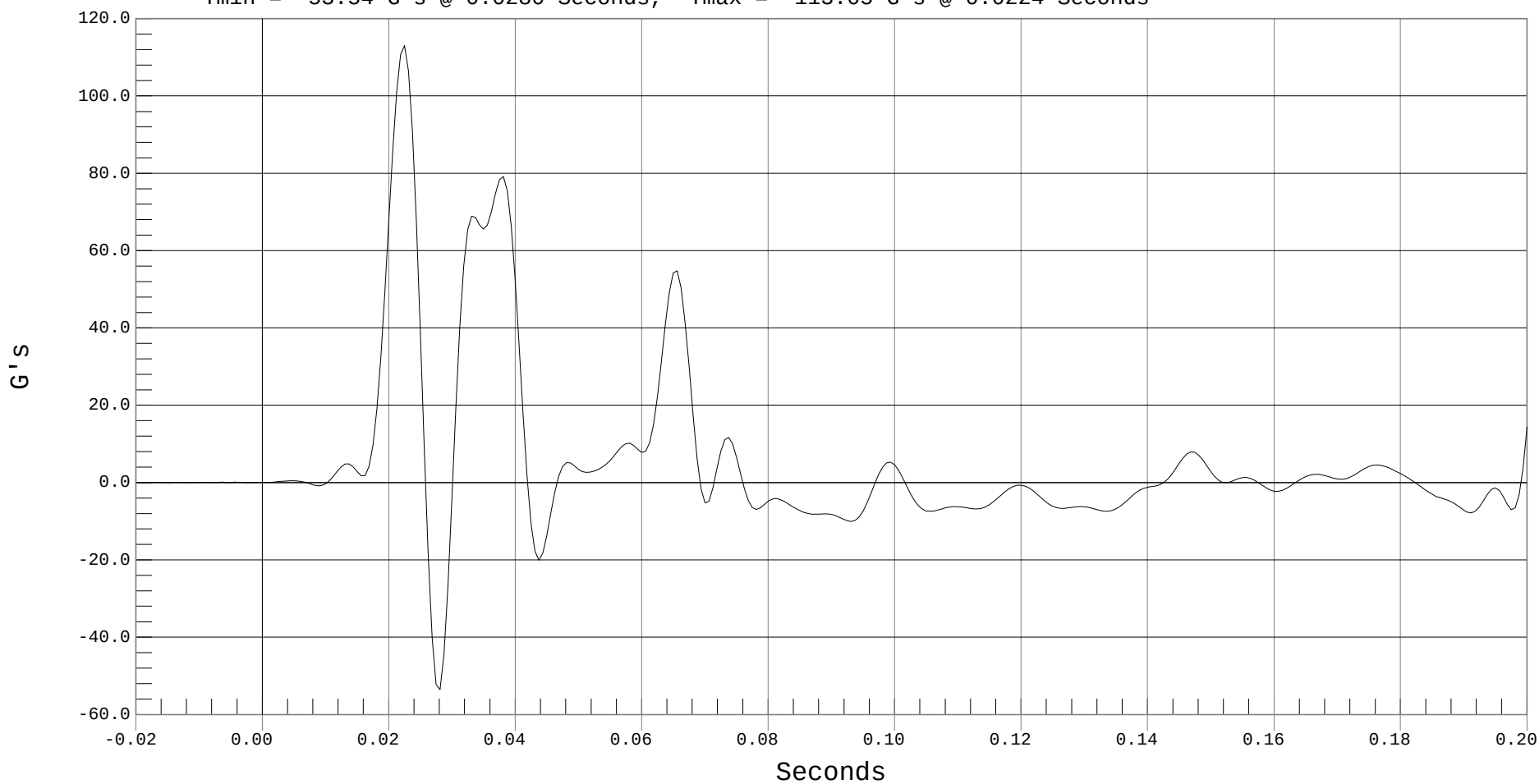
DRIVER UPPER RIB Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 DRIVER UPPER RIB Y, B01061FI.R23

Ymin = -53.54 G's @ 0.0280 Seconds, Ymax = 113.05 G's @ 0.0224 Seconds





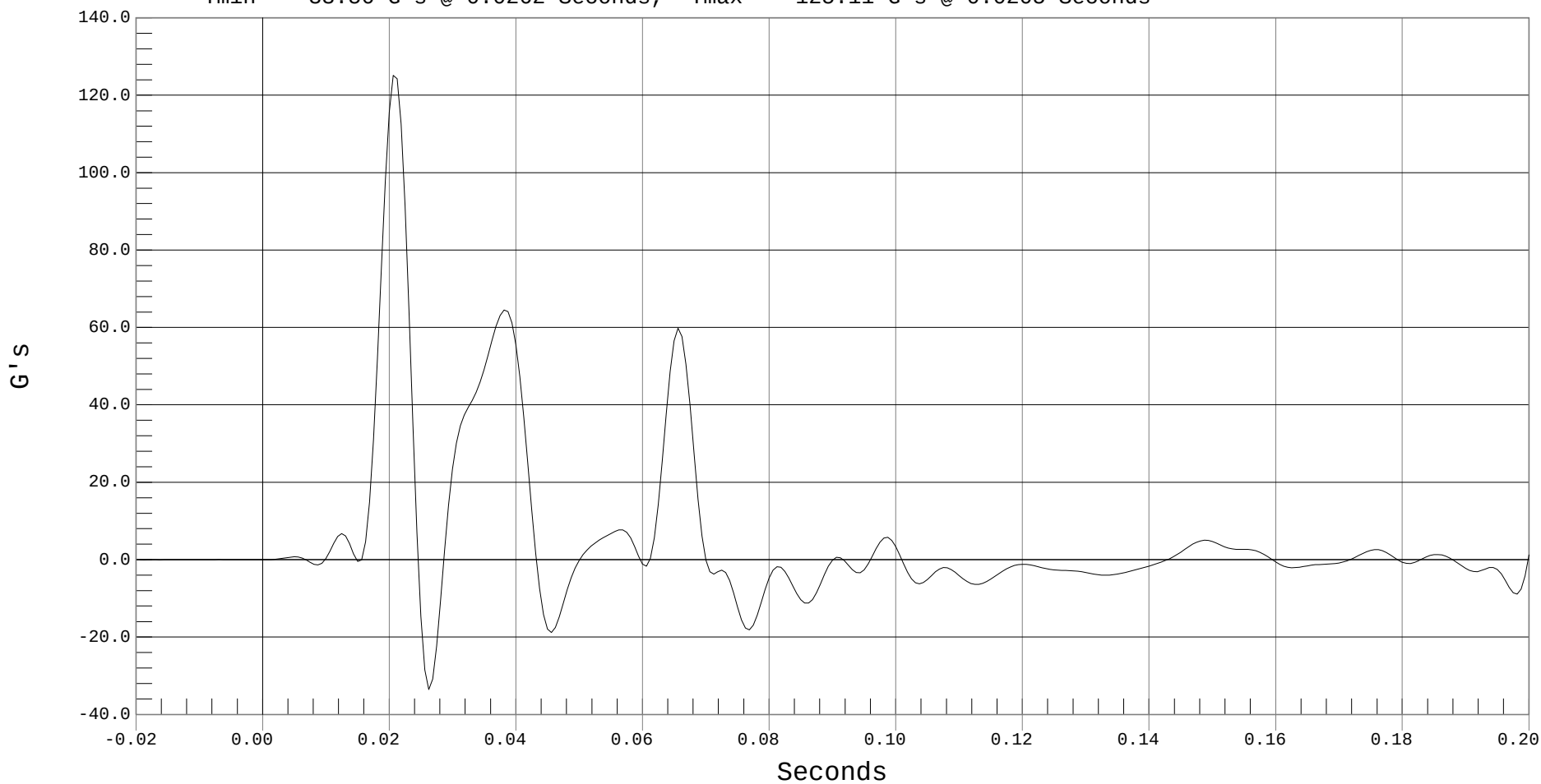
DRIVER MID RIB Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 DRIVER MID RIB Y, B01061FI.R24

Ymin = -33.56 G's @ 0.0262 Seconds, Ymax = 125.11 G's @ 0.0205 Seconds





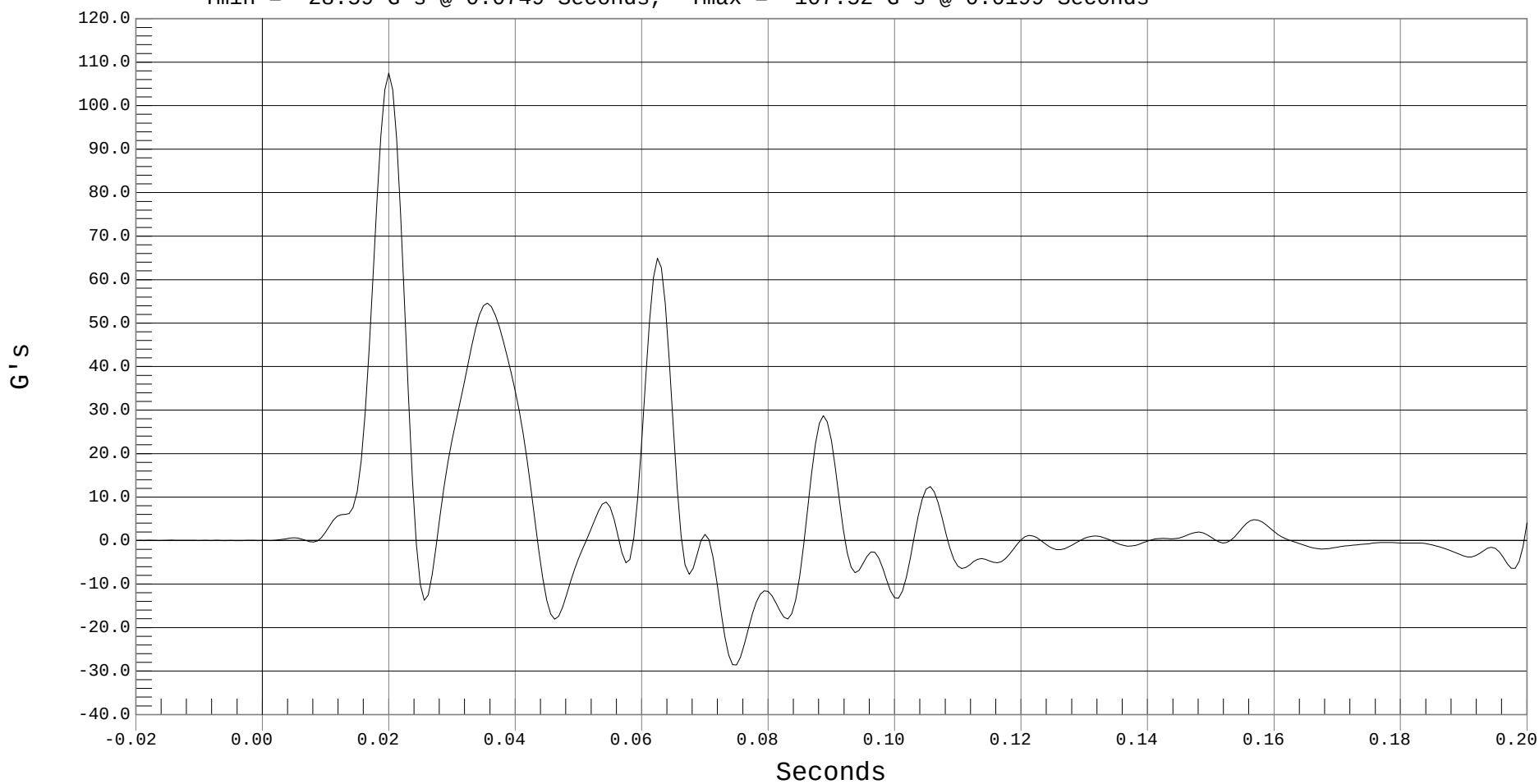
DRIVER LOWER RIB Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 DRIVER LOWER RIB Y, B01061FI.R25

Ymin = -28.59 G's @ 0.0749 Seconds, Ymax = 107.52 G's @ 0.0199 Seconds





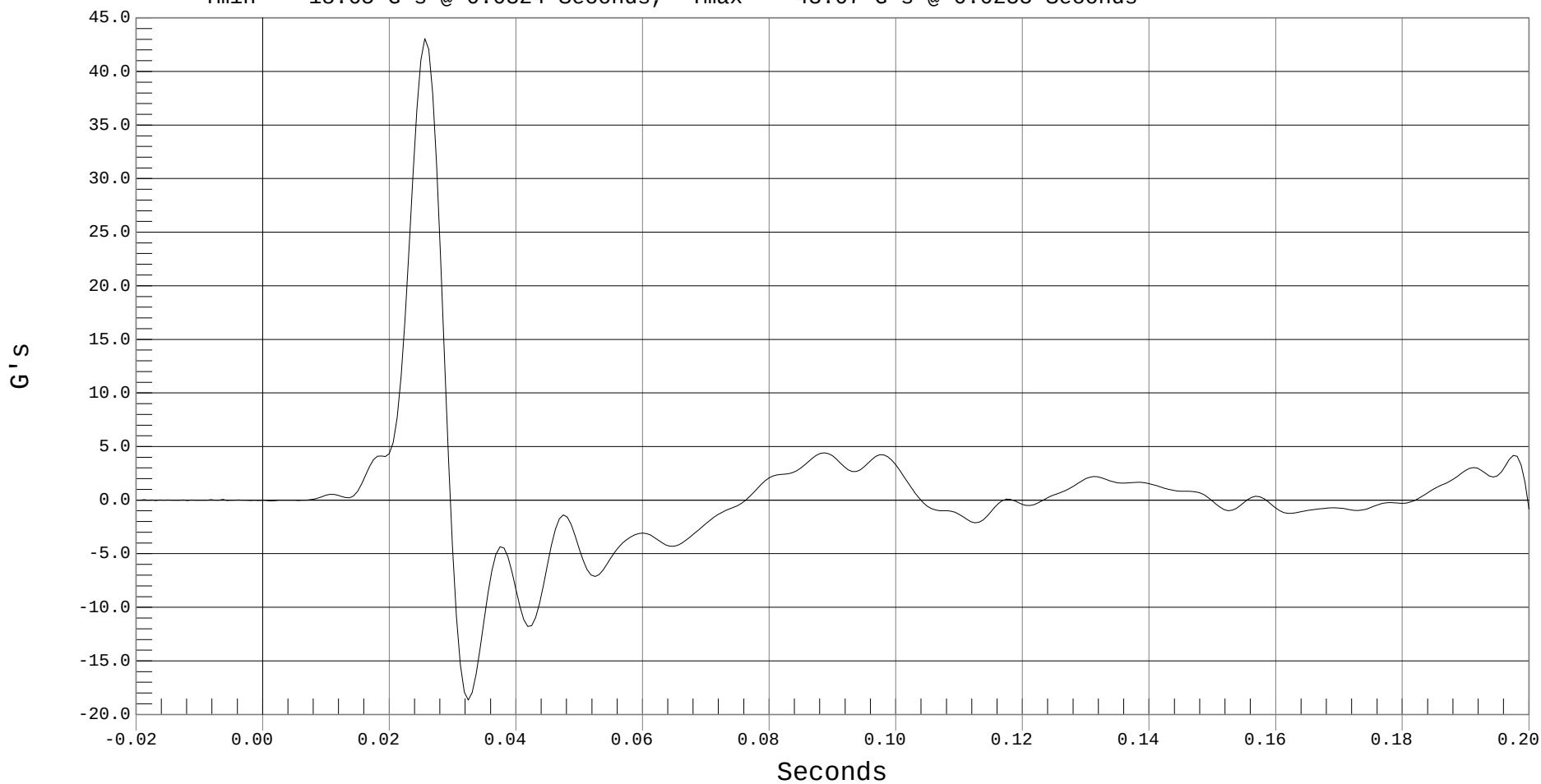
DRIVER LOWER SPINE X ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 DRIVER LOWER SPINE X, B01061FI.R29

Ymin = -18.65 G's @ 0.0324 Seconds, Ymax = 43.07 G's @ 0.0255 Seconds





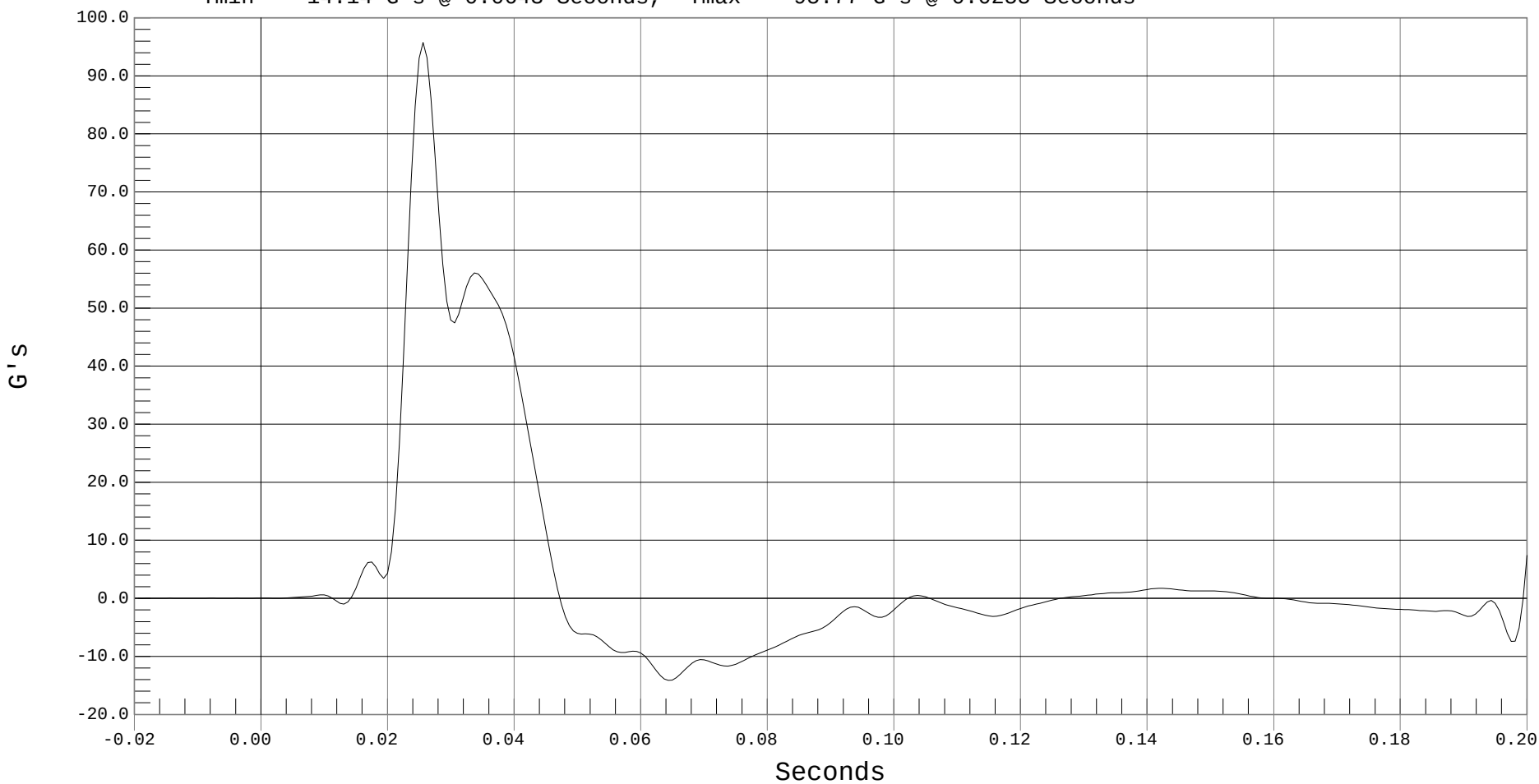
DRIVER LOWER SPINE Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 DRIVER LOWER SPINE Y, B01061FI.R30

Ymin = -14.14 G's @ 0.0643 Seconds, Ymax = 95.77 G's @ 0.0255 Seconds





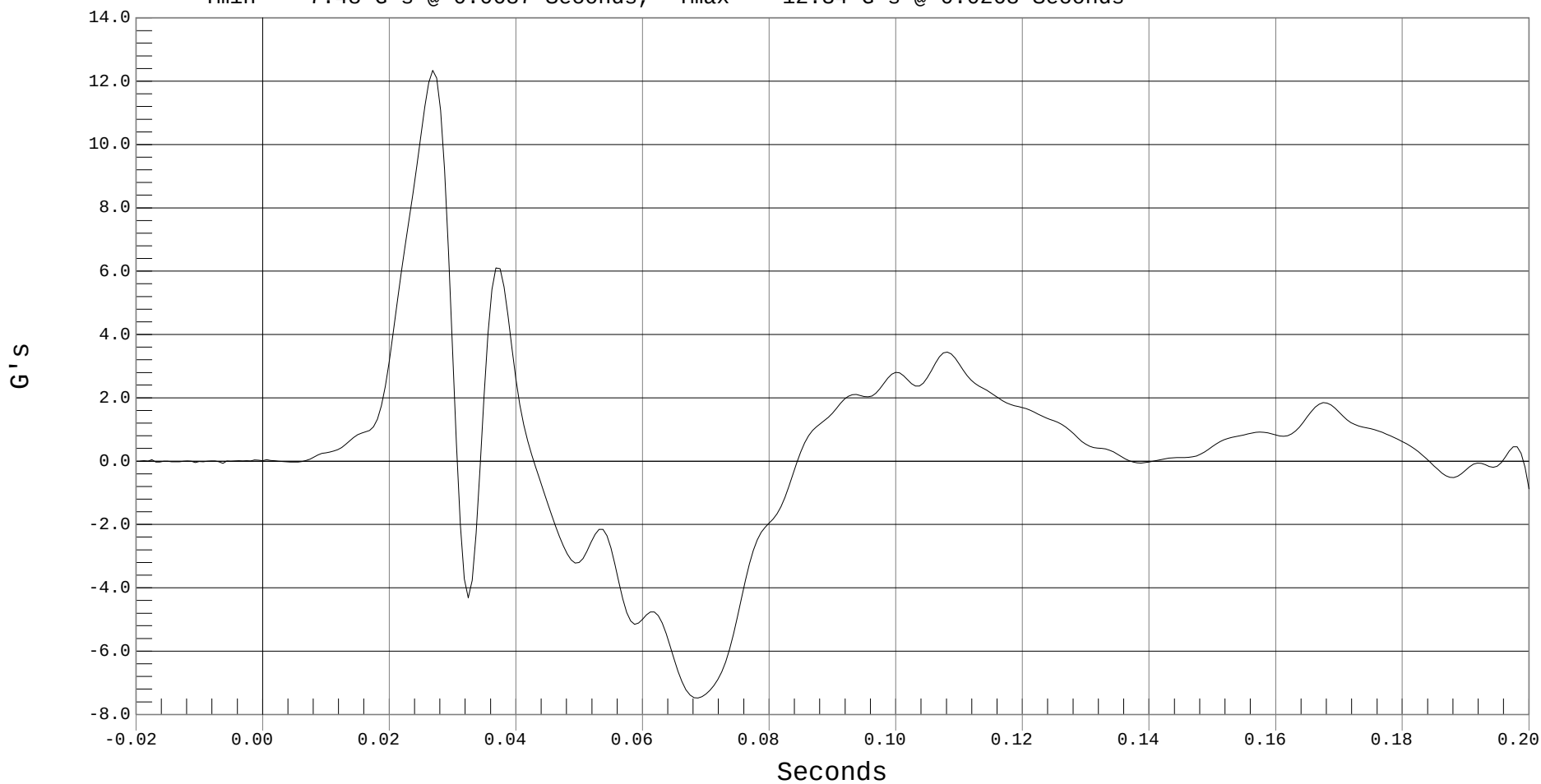
DRIVER LOWER SPINE Z ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 DRIVER LOWER SPINE Z, B01061FI.R31

Ymin = -7.48 G's @ 0.0687 Seconds, Ymax = 12.34 G's @ 0.0268 Seconds





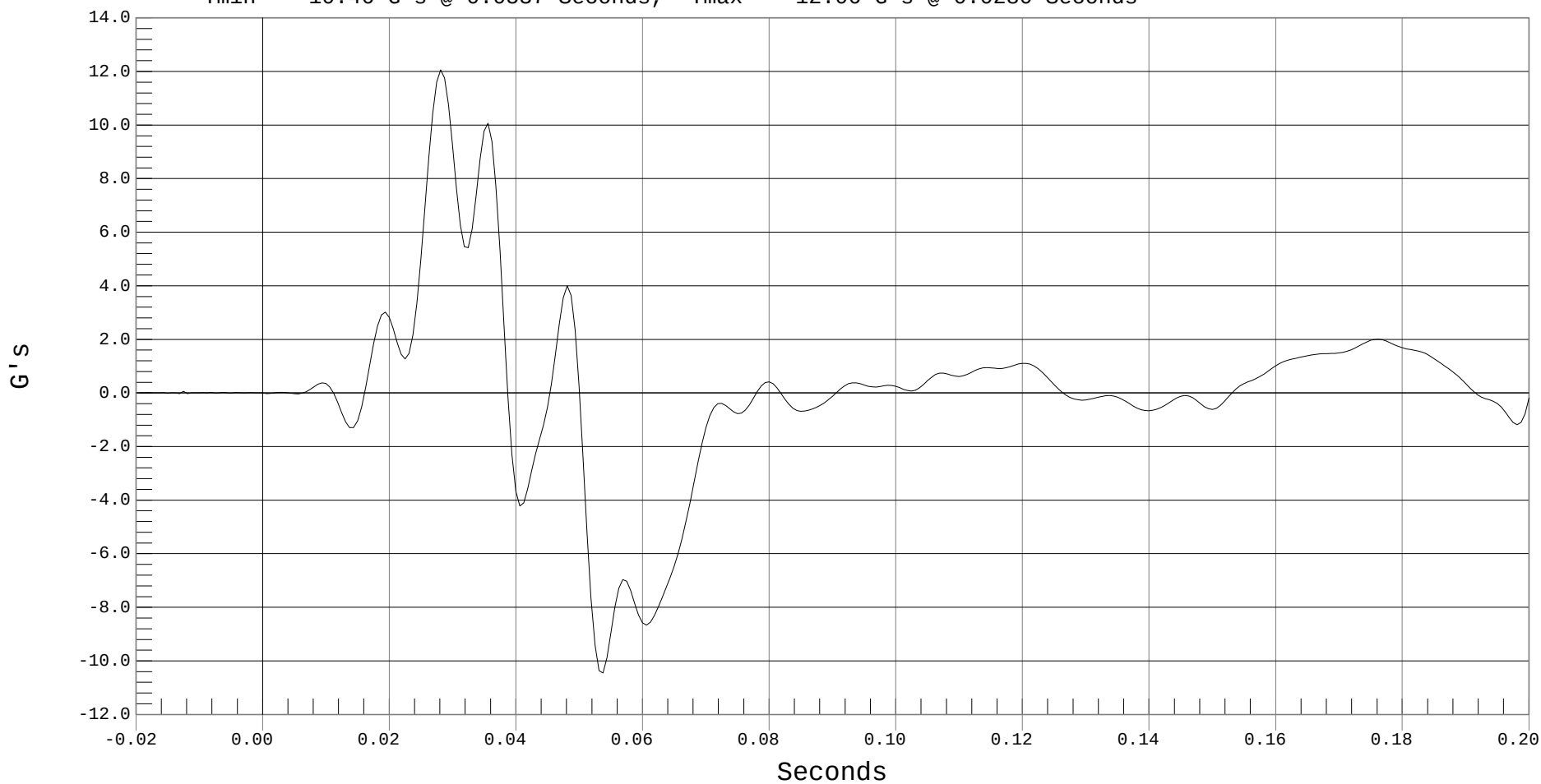
DRIVER PELVIS X ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 DRIVER PELVIS X, B01061FI.R45

Ymin = -10.46 G's @ 0.0537 Seconds, Ymax = 12.06 G's @ 0.0280 Seconds





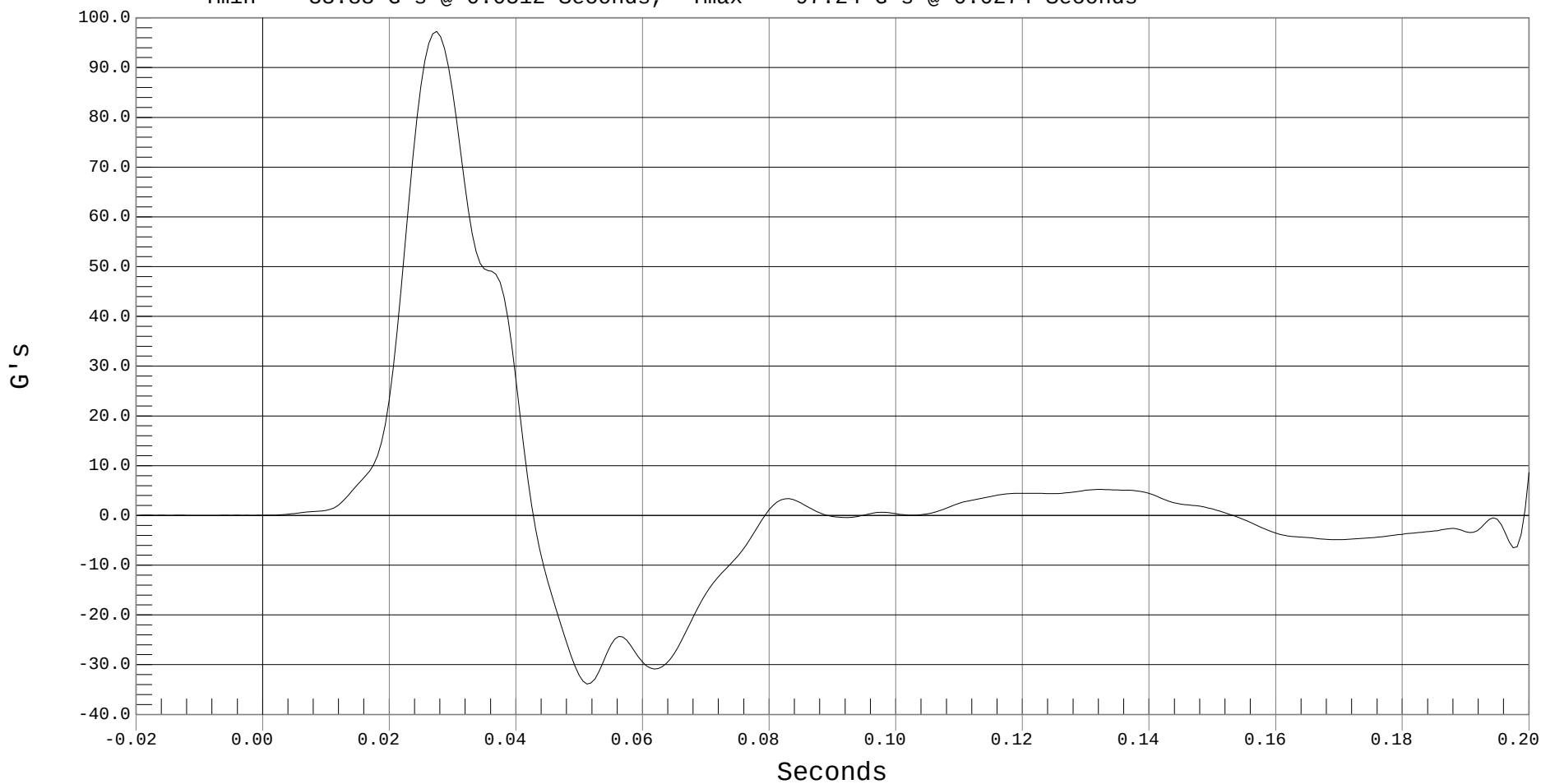
DRIVER PELVIS Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 DRIVER PELVIS Y, B01061FI.R46

Ymin = -33.88 G's @ 0.0512 Seconds, Ymax = 97.24 G's @ 0.0274 Seconds





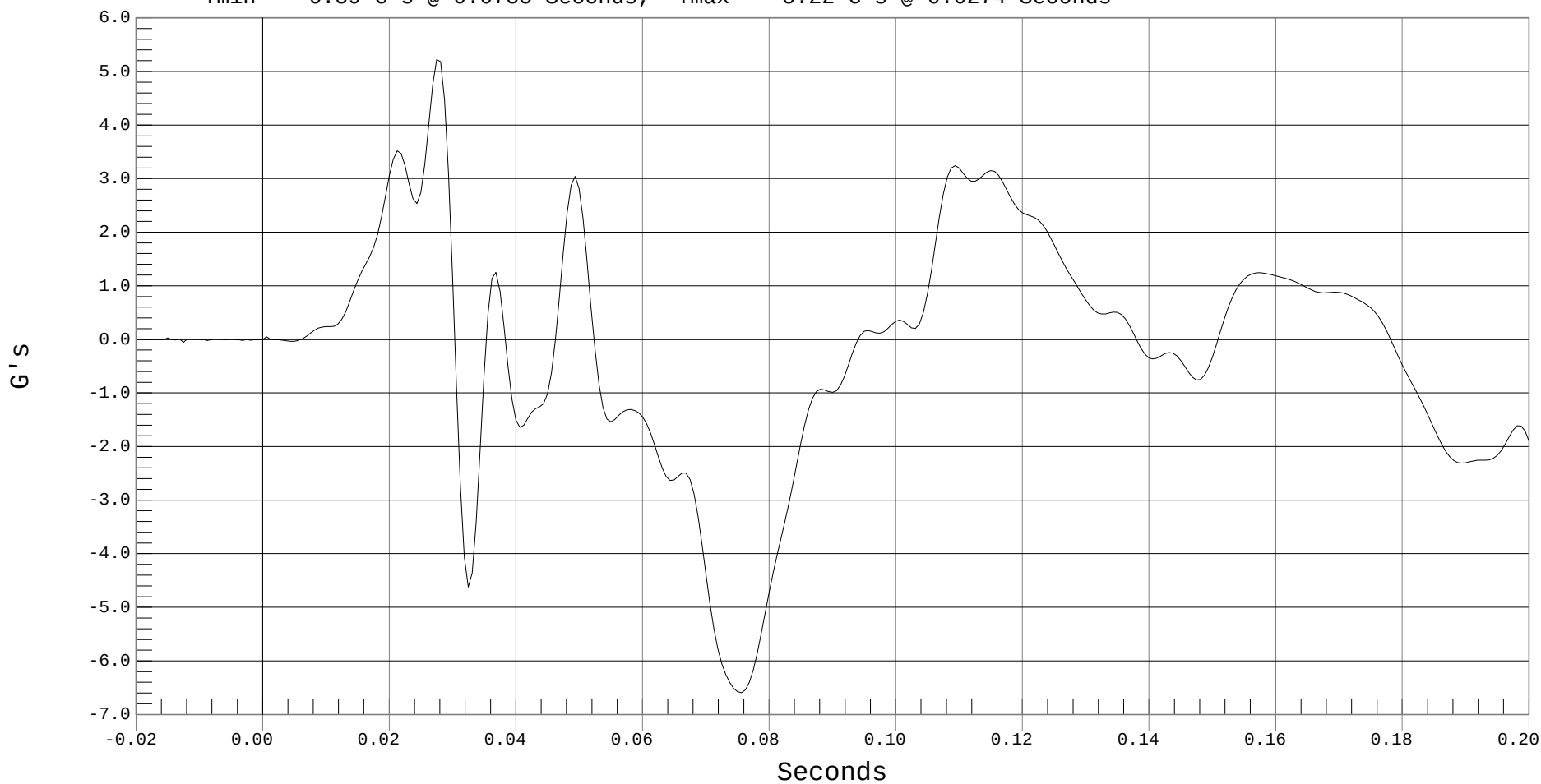
DRIVER PELVIS Z ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 DRIVER PELVIS Z, B01061FI.R47

Ymin = -6.59 G's @ 0.0755 Seconds, Ymax = 5.22 G's @ 0.0274 Seconds





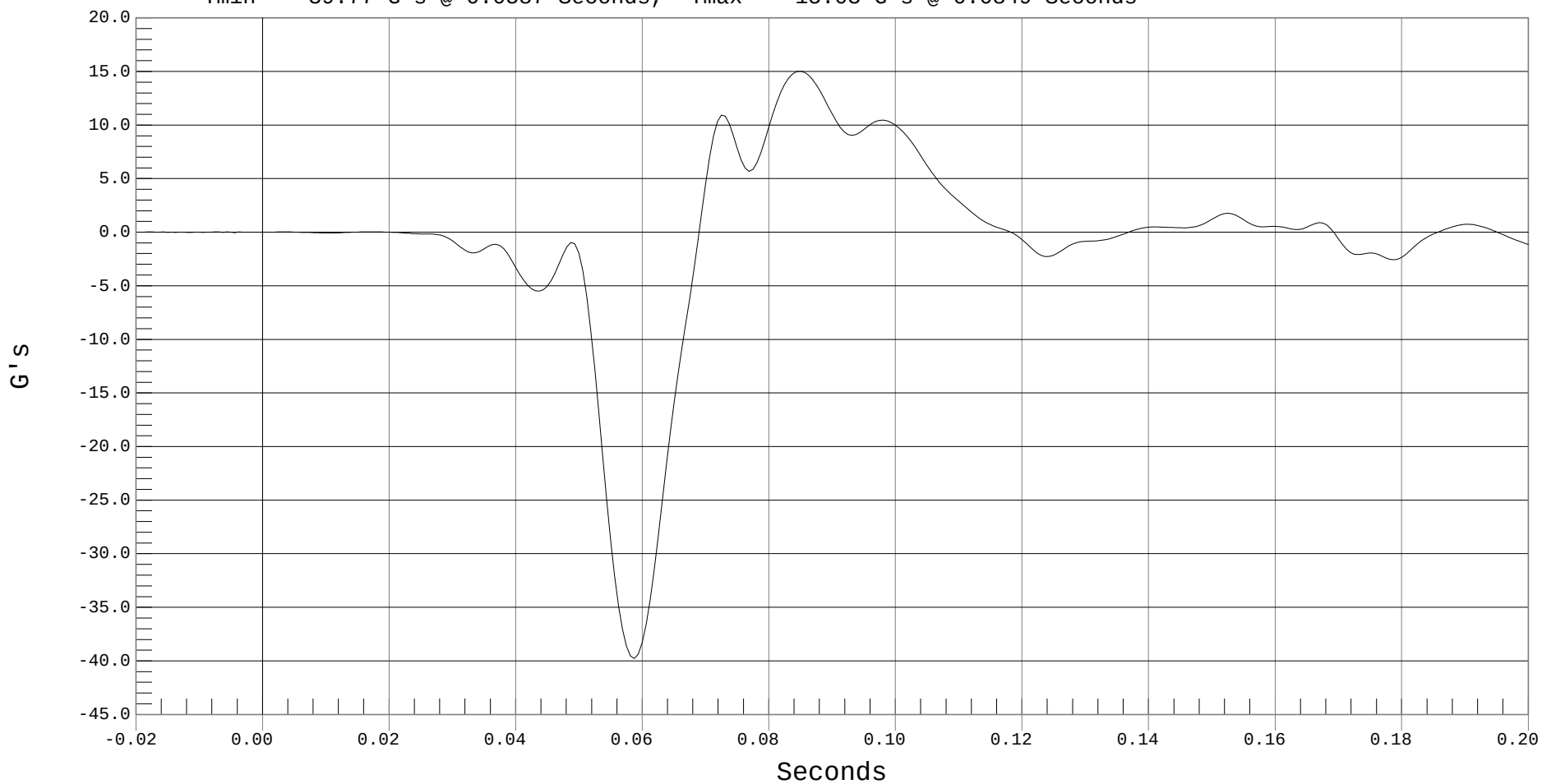
PASSENGER UPPER SPINE X ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 REAR PASSENGER UPPER SPINE X, B01061FI.R80

Ymin = -39.77 G's @ 0.0587 Seconds, Ymax = 15.03 G's @ 0.0849 Seconds





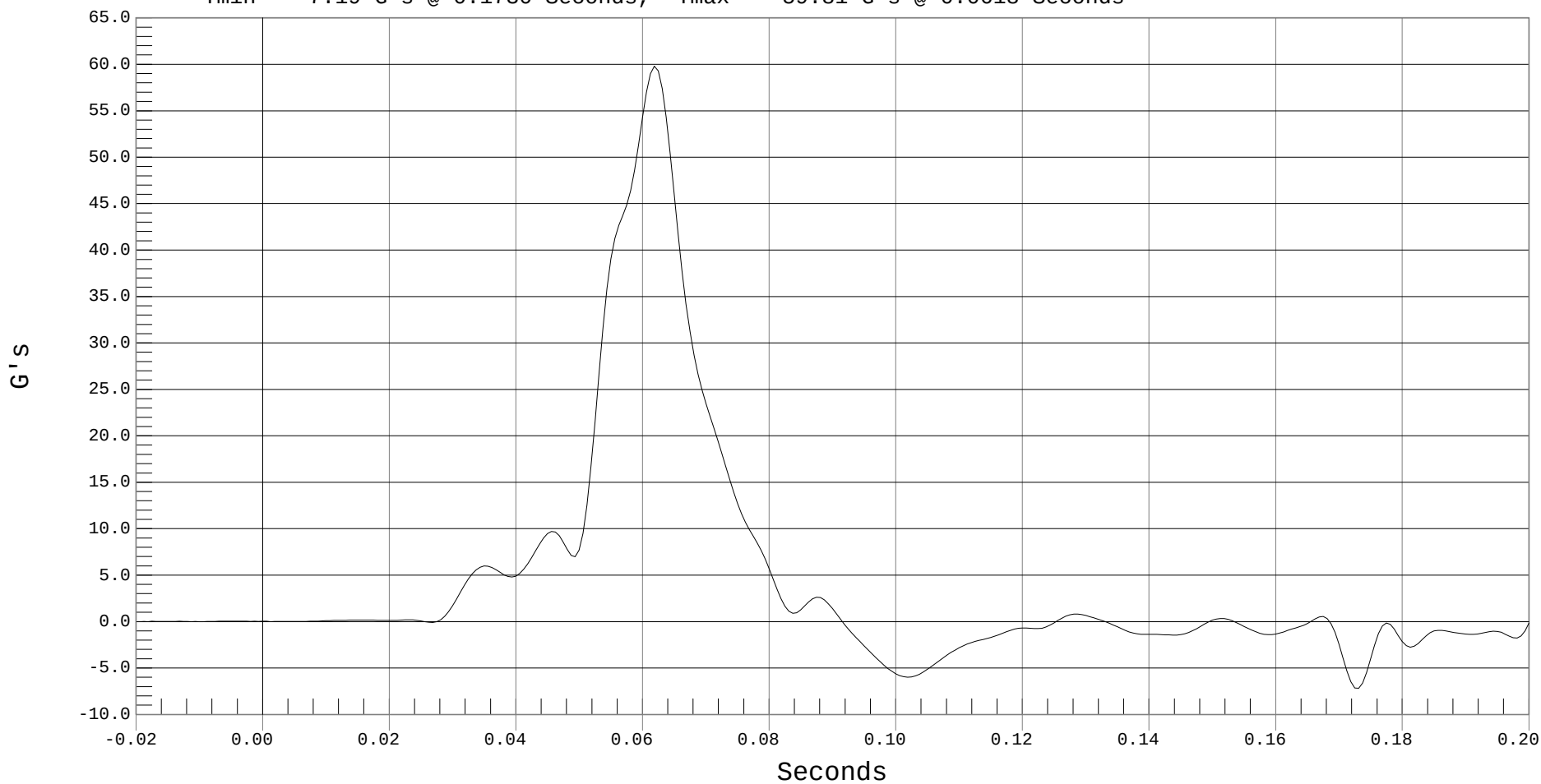
PASSENGER UPPER SPINE Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 REAR PASSENGER UPPER SPINE Y, B01061FI.R81

Ymin = -7.19 G's @ 0.1730 Seconds, Ymax = 59.81 G's @ 0.0618 Seconds





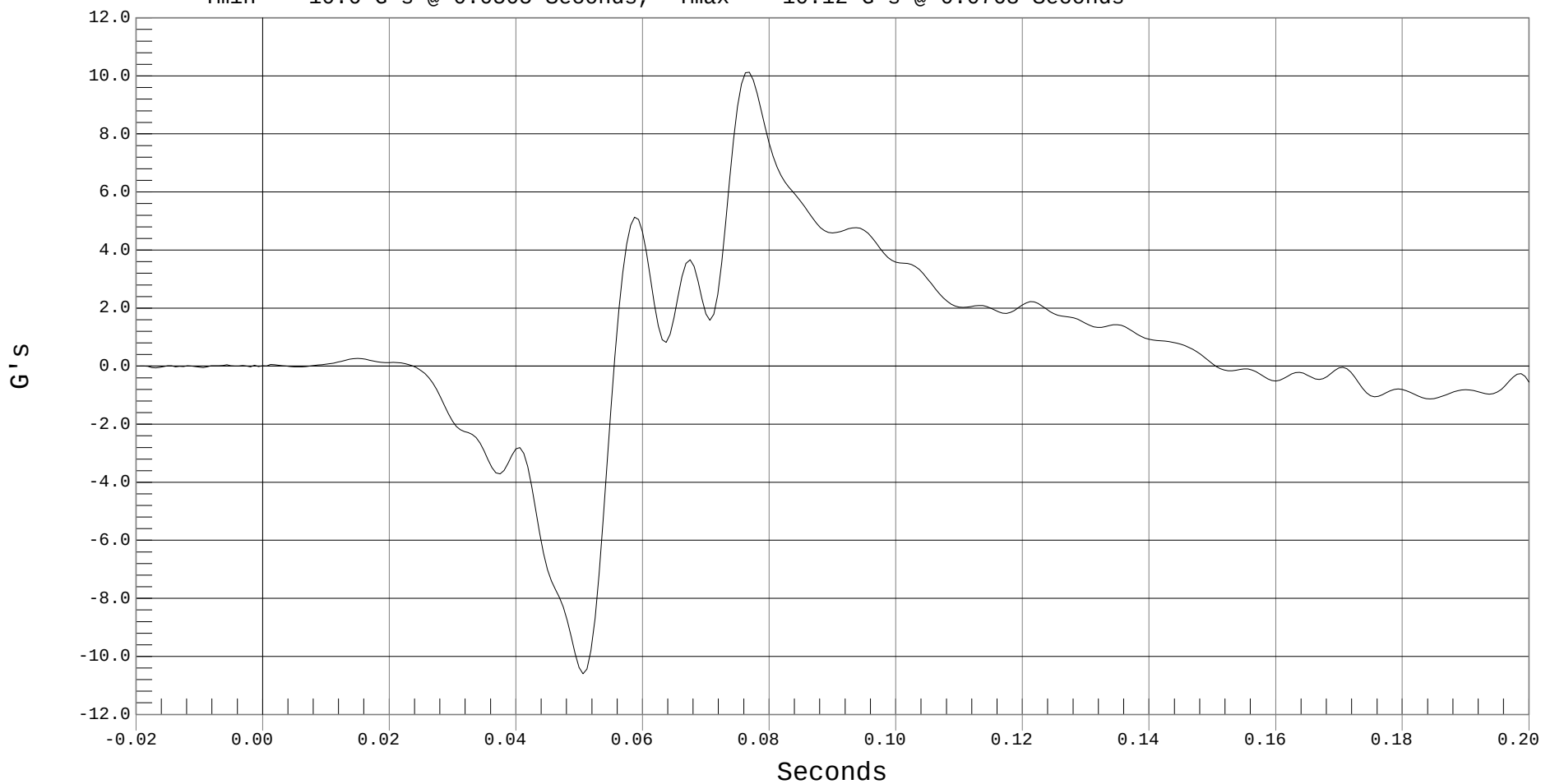
PASSENGER UPPER SPINE Z ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 REAR PASSENGER UPPER SPINE Z, B01061FI.R82

Ymin = -10.6 G's @ 0.0505 Seconds, Ymax = 10.12 G's @ 0.0768 Seconds





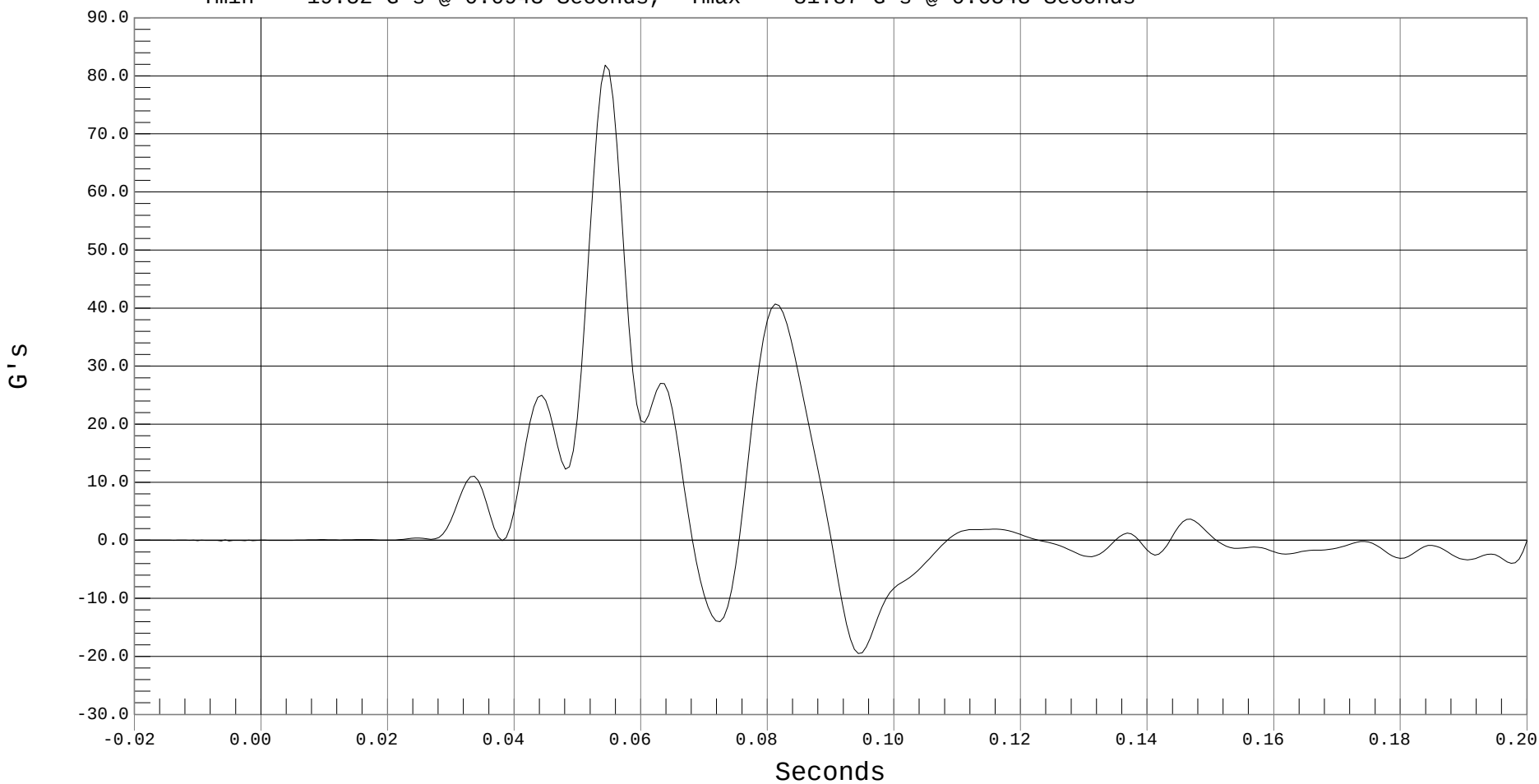
PASSENGER UPPER RIB Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 REAR PASSENGER UPPER RIB Y, B01061FI.R83

Ymin = -19.52 G's @ 0.0943 Seconds, Ymax = 81.87 G's @ 0.0543 Seconds





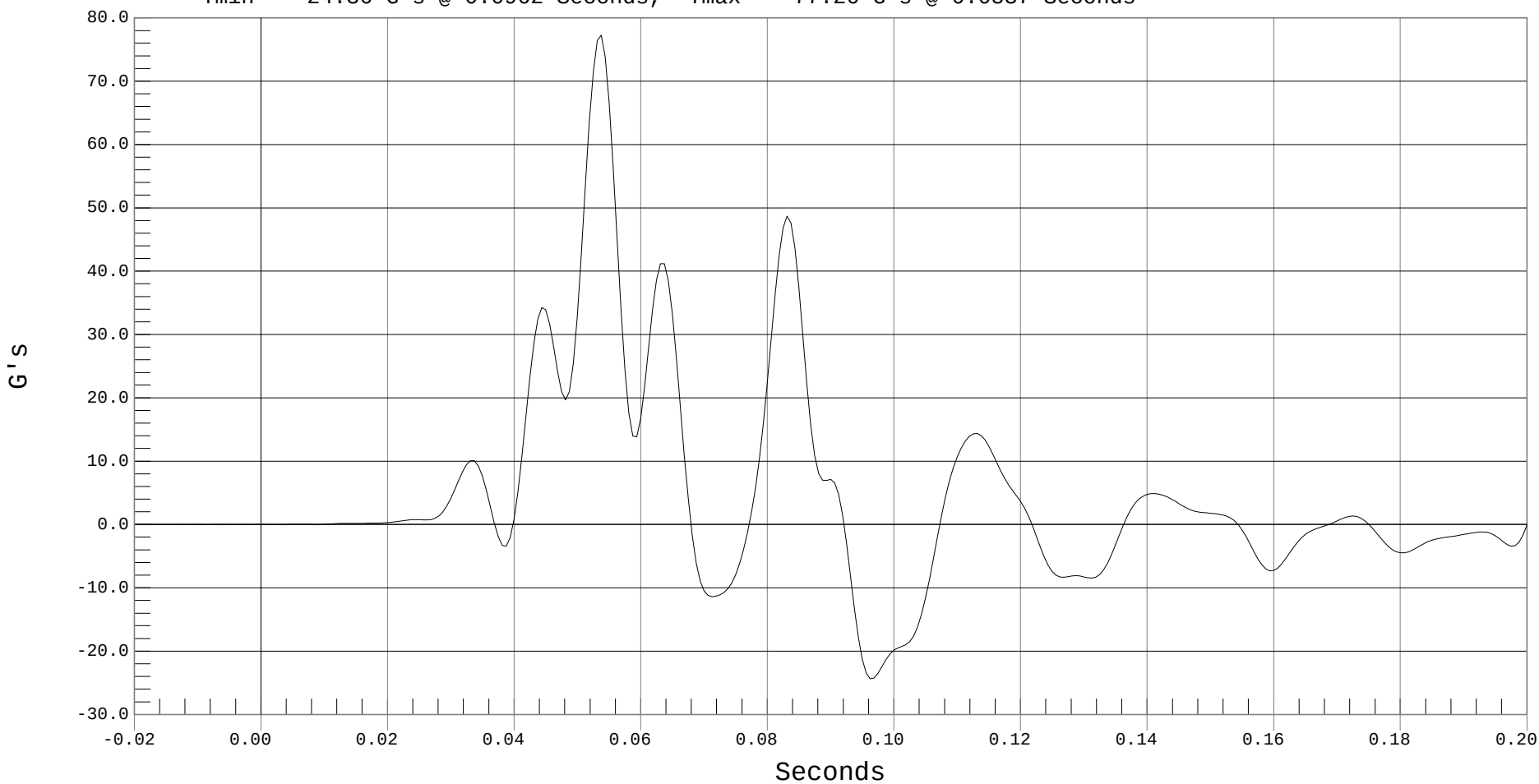
PASSENGER MID RIB Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 REAR PASSENGER MID RIB Y, B01061FI.R84

Ymin = -24.36 G's @ 0.0962 Seconds, Ymax = 77.26 G's @ 0.0537 Seconds





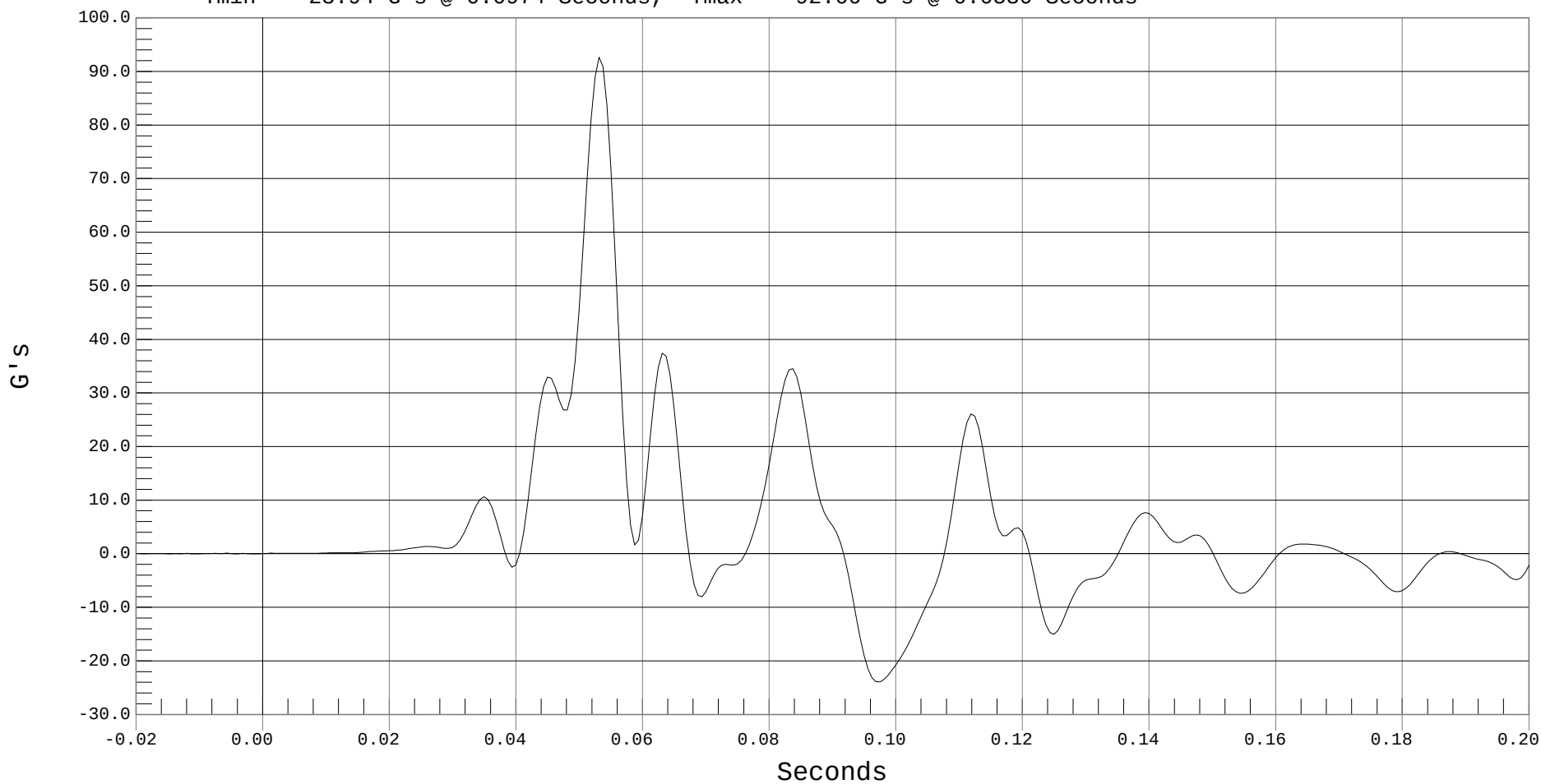
PASSENGER LOWER RIB Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 REAR PASSENGER LOWER RIB Y, B01061FI.R85

Ymin = -23.94 G's @ 0.0974 Seconds, Ymax = 92.66 G's @ 0.0530 Seconds





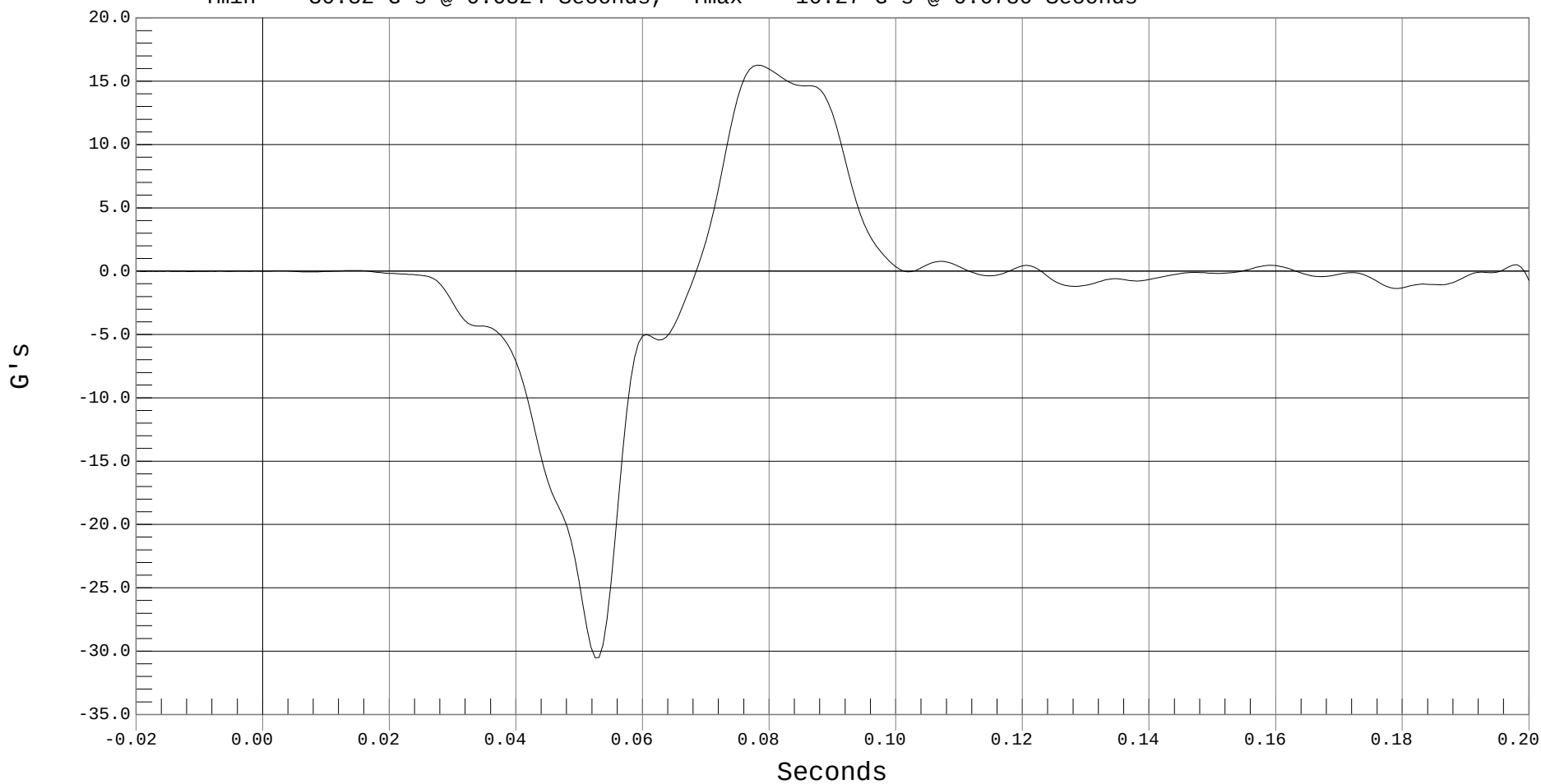
PASSENGER LOWER SPINE X ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 REAR PASSENGER LOWER SPINE X, B01061FI.R89

Ymin = -30.52 G's @ 0.0524 Seconds, Ymax = 16.27 G's @ 0.0780 Seconds





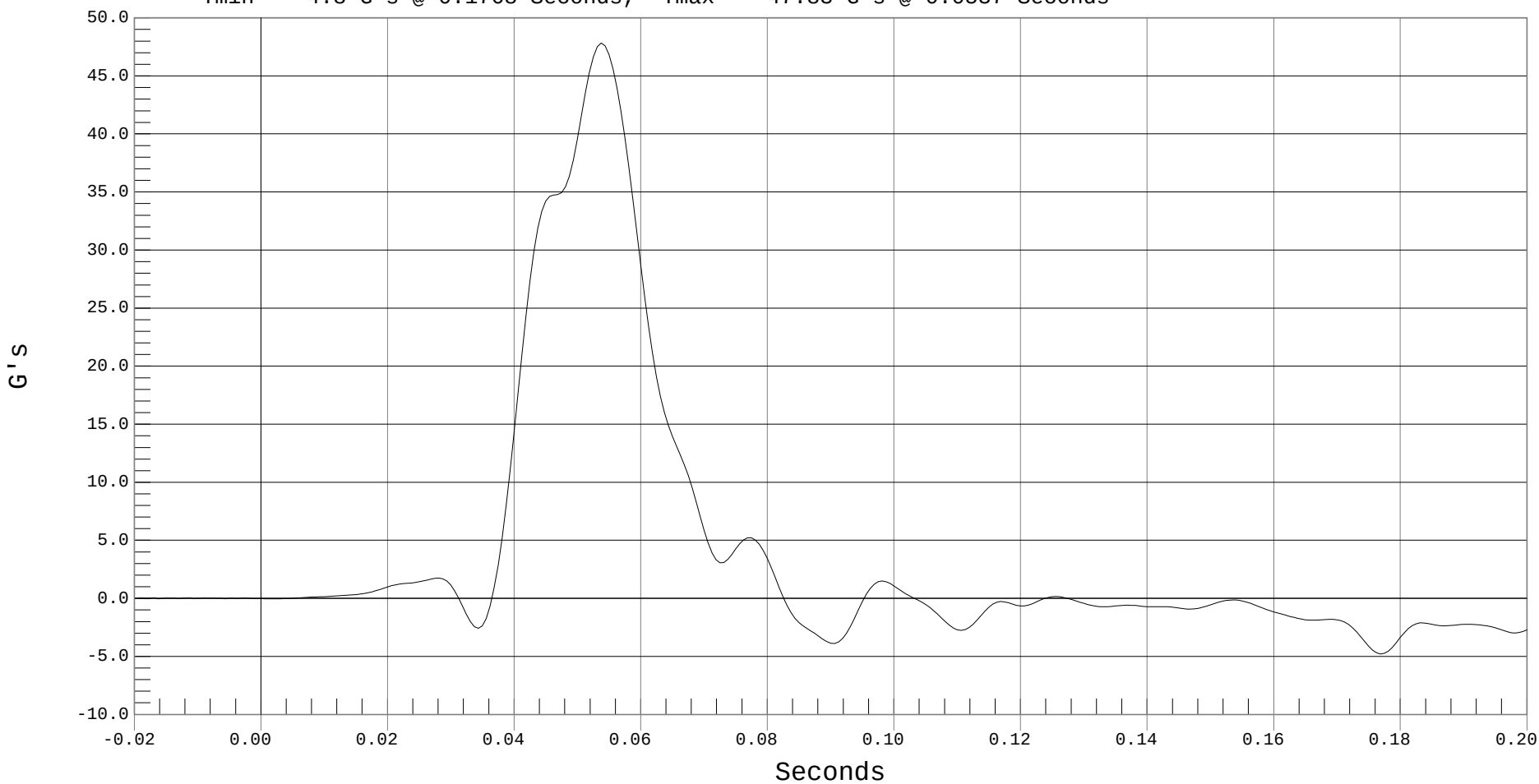
PASSENGER LOWER SPINE Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 REAR PASSENGER LOWER SPINE Y, B01061FI.R90

Ymin = -4.8 G's @ 0.1768 Seconds, Ymax = 47.83 G's @ 0.0537 Seconds





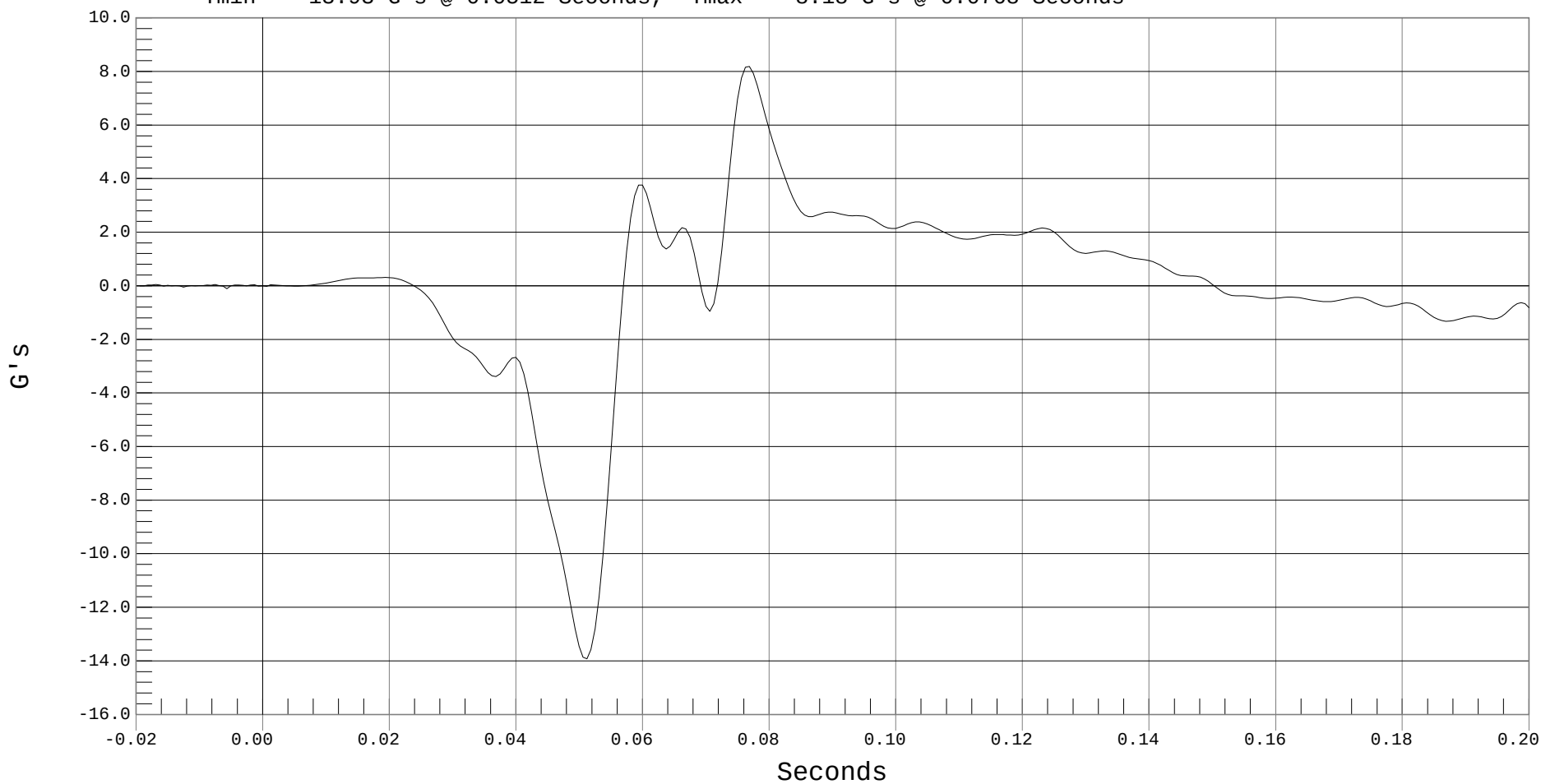
PASSENGER LOWER SPINE Z ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 REAR PASSENGER LOWER SPINE Z, B01061FI.R91

Ymin = -13.93 G's @ 0.0512 Seconds, Ymax = 8.18 G's @ 0.0768 Seconds





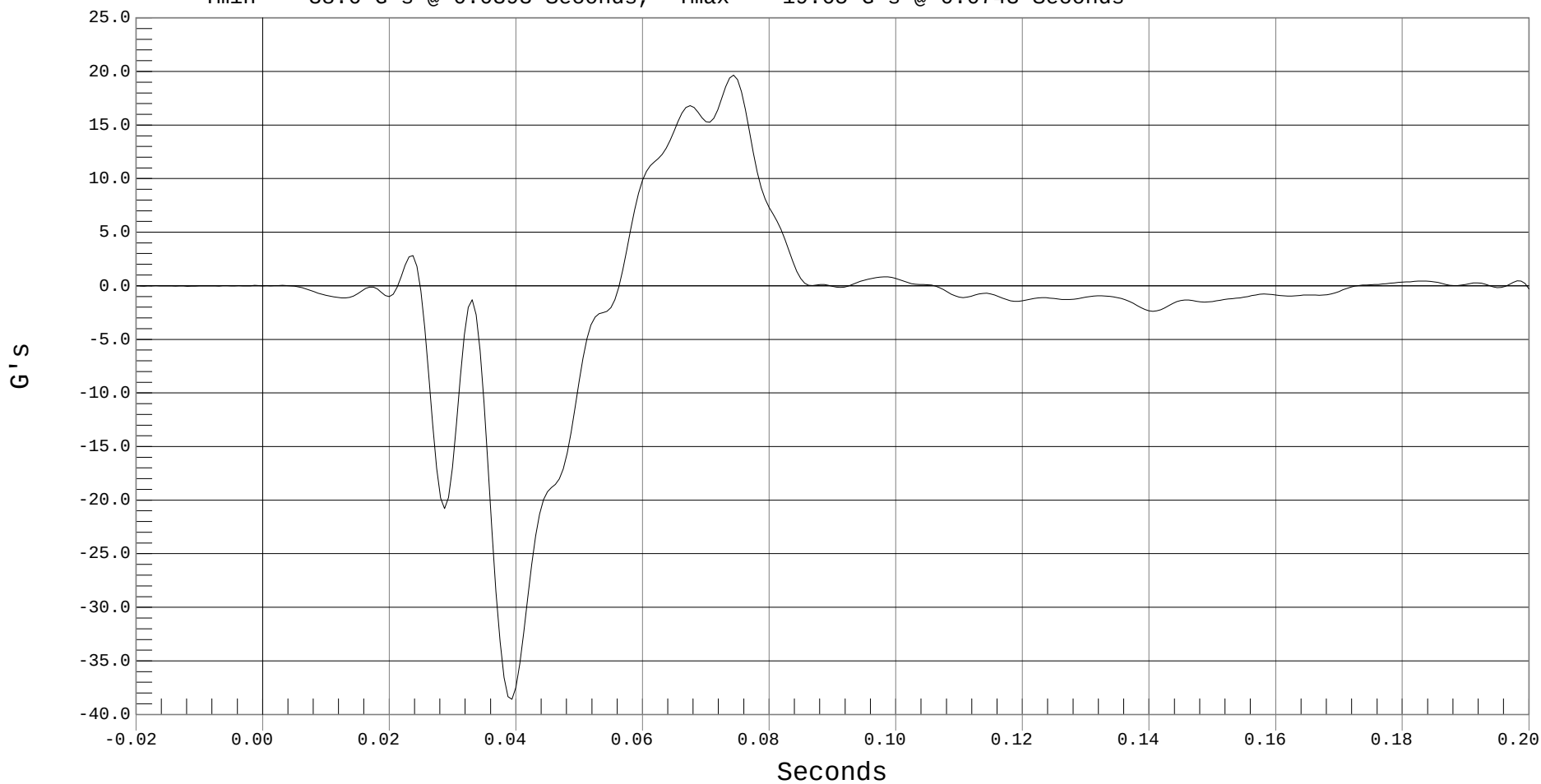
PASSENGER PELVIS X ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 REAR PASSENGER PELVIS X, B01061FI.R10

Ymin = -38.6 G's @ 0.0393 Seconds, Ymax = 19.65 G's @ 0.0743 Seconds





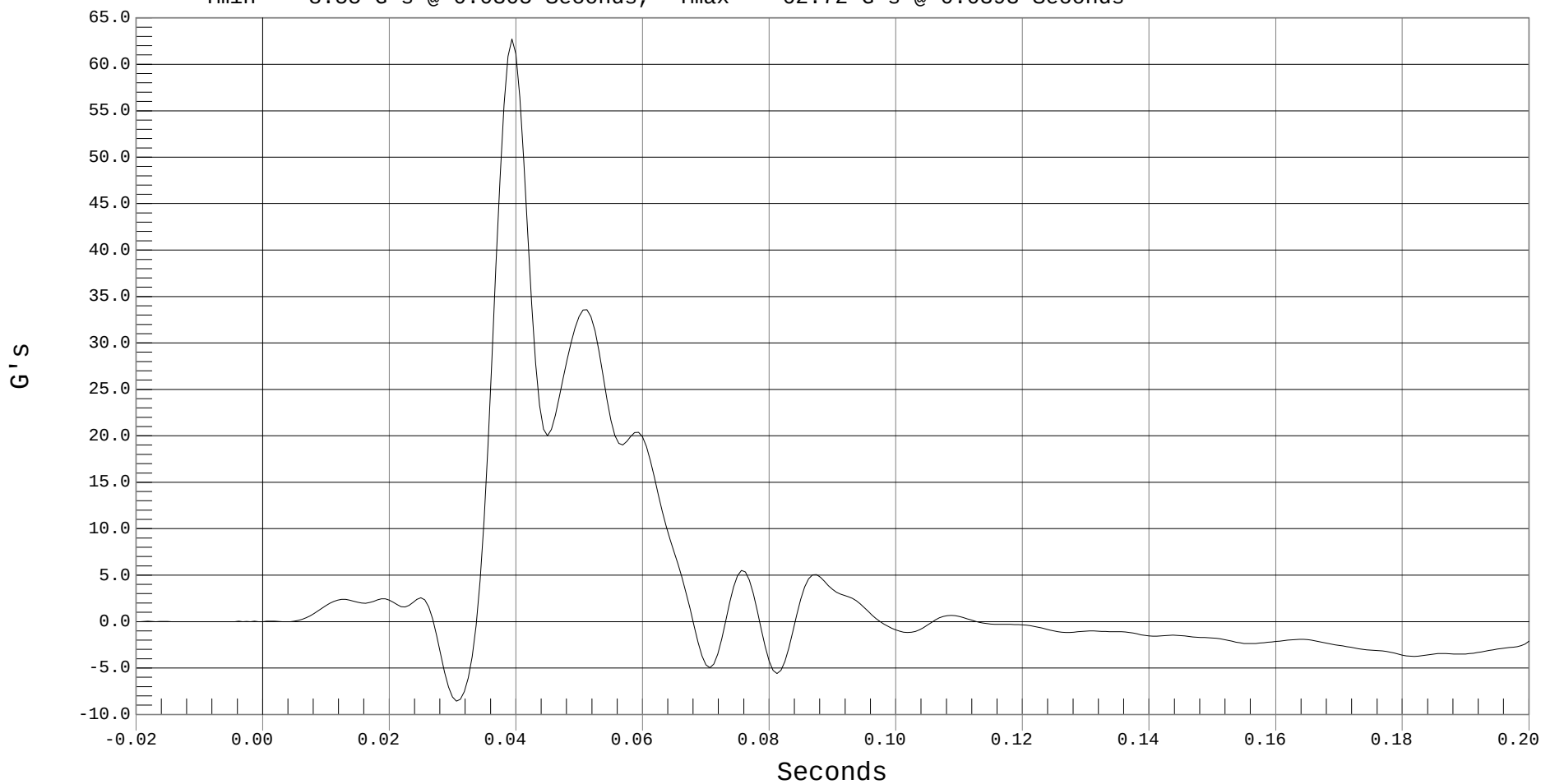
PASSENGER PELVIS Y ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 REAR PASSENGER PELVIS Y, B01061FI.R11

Ymin = -8.55 G's @ 0.0305 Seconds, Ymax = 62.72 G's @ 0.0393 Seconds





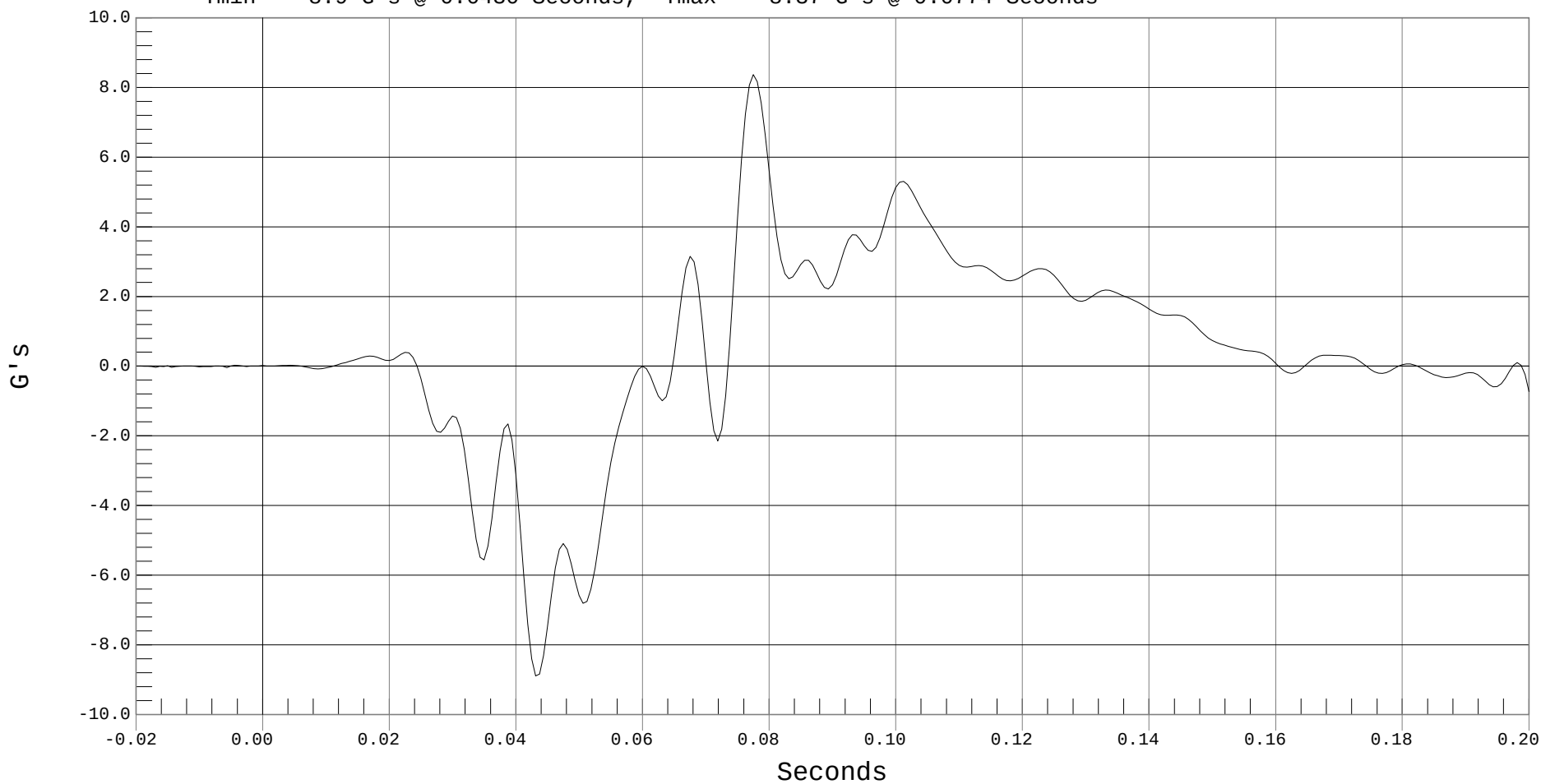
PASSENGER PELVIS Z ACCELERATION

Test Desc.: IIHS SIDE IMPACT
Component: 1999 CHEVROLET PRIZM
Other Info:

Test Date: 06-04-01
Speed: 32.9 MPH, 52.9 KPH
Fir Filtered

— 1 REAR PASSENGER PELVIS Z, B01061FI.R12

Ymin = -8.9 G's @ 0.0430 Seconds, Ymax = 8.37 G's @ 0.0774 Seconds



APPENDIX C

SID CONFIGURATION AND PERFORMANCE VERIFICATION DATA

CERTIFICATION DATA

Dummy Serial Number: 009

Calibration Test Results Summary

Dummy Serial Number: 009

Pre-Test Calibration

Head Drop Test:	The head passed all drop test requirements.
Neck Pendulum Test:	The neck passed all impact test requirements.
Shoulder Impact Test:	The shoulder passed all impact test requirements.
Rib Tests:	All ribs passed all impact test requirements.
Abdomen Test:	The abdomen passed all impact test requirements.
Lumbar Spine Test:	The lumbar spine passed all impact test requirements.
Pelvis Test:	The pelvis passed all impact test requirements.

MGA RESEARCH CORPORATION
HEAD DROP TEST
EUROSID 2 DUMMY

Date: 6/1/01
Dummy Serial Number: 009
Test Number: D01761

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18 – 22	22
Relative Humidity (%)	10 – 70	44
Peak Resultant Acceleration	100 – 150 g's	142
Time of Max. Res. Acceleration		23.9 msec

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



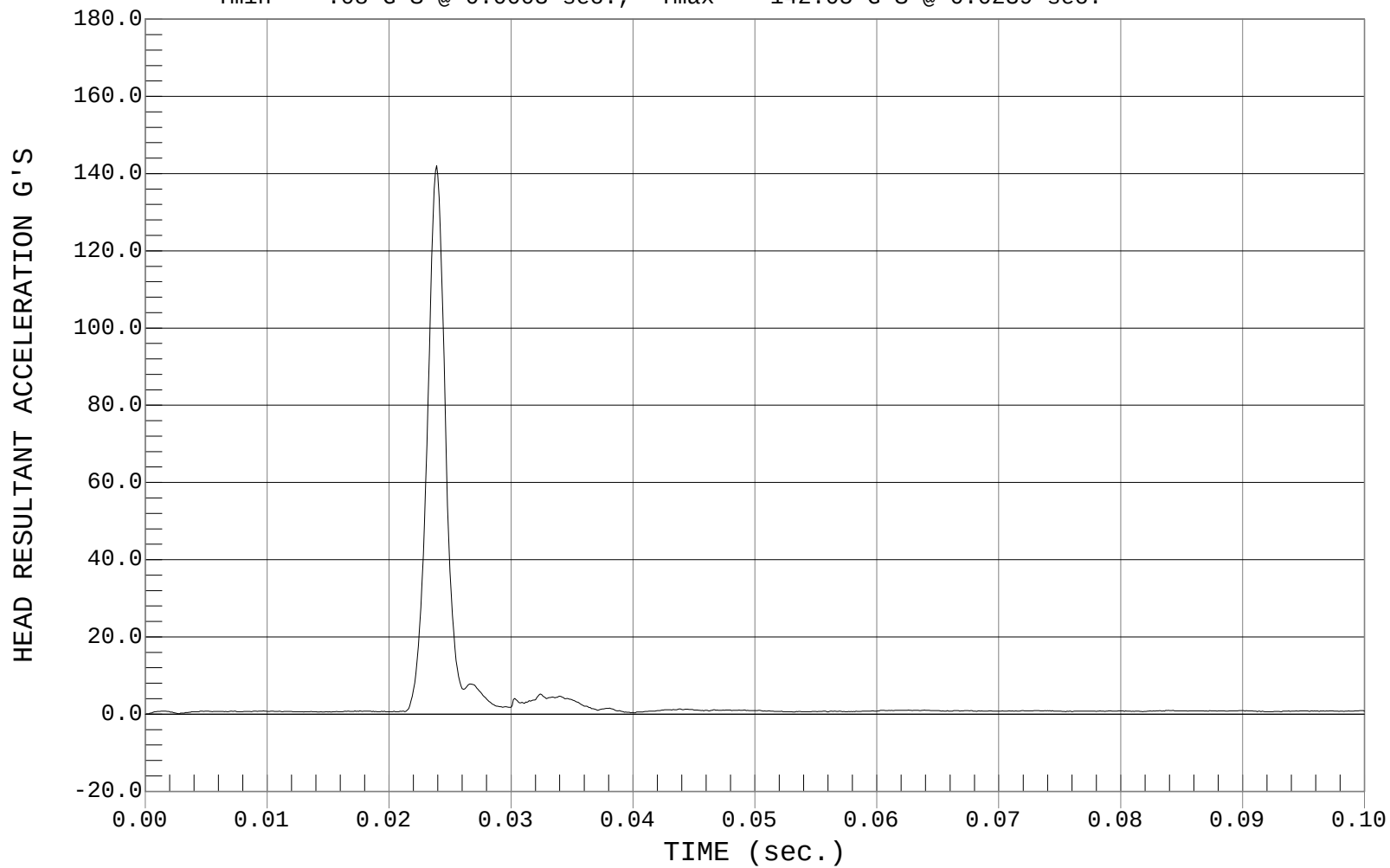
PEAK RESULTANT ACCELERATION

Test Desc.: Dummy Calibration - Head Drop
Component: Dummy #009

Test Date: 06-01-01
Speed: 0.00 FT/SEC, 0.00 M/SEC

— 1 HEAD RESULTANT ACCELERATION, D01761AV.A01

Ymin = .08 G'S @ 0.0003 sec., Ymax = 142.05 G'S @ 0.0239 sec.



MGA RESEARCH CORPORATION
NECK PENDULUM TEST
EUROSID 2 DUMMY

Date: 6/1/01
Dummy Serial Number: 009
Test Number: D01762

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature (°C)		18 – 22	22
Relative Humidity (%)		10 – 70	44
Pendulum Speed		3.3 - 3.5	3.4
Pendulum Deceleration	3 msec	1.25 - 1.53 m/sec	-.36
	8 msec	1.59 - 2.04 m/sec	-1.79
	14 msec	3.20 - 3.85 m/sec	-3.47
Maximum Flexion Angle		49.0 – 59.0 deg	56.6
Time of Max. Flexion Angle		54.0 – 66.0 ms	57.9
Maximum Angle Theta (A)		32.0 – 37.0 deg	34.5
Time of Max. Theta (A)		53.0 – 63.0 ms	57.7
Maximum Angle Theta (B)		29.70 – 32.20 deg	30.86
Time of Max. Theta (B)		54.0 – 64.0 ms	57.9

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____

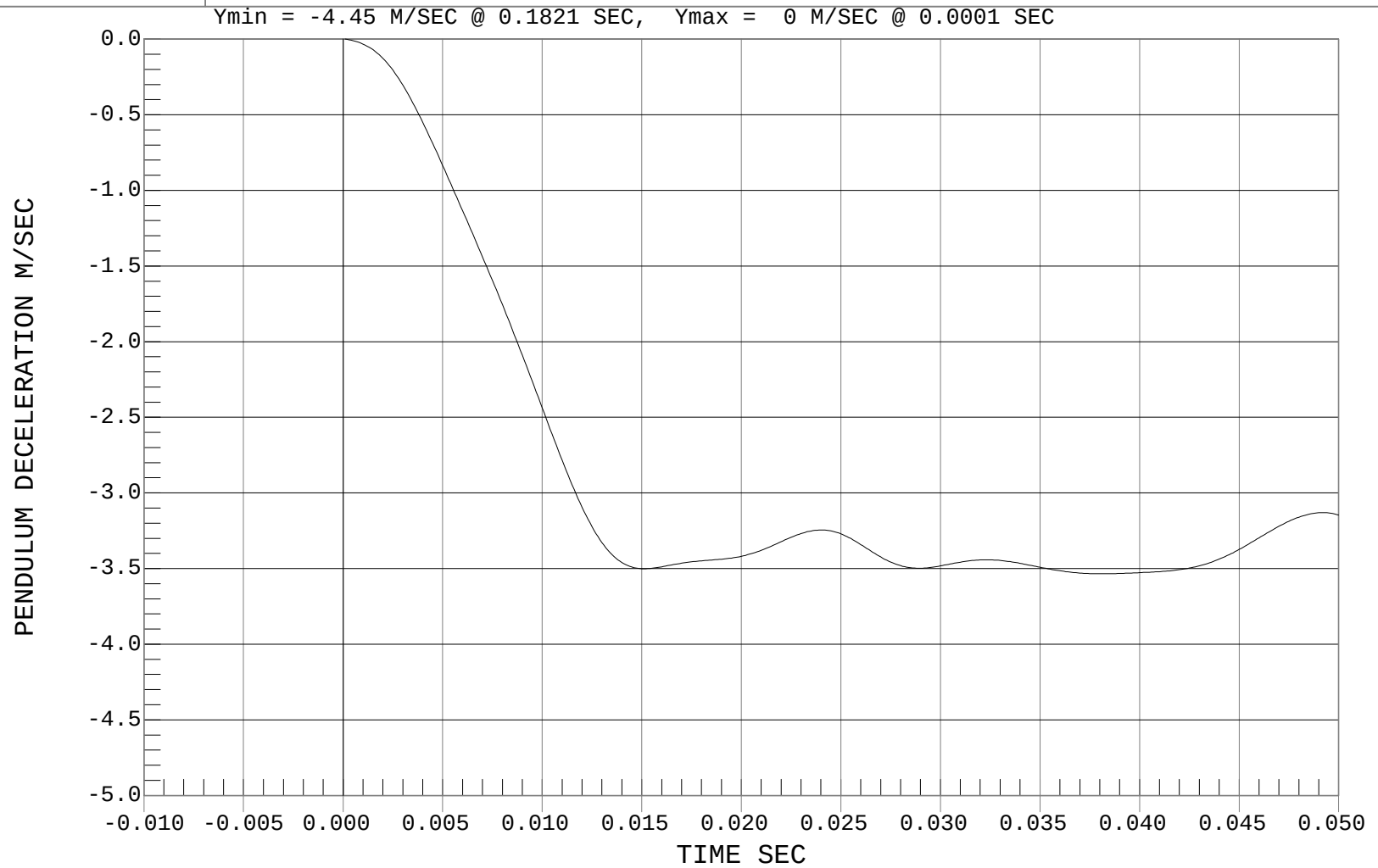


PENDULUM DECELERATION

Test Desc.: Dummy Calibration - Neck Bending
Component: Dummy #009

Test Date: 06-01-01
Speed: 11.20 FT/SEC, 3.41 M/SEC

— 1 PENDULUM DECELERATION, D01762AI.V04





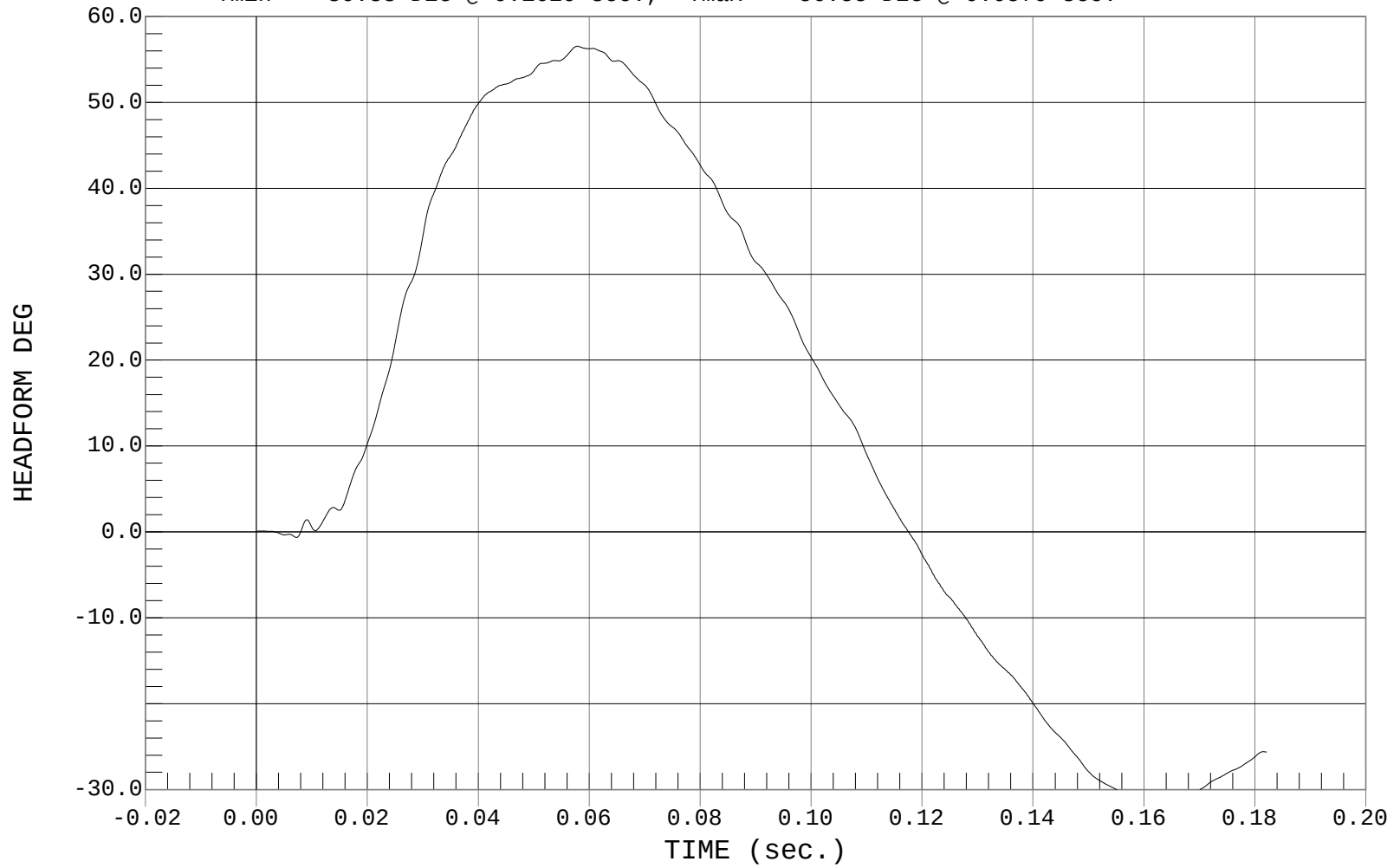
FLEXION ANGLE

Test Desc.: Dummy Calibration - Neck Bending
Component: Dummy #009

Test Date: 06-01-01
Speed: 11.20 FT/SEC, 3.41 M/SEC

— 1 HEADFORM, D01762DT.D08

Ymin = -30.83 DEG @ 0.1629 sec., Ymax = 56.55 DEG @ 0.0579 sec.





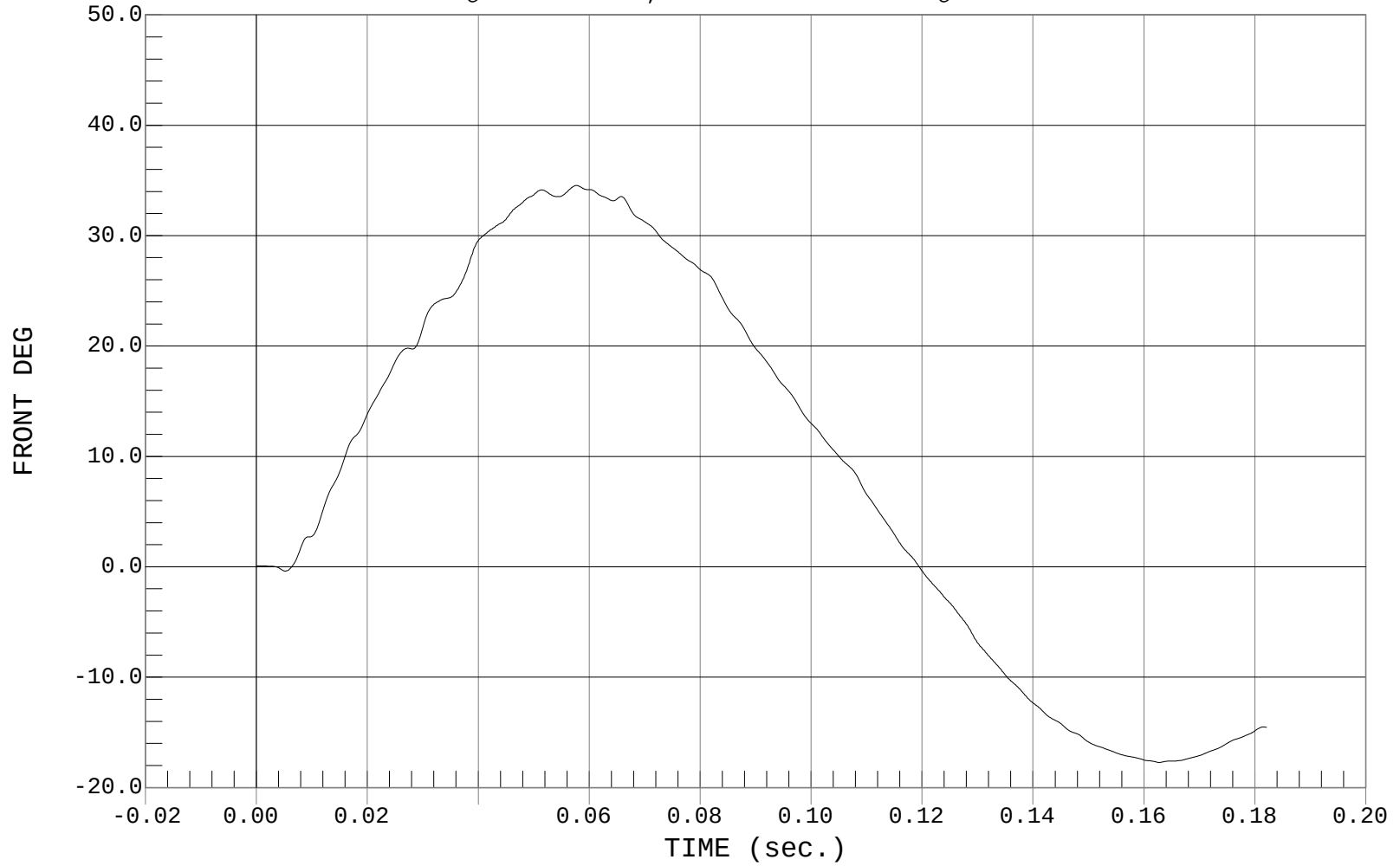
THETA A

Test Desc.: Dummy Calibration - Neck Bending
Component: Dummy #009

Test Date: 06-01-01
Speed: 11.20 FT/SEC, 3.41 M/SEC

— 1 FRONT, D01762DT.D05

Ymin = -17.73 DEG @ 0.1627 sec., Ymax = 34.54 DEG @ 0.0577 sec.





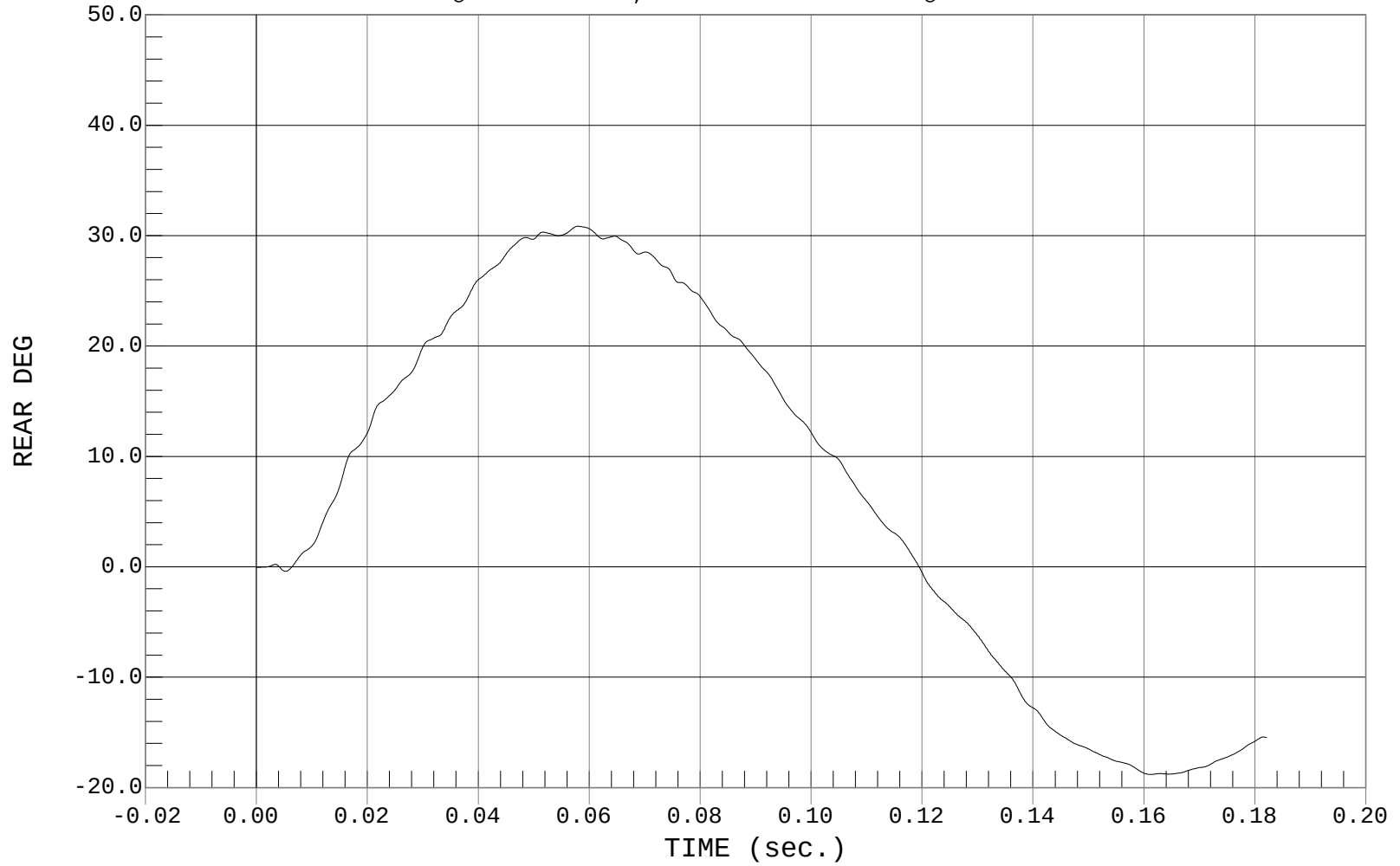
THETA B

Test Desc.: Dummy Calibration - Neck Bending
Component: Dummy #009

Test Date: 06-01-01
Speed: 11.20 FT/SEC, 3.41 M/SEC

— 1 REAR, D01762DT.D06

Ymin = -18.8 DEG @ 0.1612 sec., Ymax = 30.86 DEG @ 0.0579 sec.



MGA RESEARCH CORPORATION
SHOULDER IMPACT TEST
EUROSID 2 DUMMY

Date: 5/31/01

Dummy Serial Number: 009

Test Number: D01763

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18 – 22	22
Relative Humidity (%)	10 – 70	32
Pendulum Speed	4.2 – 4.4 m/s	4.2
Max. Resultant Acceleration	7.5 – 10.5 g's	9.5
Time of Max. Pendulum Acceleration		27.6 msec

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



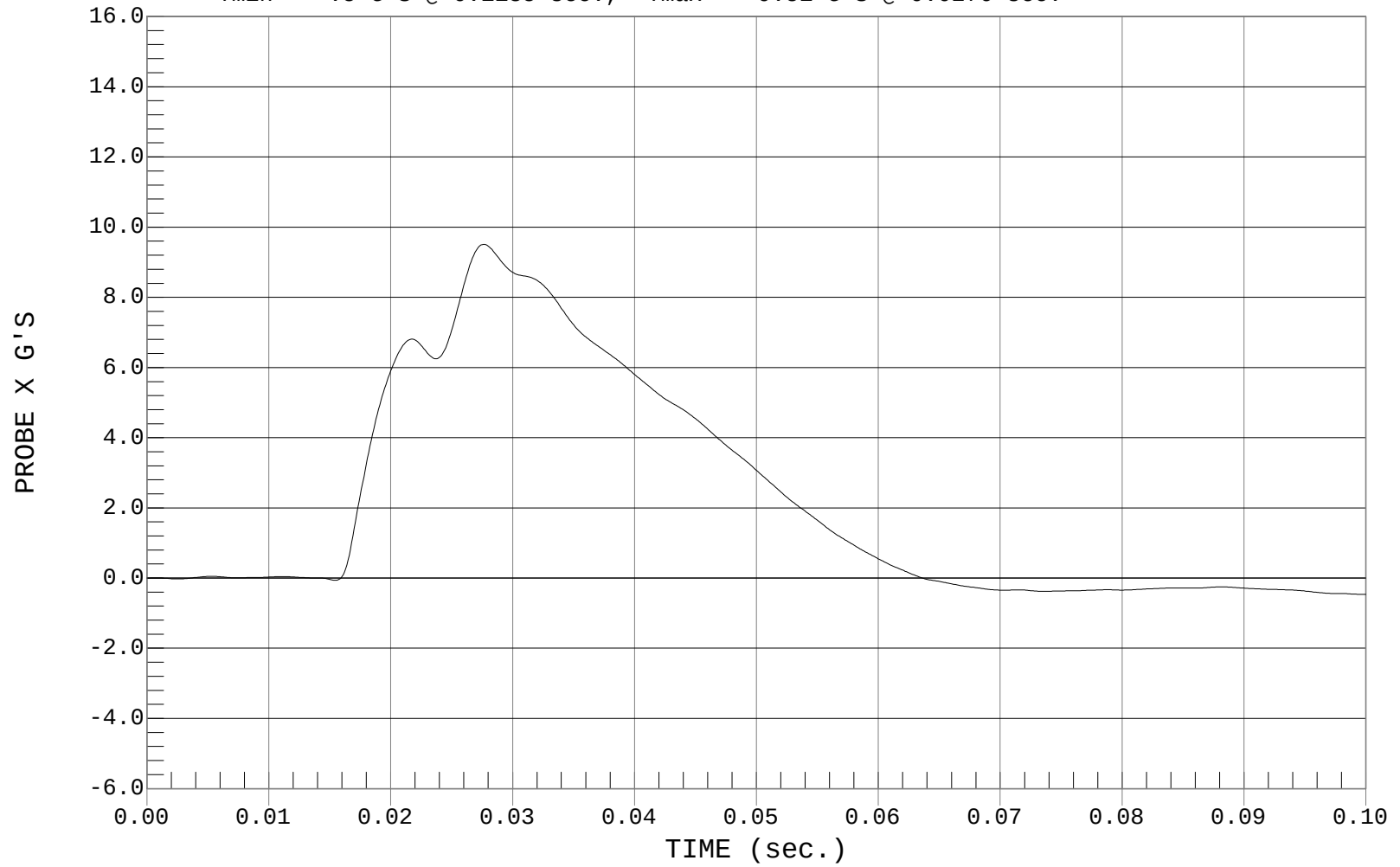
SHOULDER ACCELERATION

Test Desc.: Dummy Calibration - Shoulder Impact
Component: Dummy #009

Test Date: 05-31-01
Speed: 13.91 FT/SEC, 4.24 M/SEC

— 1 PROBE X, D01763AF.A01

Ymin = -.5 G'S @ 0.1135 sec., Ymax = 9.51 G'S @ 0.0276 sec.



MGA RESEARCH CORPORATION
UPPER/MIDDLE/LOWER RIB TESTS
SIDE IMPACT DUMMY (SID)

Date: 6/1/01
Dummy Serial Number: 009
Test Number: D01764/5/6

UPPER RIB - TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.6
Relative Humidity (%)	10 – 70	45
Displacement at 2 m/s	23.5 – 27.5 mm	23.8
Displacement at 3 m/s	36.0 – 40.0 mm	37.6
Displacement at 4 m/s	46.0 – 51.0 mm	50.0

MIDDLE RIB - TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.6
Relative Humidity (%)	10 – 70	45
Displacement at 2 m/s	23.5 – 27.5 mm	24.4
Displacement at 3 m/s	36.0 – 40.0 mm	38.0
Displacement at 4 m/s	46.0 – 51.0 mm	50.7

LOWER RIB - TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.6
Relative Humidity (%)	10 – 70	45
Displacement at 2 m/s	23.5 – 27.5 mm	24.5
Displacement at 3 m/s	36.0 – 40.0 mm	37.8
Displacement at 4 m/s	46.0 – 51.0 mm	49.8

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



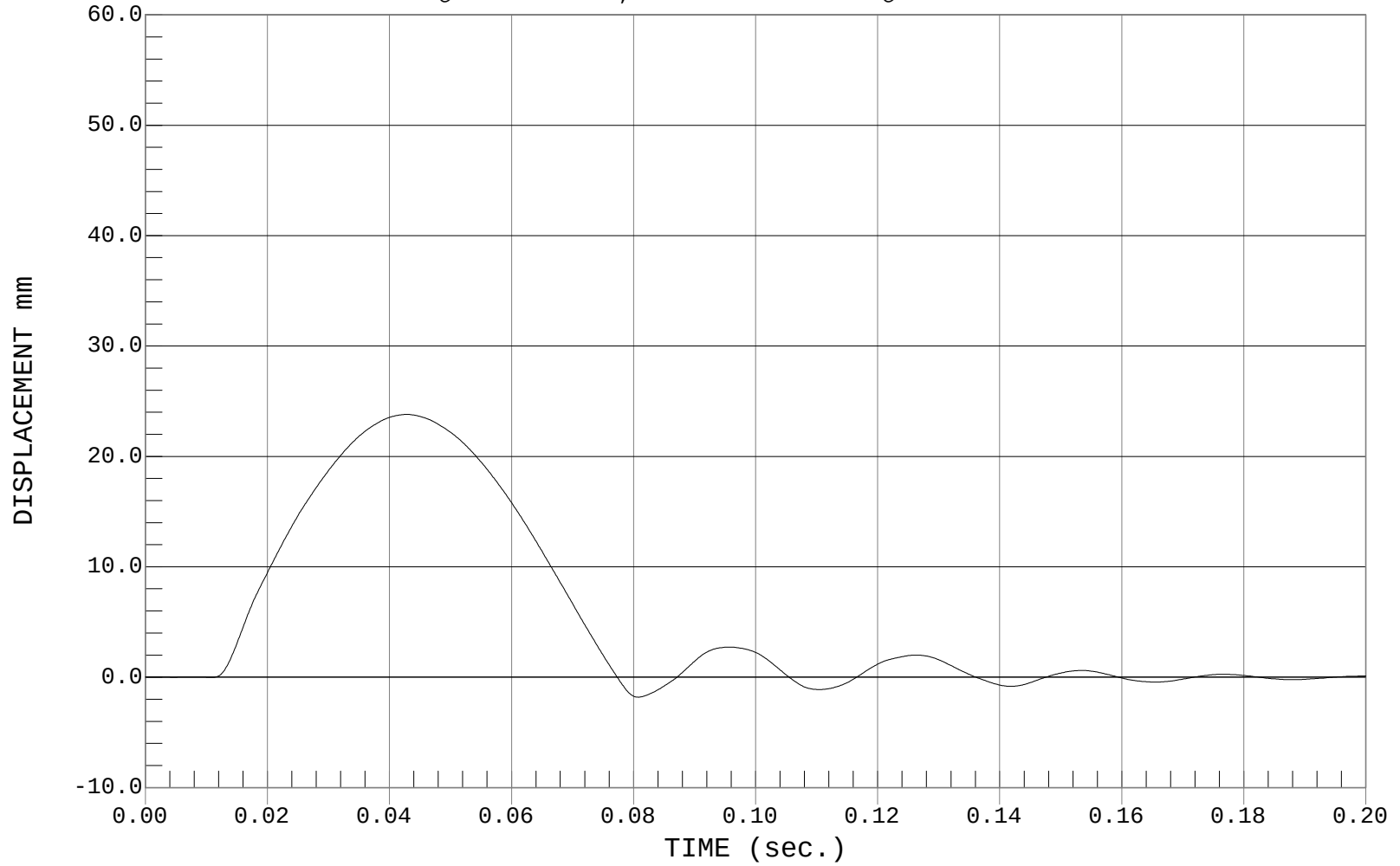
UPPER RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #009

Test Date: 06-01-01
Speed: 6.56 FT/SEC, 2.00 M/SEC

— 1 DISPLACEMENT, D01764DF.D05

Ymin = -1.81 mm @ 0.0808 sec., Ymax = 23.8 mm @ 0.0428 sec.





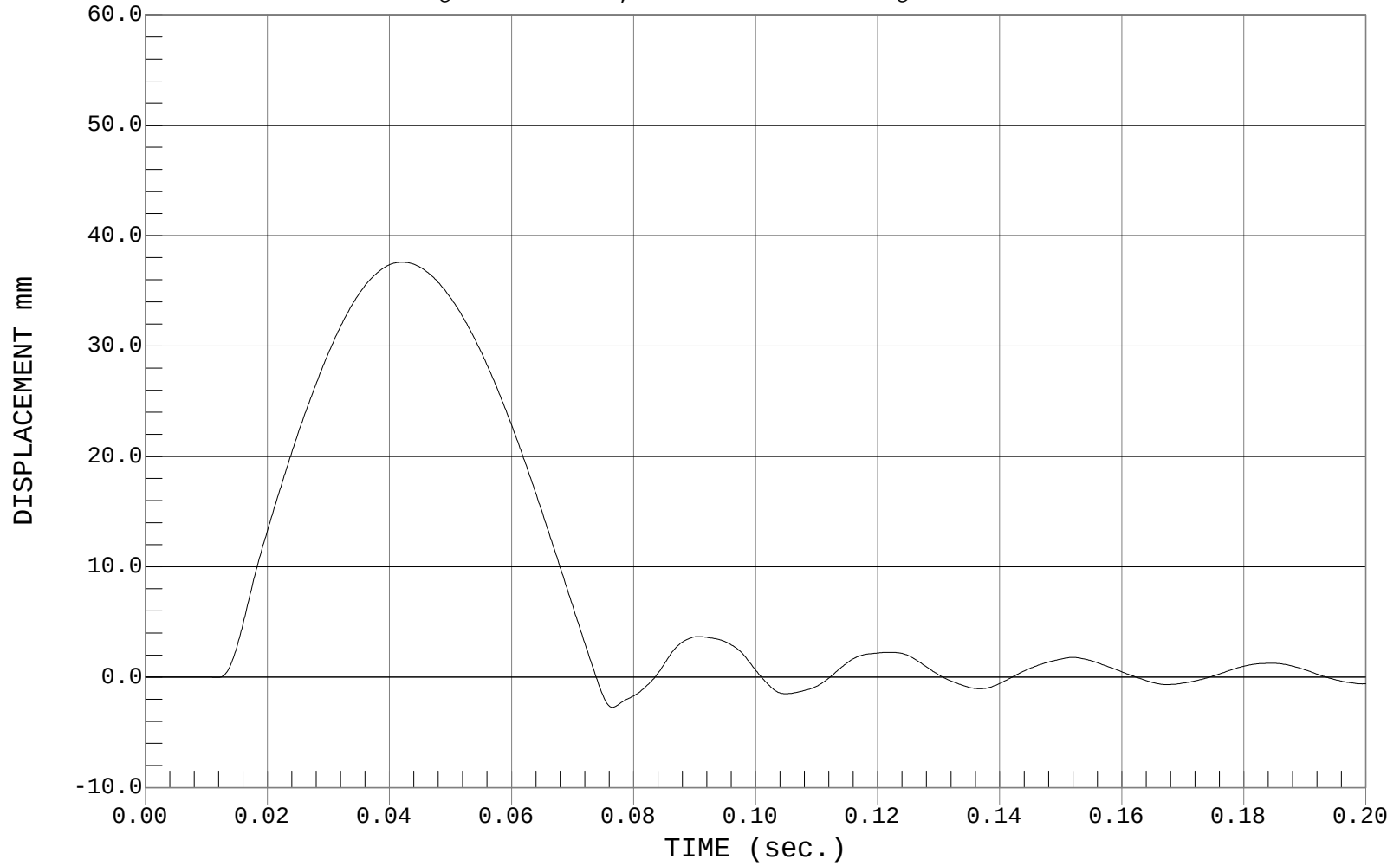
UPPER RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #009

Test Date: 06-01-01
Speed: 9.84 FT/SEC, 3.00 M/SEC

— 1 DISPLACEMENT, D01764DF.D06

Ymin = -2.73 mm @ 0.0765 sec., Ymax = 37.59 mm @ 0.0420 sec.





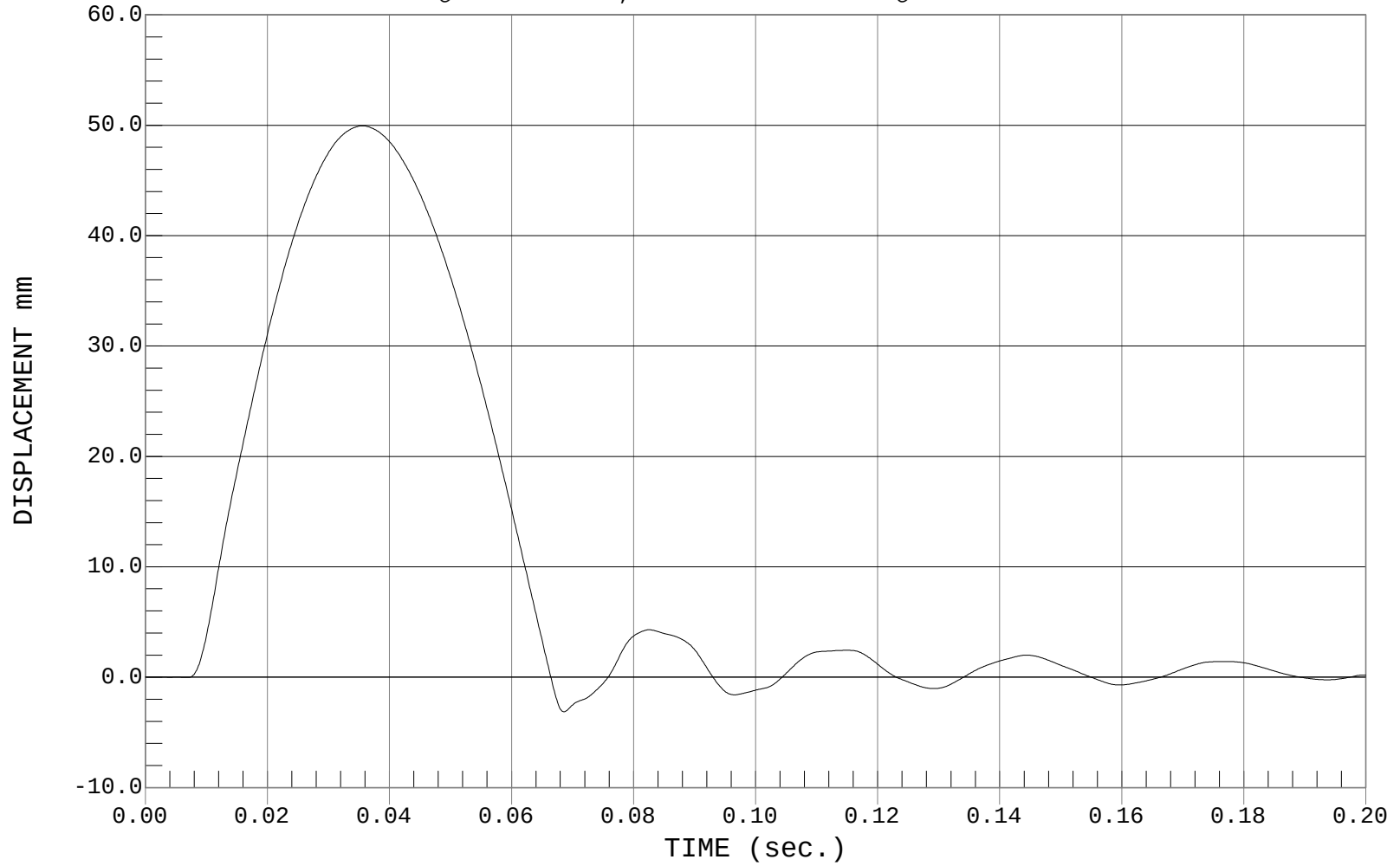
UPPER RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #009

Test Date: 06-01-01
Speed: 13.12 FT/SEC, 4.00 M/SEC

— 1 DISPLACEMENT, D01764DF.D07

Ymin = -3.14 mm @ 0.0686 sec., Ymax = 49.95 mm @ 0.0356 sec.





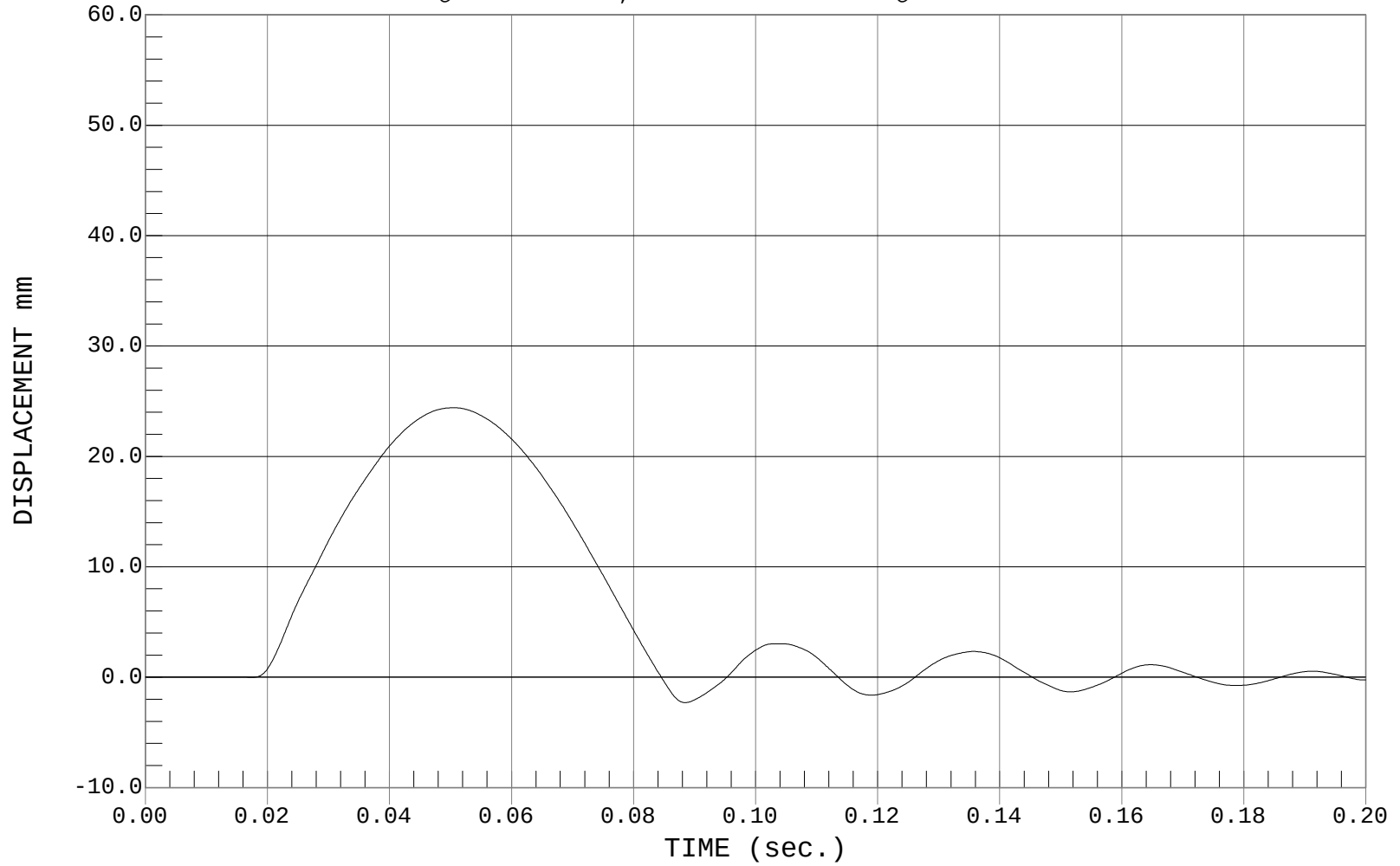
MIDDLE RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #009

Test Date: 06-01-01
Speed: 6.56 FT/SEC, 2.00 M/SEC

— 1 DISPLACEMENT, D01765DF.D05

Ymin = -2.31 mm @ 0.0884 sec., Ymax = 24.41 mm @ 0.0506 sec.





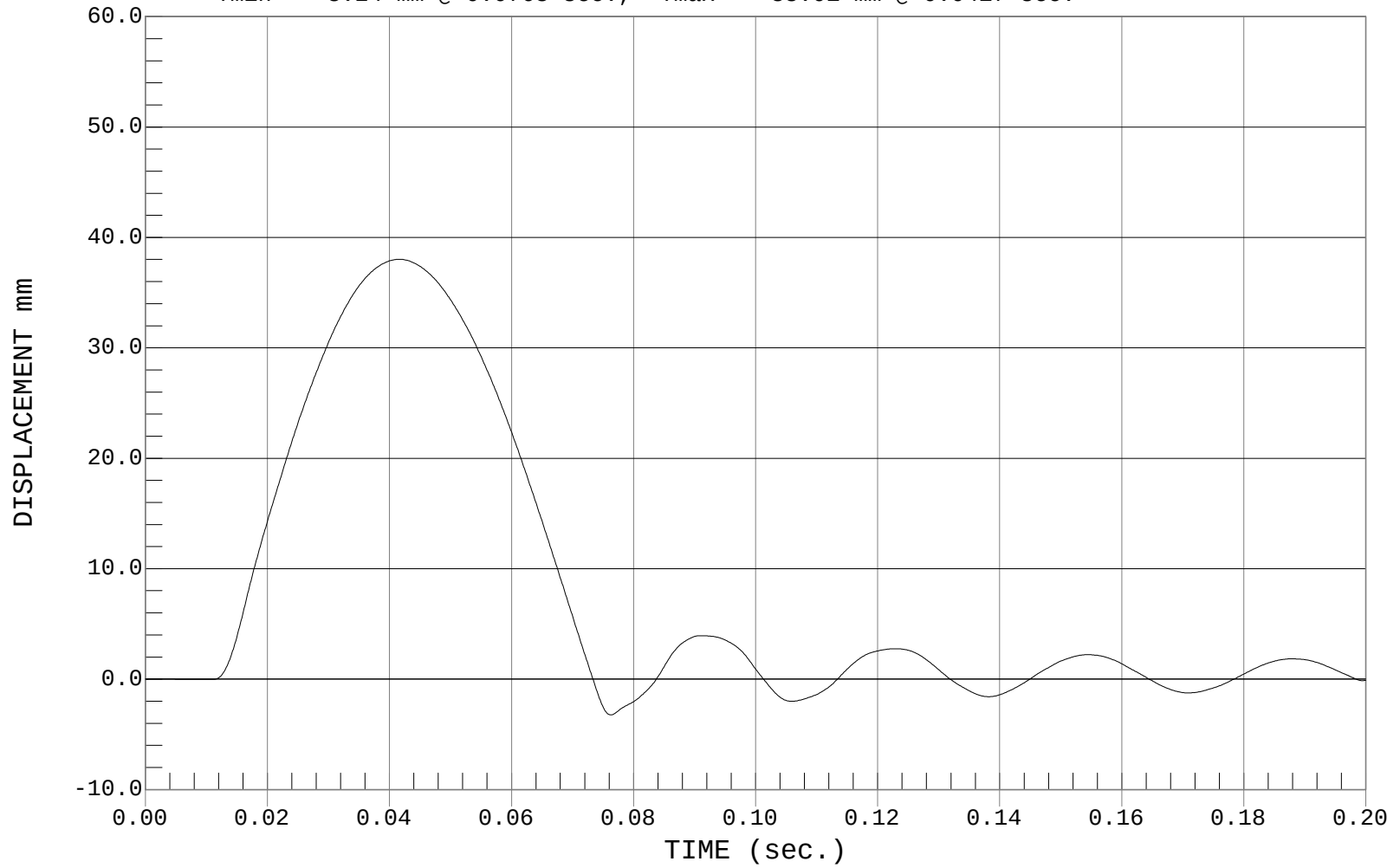
MIDDLE RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #009

Test Date: 06-01-01
Speed: 9.84 FT/SEC, 3.00 M/SEC

— 1 DISPLACEMENT, D01765DF.D06

Ymin = -3.24 mm @ 0.0763 sec., Ymax = 38.01 mm @ 0.0417 sec.





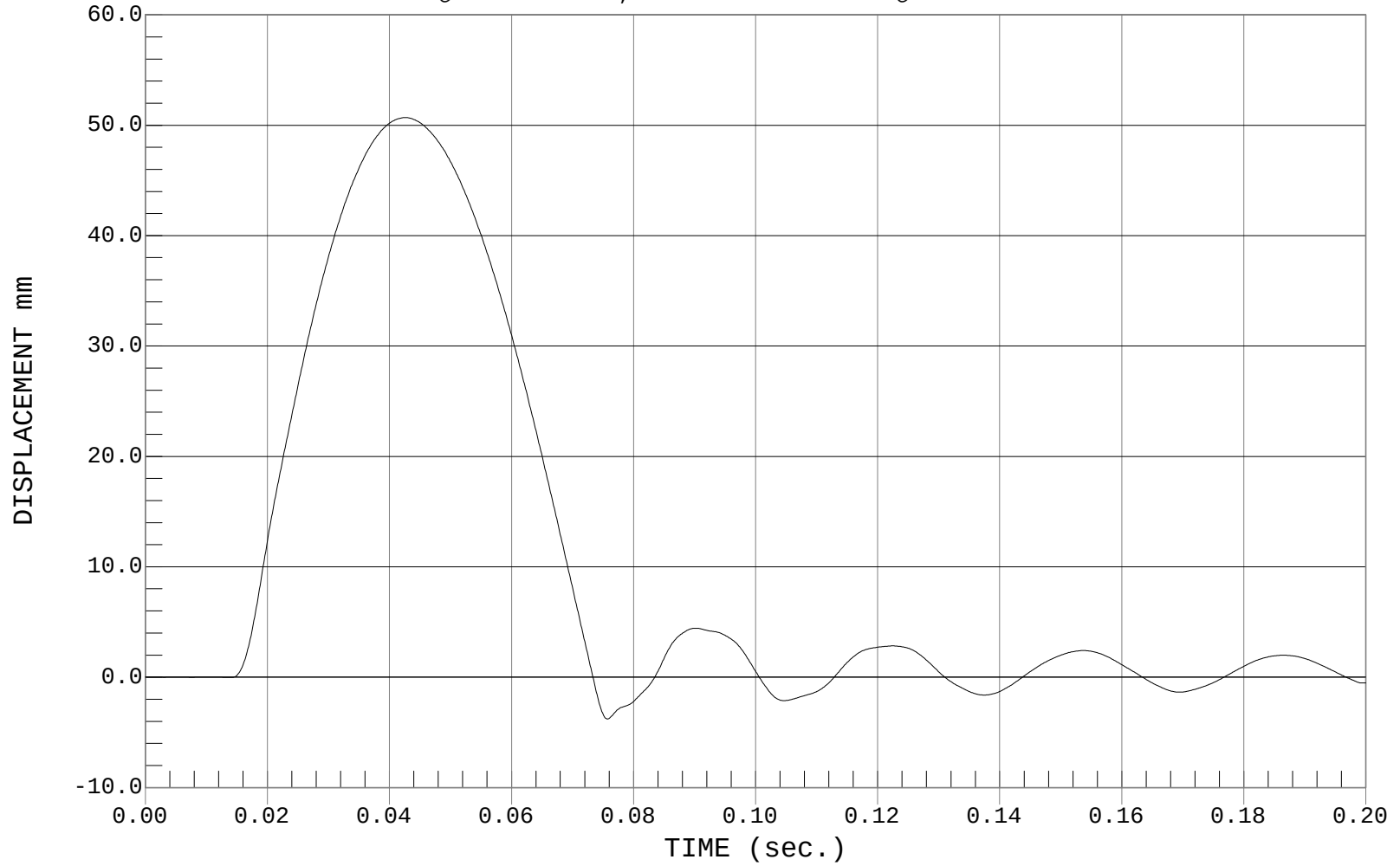
MIDDLE RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #009

Test Date: 06-01-01
Speed: 13.12 FT/SEC, 4.00 M/SEC

— 1 DISPLACEMENT, D01765DF.D07

Ymin = -3.78 mm @ 0.0757 sec., Ymax = 50.69 mm @ 0.0426 sec.





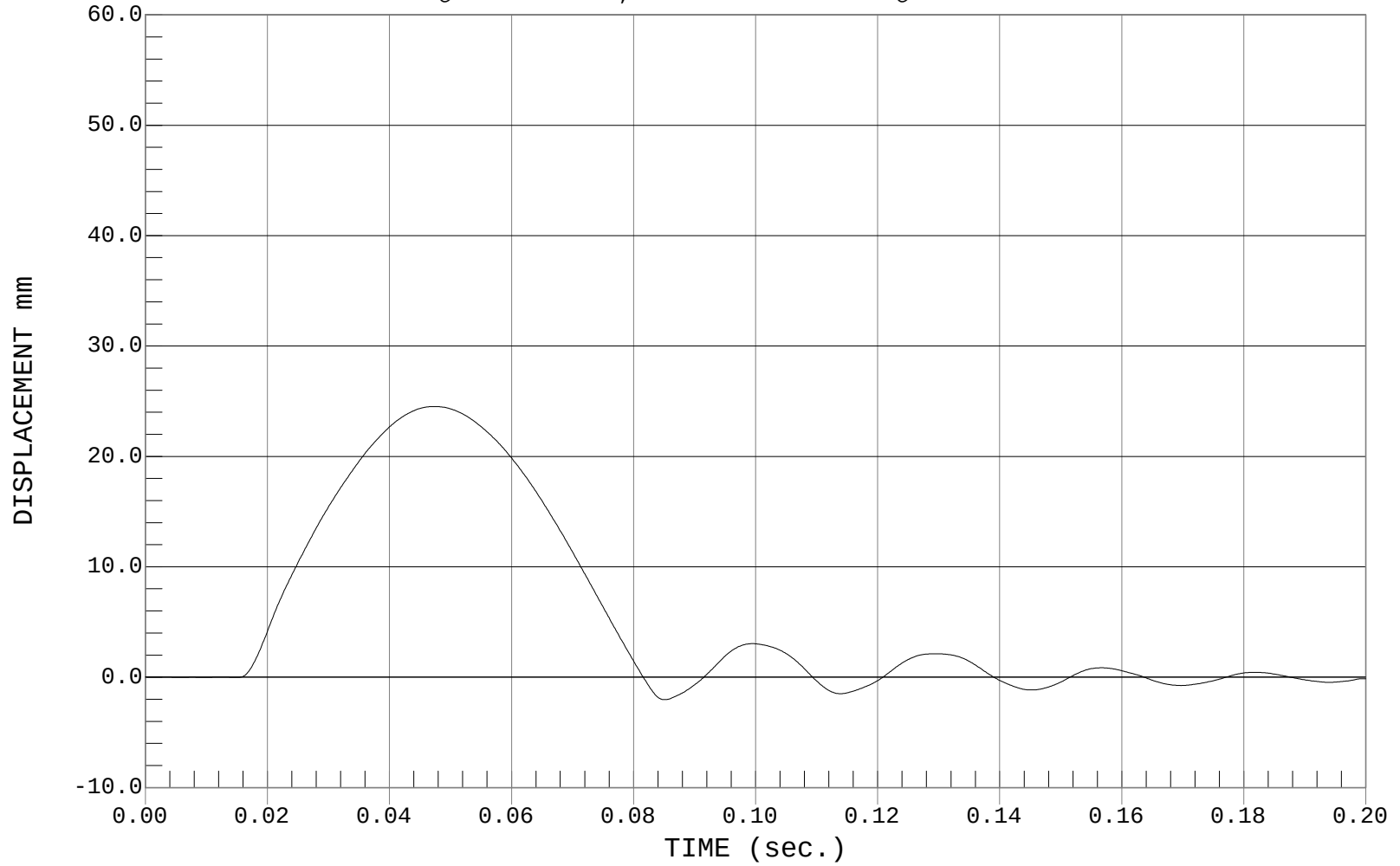
LOWER RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #009

Test Date: 06-01-01
Speed: 6.56 FT/SEC, 2.00 M/SEC

— 1 DISPLACEMENT, D01766DF.D05

Ymin = -2.04 mm @ 0.0851 sec., Ymax = 24.51 mm @ 0.0473 sec.





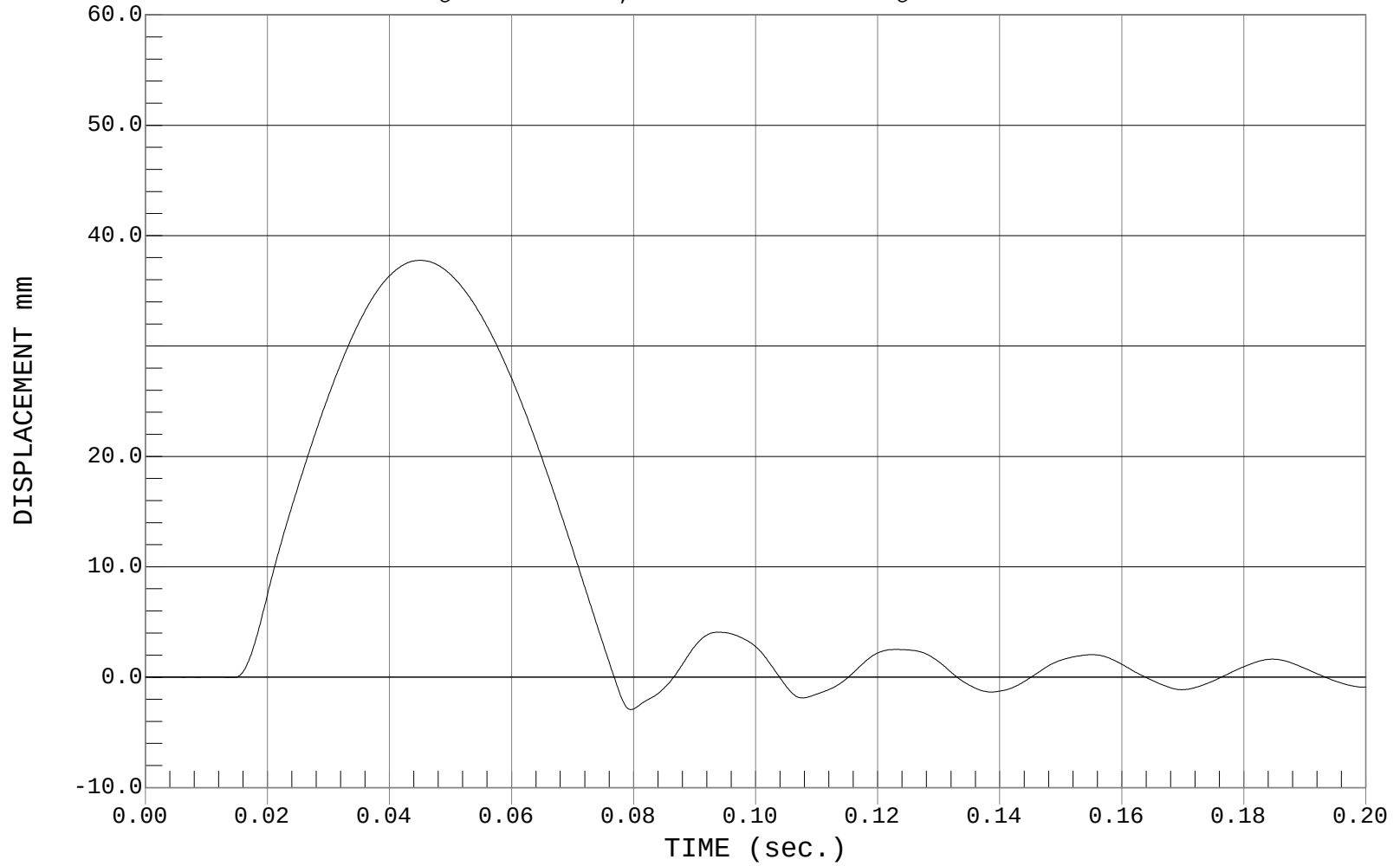
LOWER RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #009

Test Date: 06-01-01
Speed: 9.84 FT/SEC, 3.00 M/SEC

— 1 DISPLACEMENT, D01766DF.D06

Ymin = -2.94 mm @ 0.0796 sec., Ymax = 37.75 mm @ 0.0451 sec.





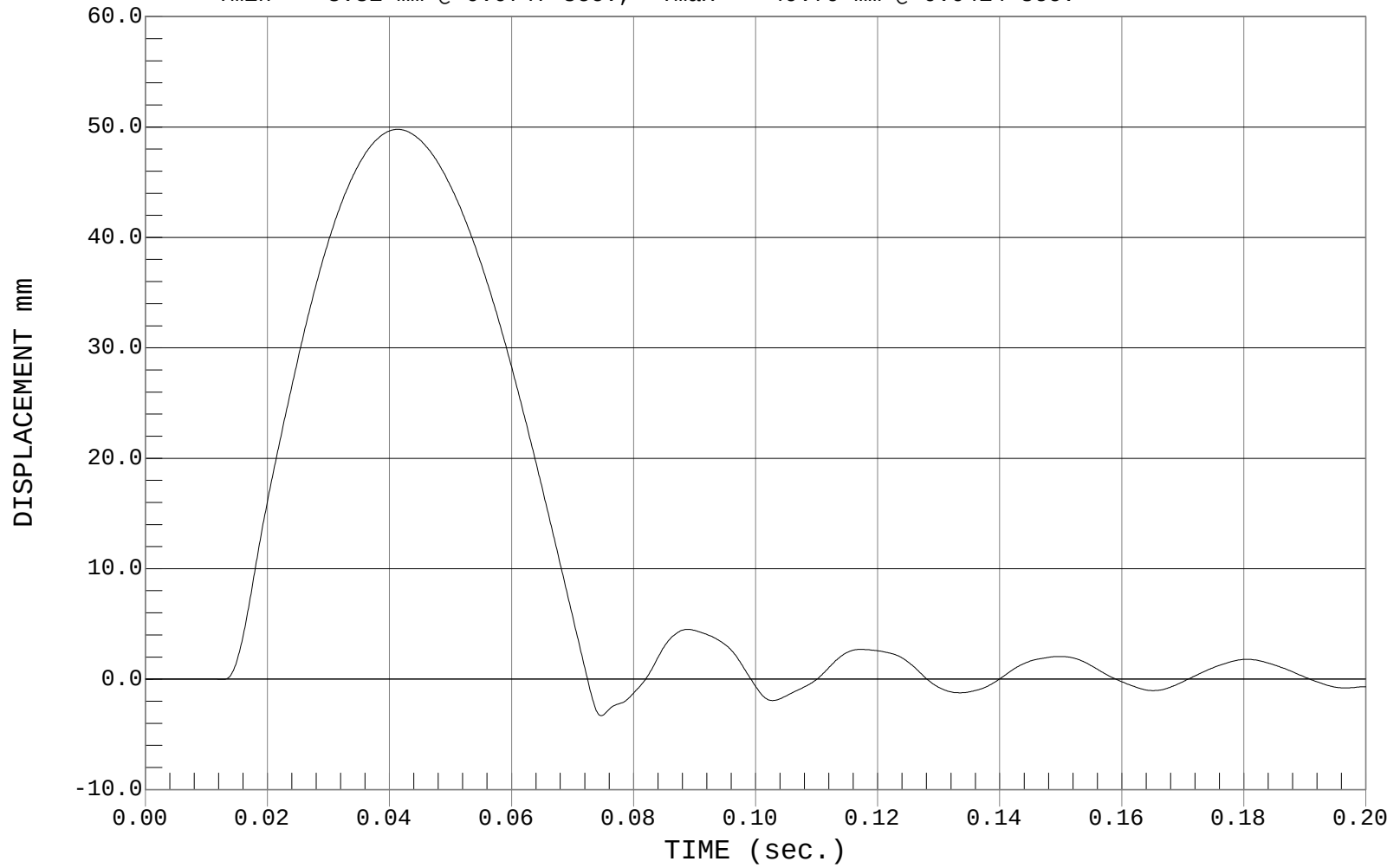
LOWER RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #009

Test Date: 06-01-01
Speed: 13.12 FT/SEC, 4.00 M/SEC

— 1 DISPLACEMENT, D01766DF.D07

Ymin = -3.31 mm @ 0.0747 sec., Ymax = 49.79 mm @ 0.0414 sec.



MGA RESEARCH CORPORATION
ABDOMEN TEST
EUROSID 2 DUMMY

Date: 5/31/01

Dummy Serial Number: 009

Test Number: D01767

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18 – 22	22
Relative Humidity (%)	10 – 70	33
Probe Speed (m/s)	3.90 – 4.10	3.96
Maximum Impact Force	4.00 – 4.80 kN	4.52
Time of Maximum Force	10.60 – 13.00 ms	10.70
Maximum Total Abdomen Force	2.20 – 2.70 kN	2.22
Time of Max. Total Force	10.00 – 12.30 ms	10.30

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



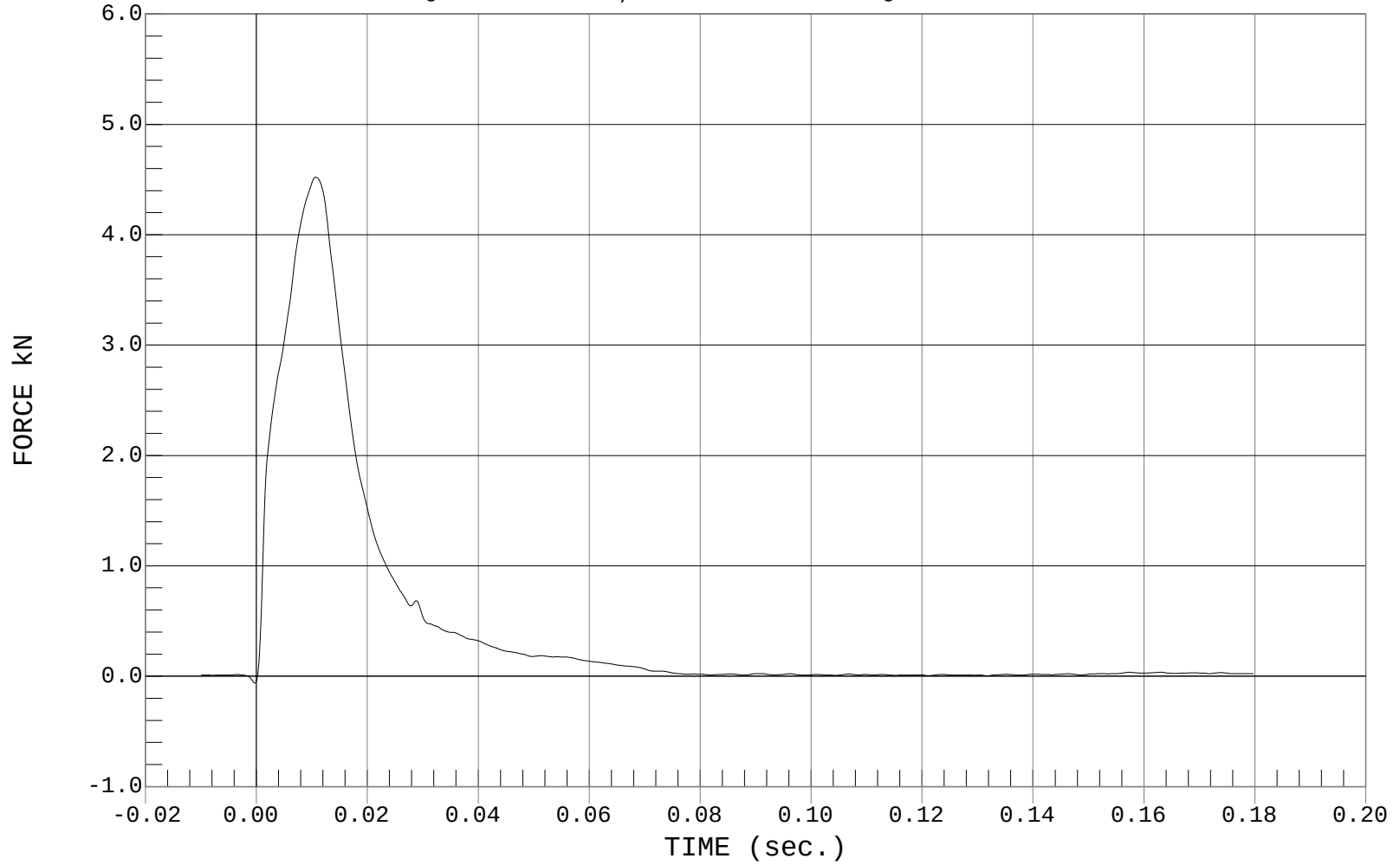
IMPACTOR FORCE

Test Desc.: Dummy Calibration - Abdomen Impact
Component: Dummy #009

Test Date: 05-31-01
Speed: 12.98 FT/SEC, 3.96 M/SEC

— 1 FORCE, D01767FT.F01

Ymin = -.06 kN @ -0.0002 sec., Ymax = 4.52 kN @ 0.0107 sec.





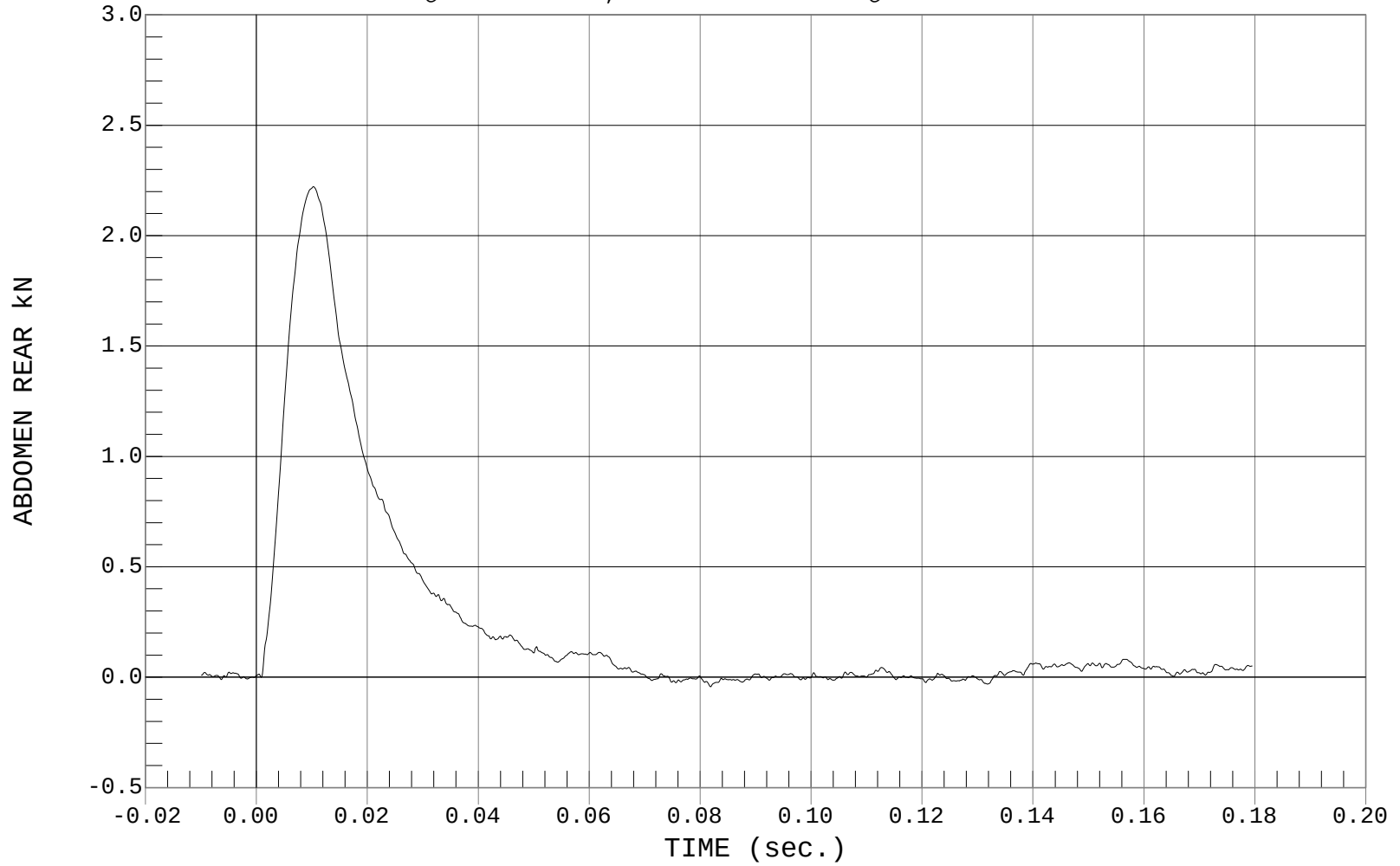
ABDOMEN FORCE

Test Desc.: Dummy Calibration - Abdomen Impact
Component: Dummy #009

Test Date: 05-31-01
Speed: 12.98 FT/SEC, 3.96 M/SEC

— 1 ABDOMEN REAR, D01767FT.F02

Ymin = -.04 kN @ 0.0819 sec., Ymax = 2.22 kN @ 0.0103 sec.



MGA RESEARCH CORPORATION
LUMBAR SPINE TEST
EUROSID 2 DUMMY

Date: 6/1/01
Dummy Serial Number: 009
Test Number: D01768

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature (°C)		18 – 22	22
Relative Humidity (%)		10 – 70	43
Pendulum Speed		5.95 – 6.15	6.11
Pendulum Deceleration	10 msec	2.46 - 1.59 m/sec	-1.95
	20 msec	5.25 - 4.07 m/sec	-4.42
	25 msec	6.64 - 5.30 m/sec	-5.54
	30 msec	≥ -6.50 m/sec	-6.12
Maximum Flexion Angle		45.0 – 55.0 deg	50.7
Time of Max. Flexion Angle		39.0 – 53.0 ms	44.0
Maximum Angle Theta (A)		31.0 – 35.0 deg	32.2
Time of Max. Theta (A)		44.0 – 52.0 ms	44.3
Maximum Angle Theta (B)		27.76– 30.26 deg	28.35
Time of Max. Theta (B)		44.0 – 52.0 ms	49.0

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



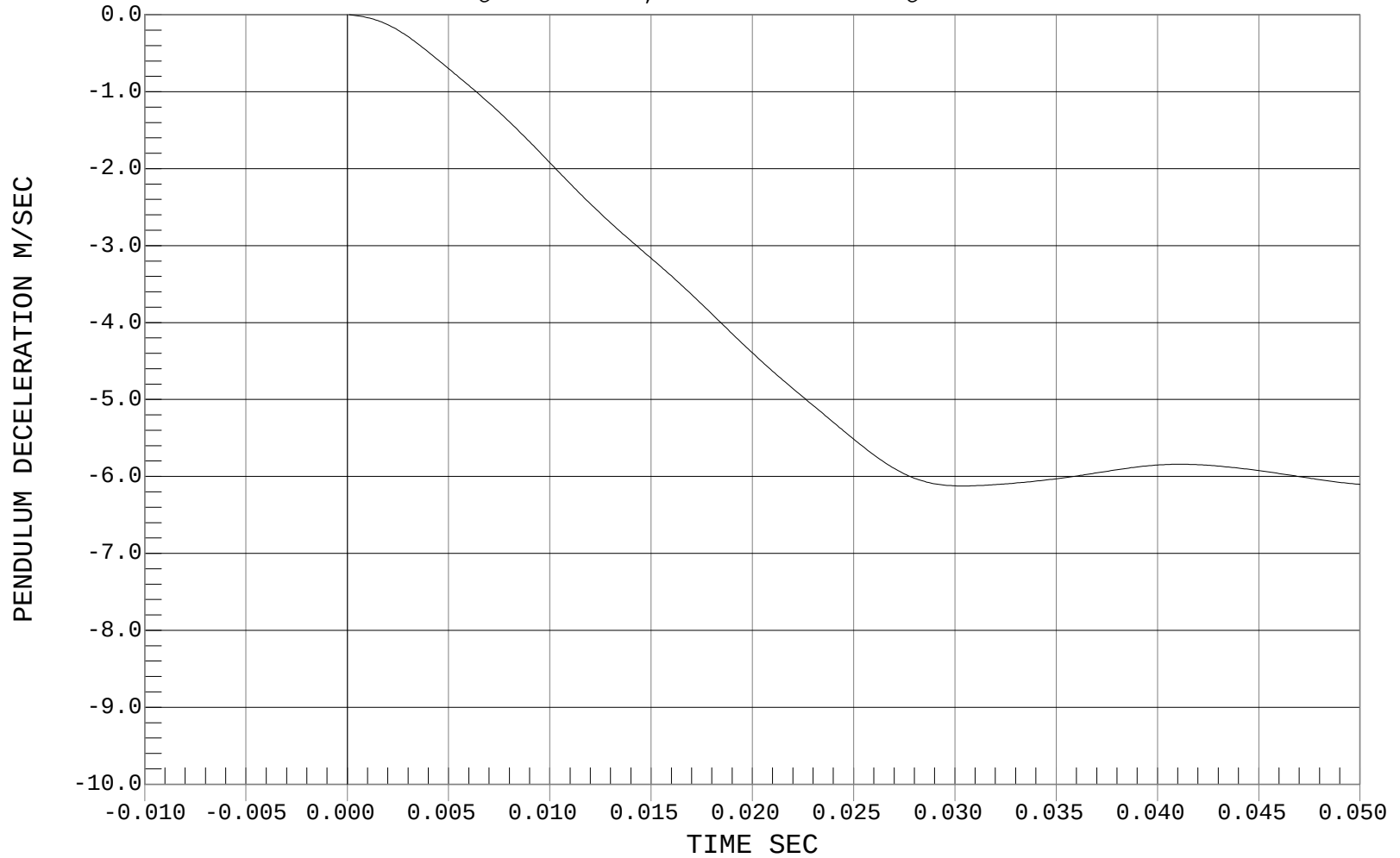
PENDULUM DECELERATION

Test Desc.: Dummy Calibration - LUMBAR FLEXION
Component: Dummy #009

Test Date: 06-01-01
Speed: 20.03 FT/SEC, 6.11 M/SEC

— 1 PENDULUM DECELERATION, D01768AI.V04

Ymin = -7.45 M/SEC @ 0.1373 SEC, Ymax = 0 M/SEC @ 0.0001 SEC





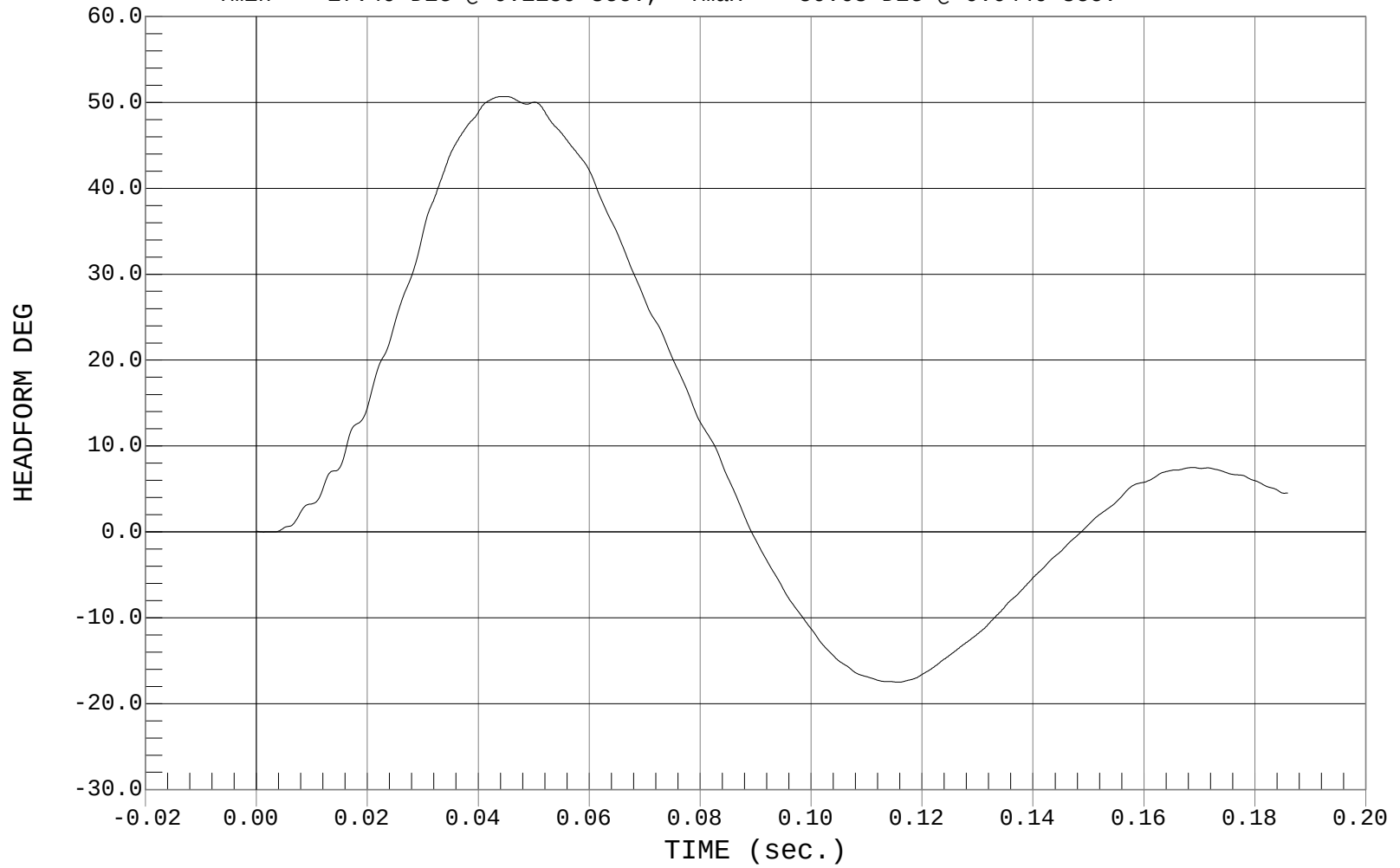
FLEXION ANGLE

Test Desc.: Dummy Calibration - LUMBAR FLEXION
Component: Dummy #009

Test Date: 06-01-01
Speed: 20.03 FT/SEC, 6.11 M/SEC

— 1 HEADFORM, D01768DT.D08

Ymin = -17.49 DEG @ 0.1159 sec., Ymax = 50.68 DEG @ 0.0440 sec.



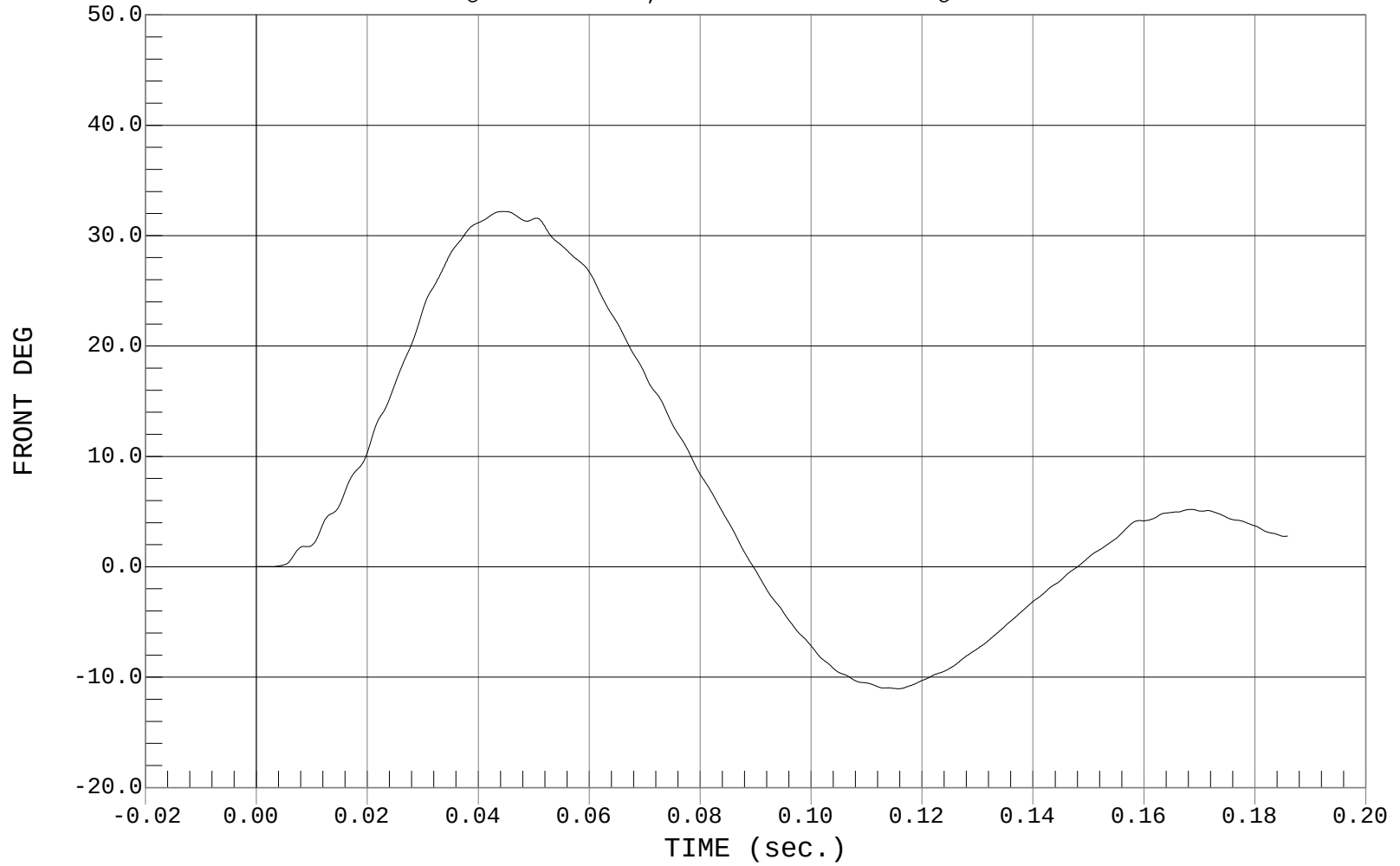


THETA A

Test Desc.: Dummy Calibration - LUMBAR FLEXION
Component: Dummy #009

Test Date: 06-01-01
Speed: 20.03 FT/SEC, 6.11 M/SEC

Ymin = -11.05 DEG @ 0.1159 sec., Ymax = 32.19 DEG @ 0.0443 sec.





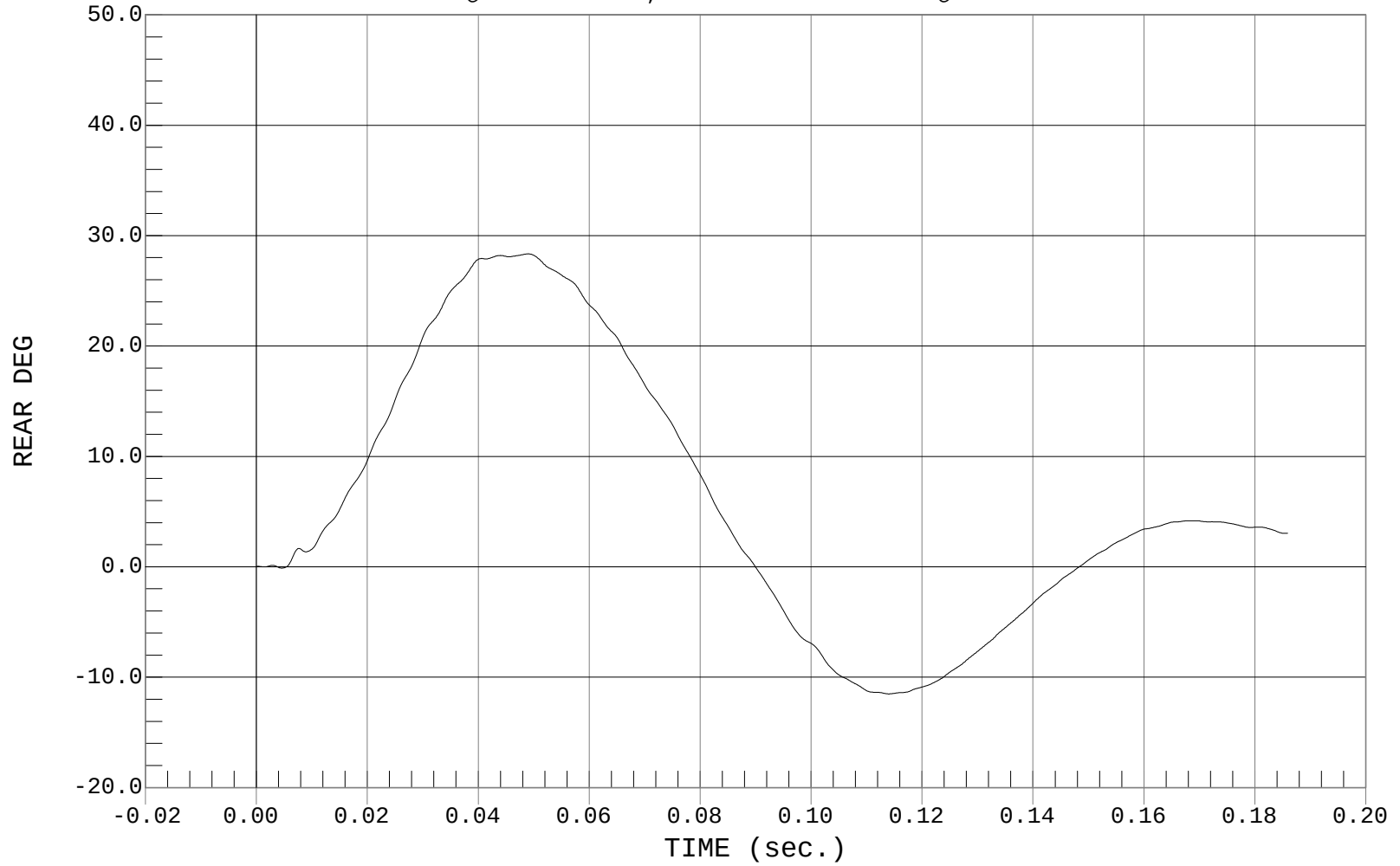
THETA B

Test Desc.: Dummy Calibration - LUMBAR FLEXION
Component: Dummy #009

Test Date: 06-01-01
Speed: 20.03 FT/SEC, 6.11 M/SEC

— 1 REAR, D01768DT.D06

Ymin = -11.51 DEG @ 0.1140 sec., Ymax = 28.35 DEG @ 0.0490 sec.



MGA RESEARCH CORPORATION
PELVIS TEST
EUROSID 2 DUMMY

Date: 5/31/01

Dummy Serial Number: 009

Test Number: D01769

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18 – 22	22
Relative Humidity (%)	10 – 70	32
Pendulum Speed	6.20 – 6.30 m/s	6.26
Maximum Impactor Force	9.80 – 12.20 kN	10.25
Time of Max. Impactor Force	9.50 – 12.50 ms	11.70
Maximum Pubic Force	2.65 – 3.35 kN	3.20
Time of Max. Pubic Force	10.00 – 13.00 ms	12.00

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



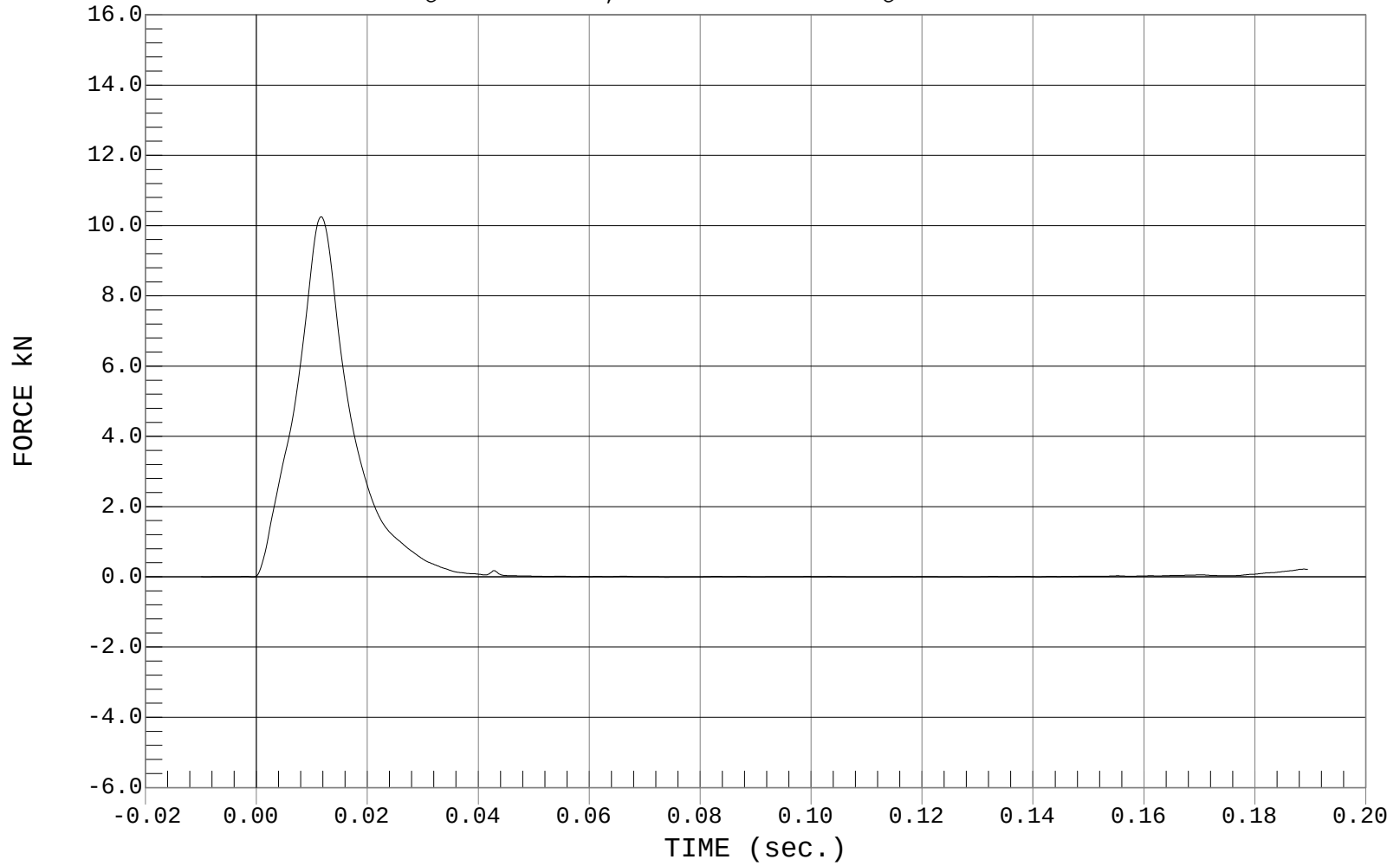
IMPACTOR FORCE

Test Desc.: Dummy Calibration - Pelvis Impact
Component: Dummy #009

Test Date: 05-31-01
Speed: 20.53 FT/SEC, 6.26 M/SEC

— 1 FORCE, D01769FT.F01

Ymin = -.01 kN @ 0.0740 sec., Ymax = 10.25 kN @ 0.0117 sec.





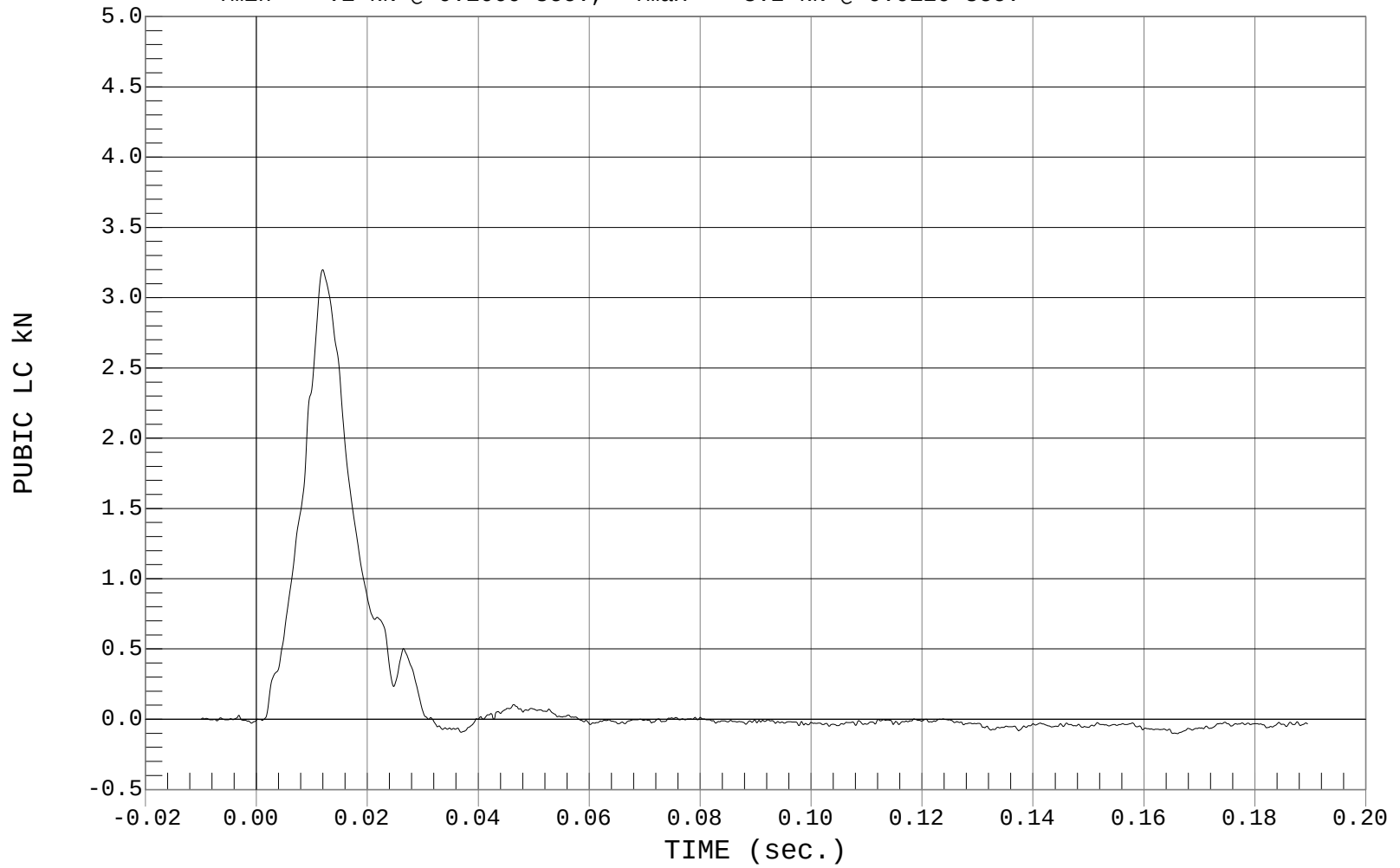
PUBIC FORCE

Test Desc.: Dummy Calibration - Pelvis Impact
Component: Dummy #009

Test Date: 05-31-01
Speed: 20.53 FT/SEC, 6.26 M/SEC

— 1 PUBIC LC, D01769FT.F02

Ymin = -.1 kN @ 0.1660 sec., Ymax = 3.2 kN @ 0.0120 sec.



CERTIFICATION DATA

Dummy Serial Number: 010

Calibration Test Results Summary

Dummy Serial Number: 010

Pre-Test Calibration

Head Drop Test:	The head passed all drop test requirements.
Neck Pendulum Test:	The neck passed all impact test requirements.
Shoulder Impact Test:	The shoulder passed all impact test requirements.
Rib Tests:	All ribs passed all impact test requirements.
Abdomen Test:	The abdomen passed all impact test requirements.
Lumbar Spine Test:	The lumbar spine passed all impact test requirements.
Pelvis Test:	The pelvis passed all impact test requirements.

MGA RESEARCH CORPORATION
HEAD DROP TEST
EUROSID 2 DUMMY

Date: 6/1/01
Dummy Serial Number: 010
Test Number: D01771

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18 – 22	22
Relative Humidity (%)	10 – 70	44
Peak Resultant Acceleration	100 – 150 g's	141
Time of Max. Res. Acceleration		23.8 msec

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



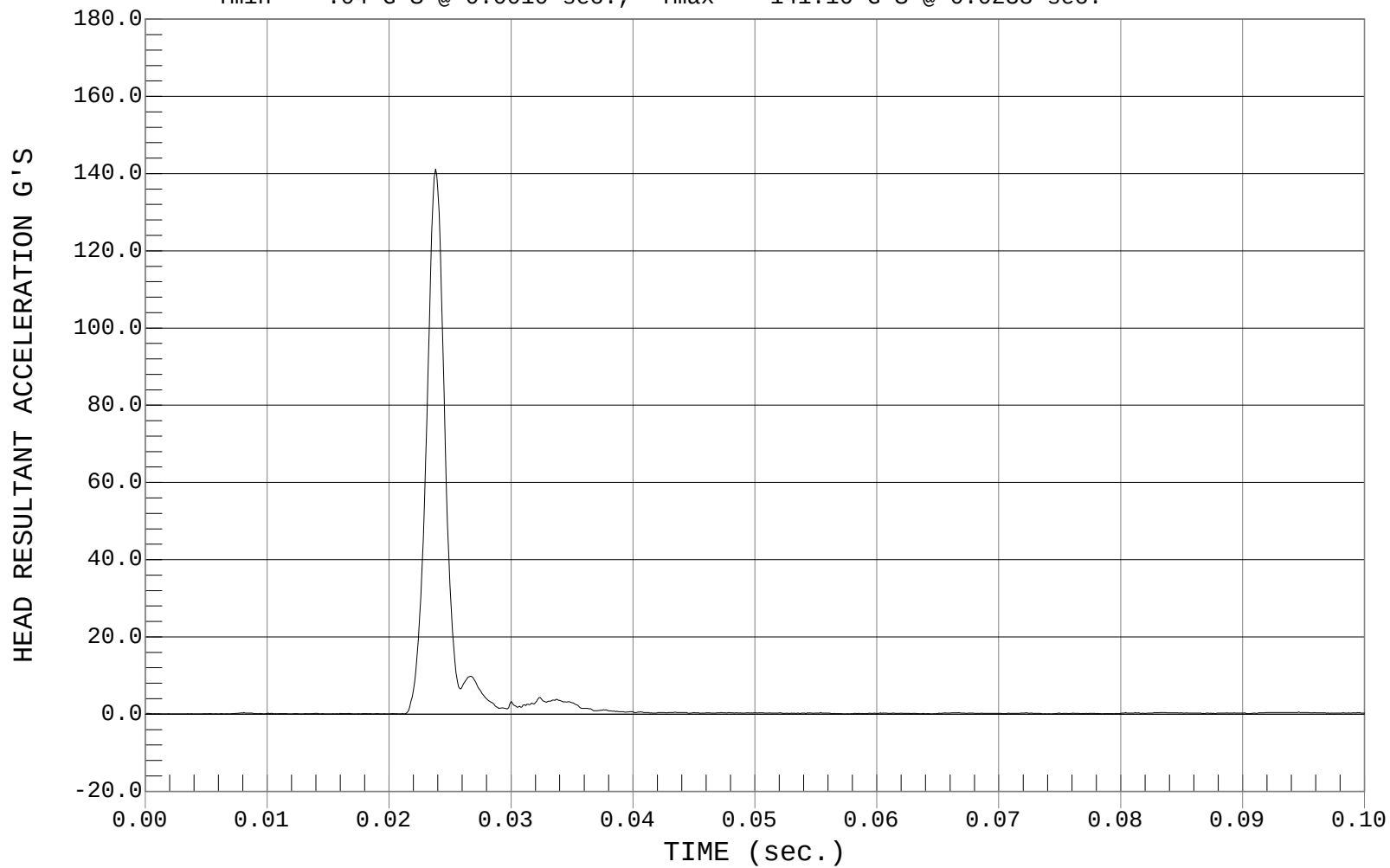
PEAK RESULTANT ACCELERATION

Test Desc.: Dummy Calibration - Head Drop
Component: Dummy #010

Test Date: 06-01-01
Speed: 0.00 FT/SEC, 0.00 M/SEC

— 1 HEAD RESULTANT ACCELERATION, D01771AV.A01

Ymin = .04 G'S @ 0.0010 sec., Ymax = 141.16 G'S @ 0.0238 sec.



MGA RESEARCH CORPORATION
NECK PENDULUM TEST
EUROSID 2 DUMMY

Date: 6/1/01
Dummy Serial Number: 010
Test Number: D01772

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature (°C)		18 – 22	22
Relative Humidity (%)		10 – 70	44
Pendulum Speed		3.3 - 3.5	3.4
Pendulum Deceleration	3 msec	~.25 - ~.53 m/sec	-.35
	8 msec	~1.59 - ~2.04 m/sec	-1.74
	14 msec	~3.20 - ~3.85 m/sec	-3.39
Maximum Flexion Angle		49.0 – 59.0 deg	58.0
Time of Max. Flexion Angle		54.0 – 66.0 ms	59.5
Maximum Angle Theta (A)		32.0 – 37.0 deg	34.8
Time of Max. Theta (A)		53.0 – 63.0 ms	53.1
Maximum Angle Theta (B)		29.93 – 32.44 deg	31.12
Time of Max. Theta (B)		54.0 – 64.0 ms	59.1

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____

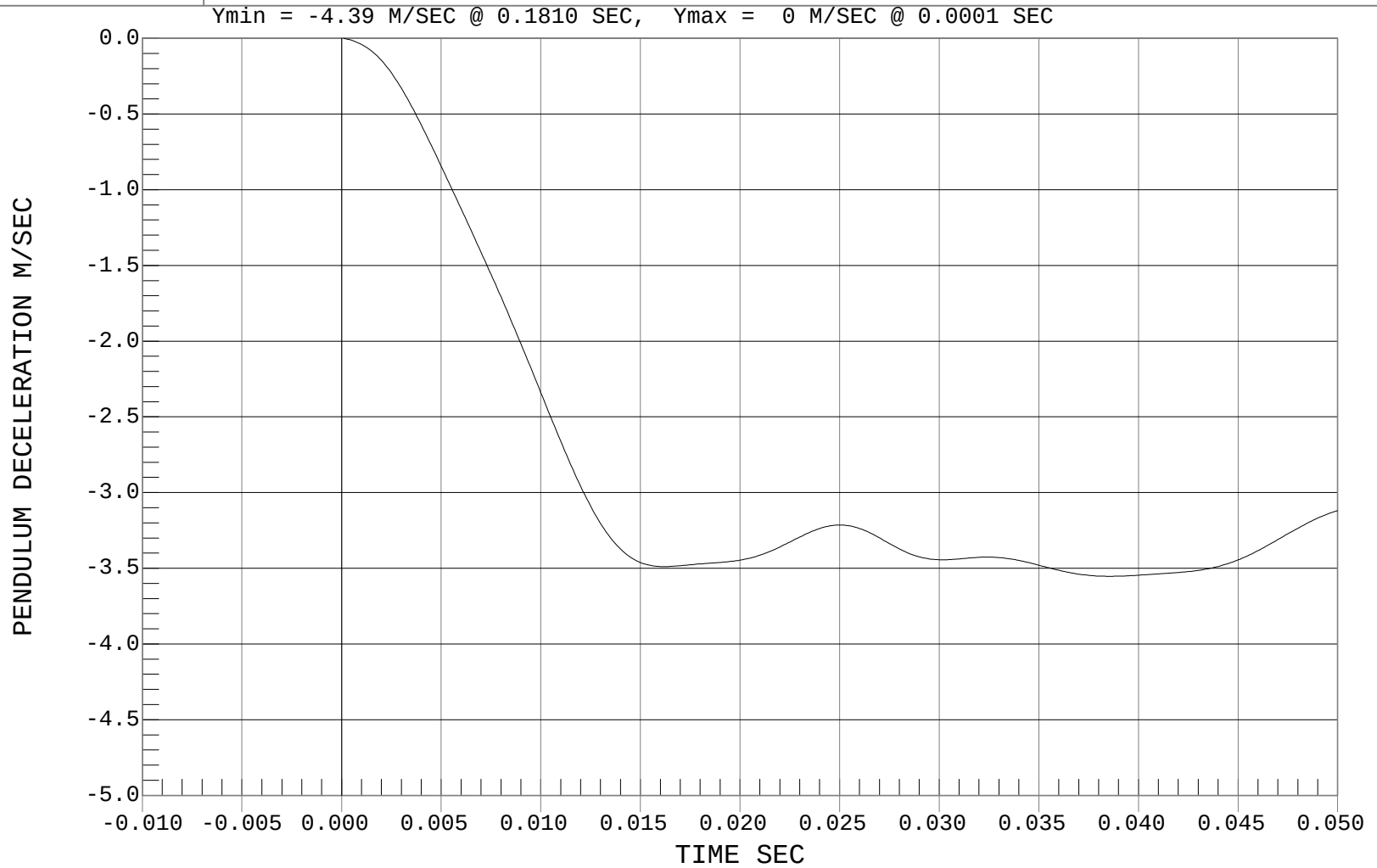


PENDULUM DECELERATION

Test Desc.: Dummy Calibration - Neck Bending
Component: Dummy #010

Test Date: 06-01-01
Speed: 11.23 FT/SEC, 3.42 M/SEC

— 1 PENDULUM DECELERATION, D01772AI.V04





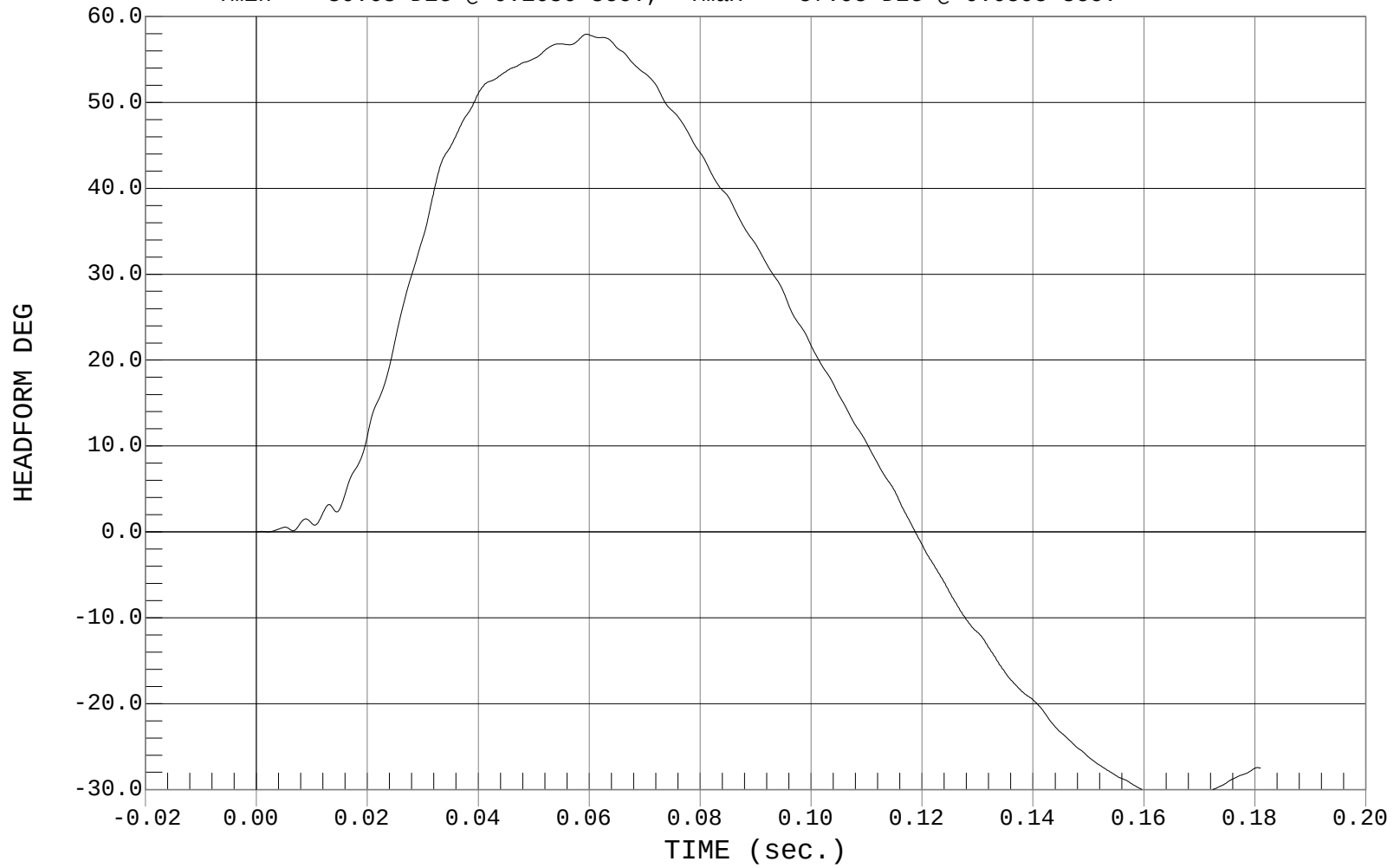
FLEXION ANGLE

Test Desc.: Dummy Calibration - Neck Bending
Component: Dummy #010

Test Date: 06-01-01
Speed: 11.23 FT/SEC, 3.42 M/SEC

— 1 HEADFORM, D01772DT.D08

Ymin = -30.68 DEG @ 0.1686 sec., Ymax = 57.95 DEG @ 0.0595 sec.





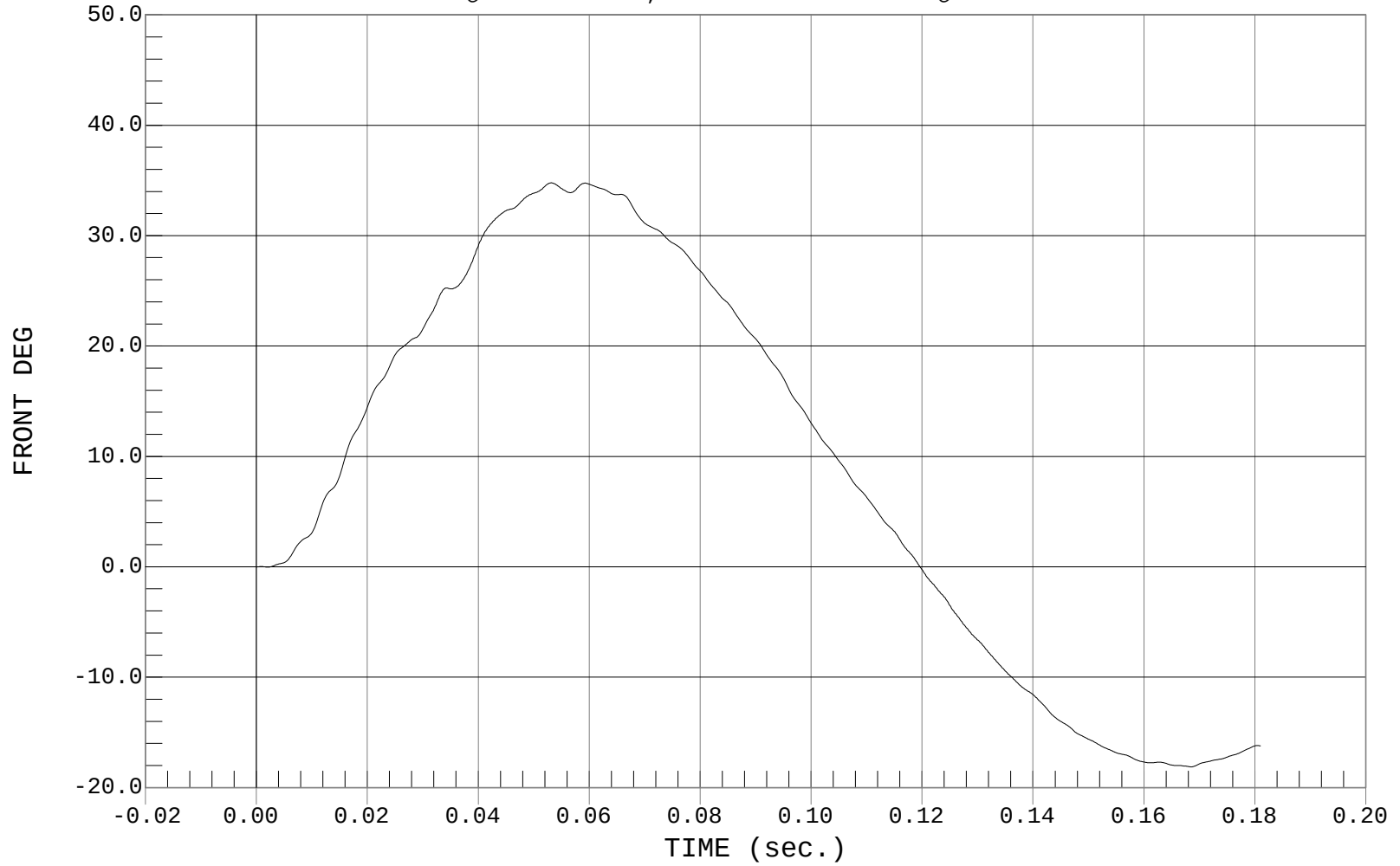
THETA A

Test Desc.: Dummy Calibration - Neck Bending
Component: Dummy #010

Test Date: 06-01-01
Speed: 11.23 FT/SEC, 3.42 M/SEC

— 1 FRONT, D01772DT.D05

Ymin = -18.12 DEG @ 0.1685 sec., Ymax = 34.78 DEG @ 0.0531 sec.





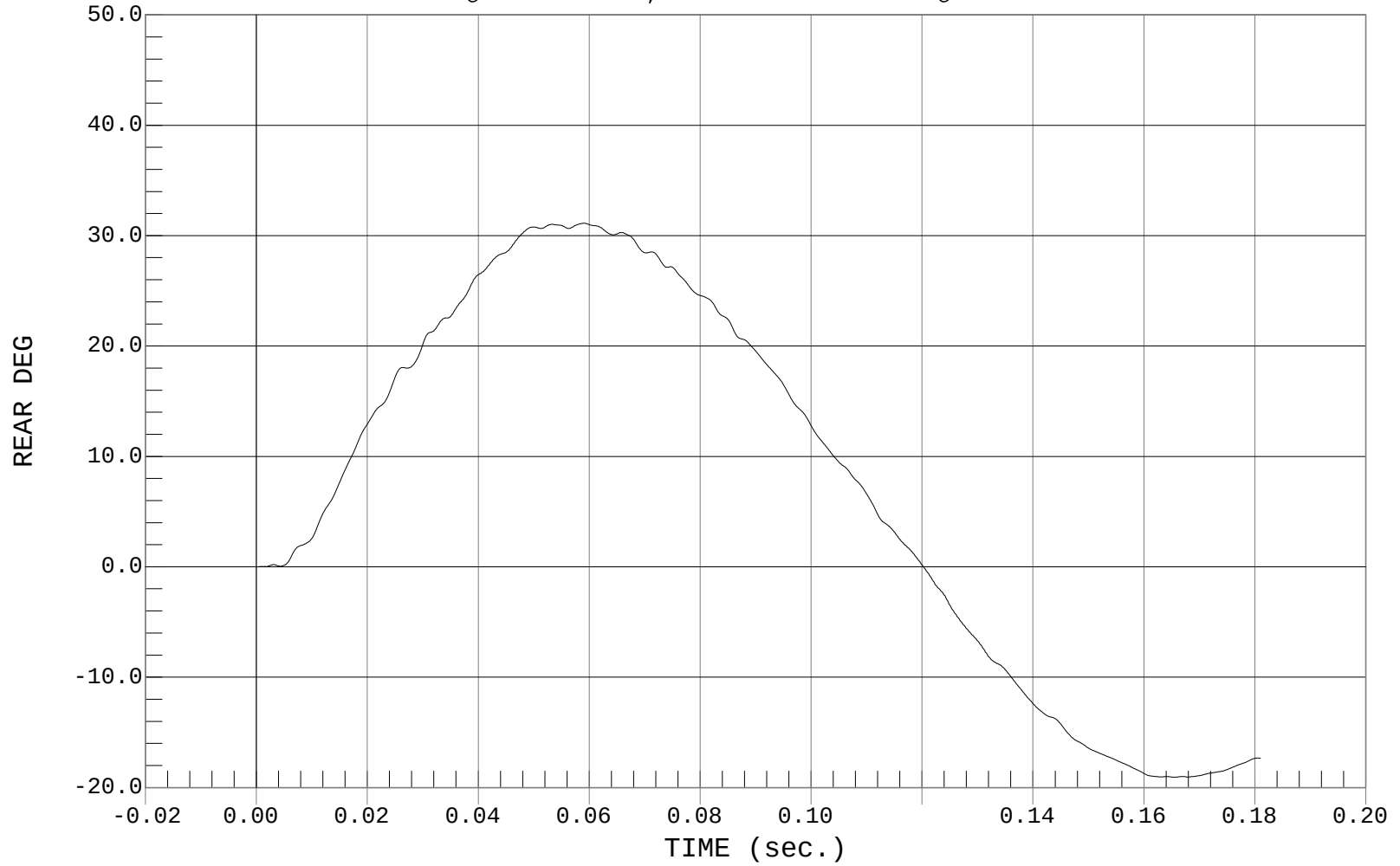
THETA B

Test Desc.: Dummy Calibration - Neck Bending
Component: Dummy #010

Test Date: 06-01-01
Speed: 11.23 FT/SEC, 3.42 M/SEC

— 1 REAR, D01772DT.D06

Ymin = -19.05 DEG @ 0.1655 sec., Ymax = 31.12 DEG @ 0.0591 sec.



MGA RESEARCH CORPORATION
SHOULDER IMPACT TEST
EUROSID 2 DUMMY

Date: 5/31/01

Dummy Serial Number: 010

Test Number: D01773

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18 – 22	22
Relative Humidity (%)	10 – 70	34
Pendulum Speed	4.2 – 4.4 m/s	4.3
Max. Resultant Acceleration	7.5 – 10.5 g's	10.4
Time of Max. Pendulum Acceleration		24.3

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



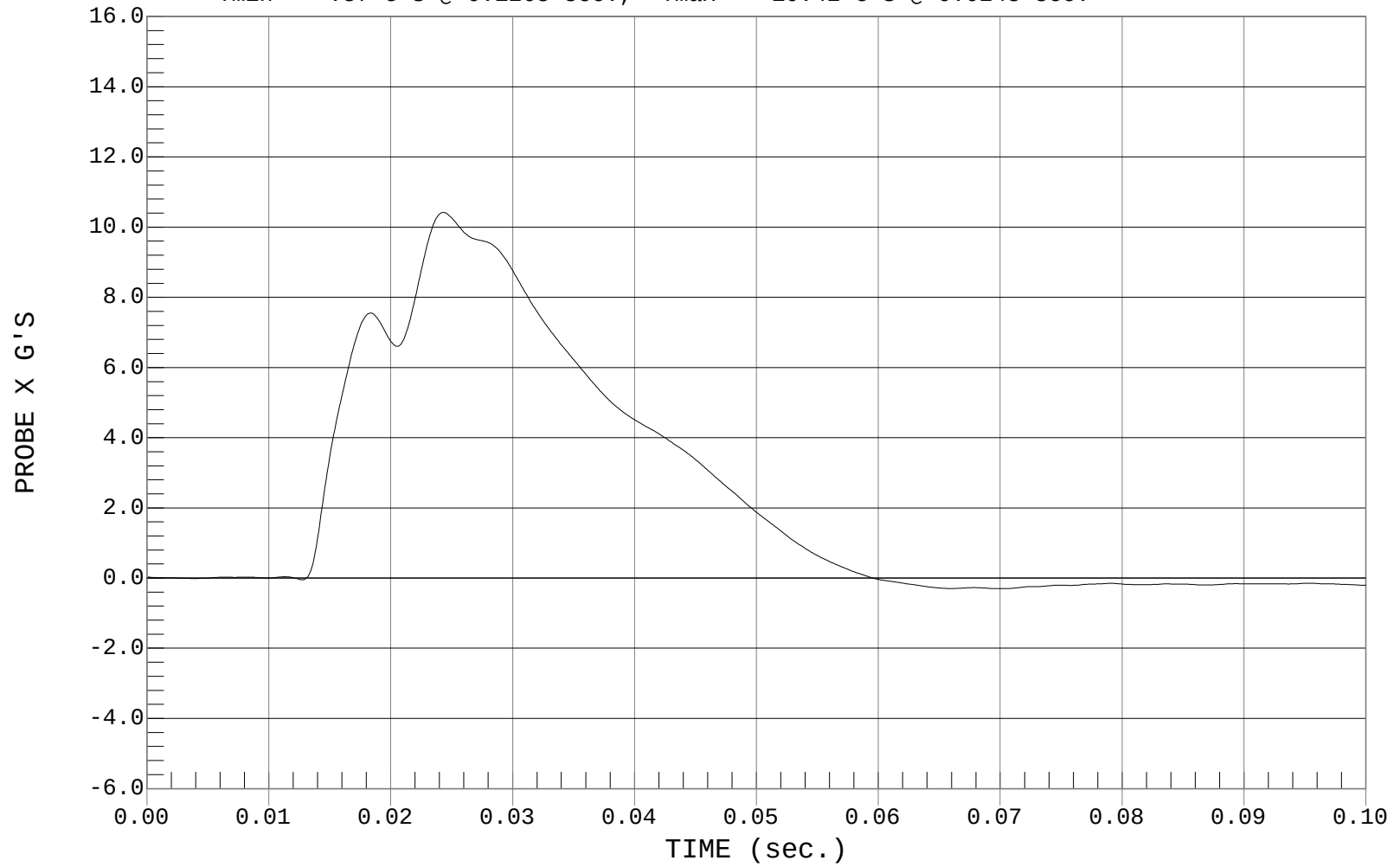
SHOULDER ACCELERATION

Test Desc.: Dummy Calibration - Shoulder Impact
Component: Dummy #010

Test Date: 05-31-01
Speed: 14.00 FT/SEC, 4.27 M/SEC

— 1 PROBE X, D01773AF.A01

Ymin = -0.37 G'S @ 0.1268 sec., Ymax = 10.42 G'S @ 0.0243 sec.



MGA RESEARCH CORPORATION
UPPER/MIDDLE/LOWER RIB TESTS
SIDE IMPACT DUMMY (SID)

Date: 6/1/01
Dummy Serial Number: 010
Test Number: D01774/5/6

UPPER RIB - TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.6
Relative Humidity (%)	10 – 70	45
Displacement at 2 m/s	23.5 – 27.5 mm	23.8
Displacement at 3 m/s	36.0 – 40.0 mm	37.9
Displacement at 4 m/s	46.0 – 51.0 mm	49.9

MIDDLE RIB - TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.6
Relative Humidity (%)	10 – 70	45
Displacement at 2 m/s	23.5 – 27.5 mm	23.6
Displacement at 3 m/s	36.0 – 40.0 mm	36.0
Displacement at 4 m/s	46.0 – 51.0 mm	49.6

LOWER RIB - TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.6
Relative Humidity (%)	10 – 70	45
Displacement at 2 m/s	23.5 – 27.5 mm	23.6
Displacement at 3 m/s	36.0 – 40.0 mm	36.5
Displacement at 4 m/s	46.0 – 51.0 mm	48.8

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



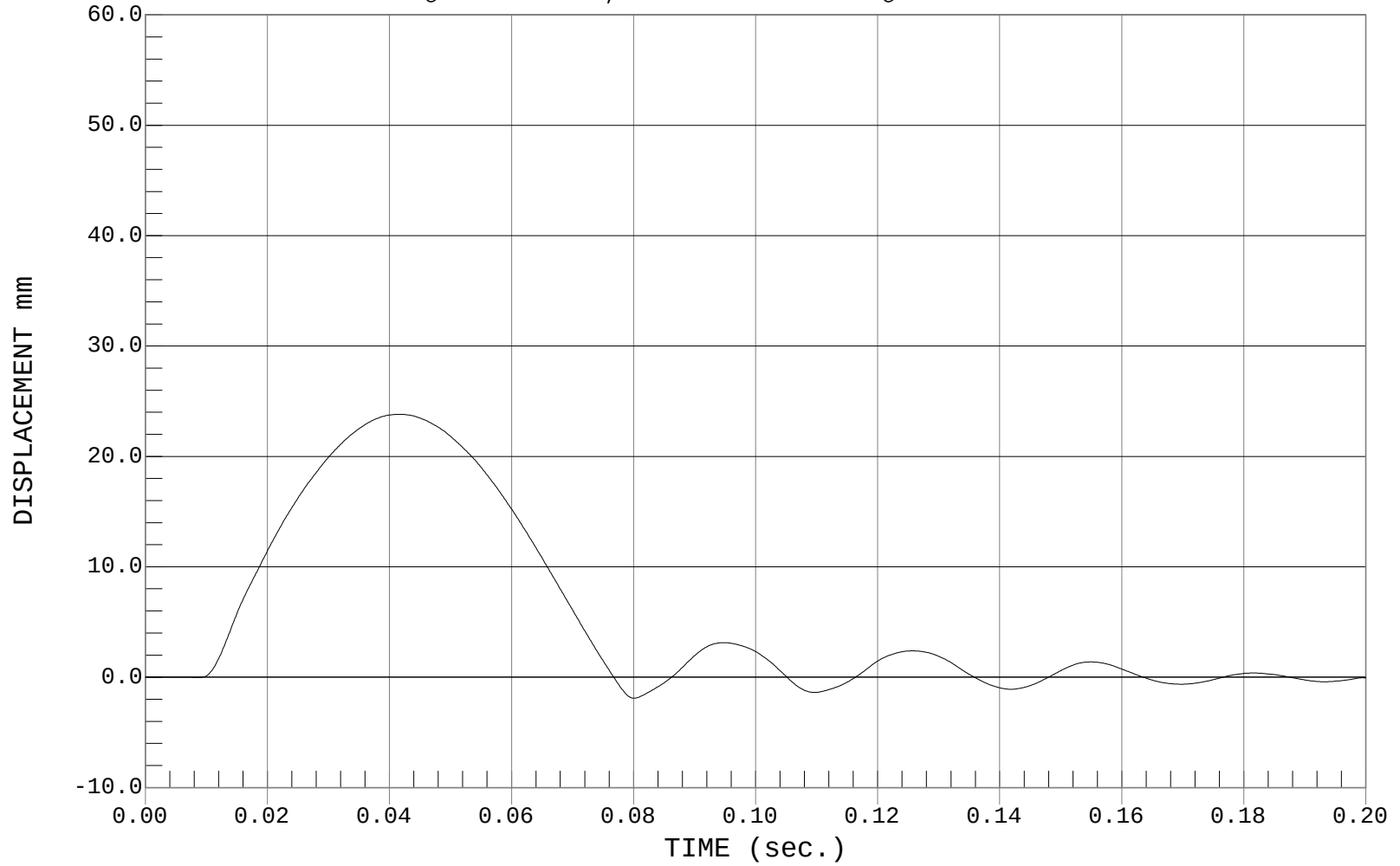
UPPER RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #010

Test Date: 06-01-01
Speed: 6.56 FT/SEC, 2.00 M/SEC

— 1 DISPLACEMENT, D01774DF.D05

Ymin = -1.9 mm @ 0.0801 sec., Ymax = 23.81 mm @ 0.0417 sec.





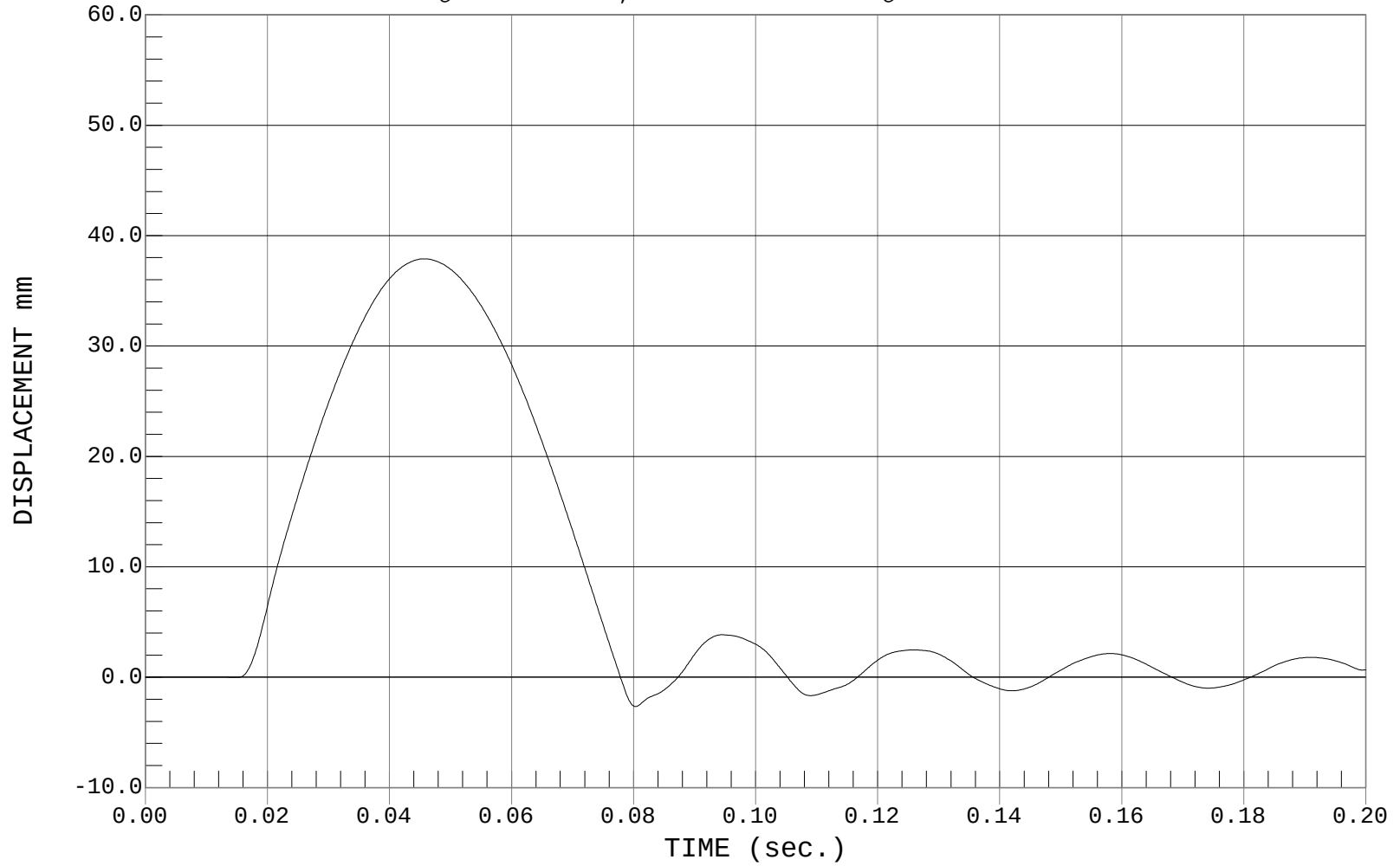
UPPER RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #010

Test Date: 06-01-01
Speed: 9.84 FT/SEC, 3.00 M/SEC

— 1 DISPLACEMENT, D01774DF.D06

Ymin = -2.66 mm @ 0.0803 sec., Ymax = 37.9 mm @ 0.0457 sec.





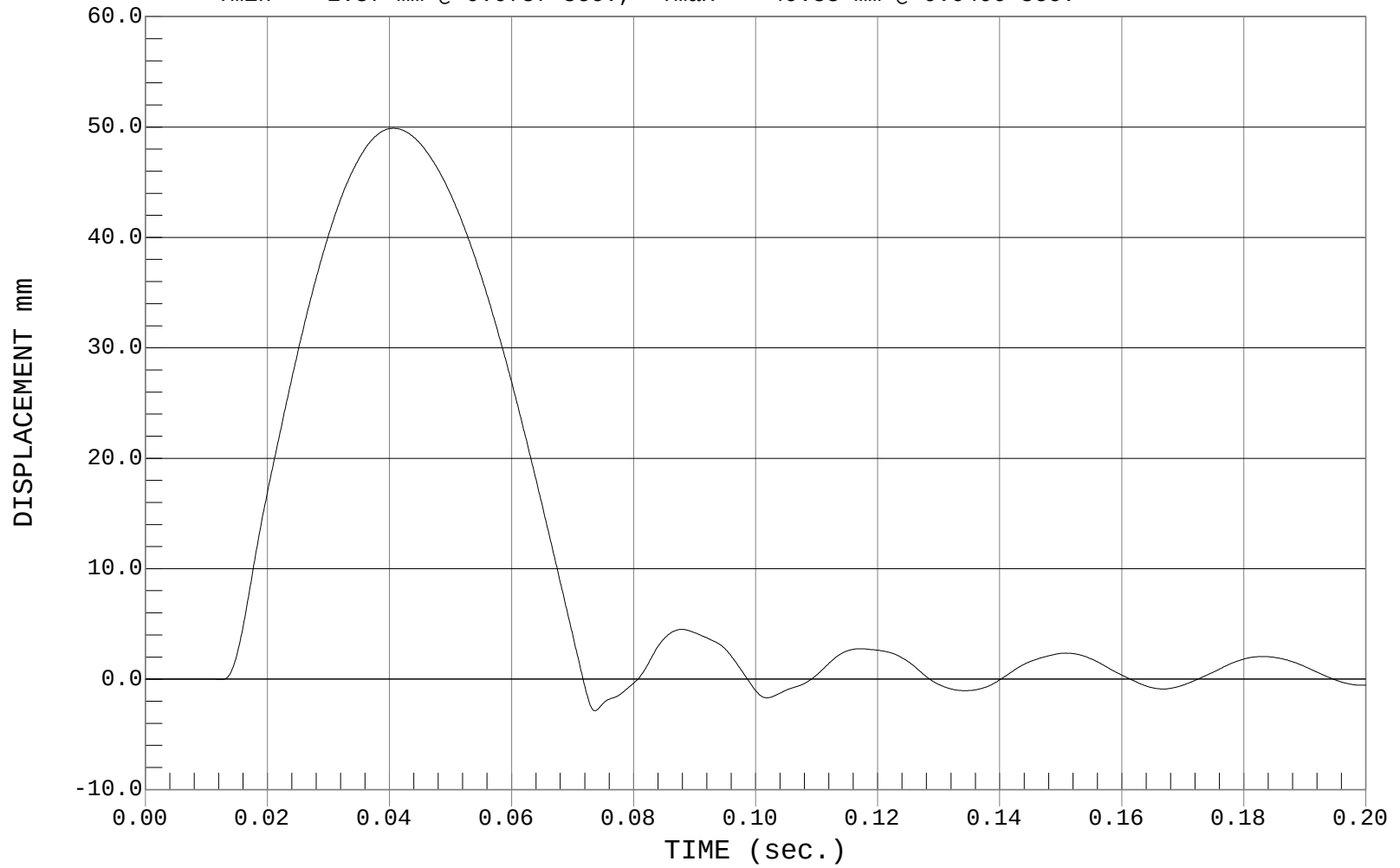
UPPER RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #010

Test Date: 06-01-01
Speed: 13.12 FT/SEC, 4.00 M/SEC

— 1 DISPLACEMENT, D01774DF.D07

Ymin = -2.87 mm @ 0.0737 sec., Ymax = 49.88 mm @ 0.0406 sec.





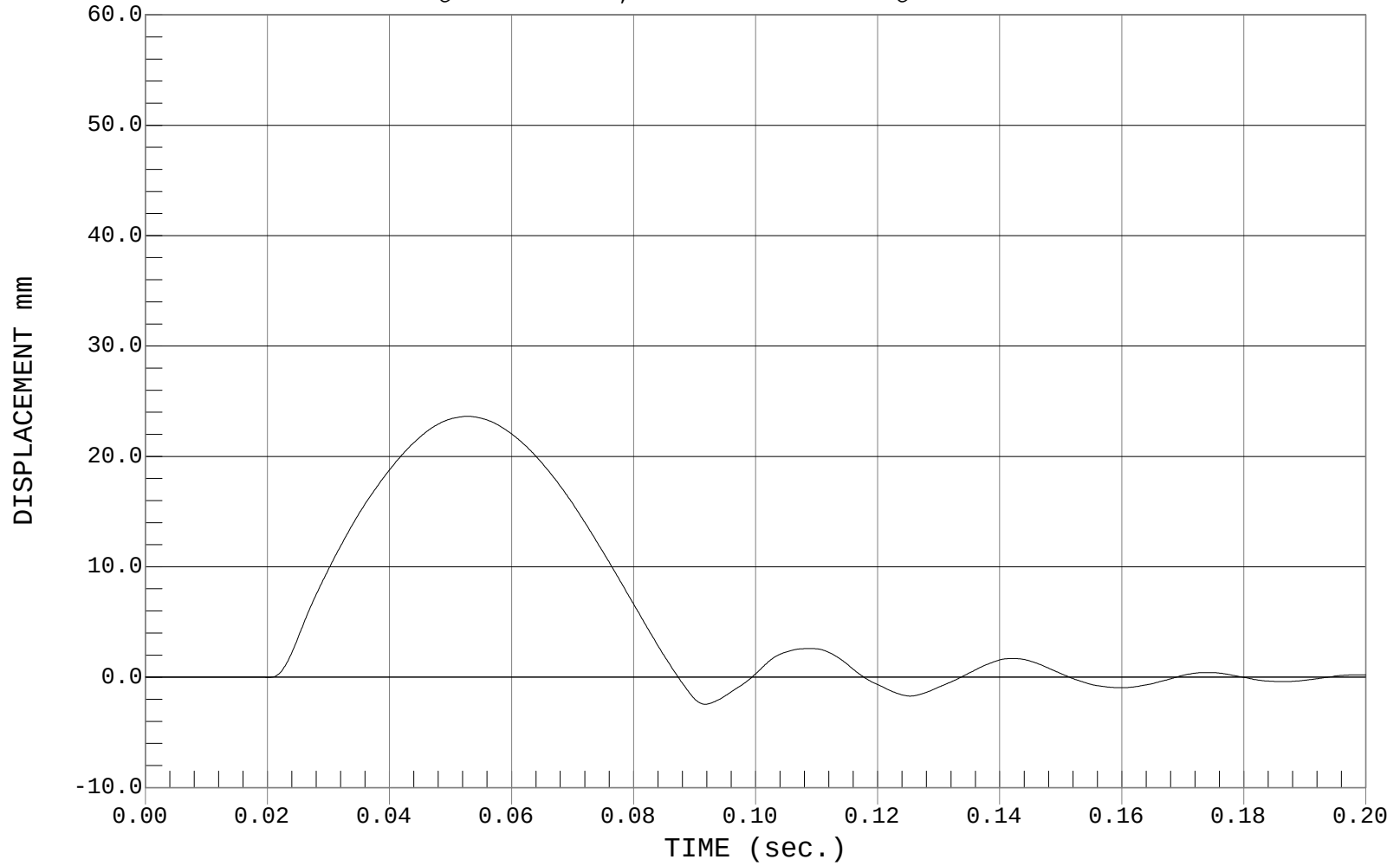
MIDDLE RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #010

Test Date: 06-01-01
Speed: 6.56 FT/SEC, 2.00 M/SEC

— 1 DISPLACEMENT, D01775DF.D05

Ymin = -2.45 mm @ 0.0918 sec., Ymax = 23.63 mm @ 0.0528 sec.





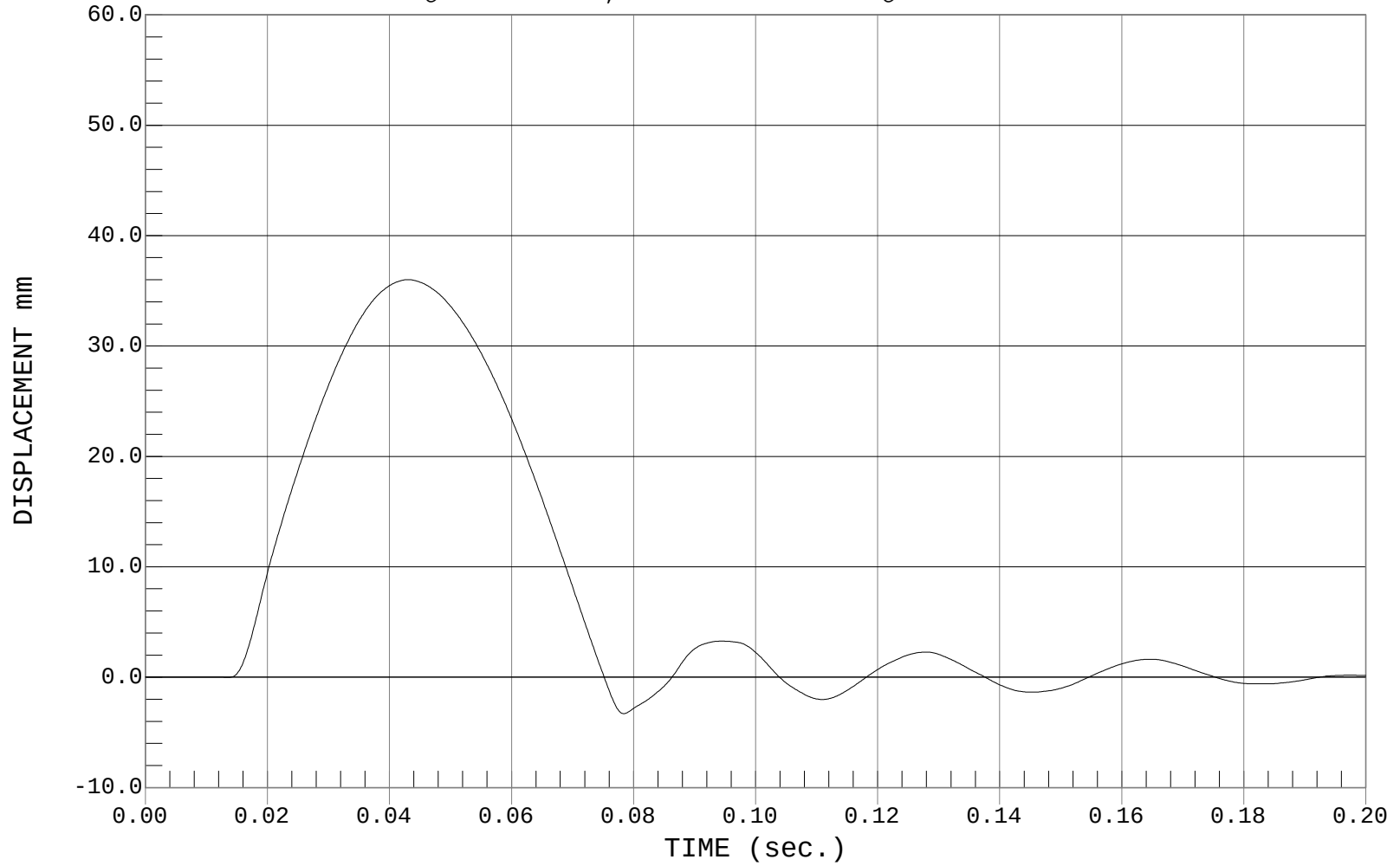
MIDDLE RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #010

Test Date: 06-01-01
Speed: 9.84 FT/SEC, 3.00 M/SEC

— 1 DISPLACEMENT, D01775DF.D06

Ymin = -3.3 mm @ 0.0784 sec., Ymax = 36.01 mm @ 0.0430 sec.





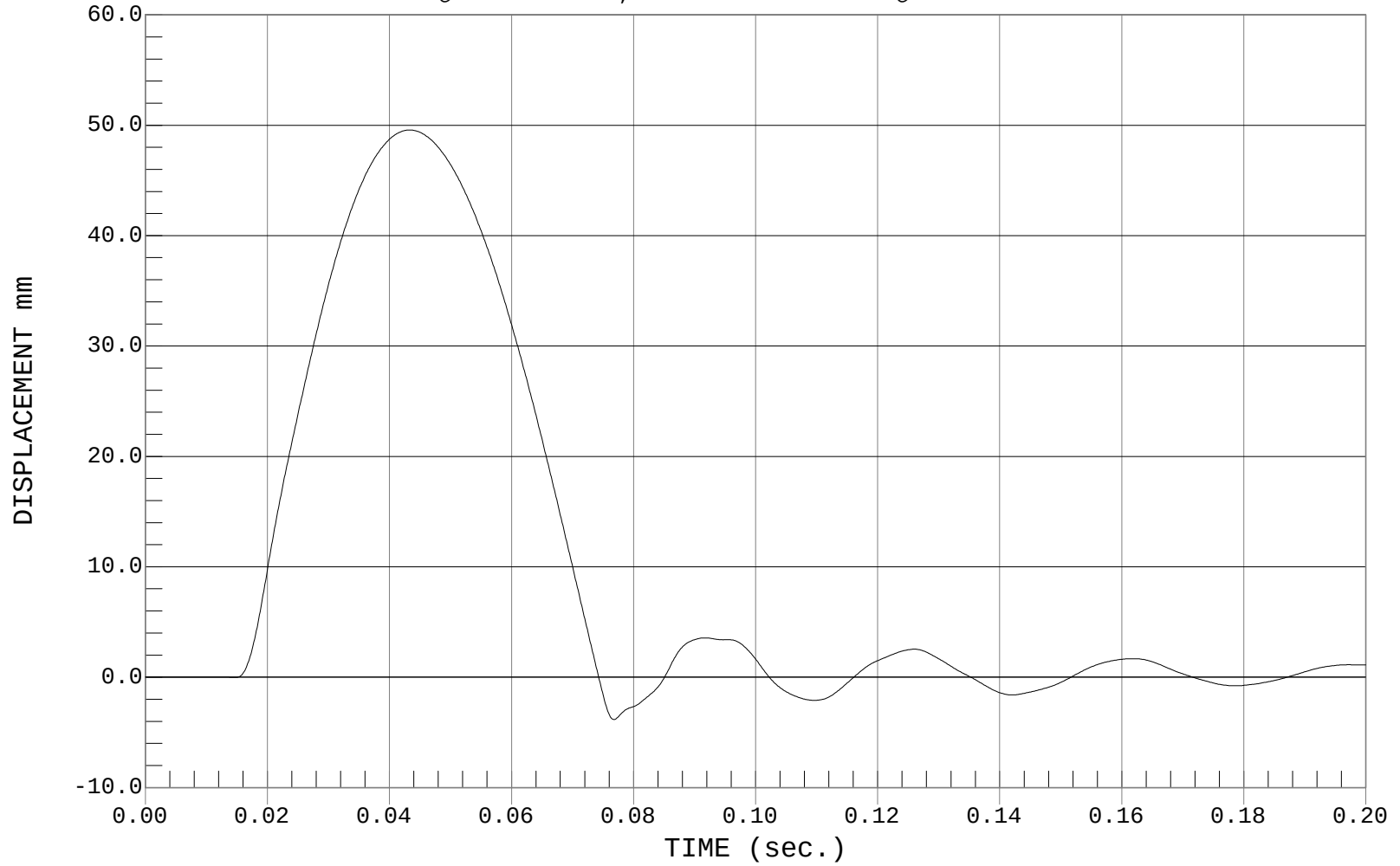
MIDDLE RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #010

Test Date: 06-01-01
Speed: 13.12 FT/SEC, 4.00 M/SEC

— 1 DISPLACEMENT, D01775DF.D07

Ymin = -3.84 mm @ 0.0768 sec., Ymax = 49.57 mm @ 0.0433 sec.





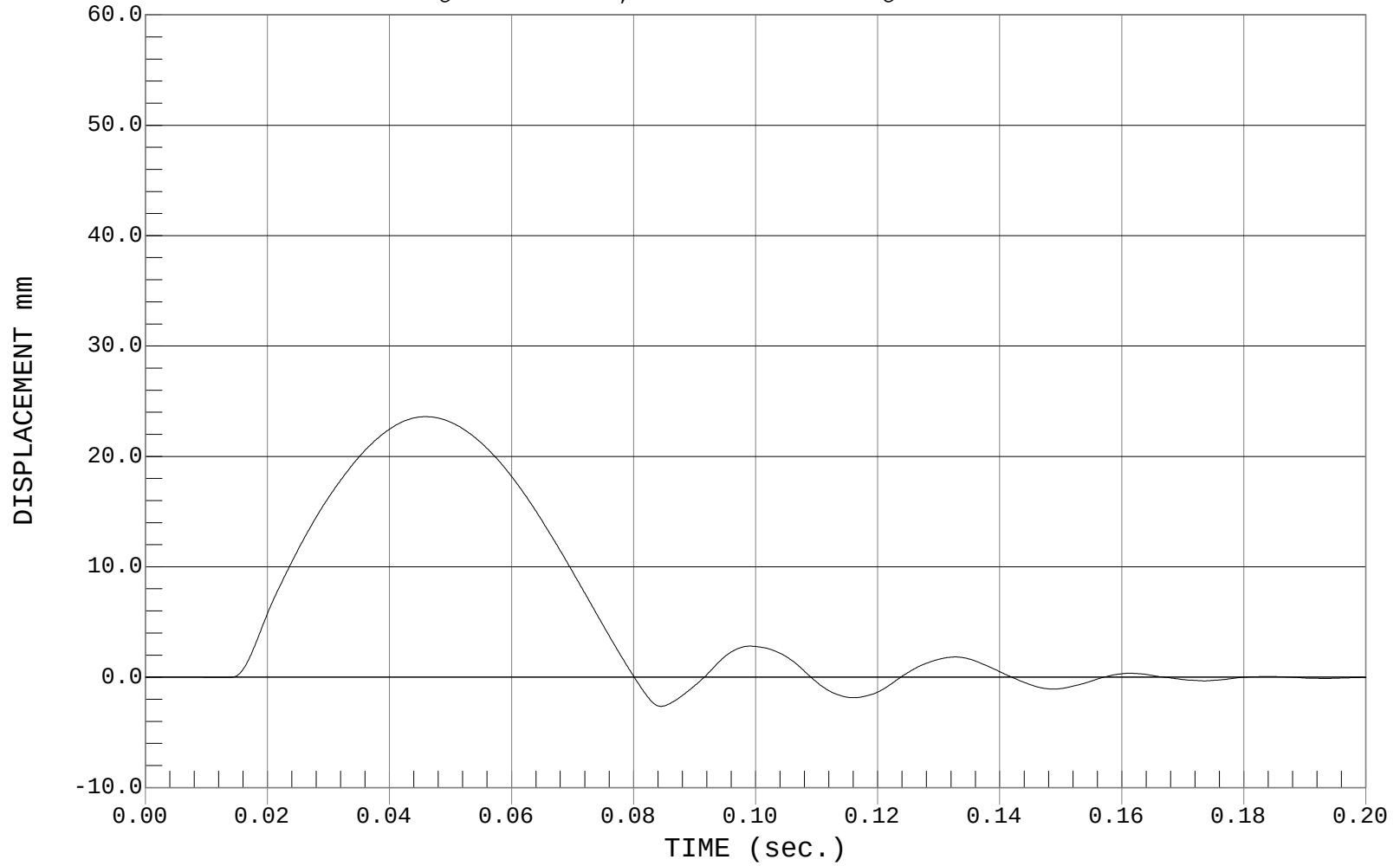
LOWER RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #010

Test Date: 06-01-01
Speed: 6.56 FT/SEC, 2.00 M/SEC

— 1 DISPLACEMENT, D01776DF.D05

Ymin = -2.65 mm @ 0.0845 sec., Ymax = 23.6 mm @ 0.0458 sec.





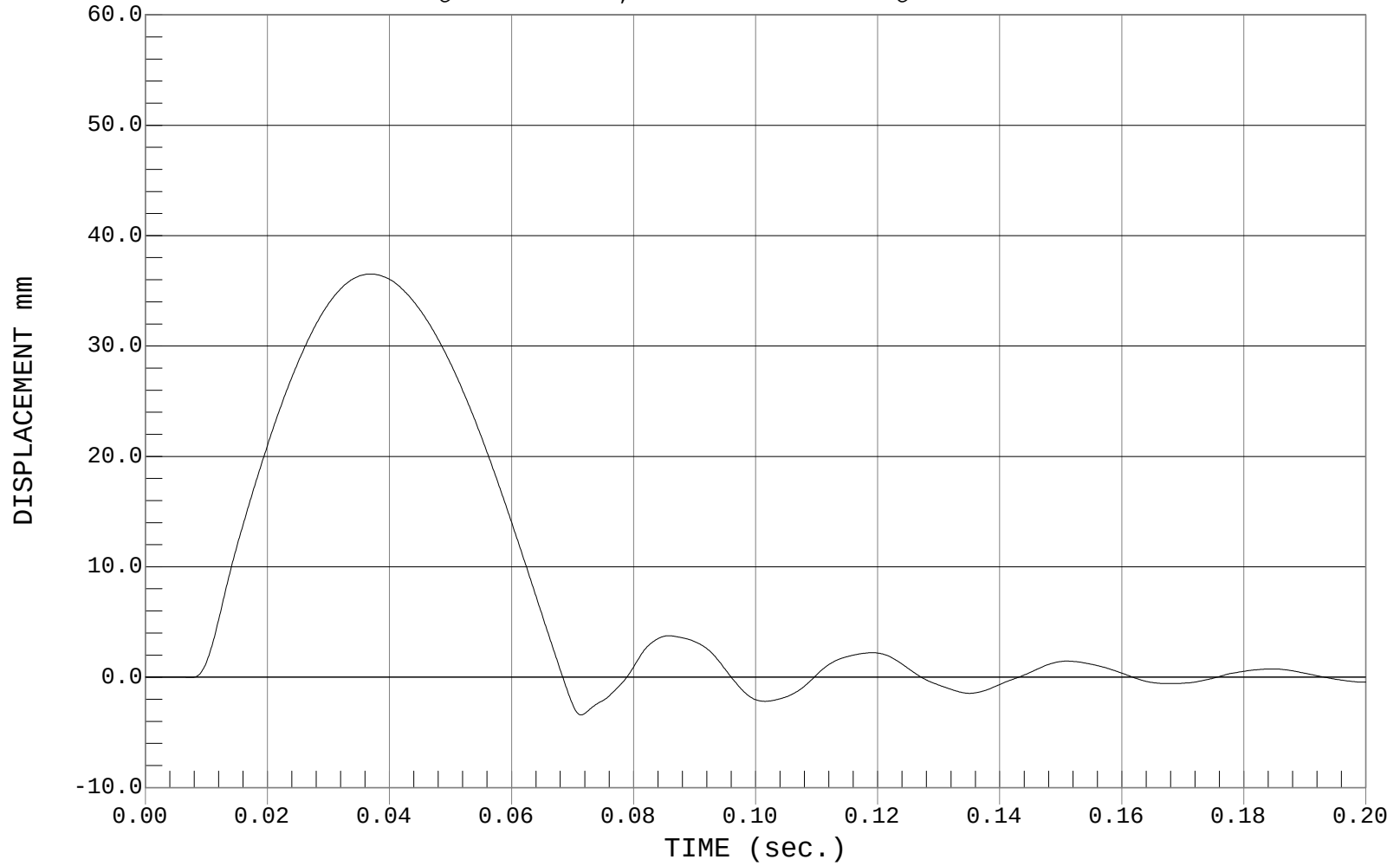
LOWER RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #010

Test Date: 06-01-01
Speed: 9.84 FT/SEC, 3.00 M/SEC

— 1 DISPLACEMENT, D01776DF.D06

Ymin = -3.42 mm @ 0.0714 sec., Ymax = 36.52 mm @ 0.0369 sec.





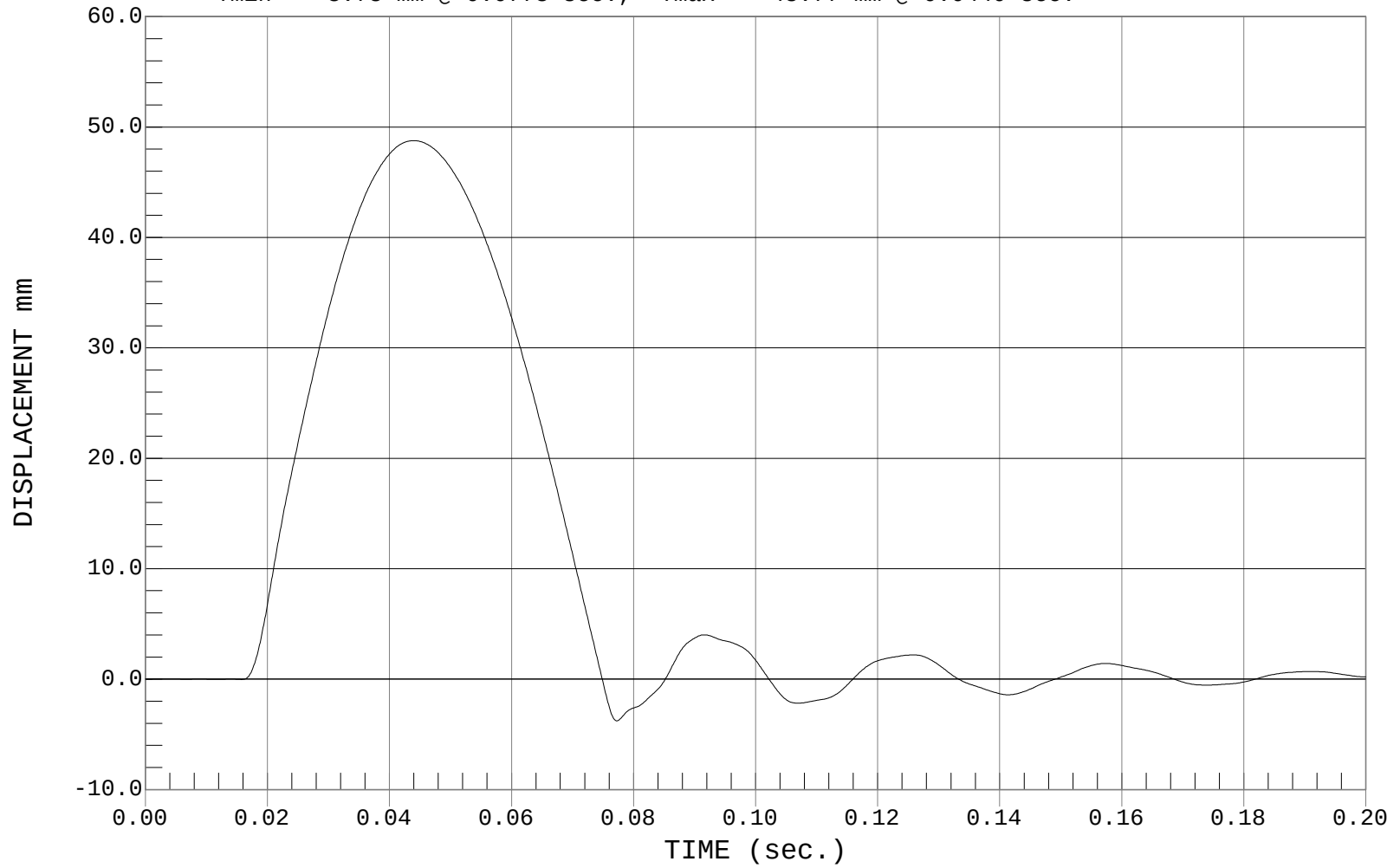
LOWER RIB DISPLACEMENT

Test Desc.: Dummy Calibration - RIB MODULE
Component: Dummy #010

Test Date: 06-01-01
Speed: 13.12 FT/SEC, 4.00 M/SEC

— 1 DISPLACEMENT, D01776DF.D07

Ymin = -3.78 mm @ 0.0773 sec., Ymax = 48.77 mm @ 0.0440 sec.



MGA RESEARCH CORPORATION
ABDOMEN TEST
EUROSID 2 DUMMY

Date: 5/31/01

Dummy Serial Number: 010

Test Number: D01777

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18 – 22	22
Relative Humidity (%)	10 – 70	34
Probe Speed (m/s)	3.90 – 4.10	3.95
Maximum Impact Force	4.00 – 4.80 kN	4.33
Time of Maximum Force	10.60 – 13.00 ms	10.80
Maximum Total Abdomen Force	2.20 – 2.70 kN	2.32
Time of Max. Total Force	10.00 – 12.30 ms	11.10

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



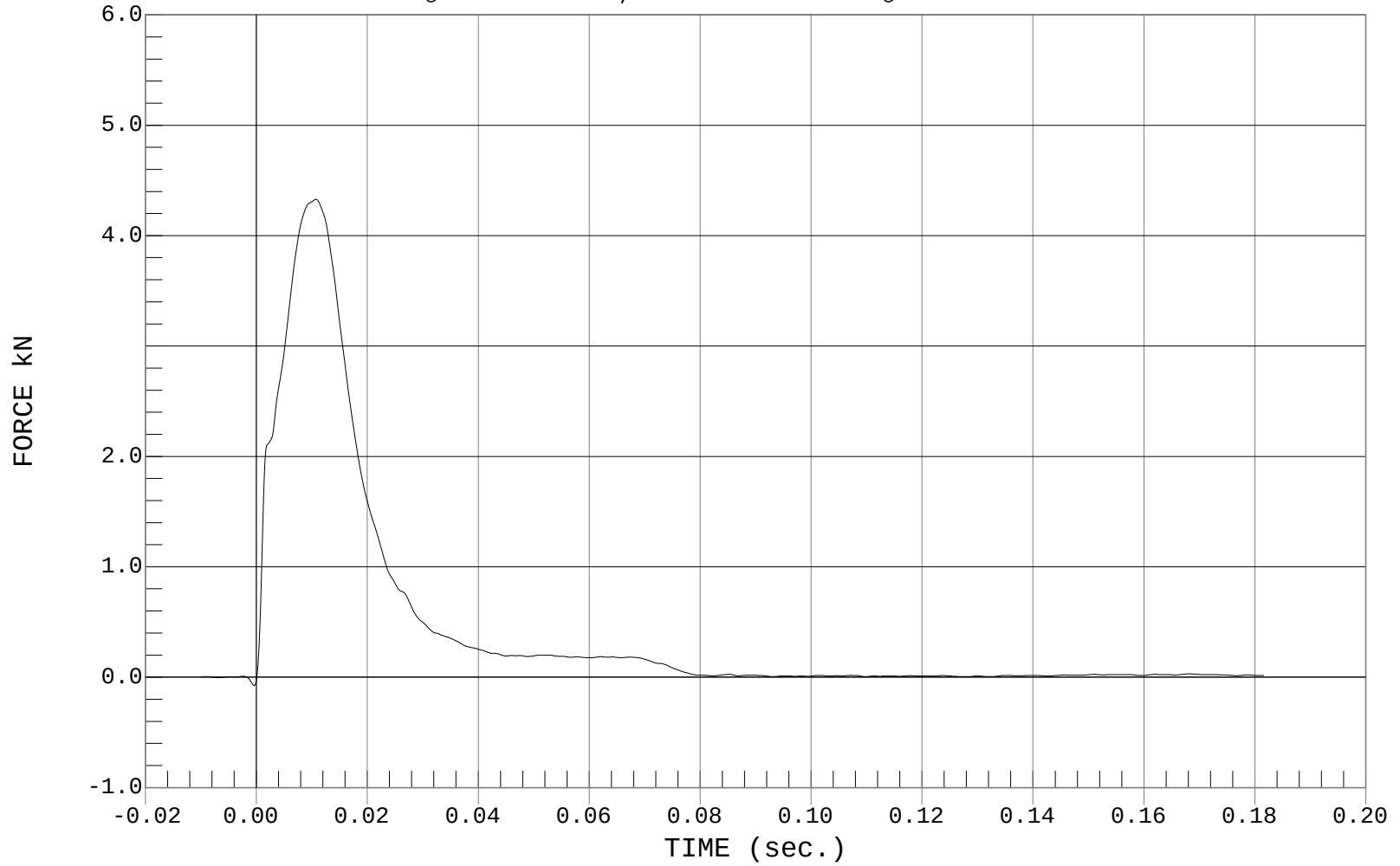
IMPACTOR FORCE

Test Desc.: Dummy Calibration - Abdomen Impact
Component: Dummy #010

Test Date: 05-31-01
Speed: 12.97 FT/SEC, 3.95 M/SEC

— 1 FORCE, D01777FT.F01

Ymin = -.08 kN @ -0.0004 sec., Ymax = 4.33 kN @ 0.0108 sec.





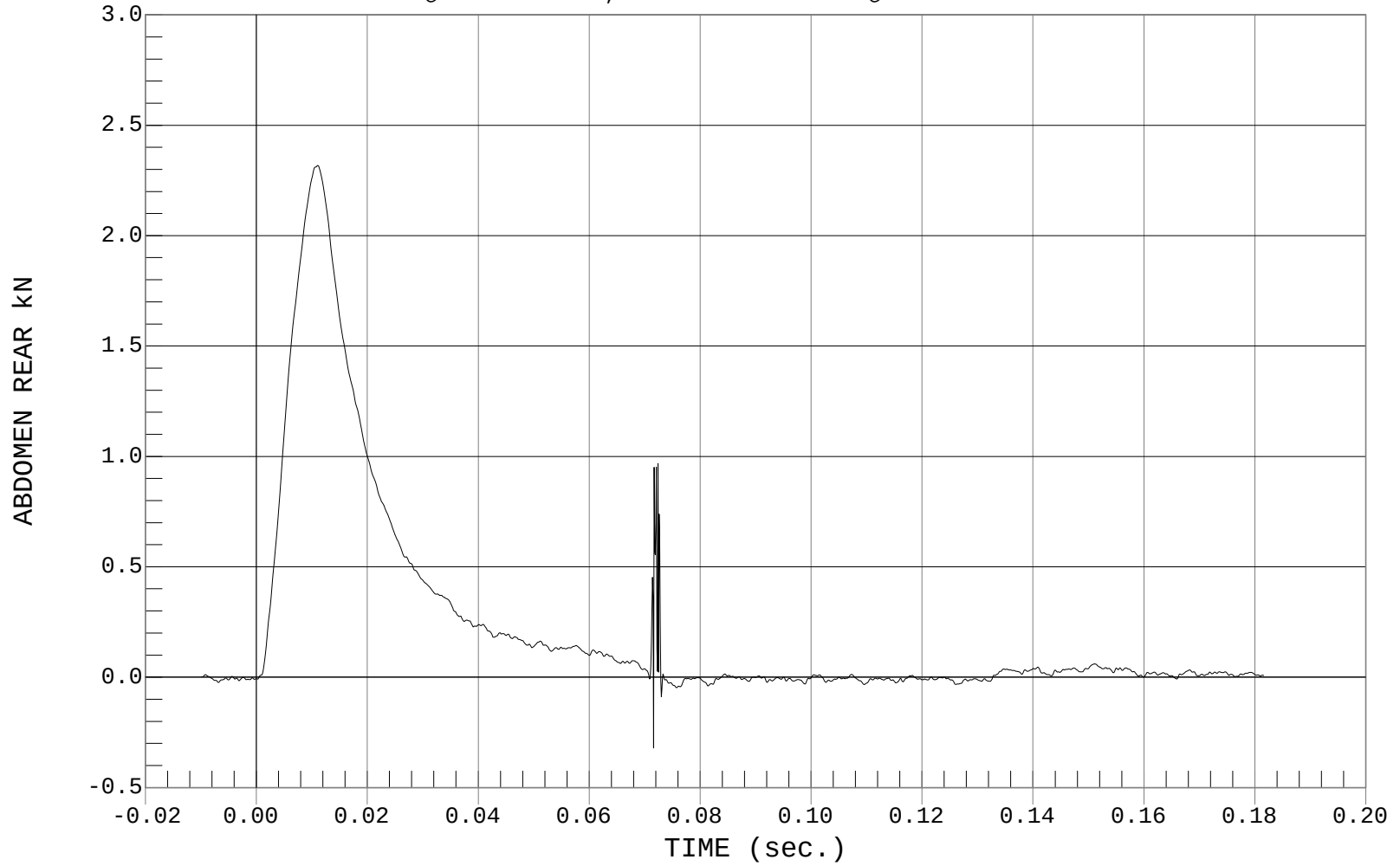
ABDOMEN FORCE

Test Desc.: Dummy Calibration - Abdomen Impact
Component: Dummy #010

Test Date: 05-31-01
Speed: 12.97 FT/SEC, 3.95 M/SEC

— 1 ABDOMEN REAR, D01777FT.F02

Ymin = -.32 kN @ 0.0716 sec., Ymax = 2.32 kN @ 0.0111 sec.



MGA RESEARCH CORPORATION
LUMBAR SPINE TEST
EUROSID 2 DUMMY

Date: 6/1/01
Dummy Serial Number: 010
Test Number: D01778

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature (°C)		18 – 22	22
Relative Humidity (%)		10 – 70	44
Pendulum Speed		5.95 – 6.15	6.09
Pendulum Deceleration	10 msec	2.46 - 1.59 m/sec	-1.90
	20 msec	5.25 - 4.07 m/sec	-4.37
	25 msec	6.64 - 5.30 m/sec	-5.51
	30 msec	≥ -6.50 m/sec	-6.17
Maximum Flexion Angle		45.0 – 55.0 deg	53.2
Time of Max. Flexion Angle		39.0 – 53.0 ms	48.1
Maximum Angle Theta (A)		31.0 – 35.0 deg	33.2
Time of Max. Theta (A)		44.0 – 52.0 ms	44.3
Maximum Angle Theta (B)		28.56– 31.06 deg	29.60
Time of Max. Theta (B)		44.0 – 52.0 ms	46.7

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____

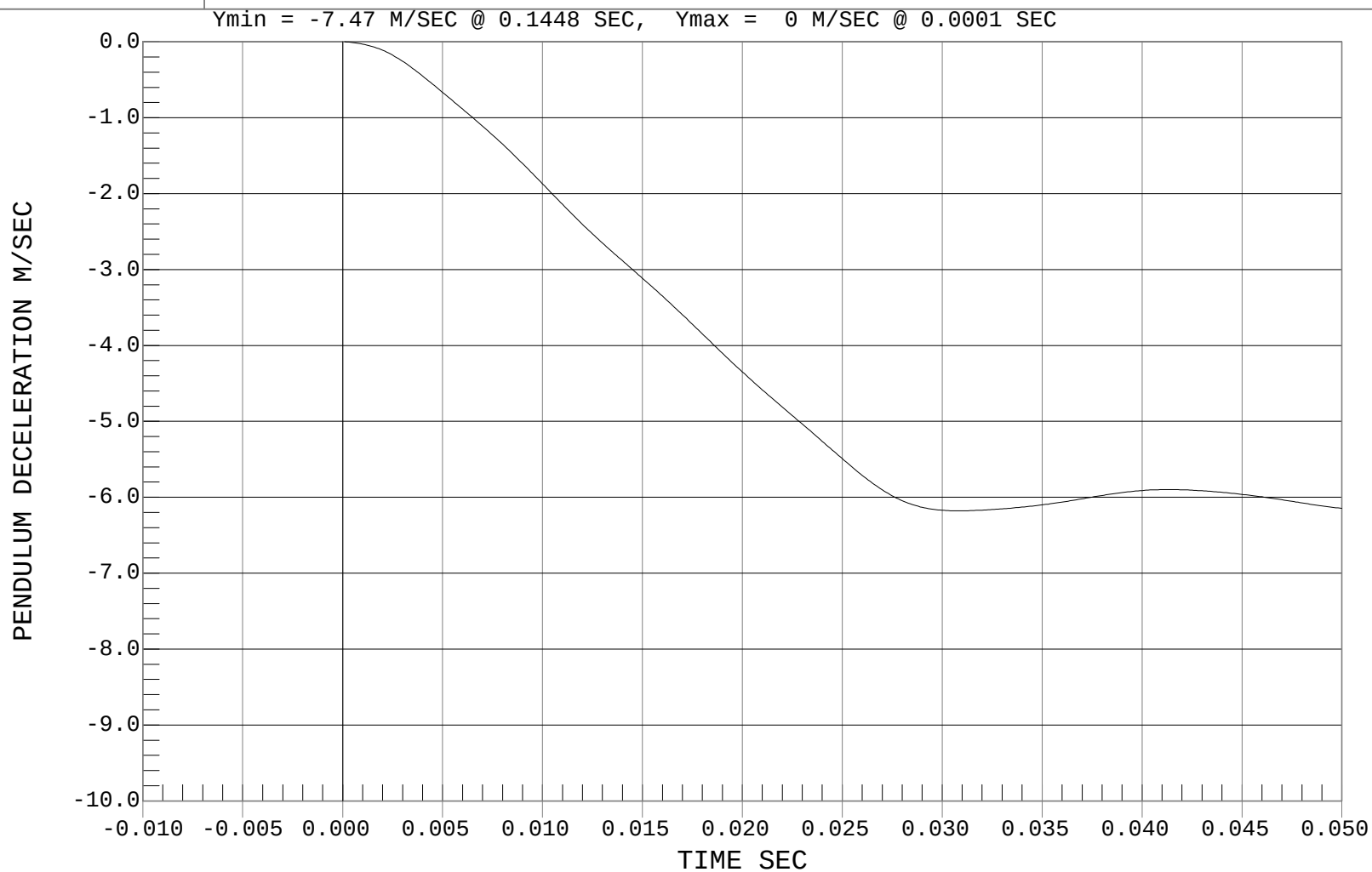


PENDULUM DECELERATION

Test Desc.: Dummy Calibration - LUMBAR FLEXION
Component: Dummy #010

Test Date: 06-01-01
Speed: 19.97 FT/SEC, 6.09 M/SEC

— 1 PENDULUM DECELERATION, D01778AI.V04





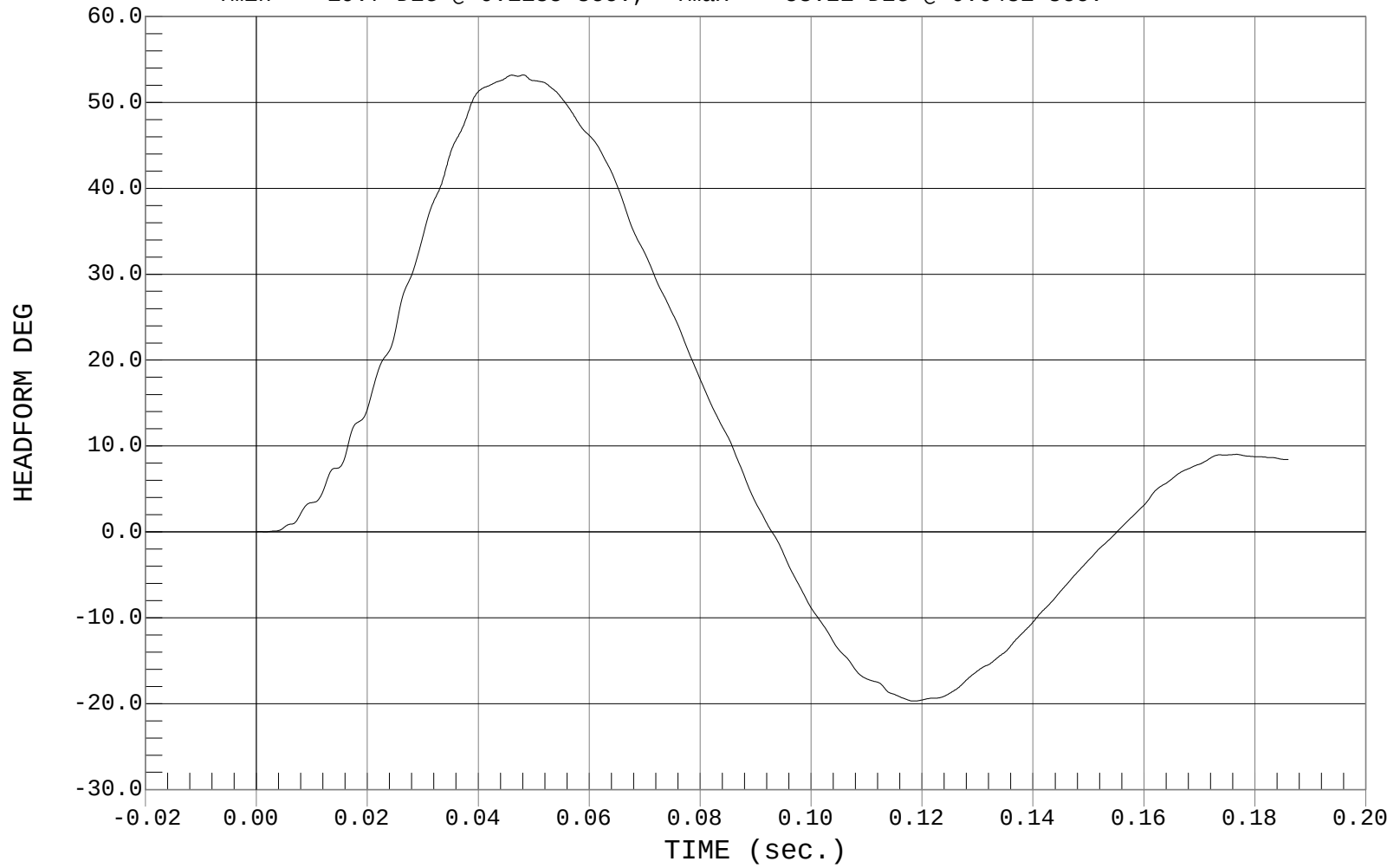
FLEXION ANGLE

Test Desc.: Dummy Calibration - LUMBAR FLEXION
Component: Dummy #010

Test Date: 06-01-01
Speed: 19.97 FT/SEC, 6.09 M/SEC

— 1 HEADFORM, D01778DT.D08

Ymin = -19.7 DEG @ 0.1185 sec., Ymax = 53.21 DEG @ 0.0481 sec.





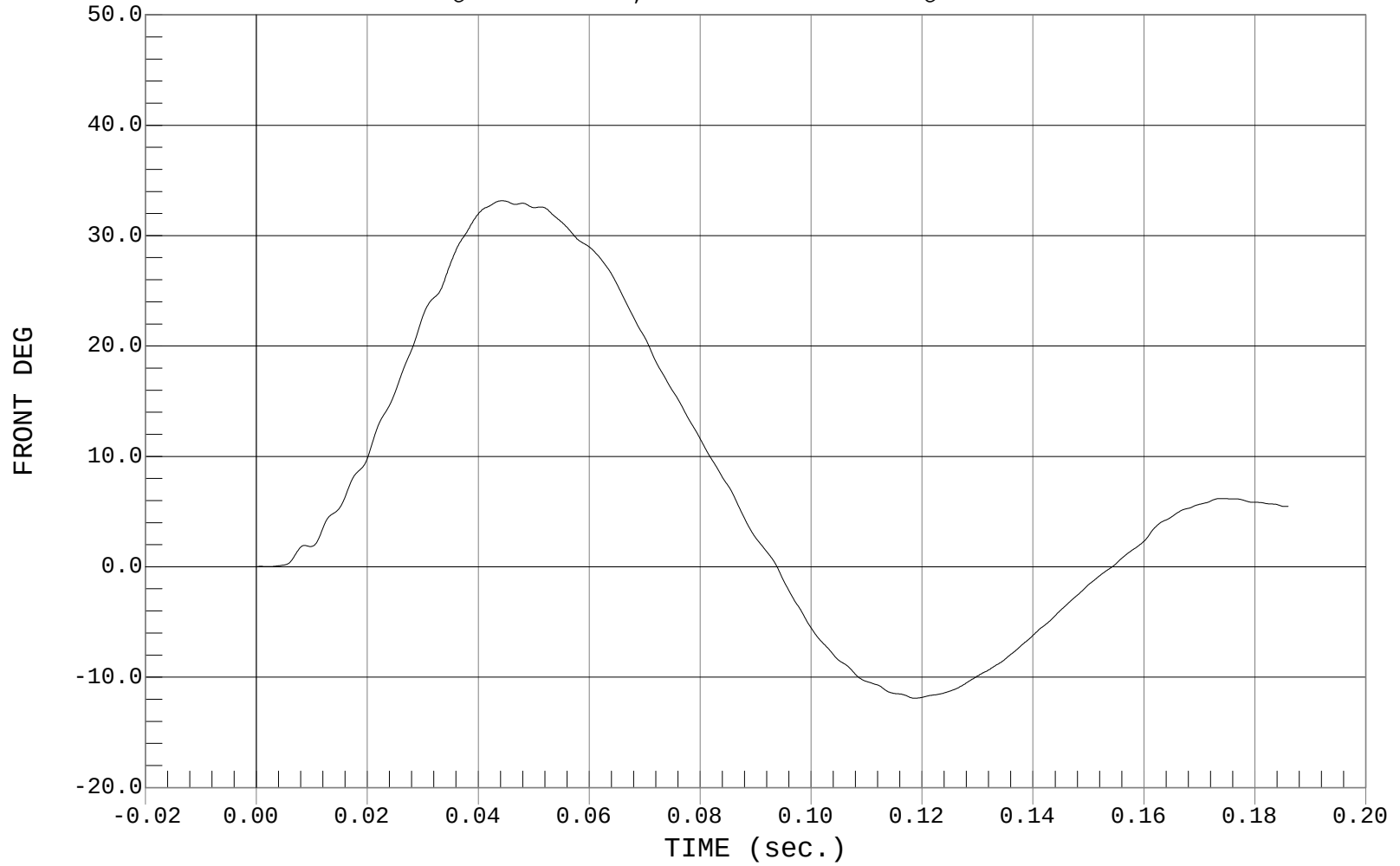
THETA A

Test Desc.: Dummy Calibration - LUMBAR FLEXION
Component: Dummy #010

Test Date: 06-01-01
Speed: 19.97 FT/SEC, 6.09 M/SEC

— 1 FRONT, D01778DT.D05

Ymin = -11.9 DEG @ 0.1187 sec., Ymax = 33.15 DEG @ 0.0443 sec.





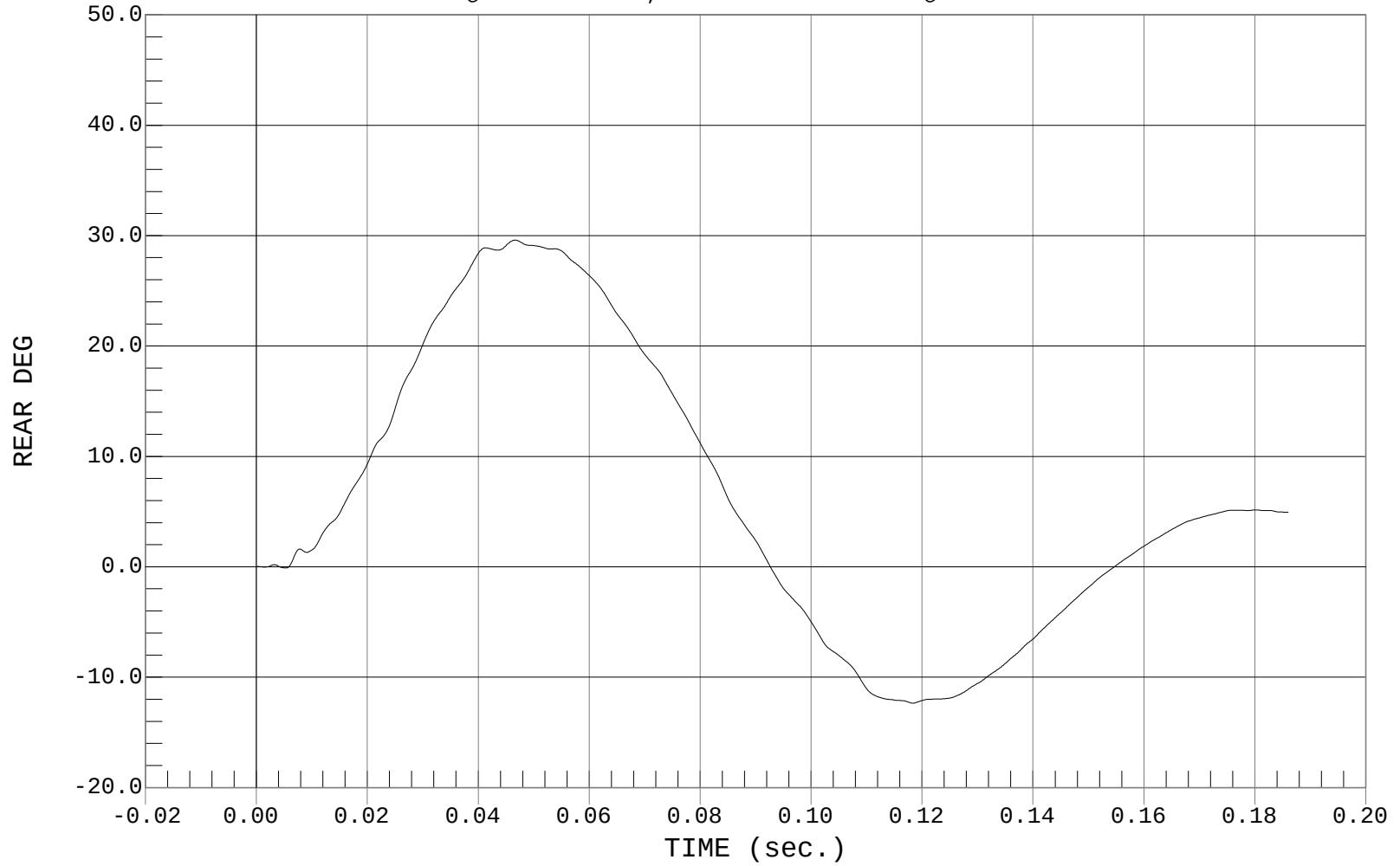
THETA B

Test Desc.: Dummy Calibration - LUMBAR FLEXION
Component: Dummy #010

Test Date: 06-01-01
Speed: 19.97 FT/SEC, 6.09 M/SEC

— 1 REAR, D01778DT.D06

Ymin = -12.35 DEG @ 0.1183 sec., Ymax = 29.6 DEG @ 0.0467 sec.



MGA RESEARCH CORPORATION
PELVIS TEST
EUROSID 2 DUMMY

Date: 5/31/01

Dummy Serial Number: 010

Test Number: D01779

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18 – 22	22
Relative Humidity (%)	10 – 70	35
Pendulum Speed	6.20 – 6.30 m/s	6.21
Maximum Impactor Force	9.80 – 12.20 kN	10.42
Time of Max. Impactor Force	9.50 – 12.50 ms	11.80
Maximum Pubic Force	2.65 – 3.35 kN	3.33
Time of Max. Pubic Force	10.00 – 13.00 ms	12.00

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



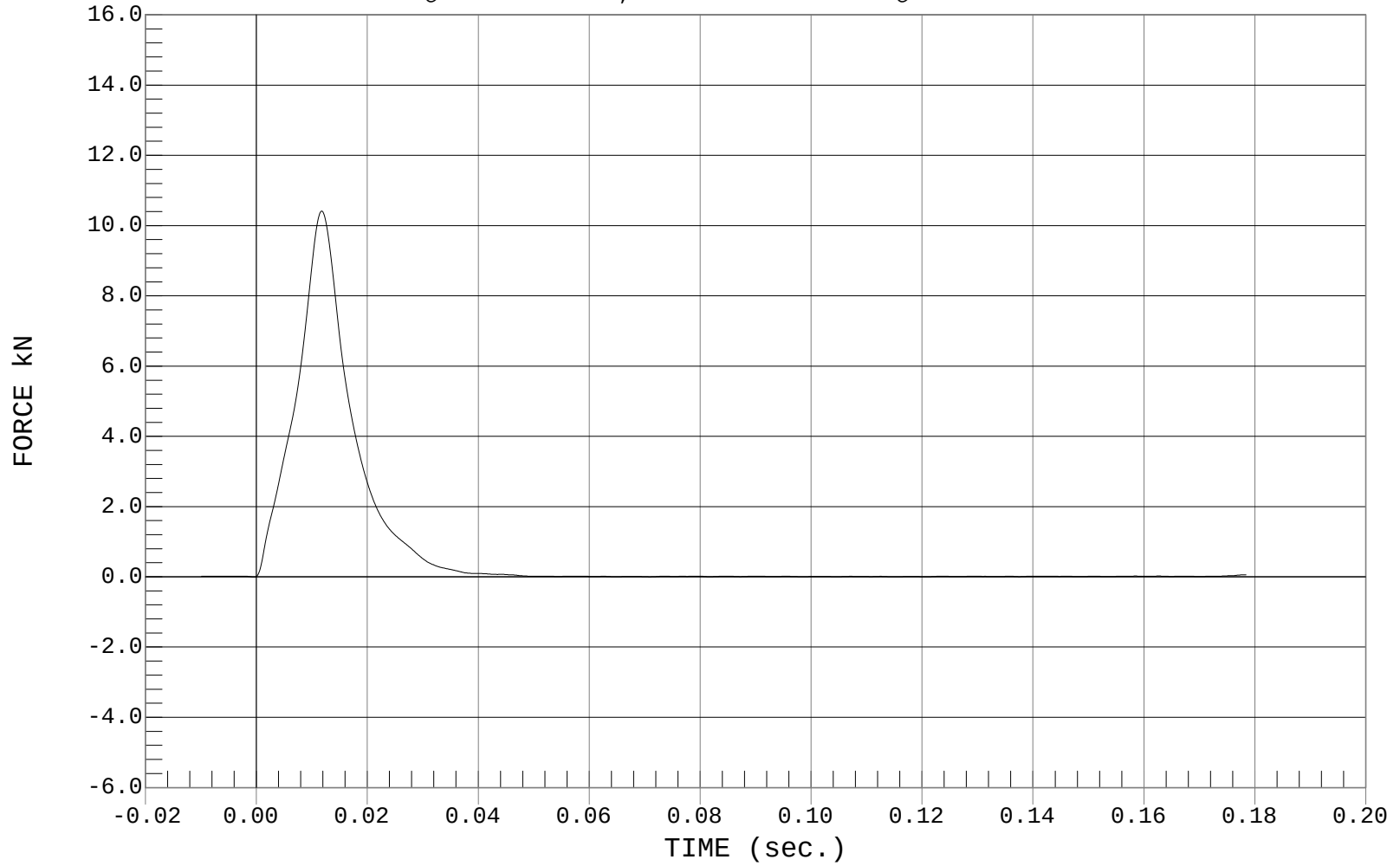
IMPACTOR FORCE

Test Desc.: Dummy Calibration - Pelvis Impact
Component: Dummy #010

Test Date: 05-31-01
Speed: 20.38 FT/SEC, 6.21 M/SEC

— 1 FORCE, D01779FT.F01

Ymin = -.01 kN @ -0.0004 sec., Ymax = 10.42 kN @ 0.0118 sec.





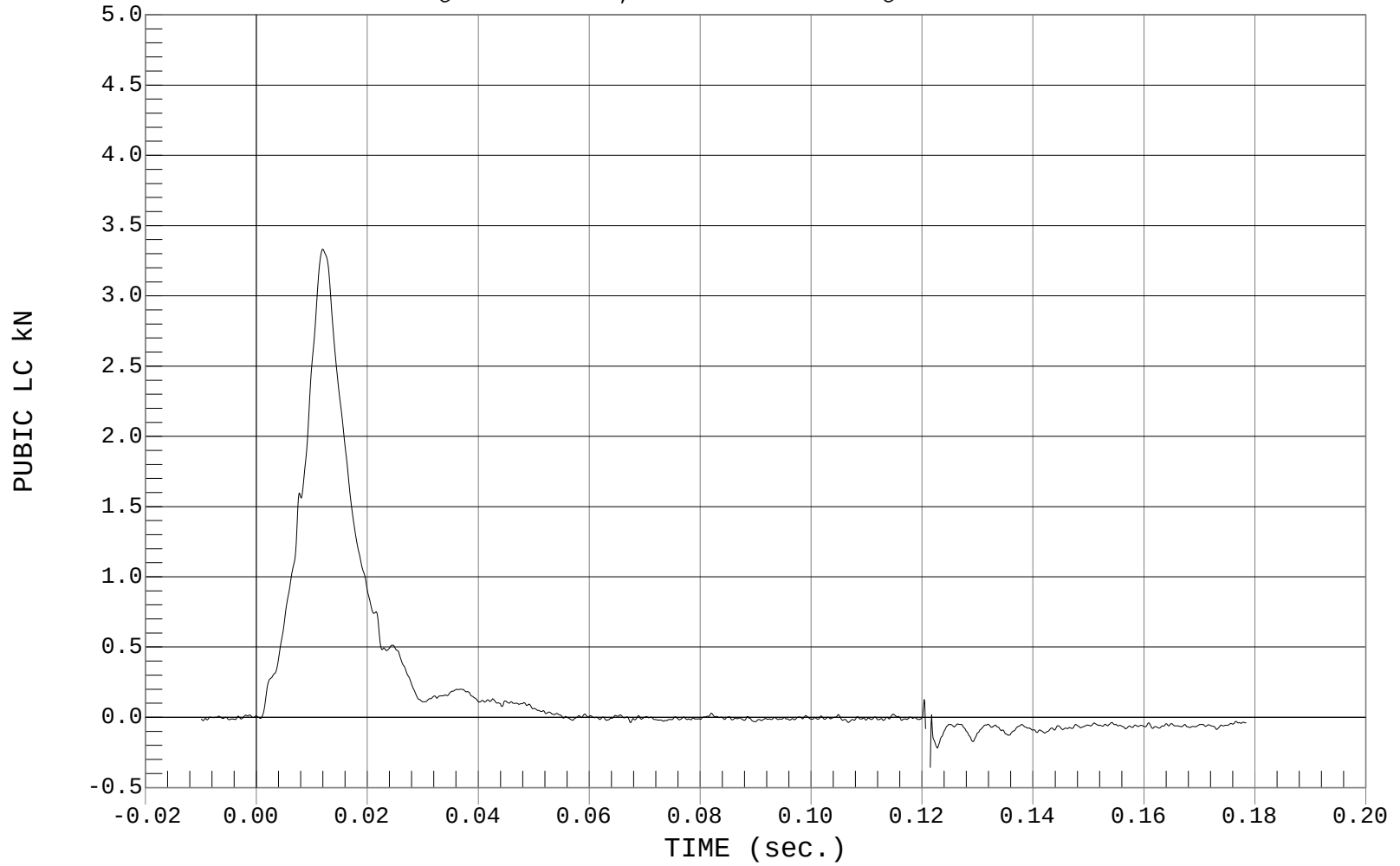
PUBIC FORCE

Test Desc.: Dummy Calibration - Pelvis Impact
Component: Dummy #010

Test Date: 05-31-01
Speed: 20.38 FT/SEC, 6.21 M/SEC

— 1 PUBIC LC, D01779FT.F02

Ymin = -3.13 kN @ 0.1211 sec., Ymax = 3.33 kN @ 0.0120 sec.



APPENDIX D

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

DUMMY AND VEHICLE CALIBRATION DATA

	INSTRUMENTS FOR LEFT FRONT DUMMY NO. 009		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X Accelerometer	J11014	Endevco	3/28/01
Head Y Accelerometer	J11625	Endevco	3/28/01
Head Z Accelerometer	J10730	Endevco	3/28/01
Upper Neck Load Cell	105	FTSS	4/30/01
Lower Neck Load Cell	110	FTSS	5/4/01
Shoulder Force Load Cell	119	FTSS	4/24/01
Upper Spine X Accelerometer	J13941	Endevco	3/20/01
Upper Spine Y Accelerometer	J13984	Endevco	3/20/01
Upper Spine Z Accelerometer	J13927	Endevco	3/28/01
Upper Rib Y Accelerometer	AJ9Y3	Endevco	3/28/01
Mid Rib Y Accelerometer	ANAM1	Endevco	3/28/01
Lower Rib Y Accelerometer	ANAN7	Endevco	3/28/01
Upper Rib Displacement	009	Honeywell	5/22/01
Mid Rib Displacement	009	Honeywell	5/22/01
Lower Rib Displacement	009	Honeywell	5/22/01
Lower Spine X Accelerometer	ALFP1	Endevco	5/30/01
Lower Spine Y Accelerometer	AP179	Endevco	5/30/01
Lower Spine Z Accelerometer	AHTY4	Endevco	5/30/01
Torso Load Cell	122	FTSS	4/12/01
T-12 Load Cell	102	FTSS	3/27/01
Front Abdomen Load Cell	122	FTSS	4/26/01
Mid Abdomen Load Cell	123	FTSS	4/26/01
Rear Abdomen Load Cell	124	FTSS	4/26/01
Pubic Symphysis Load Cell	115	Denton	3/29/01
Pelvis X Accelerometer	J13772	Endevco	2/21/01
Pelvis Y Accelerometer	J14008	Endevco	2/21/01
Pelvis Z Accelerometer	J14028	Endevco	2/21/01
Right Femur Load Cell	135	FTSS	4/18/01
Left Femur Load Cell	136	FTSS	4/19/01
Lumbar Load Cell	104	FTSS	4/24/01

DUMMY AND VEHICLE CALIBRATION DATA (Continued)

	INSTRUMENTS FOR LEFT REAR DUMMY NO. 010		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Head X Accelerometer	AMR94	Endevco	1/8/01
Head Y Accelerometer	AMTB1	Endevco	1/8/01
Head Z Accelerometer	AC9B7	Endevco	1/8/01
Upper Neck Load Cell	106	FTSS	3/27/01
Lower Neck Load Cell	111	FTSS	5/8/01
Shoulder Force Load Cell	120	FTSS	4/24/01
Upper Spine X Accelerometer	AK956	Endevco	12/18/00
Upper Spine Y Accelerometer	AK972	Endevco	12/18/00
Upper Spine Z Accelerometer	ALFP5	Endevco	12/18/00
Upper Rib Y Accelerometer	AMTG3	Endevco	12/12/00
Mid Rib Y Accelerometer	ALC37	Endevco	12/12/00
Lower Rib Y Accelerometer	AMTL6	Endevco	12/12/00
Upper Rib Displacement	010	Honeywell	5/22/01
Mid Rib Displacement	010	Honeywell	5/22/01
Lower Rib Displacement	010	Honeywell	5/22/01
Lower Spine X Accelerometer	J18953	Endevco	12/19/00
Lower Spine Y Accelerometer	AMP82	Endevco	12/19/00
Lower Spine Z Accelerometer	J18843	Endevco	12/19/00
Torso Load Cell	123	FTSS	4/12/01
T-12 Load Cell	103	FTSS	4/26/01
Front Abdomen Load Cell	119	FTSS	4/26/01
Mid Abdomen Load Cell	120	FTSS	4/26/01
Rear Abdomen Load Cell	121	FTSS	4/26/01
Pubic Symphysis Load Cell	113	Denton	3/29/01
Pelvis X Accelerometer	ALCR0	Endevco	1/8/01
Pelvis Y Accelerometer	AMRR4	Endevco	1/8/01
Pelvis Z Accelerometer	AMP44	Endevco	1/8/01
Right Femur Load Cell	137	FTSS	4/18/01
Left Femur Load Cell	138	FTSS	4/18/01
Lumbar Load Cell	105	FTSS	5/7/01

DUMMY AND VEHICLE CALIBRATION DATA (Continued)

	VEHICLE ACCELEROMETERS		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Moving Barrier CG X	I25-F09	Entran	12/13/00
Moving Barrier CG Y	I25-F07	Entran	12/13/00
Moving Barrier CG Z	I25-F08	Entran	12/13/00
Moving Barrier Rear Axle X	F11-G02	Entran	12/14/00
Moving Barrier Rear Axle Y	G13-B07	Entran	1/4/01
Left Mid A-Post Y	I26-D11	Entran	2/7/01
Left Lower A-Post Y	K16-X06	Entran	3/21/01
Left Upper B-Post	I18-G02	Entran	2/15/01
Left Mid B-Post Y	MGA045	Entran	3/21/01
Left Lower B-Post Y	A08-A10	Entran	2/7/01
Rear Floorpan Above Axle X	I25-F15	Entran	12/13/00
Rear Floorpan Above Axle Y	I25-F12	Entran	11/15/00
Rear Floorpan Above Axle Z	J07-X16	Entran	3/21/01
Driver Seat Track Y	K11-J18	Entran	3/21/01
Right Side Sill at Front Seat X	H02-J01	Entran	9/14/00
Right Side Sill at Front Seat Y	I25-J02	Entran	3/21/01
Right Side Sill at Front Seat Z	E13-D07	Entran	3/21/01
Right Side Sill at Rear Seat X	D05-R25	Entran	2/7/01
Right Side Sill at Rear Seat Y	D06-A03	Entran	2/7/01
Right Side Sill at Rear Seat Z	A08-A12	Entran	2/8/01
Left Side Sill at Front Seat Y	J10-E03	Entran	12/14/00
Left Side Sill at Rear Seat Y	E25-G07	Entran	9/14/00
Vehicle CG X	G13-F02	Entran	2/7/01
Vehicle CG Y	G13-F12	Entran	2/7/01
Vehicle CG Z	I25-F10	Entran	11/15/00

DUMMY AND VEHICLE CALIBRATION DATA (Continued)

	VEHICLE ACCELEROMETERS		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Left Front Door @ Mid Rib	A09-G07	Entran	12/13/00
Left Front Door @ Pelvis	J16-F02	Entran	2/7/01
Left Front Door @ Knee	I25-F04	Entran	12/13/00
Left Front Door @ Arm	I25-F13	Entran	11/15/00
Left Rear Door @ Mid Rib	A08-A13	Entran	2/8/01
Left Rear Door @ Pelvis	K11-G07	Entran	3/21/01
Left Rear Door @ Knee	K16-X08	Entran	3/21/01
Left Rear Door @ Arm	F07-A14	Entran	8/18/00
Left Driver Seat Frame	I25-F03	Entran	11/15/00
Right Driver Seat Frame	G01-J04	Entran	12/14/00
Lower Center Radiator Support X	G13-F03	Entran	4/4/01
Lower Center Radiator Support Y	G13-F18	Entran	4/4/01
Lower Center Radiator Support Z	G13-F16	Entran	4/4/01

Note: All Endevco accelerometers are Model No. 7264-2000

All Entran accelerometers are Model No. EGE-72

APPENDIX E

PROCEDURE USED FOR ES-2 POSITIONING

Installation of the Side Impact Dummy (recommended practice)

1. GENERAL

- 1.1 The dummy to be used for the following installation procedure is described in Annex 6 to this regulation.
- 1.2 Adjust the knee joints so that they just support the leg when it is extended horizontally (1 to 2 g).
- 1.3 Clothe the dummy in form fitting cotton stretch mid-calf length pants. Each foot is equipped with a shoe.

2. INSTALLATION

- 2.1 Place the dummy in the outboard front seat of the impact side as described in the test specifications.
- 2.2 The mid-sagittal plane of the dummy shall coincide with the centerplane of the occupant (as determined according to Annex 3, paragraph 2.8) with a tolerance of 2°.
- 2.3 The pelvis of the dummy shall be positioned according to the following:
 - 2.3.1 The pelvis pitch angle shall be 20.0° +/- 2.5°.
 - 2.3.2 A line passing through the dummy H-points shall pass through an imaginary circle in the mid-sagittal plane of the dummy. This circle has a radius of 10 mm and is located 20 mm horizontally forward and 5 mm vertically above the reference H-point, determined by the 3D H-point machine.
- 2.4 The upper torso of the dummy shall be positioned according to the following:
 - 2.4.1 The upper torso shall be bent forward and then laid back against the seat back. The shoulder of the dummy shall be set fully rearward.
 - 2.4.2 The torso reference line pitch angle shall be 25.0° +/- 2.5°. The torso reference line is defined as the thoracic spine center line.
- 2.5 The arms shall be positioned in such a way that the angle between the projection of the arm centerline on the mid-sagittal plane of the dummy and the torso reference line is 40° +/- 5°.

- 2.6 For the driver's seating position, without inducing pelvis or torso movement, place the right foot of the dummy on the undepressed accelerator pedal with the heel resting as far forward as possible on the floorpan. Set the left foot perpendicular to the lower leg with the heel resting on the floorpan in the same lateral line as the right heel. Set the knees of the dummy such that their outside surfaces are 150 ± 10 mm from the plane of symmetry of the dummy. If possible, within these constraints, place the thighs of the dummy in contact with the seat cushion.
- 2.7 For other seating positions, without inducing pelvis or torso movement, place the heels of the dummy as far forward as possible on the floorpan without compressing the seat cushion more than the compression due to the weight of the leg. Set the knees of the dummy such that their outside surfaces are 150 ± 10 mm from the plane of symmetry of the dummy.

APPENDIX F

ES-2 PEAK RESPONSES

DRIVER (ES-2) PEAK RESPONSE TABLE

Location	Peak Values								
				2000 Maxima 5/23/01		1999 Cadillac 5/29/01		1999 Prizm 6/4/01	
	Class	Axis	Units	Peak	Time	Peak	Time	Peak	Time
Head	1000	X	G	-46.4	75	-49.5	60	-25.7	49
	1000	Y	G	154.6	74	152.1	59	106.9	35
	1000	Z	G	49.7	59	49.1	52	34.7	34
	1000	RES	G	164.2	55	162.4	59	110.1	35
Head Injury Criteria (HIC)				743		825		543	
Upper Neck Force	1000	X	N	-483.9	51	433.5	181	-319.0	83
	1000	Y	N	755.0	48	578.8	102	-508.3	52
	1000	Z	N	2839.7	77	2625.0	62	-1189.4	51
	1000	RES	N	2864.2	57	2642.7	62	1290.9	51
Upper Neck Moment	600	X	Nm	-109.7	48	-72.3	53	-109.6	42
	600	Y	Nm	-36.6	47	-37.0	190	-51.3	46
	600	Z	Nm	17.4	154	17.7	181	20.0	50
	600	RES	Nm	115.3	48	80.6	54	119.9	44
Lower Neck Force	1000	X	N	-935.5	57	-483.3	60	-338.5	46
	1000	Y	N	-668.0	160	795.7	52	1237.0	42
	1000	Z	N	2493.4	77	2098.5	62	-1257.0	52
	1000	RES	N	2678.7	57	2138.8	62	1494.7	49
Lower Neck Moment	600	X	Nm	114.9	82	-116.2	174	52.6	88
	600	Y	Nm	70.4	57	-86.3	179	-89.3	169
	600	Z	Nm	17.9	51	-15.4	110	23.9	68
	600	RES	Nm	153.8	161	142.6	175	102.2	169
Shoulder Force	1000	X	N	-1760.7	59	-734.6	44	-1651.2	36
	1000	Y	N	3708.0	40	1690.3	45	3008.6	37
	1000	Z	N	-1394.9	61	-1263.2	41	-632.4	43
	1000	RES	N	4316.4	59	2227.5	45	3440.7	37

DRIVER (ES-2) PEAK RESPONSE TABLE (CONTINUED)

Location	Peak Values								
				2000 Maxima 5/23/01		1999 Cadillac 5/29/01		1999 Prizm 6/4/01	
	Class	Axis	Units	Peak	Time	Peak	Time	Peak	Time
Upper Spine	180	X	G	12.5	58	13.8	62	-20.6	36
	180	Y	G	86.2	42	65.8	44	83.3	34
	180	Z	G	7.2	83	15.6	41	18.2	26
Lower Spine	180	X	G	-20.0	40	11.9	28	70.6	24
	180	Y	G	86.6	35	68.0	36	120.6	24
	180	Z	G	-8.1	40	-6.6	62	17.5	23
Upper Rib	180	Y	G	186.3	37	150.9	75	122.0	37
Mid Rib	180	Y	G	155.0	32	102.1	69	144.2	20
Lower Rib	180	Y	G	193.7	30	142.9	64	125.8	19
Upper Rib Deflection	180	Y	mm	-34.9	44	-41.8	52	-36.2	42
Mid Rib Deflection	180	Y	mm	-30.8	46	-30.1	50	-37.7	42
Lower Rib Deflection	180	Y	mm	-34.7	43	-23.6	48	-39.0	37
Upper Rib VC	180	Y	m/sec	0.78	40	0.64	45	0.57	23
Mid Rib VC	180	Y	m/sec	0.43	36	-0.35	58	0.71	21
Lower Rib VC	180	Y	m/sec	0.70	34	0.21	37	0.78	21
Torso Force	600	X	N	741.2	41	481.5	42	6684.4	25
	600	Y	N	-408.2	37	-331.9	43	8103.3	24
Torso Moment	600	Y	Nm	-23.1	44	-24.5	181	393.4	26
	600	Z	Nm	26.7	42	19.8	40	245.5	25
T12 Force	600	X	N	736.3	56	739.0	119	-4231.4	80
	600	Y	N	3638.1	36	4471.6	36	-2080.8	75
T12 Moment	600	X	Nm	-78.0	39	155.0	86	220.7	35
	600	Y	Nm	-244.4	37	106.6	120	*	*

* No valid data collected

DRIVER (ES-2) PEAK RESPONSE TABLE (CONTINUED)

Location	Peak Values								
				2000 Maxima 5/23/01		1999 Cadillac 5/29/01		1999 Prizm 6/4/01	
	Class	Axis	Units	Peak	Time	Peak	Time	Peak	Time
Abdomen Front Force	600	Y	N	417.2	36	935.1	36	493.0	31
Abdomen Mid Force	600	Y	N	672.1	36	1679.0	30	586.5	36
Abdomen Rear Force	600	Y	N	1102.3	35	1867.6	36	762.5	25
Abdomen Summed Force	600	Y	N	2179.0	35	4377.3	36	1672.1	31
Pubic Symphysis Force	600	Y	N	-4842.7	31	-4732.3	34	-3432.8	30
Right Femur Force	600	X	N	587.0	38	717.1	46	685.3	37
	600	Y	N	-1128.0	36	-1641.8	44	-803.7	37
	600	Z	N	1355.5	36	1130.2	43	1066.4	36
	600	RES	N	1829.8	36	2030.6	44	1176.7	36
Right Femur Moment	600	X	Nm	148.8	53	-192.8	35	237.0	37
	600	Y	Nm	101.4	38	107.2	46	72.5	37
	600	Z	Nm	34.0	54	34.8	50	36.5	40
	600	RES	Nm	164.7	29	193.5	35	248.1	37
Left Femur Force	600	X	N	-448.0	33	538.4	50	660.4	43
	600	Y	N	-1096.4	27	-12302.9	68	-3621.4	60
	600	Z	N	1473.2	31	1345.0	51	1946.6	27
	600	RES	N	1781.9	31	12303.0	68	3632.1	60
Left Femur Moment	600	X	Nm	300.4	30	248.2	36	128.2	30
	600	Y	Nm	-107.1	33	78.0	51	127.1	40
	600	Z	Nm	65.8	36	23.9	105	41.8	36
	600	RES	Nm	320.7	30	249.7	36	132.7	30
Pelvis	1000	X	G	19.8	36	24.4	112	28.0	37
	1000	Y	G	104.7	31	115.6	32	100.9	26
	1000	Z	G	-19.1	33	-13.9	34	10.1	28

PASSENGER (ES-2) PEAK RESPONSE TABLE

Location	Peak Values								
				2000 Maxima 5/23/01		1999 Cadillac 5/29/01		1999 Prizm 6/4/01	
	Class	Axis	Units	Peak	Time	Peak	Time	Peak	Time
Head	1000	X	G	-17.7	80	-33.6	78	-27.0	71
	1000	Y	G	108.1	63	66.3	71	77.2	53
	1000	Z	G	-55.5	68	32.0	67	-32.6	65
	1000	RES	G	108.9	63	72.3	71	77.8	53
Head Injury Criteria (HIC)				533		394		424	
Upper Neck Force	1000	X	N	-267.5	107	-752.8	79	-439.7	71
	1000	Y	N	-1234.0	69	340.1	112	-1002.9	60
	1000	Z	N	-2639.6	89	-1374.5	74	-1946.1	56
	1000	RES	N	2884.5	69	1497.4	74	2140.3	57
Upper Neck Moment	600	X	Nm	-40.0	68	-102.9	72	-55.9	69
	600	Y	Nm	25.1	101	-100.0	73	74.4	91
	600	Z	Nm	5.2	86	42.5	95	19.6	66
	600	RES	Nm	40.1	68	143.9	72	75.6	91
Lower Neck Force	1000	X	N	310.6	101	-1117.7	73	-802.2	71
	1000	Y	N	1355.6	69	1847.1	70	1418.1	58
	1000	Z	N	2849.2	90	-1555.5	74	-2077.6	56
	1000	RES	N	3165.0	70	2449.1	73	2480.4	58
Lower Neck Moment	600	X	Nm	25.9	192	141.8	73	24.6	184
	600	Y	Nm	24.6	88	112.3	74	85.9	73
	600	Z	Nm	7.9	85	46.8	97	16.6	69
	600	RES	Nm	34.7	88	180.5	73	87.5	73
Shoulder Force	1000	X	N	-1126.2	89	-3009.4	62	-1957.0	61
	1000	Y	N	1659.5	69	3638.1	66	3361.9	61
	1000	Z	N	-1939.1	88	-1999.0	69	-1908.3	60
	1000	RES	N	2788.0	69	5092.8	66	4327.1	61

PASSENGER (ES-2) PEAK RESPONSE TABLE (CONTINUED)

Location	Peak Values								
				2000 Maxima 5/23/01		1999 Cadillac 5/29/01		1999 Prizm 6/4/01	
	Class	Axis	Units	Peak	Time	Peak	Time	Peak	Time
Upper Spine	180	X	G	-22.7	68	-28.6	63	-44.2	57
	180	Y	G	42.2	71	54.7	63	59.0	59
	180	Z	G	7.8	78	-10.1	55	-12.0	51
Lower Spine	180	X	G	-14.8	62	-22.0	60	-31.7	53
	180	Y	G	45.1	59	45.6	57	49.3	53
	180	Z	G	-9.8	62	-9.9	54	-14.8	51
Upper Rib	180	Y	G	43.5	58	87.9	60	85.7	54
Mid Rib	180	Y	G	39.3	49	55.2	62	81.9	52
Lower Rib	180	Y	G	50.3	49	55.1	57	100.6	52
Upper Rib Deflection	180	Y	mm	-36.5	73	-26.2	75	-27.7	65
Mid Rib Deflection	180	Y	mm	-25.8	72	-3.1	78	-20.6	67
Lower Rib Deflection	180	Y	mm	-22.1	70	-2.1	94	-15.3	66
Upper Rib VC	180	Y	m/sec	0.33	83	0.27	63	0.31	55
Mid Rib VC	180	Y	m/sec	0.19	81	0.0		0.18	54
Lower Rib VC	180	Y	m/sec	0.16	78	0.0		0.13	54
Torso Force	600	X	N	553.9	75	1142.6	89	1931.3	87
	600	Y	N	-160.9	79	-483.8	60	-565.0	90
Torso Moment	600	Y	Nm	-17.7	79	-12.4	76	39.2	91
	600	Z	Nm	17.7	78	-11.4	105	-56.5	88
T12 Force	600	X	N	-804.8	65	-1261.9	59	-1311.2	52
	600	Y	N	1431.1	61	2692.8	58	2670.1	54
T12 Moment	600	X	Nm	-294.6	61	-190.9	60	-219.0	51
	600	Y	Nm	-149.2	63	-111.3	59	-105.9	47

PASSENGER (ES-2) PEAK RESPONSE TABLE (CONTINUED)

Location	Peak Values								
				2000 Maxima 5/23/01		1999 Cadillac 5/29/01		1999 Prizm 6/4/01	
	Class	Axis	Units	Peak	Time	Peak	Time	Peak	Time
Abdomen Front Force	600	Y	N	346.4	64	1799.5	64	1029.4	55
Abdomen Mid Force	600	Y	N	307.7	65	387.5	62	649.2	56
Abdomen Rear Force	600	Y	N	183.5	67	70.8	43	243.0	61
Abdomen Summed Force	600	Y	N	778.5	65	2122.0	64	1733.5	55
Pubic Symphysis Force	600	Y	N	-2591.9	42	-2981.4	41	-3149.6	38
Right Femur Force	600	X	N	-285.3	40	-513.3	69	372.0	42
	600	Y	N	1607.3	40	1173.3	40	966.6	37
	600	Z	N	1201.8	42	1634.3	69	1428.5	38
	600	RES	N	1760.3	40	1751.2	69	1559.1	37
Right Femur Moment	600	X	Nm	124.5	53	185.3	54	170.8	36
	600	Y	Nm	-48.9	71	42.2	56	-42.1	89
	600	Z	Nm	45.6	70	67.1	68	37.9	46
	600	RES	Nm	130.1	53	190.6	54	171.5	36
Left Femur Force	600	X	N	649.3	40	-531.2	40	788.8	28
	600	Y	N	1784.4	34	1636.3	64	2441.3	29
	600	Z	N	-2161.0	40	-1753.7	40	-3344.1	28
	600	RES	N	2533.8	40	2034.4	40	4093.0	28
Left Femur Moment	600	X	Nm	-231.4	32	308.3	40	-343.3	28
	600	Y	Nm	-104.2	41	-71.7	51	-117.4	38
	600	Z	Nm	71.9	39	-45.6	41	58.2	54
	600	RES	Nm	232.0	32	313.5	40	343.4	28
Pelvis	1000	X	G	-49.1	41	-37.6	42	-56.2	38
	1000	Y	G	70.4	41	59.6	42	77.0	38
	1000	Z	G	-20.5	41	-15.8	40	-21.0	41

APPENDIX G

ES-2 POLARITY CHECKLIST

ES-2 POLARITY CHECKLIST

Location	Channel	Dummy Manipulation	Polarity
Upper Neck	Fx	Head Rearward, Chest Forward	+
	Fy	Head Leftward, Chest Rightward	+
	Fz	Head Upward, Chest Downward	+
	Mx	Left Ear Toward Left Shoulder	+
	My	Chin Toward Sternum	+
	Mz	Chin Toward Left Shoulder	+
Lower Neck	Fx	Head Rearward, Chest Forward	+
	Fy	Head Leftward, Chest Rightward	+
	Fz	Head Upward, Chest Downward	+
	Mx	Left Ear Toward Left Shoulder	+
	My	Chin Toward Sternum	+
	Mz	Chin Toward Left Shoulder	+
Shoulder	Fx	Shoulder Forward, Chest Rearward	+
	Fy	Shoulder Rightward, Chest Leftward	+
	Fz	Shoulder Downward, Chest Upward	+
Torso Back Plate	Fx	Push Backplate in the +X Direction	+
	Fy	Push Backplate to the Right (+Y)	+
	My	Push Bottom Half and Pull Top Half of Backplate	+
	Mz	Push Left Half and Pull Right Half of Backplate	+
Thorax Upper Rib	Dy	Push Rib Rightward	+
Thorax Mid Rib	Dy	Push Rib Rightward	+
Thorax Lower Rib	Dy	Push Rib Rightward	+
Pubic Load	Fy	Right H-Point Pad Leftward, Left Pad Rightward	(-)
T12 Load	Fx	Chest Rearward, Pelvis Forward	+
	Fy	Chest Leftward, Pelvis Rightward	+
	Mx	Left Shoulder Toward Left Hip	+
	My	Sternum Toward Front of Legs	+
Left Iliac Load	Fy	Left Iliac Rightward, Chest Leftward	+

ES-2 POLARITY CHECKLIST (CONTINUED)

Location	Channel	Dummy Manipulation	Polarity
Ant. Ab. Load	Fy	Left Side of Abdomen Rightward, Chest Leftward	+
Mid Ab. Load	Fy	Left Side of Abdomen Rightward, Chest Leftward	+
Post. Ab. Load	Fy	Left Side of Abdomen Rightward, Chest Leftward	+
Left Upper Leg Load	Fx	Knee Upward, Upper Femur Downward	+
	Fy	Knee Rightward, Upper Femur Leftward	+
	Fz	Knee Forward, Pelvis Rearward	+
	Mx	Knee Leftward, Hold Upper Femur in Place	+
	My	Knee Upward, Hold Upper Femur in Place	+
	Mz	Tibia Leftward, Hold Pelvis in Place	+
Lumbar Spine	Fx	Knee Upward, Upper Femur Downward	+
	Fy	Knee Rightward, Upper Femur Leftward	+
	Fz	Knee Forward, Pelvis Rearward	+
	Mx	Knee Leftward, Hold Upper Femur in Place	+
	My	Knee Upward, Hold Upper Femur in Place	+
	Mz	Tibia Leftward, Hold Pelvis in Place	+