

REPORT NO.: 214D-MGA-2001-001

NEW CAR ASSESSMENT PROGRAM
SIDE IMPACT TESTING
PASSENGER CARS

Honda Motor Company

2001 Honda Civic 4 Door Sedan

MGA PROVING GROUNDS
5000 WARREN ROAD
BURLINGTON, WI 53105



Test Date: October 30, 2000

Report Date: November 14, 2000

FINAL REPORT

Prepared For:

U.S. DEPARTMENT OF TRANSPORTATION
NATIONAL HIGHWAY TRAFFIC SAFETY ADMINISTRATION
SAFETY PERFORMANCE STANDARDS
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		14. Sponsoring Agency Code NPS-10																						
15. Supplementary Notes																								
<p>16. Abstract</p> <p>A 90° Moving Deformable Barrier NCAP side impact was conducted on the subject 2001 Honda Civic 4 door to obtain new car assessment and research data indicant of FMVSS No. 214D performance. The test was conducted at MGA Research Corporation in Burlington, Wisconsin, on October 30, 2000.</p> <p>The impact velocity of the Moving Deformable Barrier (MDB) was 61.8 kph, and the ambient temperature at the struck side (driver's) of the target vehicle at the time of impact was 21°C. The target vehicle post test maximum crush was 322 mm between levels 2 and 3. The test vehicle's performance follows:</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"></th> <th style="text-align: center;"><u>DRIVER</u></th> <th style="text-align: center;"><u>PASS.</u></th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib (LUR) Accel., g</td> <td style="text-align: center;">46</td> <td style="text-align: center;">54</td> </tr> <tr> <td>Left Lower Rib (LLR) Accel., g</td> <td style="text-align: center;">64</td> <td style="text-align: center;">69</td> </tr> <tr> <td>Lower Spine (T₁₂) Accel., g</td> <td style="text-align: center;">60</td> <td style="text-align: center;">76</td> </tr> <tr> <td>Thoracic Trauma Index (TTI)</td> <td style="text-align: center;">62</td> <td style="text-align: center;">72</td> </tr> <tr> <td>Pelvis (PEV) Accel., g</td> <td style="text-align: center;">58</td> <td style="text-align: center;">85</td> </tr> <tr> <td>HIC</td> <td style="text-align: center;">423</td> <td style="text-align: center;">753</td> </tr> </tbody> </table> <p>The doors on the struck side of the vehicle did not separate from the body at the hinges or latches and the opposite doors did not open during the side impact event.</p>					<u>DRIVER</u>	<u>PASS.</u>	Left Upper Rib (LUR) Accel., g	46	54	Left Lower Rib (LLR) Accel., g	64	69	Lower Spine (T ₁₂) Accel., g	60	76	Thoracic Trauma Index (TTI)	62	72	Pelvis (PEV) Accel., g	58	85	HIC	423	753
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17. Key Words New Car Assessment Program (NCAP) FMVSS No. 214D Side Impact Dummy (SID) Occupant Side Impact Protection		18. Distribution Statement Copies of this report are available from: National Highway Traffic Safety Adm. Technical Ref. Division, Room 5108 (NAD-52) 400 Seventh Street, S.W. Washington, D.C. 20590																						
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SECTION 1
PURPOSE AND TEST PROCEDURE

This side impact test is part of the FY01 NCAP Side Impact Program, sponsored by the National Highway Traffic Safety Administration (NHTSA). The purpose of this test was to evaluate side impact protection of a 2001 Honda Civic 4 door.

This side impact test was conducted in accordance with the New Car Assessment Program Side Impact Testing Procedure dated October 1996.

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

SECTION 2

SUMMARY OF SIDE IMPACT TEST

A 2001 Honda Civic 4 door was impacted on the left or driver's 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 38.4 mph (61.8 kph). 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 October 30, 2000. Pre- and post-test photographs of the test vehicle, the MDB and the side impact dummies (SIDs) are included in Appendix A.

Two side impact dummies (SIDs) were placed in the driver and left rear designated seating positions according to instructions specified in the New Car Assessment Program Side Impact Laboratory Test Procedure which is dated October 1996. The side impact event was documented by nine high speed cameras. Camera locations and other pertinent camera information can be found in this report.

The SIDs were instrumented with the following accelerometers.

1. Left Upper Rib (LUR) uniaxial accelerometer (Y-direction)
2. Left Lower Rib (LLR) uniaxial accelerometer (Y-direction)
3. Lower Thoracic Spine (T₁₂) uniaxial accelerometer (Y-direction)
4. Pelvic (PEV) section uniaxial accelerometer (Y-direction)
5. Head Center of Gravity triaxial accelerometers (X, Y, and Z-direction)

Appendix B contains the vehicle and dummy response data traces. A summary of the side impact dummy (SID) 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.

The following table summarizes the results of the test:

Injury Criteria	Front SID	Rear SID
TTI (g)	62	72
Pelvis (g)	58	85
HIC	423	753

SECTION 3
SIDE IMPACT DUMMY (SID) AND
VEHICLE TEST DATA

DATA SHEET NO. 1
GENERAL VEHICLE TEST PARAMETER DATA

TEST VEHICLE INFORMATION:

Year/Make/Model/Body Style: 2001/Honda/Civic/4 door

VIN: 1HGES16571L010437

Vehicle Body Color: Titanium Build Date: 9/00

Engine Data: 4 Cylinders; CID; 1.7 Liter; cc

Placement Longitudinal; X Lateral

Transmission: 3 Speed; Manual; X Automatic; Overdrive

Final Drive: Rear Wheel Drive; X Frt. Wheel Drive; Four Wheel Drive

Odometer Reading 3 miles

Options: X A/C; X Pwr. Steering; X Pwr. Brakes; X Pwr. Windows;

 X Cruise Control; X Tilt Wheel; X Power Door Locks;

DATA FROM TIRE PLACARD:

Tire Pressure (at capacity): 30 Psi FRONT

30 Psi REAR

Recommended Tire Size: P185 / 70R14

Tires on Test Vehicle: P185 / 70R14 Manufacturer: Firestone

Vehicle Capacity Data:

Number of Occupants: 2 Front; 3 Rear; 3rd Seat, 5 Total

Type of Front Seats: X Bucket; Bench; Split Bench

Type of Front Seat Back: Fixed; X Adjustable with X Lever

Vehicle Maximum Capacity Loading = 385.6 kg (A)

No. of Occupants x 68.04 kg. = 340.2 kg (B)

Cargo Capacity (A-B) = 45.4 kg

GENERAL VEHICLE TEST PARAMETER DATA (Cont'd)

WEIGHT OF TEST VEHICLE WITH MAXIMUM FLUIDS:

Right Front =	<u>344.3</u>	kg	Right Rear =	<u>223.6</u>	kg
Left Front =	<u>347.9</u>	kg	Left Rear =	<u>228.2</u>	kg
TOTAL FRONT =	<u>692.2</u>	kg	TOTAL REAR =	<u>451.8</u>	kg
% of Total Weight =	<u>60.5</u>	%	% of Total Weight =	<u>39.5</u>	%
TOTAL WEIGHT =	<u>1144.0</u>	kg			

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Test Vehicle Delivered Weight with Maximum Fluids	=	<u>1144.0</u>	kg
Cargo Carrying Capacity of Test Vehicle*	=	<u>45.4</u>	kg
Weight of 2 Side Impact Dummies (2 x <u>80.7</u> kg.)	=	<u>161.4</u>	kg
TEST VEHICLE TARGET WEIGHT	=	<u>1350.8</u>	kg

ACTUAL WEIGHT OF TEST VEHICLE WITH 2 DUMMIES AND CARGO (Fully Loaded):

Right Front =	<u>340.6</u>	kg	Right Rear =	<u>283.5</u>	kg
Left Front =	<u>401.0</u>	kg	Left Rear =	<u>323.9</u>	kg
TOTAL FRONT =	<u>741.6</u>	kg	TOTAL REAR =	<u>607.4</u>	kg
% of Total Weight =	<u>55.0</u>	%	% of Total Weight =	<u>45.0</u>	%
TOTAL WEIGHT =	<u>1349.0</u>	kg			

TEST VEHICLE ATTITUDE:

CURB WEIGHT ATTITUDE:

Right Front 667 mm Left Front 665 mm Right Rear 683 mm Left Rear 677 mm

FULLY LOADED WEIGHT ATTITUDE:

Right Front 664 mm Left Front 648 mm Right Rear 664 mm Left Rear 643 mm

TEST ATTITUDE:

Right Front 658 mm Left Front 648 mm Right Rear 663 mm Left Rear 651 mm

* light trucks and MPV's RCW is 136 kgs or manufacturer's value, whichever is less

GENERAL VEHICLE TEST PARAMETER DATA (Cont'd)

Test Vehicle Wheelbase: 2620 mm

C.G. = 1142 mm rearward of front wheel centerline

TOTAL VEHICLE LENGTH:

Right Side = 3778 mm

Centerline = 4442 mm

Left Side = 3777 mm

FRONT SEAT CUSHION PLACEMENT:

Total Length of Adjustment Travel: 240 mm

Test Position: 13th position rearward of 25 total

FRONT SEAT BACK ADJUSTMENT POSITION:

Seat Back Angle = 5th notch rearward from full up as 0

SECOND POSITION SEAT:

Total Length of Fore/Aft Adjustment Travel: N/A

Seat Back Adjustment Position: N/A

ADJUSTABLE STEERING COLUMN POSITION: mid position

WINDOW POSITIONS: Left Front Closed Left Rear Closed

Right Front Open Right Rear Open

AMOUNT OF STODDARD SOLVENT IN FUEL TANK:

Fuel system usable capacity = 12.5 gallons

Test Volume: 11.5 gallons 92 % of capacity

LOCATIONS OF IMPACT POINT ON TEST VEHICLE SIDE TO BE IMPACTED:

Wheelbase: = 2620 mm

Impact Point is 370 mm rearward of front axle centerline

DATA SHEET NO. 2
TEST VEHICLE SUMMARY OF RESULTS

Year/Make/Model/Body Style: 2001/Honda/Civic/4 door

Test Date: October 30, 2000

Overall Length = 4442 mm; Overall Width = 1716 mm

TEST WEIGHT:

Right Front = 358.8 kg Right Rear = 279.4 kg

Left Front = 398.7 kg Left Rear = 305.7 kg

TOTAL FRONT = 757.5 kg TOTAL REAR = 585.1 kg

% of Total Weight = 56.4 % % of Total Weight = 43.6 %

TOTAL WEIGHT = 1342.6 kg

Wheelbase = 2620 mm

Longitudinal C.G. from Center of Front Axle = 1142 mm

Impact Angle with Respect to Impactor = 90E degrees

MAXIMUM EXTERIOR STATIC CRUSH:

1. LEVEL 1 (236 mm above ground) = 93 mm

2. LEVEL 2 (483 mm above ground) = 297 mm

3. LEVEL 3 (581 mm above ground) = 277 mm

4. LEVEL 4 (851 mm above ground) = 259 mm

5. LEVEL 5 (1353 mm above ground) = 126 mm

Maximum Post-Test Intrusion = 322 mm

OCCUPANTS:

	<u>Driver</u>	<u>Left Rear Passenger</u>
Type of Dummy	<u>SID</u>	<u>SID</u>
Restraints Used	<u>Type II Seat belt</u> <u>Side seat airbag</u>	<u>Type II Seat belt</u>

TEST VEHICLE SUMMARY OF RESULTS (Cont'd)

INSTRUMENTATION:

Number of Vehicle Data Channels:		=	<u>25</u>
Number of Cameras:	Onboard Vehicle	=	<u>3</u>
	Offboard Vehicle	=	<u>4</u>
	Deformable Barrier	=	<u>2</u>
	TOTAL	=	<u>9</u>

DATA SHEET NO. 3

MOVING DEFORMABLE BARRIER (MDB) SUMMARY OF RESULTS

Year/Make/Model/Body Style: 2001/Honda/Civic/4 door

Test Date: October 30, 2000

POSITION OF IMPACT (MDB) ON MONORAIL:

Crabbed 27^B to left

MDB DETAILS:

Overall Width of Framework Carriage	=	<u>1252 mm</u>
Overall Length of MDB (incl. honeycomb impact face)	=	<u>4115 mm</u>
Wheelbase of Framework Carriage	=	<u>2591 mm</u>
Tread of Framework Carriage (Front & Rear)	=	<u>1880 mm</u>
C.G. Location Rearward of Front Axle	=	<u>1106 mm</u>
C.G. Location From Center Line	=	<u>-11 mm</u>
C.G. Location Above Ground Level	=	<u>481 mm</u>

MDB WEIGHT:

Left Front	=	<u>395.1 kg</u>	Left Rear	=	<u>293.8 kg</u>
Right Front	=	<u>385.7 kg</u>	Right Rear	=	<u>287.4 kg</u>
TOTAL FRONT	=	<u>780.8 kg</u>	TOTAL REAR	=	<u>581.2 kg</u>
TOTAL MDB WEIGHT	=	<u>1362.0 kg</u>			

Impact Angle (MDB C/L to Target Vehicle C/L) = 90 E degrees

Impact Speed = Primary: 38.4 mph (61.8 kph) Secondary: 38.4 mph (61.8 kph)

CRASH TEST SUMMARY FOR SIDE IMPACTOR (Cont'd)

MAXIMUM STATIC CRUSH OF HONEYCOMB IMPACT FACE:

1. Row A Top of Stack (813 mm) = 168 mm
2. Row B Mid Stack (686 mm) = 135 mm
3. Row C Top of Bumper (533 mm) = 88 mm
4. Row D Center of Bumper (432 mm) = 148 mm

INSTRUMENTATION:

Number of MDB Data Channels = 7

DATA SHEET NO. 4
POST-TEST OBSERVATIONS

Year/Make/Model/Body Style: 2001/Honda/Civic/4 door

Test Date: October 30, 2000

VISIBLE DUMMY CONTACT POINTS:

	<u>LEFT FRONT SID</u>	<u>LEFT REAR SID</u>
Head	<u>Door Panel</u>	<u>C-Post</u>
Arm	<u>Airbag</u>	<u>Door Panel</u>
Pelvis	<u>Airbag</u>	<u>Arm Rest</u>
Left Knee	<u>Door Panel</u>	<u>Door Panel</u>
Right Knee	<u>Left Knee</u>	<u>Left Knee</u>

DOOR OPENING:

	<u>LEFT SIDE</u>	<u>RIGHT SIDE</u>
Front	<u>Remained Closed</u>	<u>Remained Closed</u>
Rear	<u>Remained Closed</u>	<u>Remained Closed</u>

MDB DISTANCE FROM TARGET IMPACT POINT:

Horizontal: 2 mm forward Vertical: 0 mm

ARM REST LOCATIONS:

Front: 230 mm from below window

Rear: 235 mm from below window

POST-TEST OBSERVATIONS (Cont'd)

SEAT CRUSH:

Front Seat Back: 35 mm Front Seat Cushion: 89 mm
Left Rear Seat Back: 93 mm Rear Seat Cushion: 112 mm

GLAZING DAMAGE:

Left front and left rear door glass broken, windshield cracked

PILLAR PERFORMANCE:

No failure noted.

SILL SEPARATION:

No separation noted.

OTHER NOTABLE IMPACT EFFECTS:

None

AIRBAG DEPLOYMENT STATUS:

	<u>DRIVER</u>	<u>FRONT PASSENGER</u>	<u>REAR PASSENGER</u>
Frontal	<u>No</u>	<u>No</u>	<u>N/A</u>
Side	<u>Deployed</u>	<u>No</u>	<u>N/A</u>

SECTION 4
OCCUPANT AND VEHICLE INFORMATION

DATA SHEET NO. 5
SIDE IMPACT DUMMY (SID) INSTRUMENTATION DATA

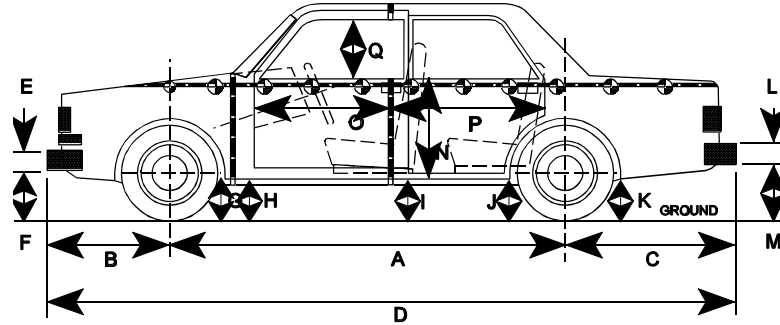
Year/Make/Model/Body Style: 2001/Honda/Civic/4 door

Test Date: October 30, 2000

	Driver SID ID # 269				Left Passenger SID ID # 270			
	Pos. Direct.		Neg. Direct		Pos. Direct.		Neg. Direct	
	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)
HEAD ACCELERATIONS								
Longitudinal	9.1	170	18.2	74	7.5	47	24.1	53
Lateral	54.9	66	31.4	27	100.9	53	6.6	37
Vertical	60.7	54	0.6	16	28.6	46	51.7	61
Resultant	62.6	54	--	--	105.3	53	--	--
HIC	423	--	--	--	753	--	--	--
RIB ACCELERATIONS								
Left Upper Rib (LUR) Y	46.4	25	16.3	79	54.1	36	12.6	101
Left Lower Rib (LLR) Y	63.7	25	11.6	79	68.6	35	28.2	68
SPINE ACCELERATIONS								
Lower Lateral Y	60.1	38	8.6	113	75.6	41	25.6	63
PELVIS ACCELERATIONS								
Lateral Y	58.1	31	12.6	54	85.3	36	11.9	73

REFERENCE: Positive Direction- Longitudinal (X) = forward
Lateral (Y) = to right
Vertical (Z) = down

DATA SHEET NO. 6
VEHICLE PRE AND POST-TEST MEASUREMENTS



LEFT SIDE VIEW

D = Length at Centerline
 R = Right Side Length
 S = Left Side Length
 T = Width at B Post
 J1 = To Pinch Weld
 E & L = Bumper Thickness

J2 = To Sill

ALL MEASUREMENTS IN (mm)

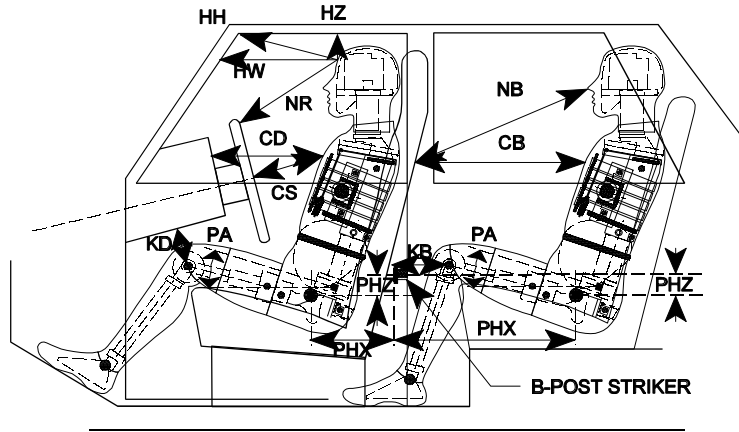
	PRE-TEST	POST-TEST	Ä CHANGE
A	2620	2625	-5
B	816	772	44
C	1006	972	34
D	4442	4369	73
E	149	149	0
F	356	369	-13
G	165	172	-7
H	161	176	-15
I	167	165	2
J1/J2	167/158	136/125	31/33
K	253	236	17
L	208	208	0
M	377	370	7
N	672	583	89
O	770	732	38
P	1174	1077	97
Q	468	394	74
R	3778	3770	8
S	3777	3723	54
T	1716	1564	152

DATA SHEET NO. 7

SIDE IMPACT DUMMY (SID) LONGITUDINAL CLEARANCE DIMENSIONS

Year/Make/Model/Body Style: 2001/Honda/Civic/4 door

Test Date: October 30, 2000



NOTE: All dimensions are in mm with tolerance of ± 3 mm

	DRIVER SID ID # 269		LEFT REAR PASSENGER SID ID # 270
HH	336	HZ	168
HW	559	NB	628
HZ	180	CB	537
NR	430	KBL (KBA)	235 (0.0°)
CD	524	KBR (KBA)	214 (0.0°)
CS	322	PA°	23.9°
KDL(KDA°)	230 (0.0°)	PHX	270
KDR(KDA°)	230 (0.0°)	PHZ	288
PA°	24.2°		
PHX	192		
PHZ	127		

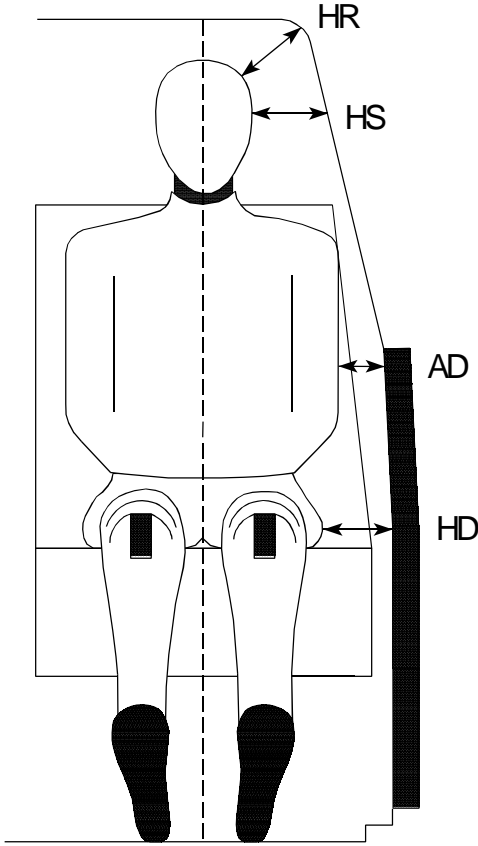
NOTE: 2-door vehicle shown. Rear dummy PHX & PHZ measurements for 4-door vehicle would use the C-post striker as reference point.

DATA SHEET NO. 8

SIDE IMPACT DUMMY (SID) LATERAL CLEARANCE DIMENSIONS

Year/Make/Model/Body Style: 2001/Honda/Civic/4 door

Test Date: October 30, 2000



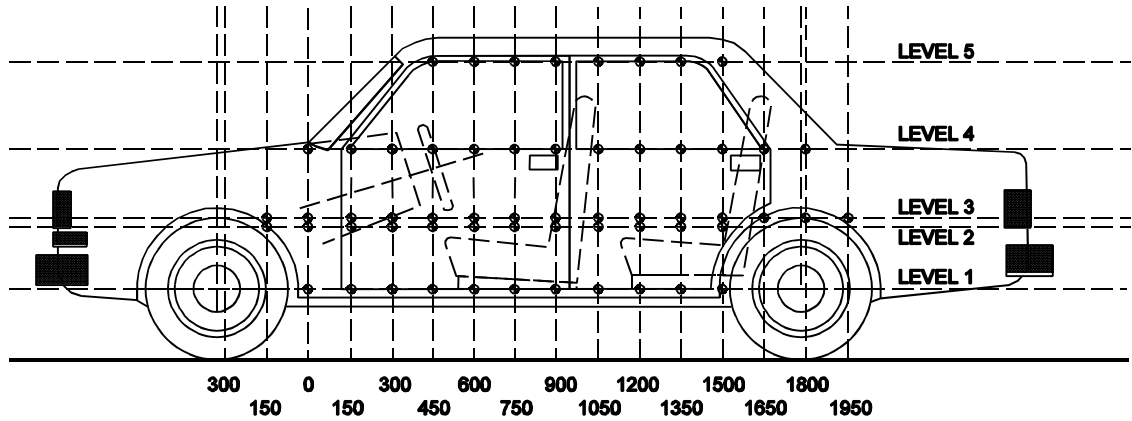
NOTE: All dimensions are in mm

	DRIVER SID ID # 269	LEFT REAR PASSENGER SID ID # 270
HR	190	179
HS	298	296
AD	85	76
HD	138	168

DATA SHEET NO. 9
VEHICLE SIDE MEASUREMENTS

Year/Make/Model/Body Style: 2001/Honda/Civic/4 door

Test Date: October 30, 2000



LEFT SIDE VIEW

NOTE: All measurements are in millimeters (mm)

- LEVEL 5 - WINDOW TOP
- LEVEL 4 - WINDOW SILL
- LEVEL 3 - MID-DOOR
- LEVEL 2 - OCCUPANT H-POINT
- LEVEL 1 - AXLE CENTERLINE HEIGHT OR SILL TOP HEIGHT

MEASUREMENTS ARE TAKEN WHEN THE VEHICLE IS IN THE "AS TESTED"
CONFIGURATION

MEASUREMENTS ALONG THE VERTICAL 750 mm. LINE SHOWN ABOVE

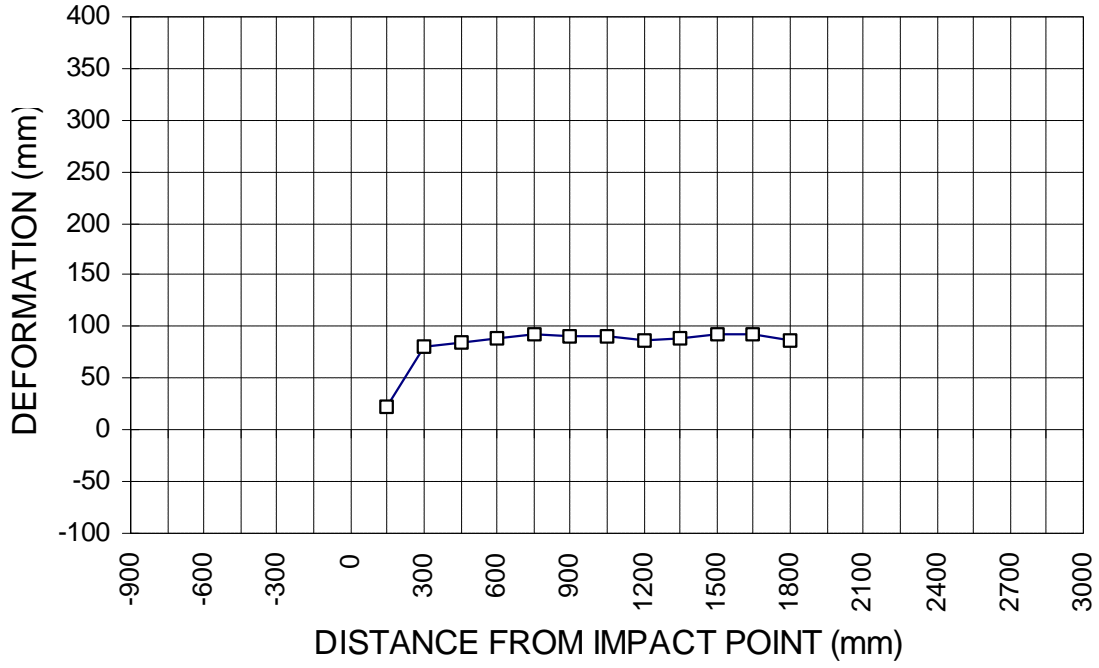
Level 1 @ Axle Centerline Height (or Sill Top Height)	=	<u>236</u> mm
Level 2 @ Occupant H-Point	=	<u>483</u> mm
Level 3 @ Mid Door	=	<u>581</u> mm
Level 4 @ Window Sill	=	<u>851</u> mm
Level 5 @ Window Top	=	<u>1353</u> mm

DATA SHEET NO. 10
VEHICLE EXTERIOR CRUSH PROFILES

	Level 1 - Axle Centerline		
Longitudinal Distance	Pre-Test (mm)	Post-Test (mm)	Static Crush
-900			
-750			
-600			
-450			
-300			
-150			
0 (impact point)			
150	366	388	22
300	364	445	81
450	362	446	84
600	361	449	88
750	360	452	92
900	359	450	91
1050	361	452	91
1200	362	449	87
1350	363	452	89
1500	367	460	93
1650	367	459	92
1800	369	455	86
1900			
2100			
2250			
2400			
2550			
2700			
2850			
3000			

Reference plane is parallel to test vehicle longitudinal centerline.
 Given dimensions = Reference plane to car body

VEHICLE EXTERIOR STATIC CRUSH



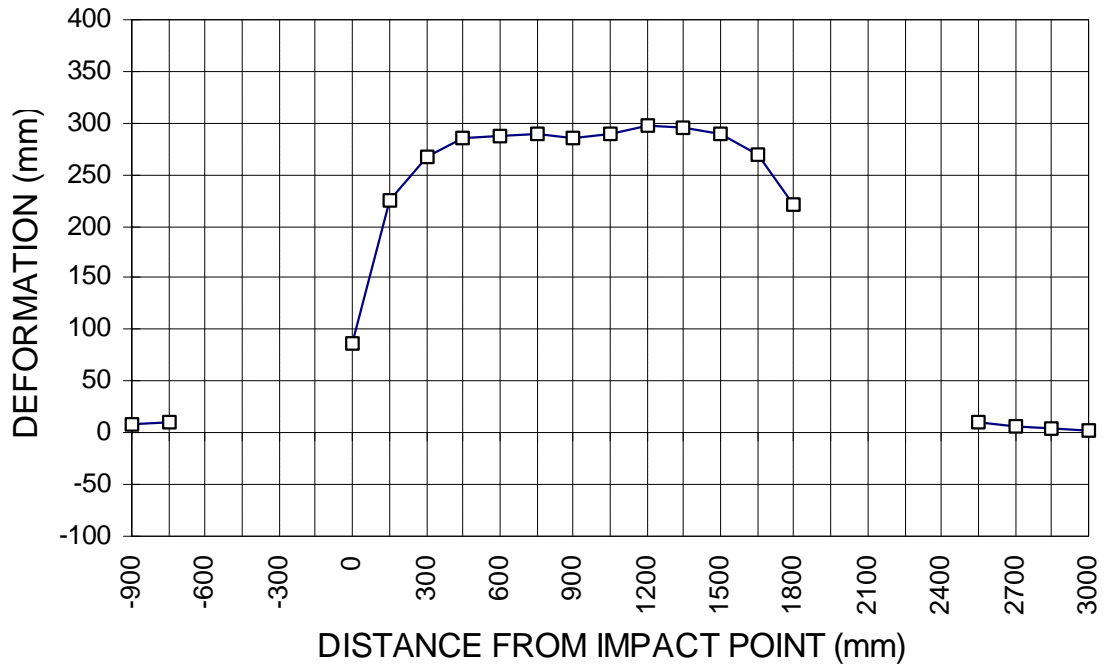
LEVEL 1 - AXLE CENTERLINE

DATA SHEET NO. 10
VEHICLE EXTERIOR CRUSH PROFILES

Longitudinal Distance	Level 2 - Occupant H-Point		
	Pre-Test (mm)	Post-Test (mm)	Static Crush
-900	363	371	8
-750	327	338	11
-600			
-450			
-300			
-150			
0 (impact point)	324	410	86
150	328	554	226
300	325	592	267
450	324	607	283
600	323	611	288
750	322	611	289
900	322	608	286
1050	322	611	289
1200	322	619	297
1350	324	620	296
1500	324	613	289
1650	325	594	269
1800	323	545	222
1950			
2100			
2250			
2400			
2550	320	330	10
2700	350	356	6
2850	368	373	5
3000	391	393	2

Reference plane is parallel to test vehicle longitudinal centerline.
 Given dimensions = Reference plane to car body

VEHICLE EXTERIOR STATIC CRUSH



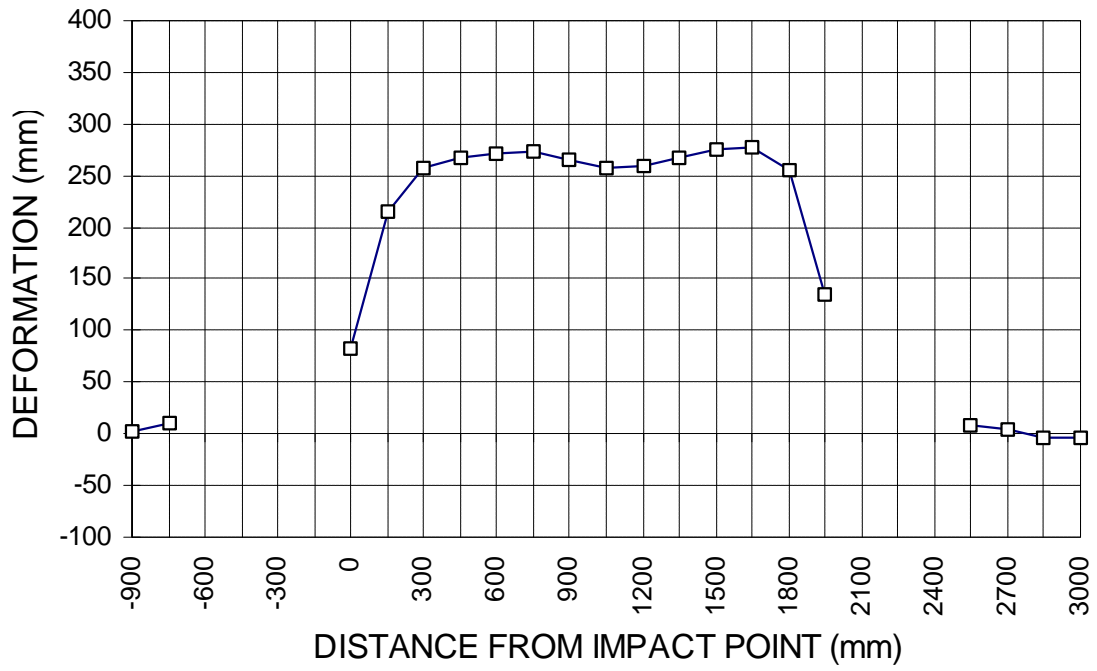
LEVEL 2 - OCCUPANT H-POINT

DATA SHEET NO. 10
VEHICLE EXTERIOR CRUSH PROFILES

	Level 3 - Mid-Door		
Longitudinal Distance	Pre-Test (mm)	Post-Test (mm)	Static Crush
-900	405	407	2
-750	341	352	11
-600			
-450			
-300			
-150			
0 (impact point)	329	412	83
150	328	544	216
300	326	584	258
450	325	592	267
600	323	595	272
750	322	595	273
900	320	586	266
1050	319	576	257
1200	319	579	260
1350	320	588	268
1500	321	596	275
1650	322	599	277
1800	322	577	255
1950	320	454	134
2100			
2250			
2400			
2550	332	341	9
2700	353	357	4
2850	377	373	-4
3000	397	394	-3

Reference plane is parallel to test vehicle longitudinal centerline.
Given dimensions = Reference plane to car body

VEHICLE EXTERIOR STATIC CRUSH



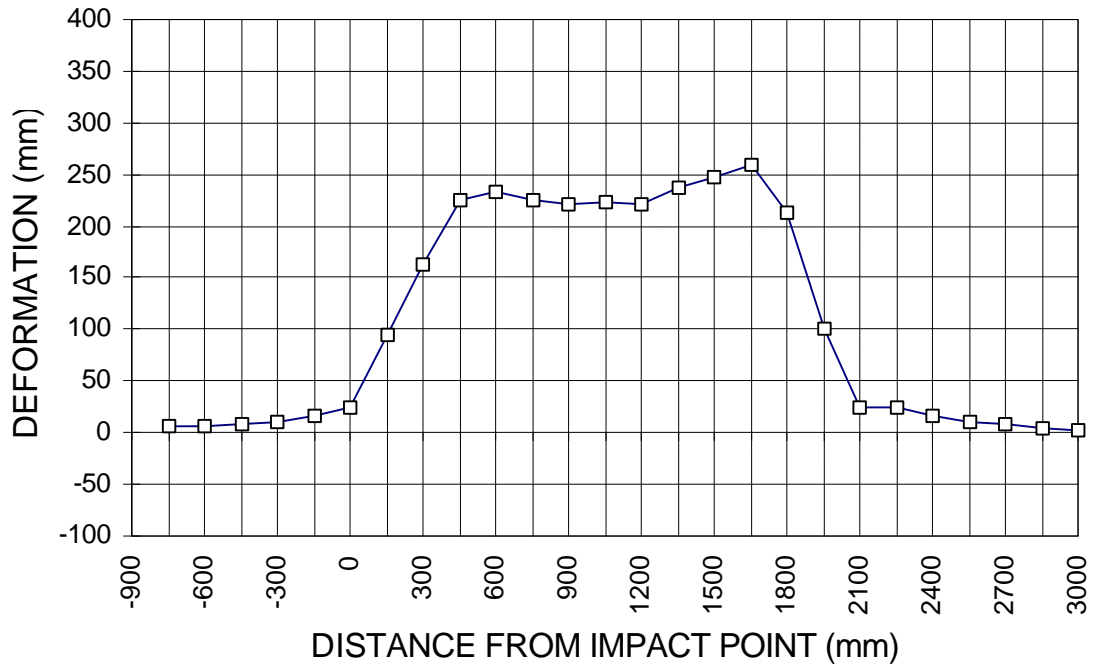
LEVEL 3 - MID-DOOR

DATA SHEET NO. 10
VEHICLE EXTERIOR CRUSH PROFILES

	Level 4 - Window Sill		
Longitudinal Distance	Pre-Test (mm)	Post-Test (mm)	Static Crush
-900			0
-750	420	427	7
-600	406	413	7
-450	398	406	8
-300	393	404	11
-150	388	404	16
0 (impact point)	382	406	24
150	375	469	94
300	372	535	163
450	370	596	226
600	369	602	233
750	368	594	226
900	368	590	222
1050	370	593	223
1200	370	591	221
1350	372	610	238
1500	373	621	248
1650	375	634	259
1800	377	590	213
1950	380	480	100
2100	386	411	25
2250	395	419	24
2400	405	421	16
2550	417	428	11
2700	432	440	8
2850	450	454	4
3000	471	473	2

Reference plane is parallel to test vehicle longitudinal centerline.
Given dimensions = Reference plane to car body

VEHICLE EXTERIOR STATIC CRUSH



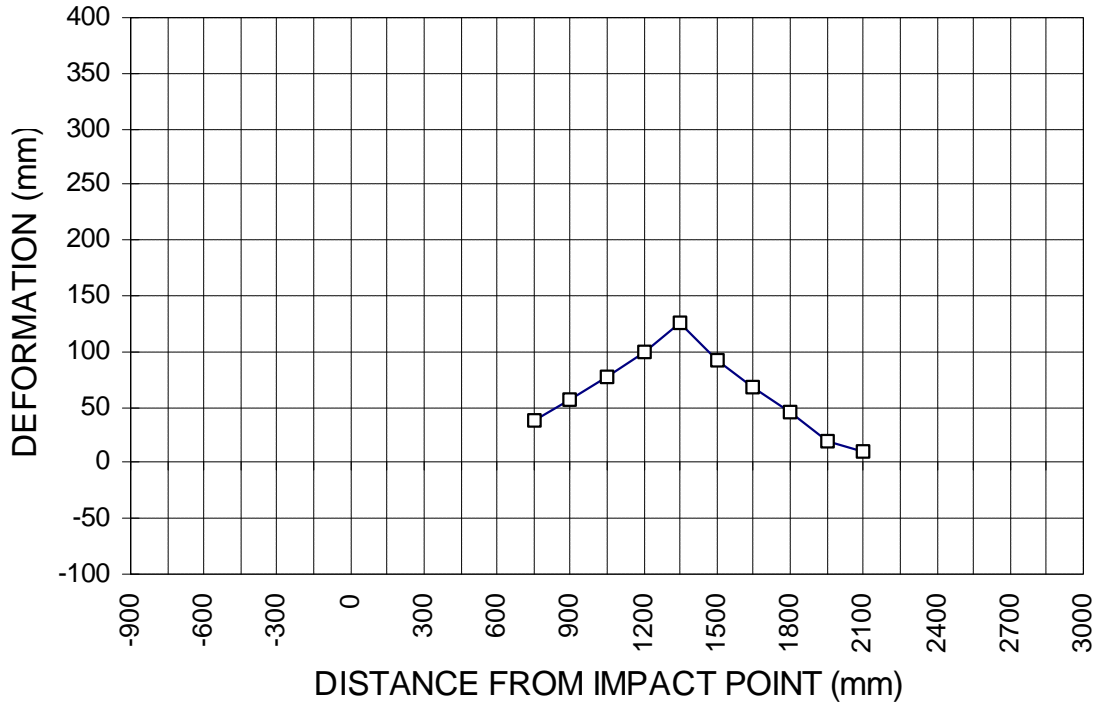
LEVEL 4 - WINDOW SILL

DATA SHEET NO. 10
VEHICLE EXTERIOR CRUSH PROFILES

	Level 5 - Window Top		
Longitudinal Distance (mm)	Pre-Test (mm)	Post-Test (mm)	Static Crush (mm)
-900			
-750			
-600			
-450			
-300			
-150			
0 (impact point)			
150			
300			
450			
600			
750	618	656	38
900	616	672	56
1050	618	696	78
1200	620	719	99
1350	628	754	126
1500	628	720	92
1650	626	693	67
1800	619	665	46
1950	614	634	20
2100	611	621	10
2250			
2400			
2550			
2700			
2850			
3000			

Reference plane is parallel to test vehicle longitudinal centerline.
 Given dimensions = Reference plane to car body

VEHICLE EXTERIOR STATIC CRUSH

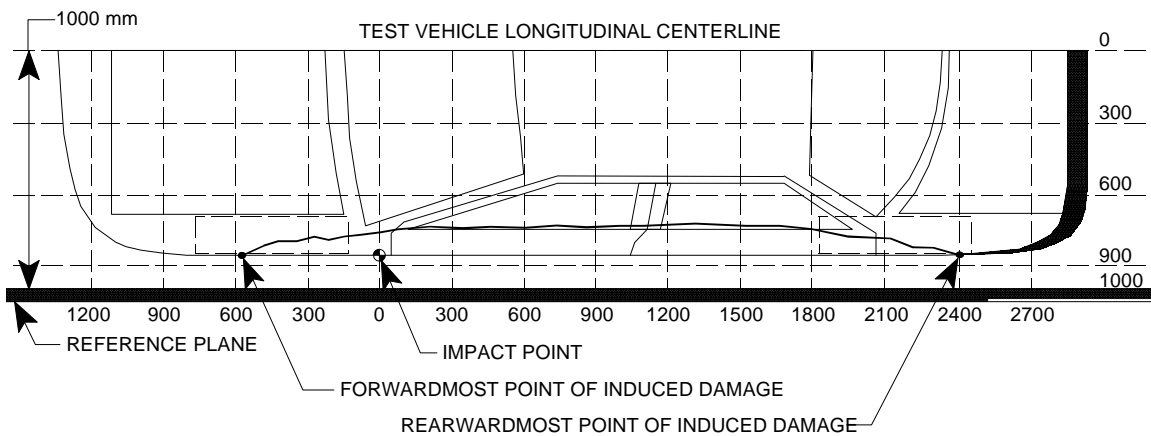
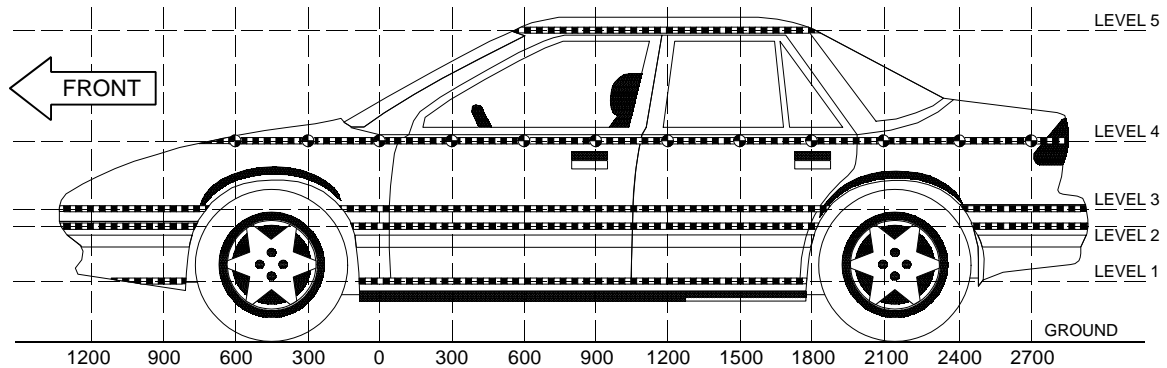


LEVEL 5 - WINDOW TOP

DATA SHEET NO. 11
VEHICLE DAMAGE PROFILE DISTANCES

Year/Make/Model/Body Style: 2001/Honda/Civic/4 door

Test Date: October 30, 2000



NOTE: All measurements are in millimeters (mm)

DPD MEASUREMENTS	POST-TEST (mm)	PRE-TEST (mm)	STATIC CRUSH (mm)
1. (LR = <u>2700</u> mm)	357	353	4
2. 2000 mm	417	320	97
3. 1215 mm	645	323	322
4. 515 mm	633	324	309
5. -150 mm	410	388	22
6. (LF = <u>-900</u> mm)	407	405	2

DATA SHEET NO. 12
EXTERIOR STATIC CRUSH FOR SIDE IMPACTOR

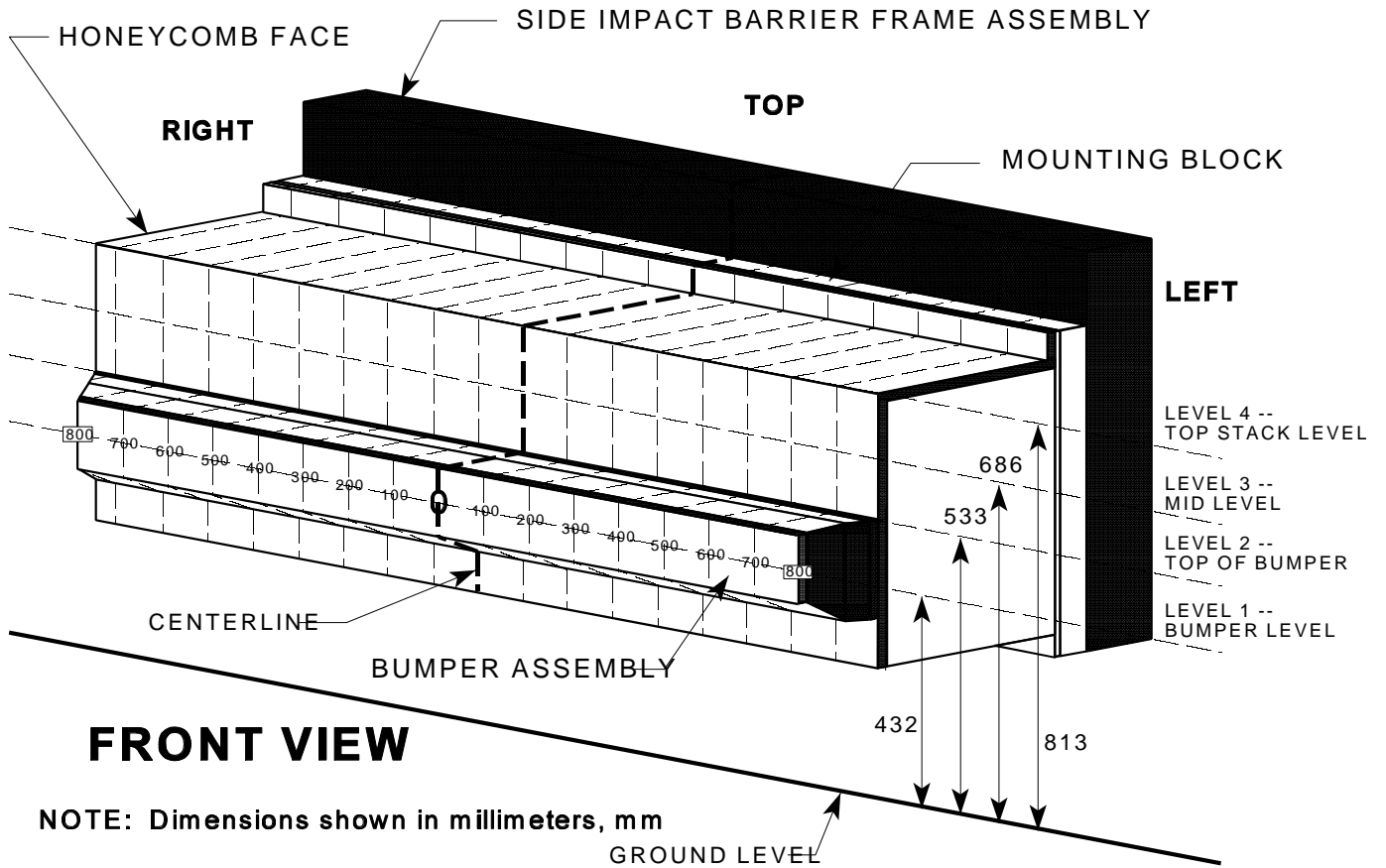
Year/Make/Model/Body Style: 2001/Honda/Civic/4 door

Test Date: October 30, 2000

4-17

		Distance Right of Center (mm)									Distance Left of Center (mm)								
Location	Height at CL	800	700	600	500	400	300	200	100	0	100	200	300	400	500	600	700	800	
Top Stack Level 4	813 mm	45	5	1	-4	1	13	21	11	11	15	14	15	16	26	71	117	168	
Mid Level Level 3	686 mm	29	-3	0	2	7	21	37	20	13	13	13	15	17	20	32	73	135	
Top Bumper Level 2	533 mm	65	52	45	41	41	42	43	43	45	47	50	53	56	59	64	72	88	
Mid Bumper Level 1	432 mm	148	136	122	106	106	109	106	104	105	104	105	107	108	112	120	131	144	

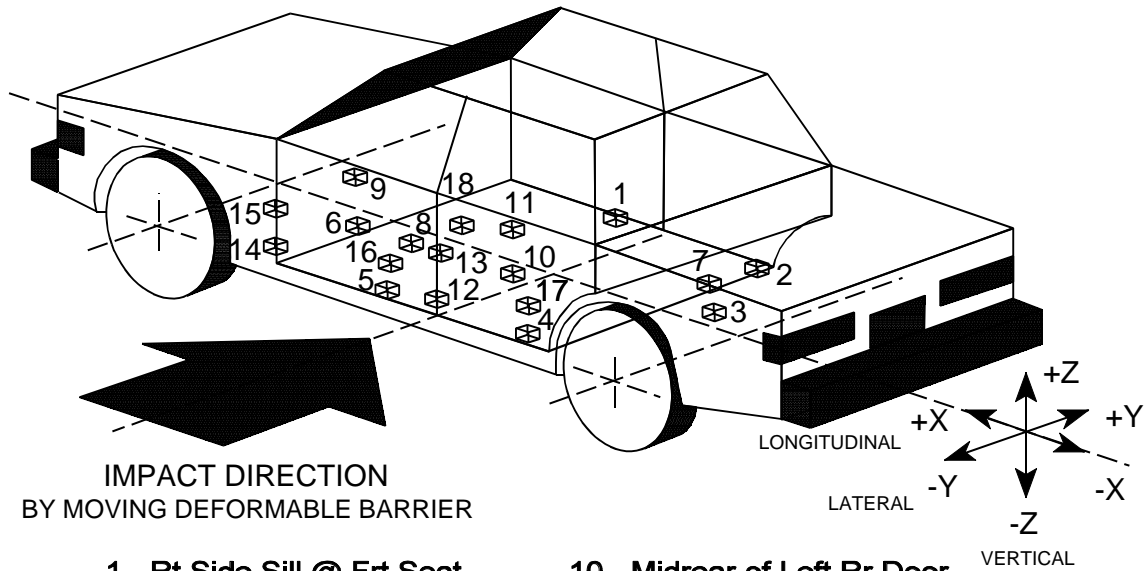
See next page for Barrier Face Graphic



DATA SHEET 13
TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Year/Make/Model/Body Style: 2001/Honda/Civic/4 door

Test Date: October 30, 2000



- | | |
|---------------------------------|------------------------------|
| 1 - Rt Side Sill @ Frt Seat | 10 - Midrear of Left Rr Door |
| 2 - Rt Side Sill @ Rr Seat | 11 - Left Rr Door Upr C/Line |
| 3 - Rr Floorpan Above Axle | 12 - Left Lwr B-Post |
| 4 - Left Side Sill @ Rr Seat | 13 - Left Middle B-Post |
| 5 - Left Side Sill @ Frt Seat | 14 - Left Lwr A-Post |
| 6 - Left Frt Door on Centerline | 15 - Left Middle A-Post |
| 7 - Rt Rr Occ Compartment | 16 - Frt Seat Track |
| 8 - Midrear of Left Frt Door | 17 - Rr Seat Track |
| 9 - Left Frt Door Upr C/Line | 18 - Vehicle C.G. |

DATA SHEET NO. 13
TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY
 Year/Make/Model/Body Style: 2001/Honda/Civic/4 door
 Test Date: October 30, 2000

Accel. No.	Description	Coordinates (mm)*			Long. (X) Maximums (g's)		Lat. (Y) Maximums (g's)		Vert. (Z) Maximums (g's)		Resultant (g's)
		X	Y	Z	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	
1	Rt. Side Sill @ Front Seat	2574	668	208	2.0	5.5	55.3	4.5	4.2	9.5	56.1
2	Rt. Side Sill @ Rear Seat	1654	670	218	2.5	4.9	33.9	2.7	6.5	12.8	36.1
3	Rr. Floorpan Above Axle	1107	0	618	6.9	10.7	25.7	1.8	9.6	10.3	29.3
4	Left Side Sill @ Rr. Seat	1651	-670	221	---	---	72.4	18.9	---	---	---
5	Left Side Sill @ Frt. Seat	2621	-668	208	---	---	46.8	9.6	---	---	---
6	Left Front Door Centerline	2572	-735	728	---	---	174.9	134.1	---	---	---
7	Right Rear Occupant Compartment	1743	372	379	---	---	31.7	2.2	---	---	---
8	Mid Rear of Left Front Door**	2199	-742	653	---	---	**	**	---	---	---
9	Left Front Door Upper Centerline	2560	-750	905	---	---	224.7	120.7	---	---	---
10	Left Rear Door Mid Rear	1529	-725	702	---	---	155.1	66.6	---	---	---
11	Left Rear Door Upper Centerline	1513	-736	939	---	---	136.7	109.1	---	---	---
12	Left Lower B-Post***	1987	-653	270	---	---	51.1	9.7	---	---	---
13	Left Mid B-Post	1993	-656	906	---	---	137.1	40.2	---	---	---
14	Left Lower A-Post	3089	-702	260	---	---	54.8	26.8	---	---	---
15	Left Mid A-Post	3025	-704	896	---	---	23.9	16.0	---	---	---
16	Driver Left Seat Track	2018	-523	255	---	---	64.8	40.3	---	---	---
18	Vehicle CG	2470	0	325	3.1	11.6	31.0	2.2	12.4	9.5	32.1

*Reference: X - Rear Bumper (+ Forward)

Y - Vehicle Centerline (+ To right)

Z - Ground Level (+ Up)

**No valid data collected

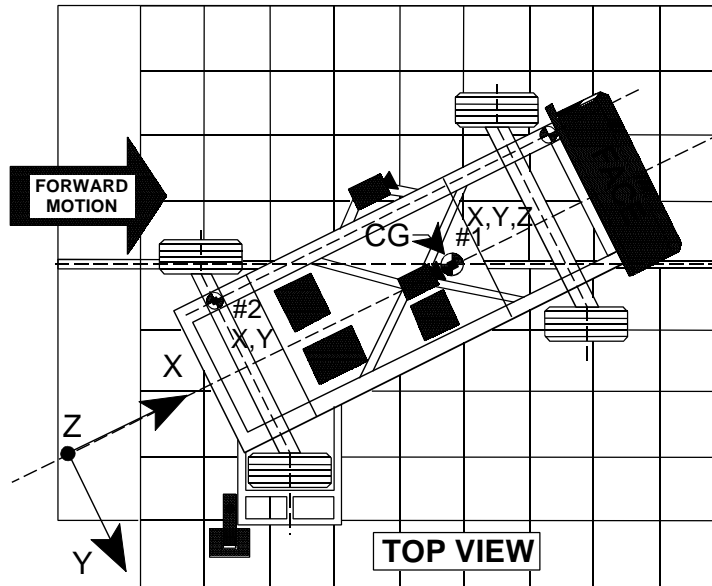
***Data not valid after 32 msec.

DATA SHEET NO. 14

MOVING DEFORMABLE BARRIER (MDB) ACCELEROMETER LOCATIONS AND DATA SUMMARY

Year/Make/Model/Body Style: 2001/Honda/Civic/4 door

Test Date: October 30, 2000



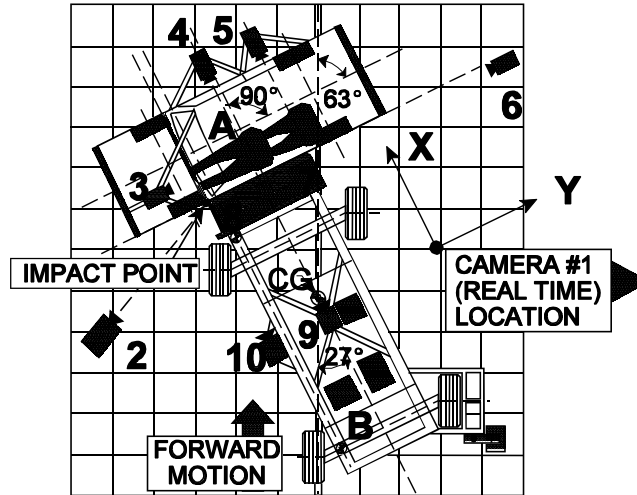
Accel. No.	Description	Coordinates (mm)*			(+ Positive)		(- Negative)	
		X	Y	Z	Max. (g)	Time (msec)	Max. (g)	Time (msec)
1	MDB Center of Gravity	-1092	0	483				
	Longitudinal (X)	---	---	---	11.0	94	18.9	37
	Lateral (Y)**	---	---	---	---	---	---	57
	Vertical (Z)	---	---	---	19.6	57	19.2	22
	Resultant (R)**	---	---	---	---	---	---	---
2	Rear Frame Member	-2501	-625	622				
	Longitudinal (X)	---	---	---	1.9	95	22.7	37
	Lateral (Y)	---	---	---	4.3	30	1.6	183

*Reference: X - Front Axle (+ Forward)
 Y - Vehicle Centerline (+ To right)
 Z - Ground Level (+ Up)

DATA SHEET NO. 15
HIGH SPEED CAMERA LOCATIONS AND DATA

Year/Make/Model/Body Style: 2001/Honda/Civic/4 Door

Test Date: October 30, 2000



Camera No.	View	Coordinates (mm)*			Lens (mm)	Film Speed (fps)
		X	Y	Z		
1	Real Time				10	24
2	Left Impact	-850	-2640	1660	13	1005
3	Onboard Hood				8	1000
4	Onboard Front				13	1000
5	Onboard Rear				8	1010
6	Right Impact	880	10400	1890	13	1015
7	Top Overall	510	1050	5000	8	909
8	Top Impact	-550	260	5000	13	1010
9	Cart Overall				13	1005
10	Cart Impact				35	823

* Reference: (from point of impact)

- +X = Forward
- +Y = To Right
- +Z = Upward

** No valid data collected

DATA SHEET 16
FUEL SYSTEM INTEGRITY POST IMPACT TEST DATA

Vehicle Year/Make/Model/Body Style: 2001/Honda/Civic/4 door

Test Date: October 30, 2000

TEST REQUIREMENTS:

Drain the test vehicle's fuel system and operate the engine until the fuel system is dry. Add Stoddard solvent, which has been dyed purple, until 92-94% of the stated usable capacity is reached. Operate the engine to assure the Stoddard solvent is present throughout the entire fuel system.

TEST VEHICLE IMPACT TYPE: X Side Impact MDB 38.4 mph (61.8 kph)

FUEL SPILLAGE MEASUREMENT:

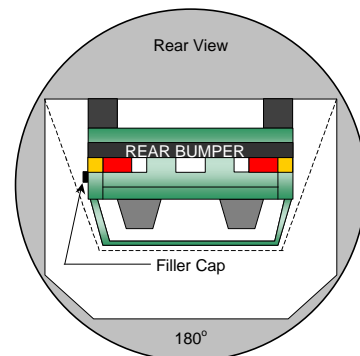
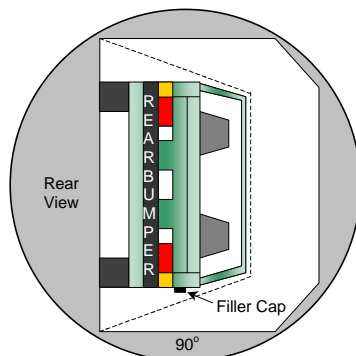
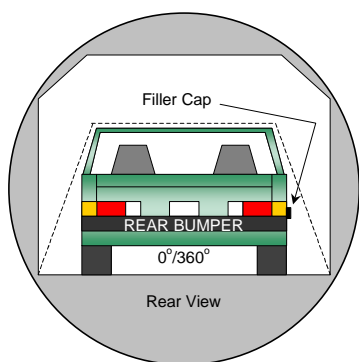
POST IMPACT TEST	TEST RESULTS	MAXIMUM ALLOWABLE
1. From impact until vehicle motion ceases	0 oz.	1 oz
2. For 5 minute period after vehicle motion ceases	0 oz.	5 oz
3. For next 25 minutes	0 oz.	1 oz./1 min

FUEL SPILLAGE LOCATION(S): None

DATA SHEET 16
FMVSS 301 STATIC ROLLOVER TEST DATA

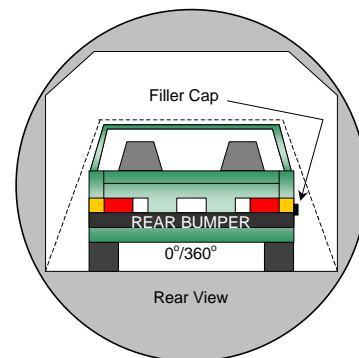
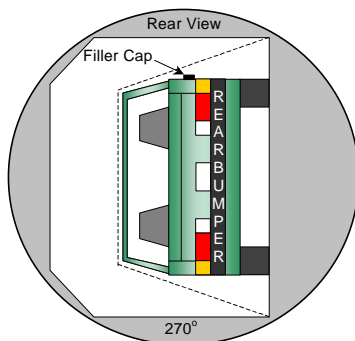
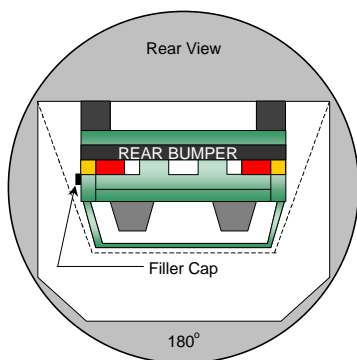
Vehicle Year/Make/Model/Body Style: 2001/Honda/Accord/LX/2 Door Coupe

Test Date: October 31, 2000



0° TO 90°

90° TO 180°



180° TO 270°

270° TO 360°

1. The specified fixture rollover rate for each 90° of rotation is 60 to 180 seconds.
2. The position hold time at each position is 300 seconds (minimum).
3. Details of Stoddard Solvent spillage locations:

No solvent leakage occurred during static rollover testing.

TEST PHASE	Rotation Time (sec.)	Hold Time (sec.)	Spillage (oz.)
0° TO 90°	171	300	0
90° to 180°	153	300	0
180° to 270°	127	300	0
270° to 360°	131	300	0

APPENDIX A - PHOTOGRAPHS

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

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

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

A-4



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

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

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

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

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Photo No. A-8 - Pre-Test MDB Positioned Against Vehicle (right side)



Photo No. A-9 - Pre-Test MDB Positioned Against Vehicle Overhead View

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

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



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

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

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Photo No. A-14 - Pre-Test MDB Front View

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

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Photo No. A-16 - Pre-Test MDB Right Side View



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

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Photo No. A-18 - Pre-Test MDB Left Side View

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

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Photo No. A-20 - Pre-Test Driver Dummy Right Side View

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

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

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

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

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Photo No. A-25 - Pre-Test Driver Dummy Shoulder and Door Top View

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

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Photo No. A-27 - Post-Test Driver Dummy Contact

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

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Photo No. A-29 - Pre-Test Rear Passenger Dummy Right Side View

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Photo No. A-30 - Post-Test Rear Passenger Dummy Right Side View

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

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

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Photo No. A-33 - Pre-Test Rear Passenger Dummy Left Side View (Door Open)

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Photo No. A-34 - Pre-Test Rear Passenger Dummy Shoulder and Door Top View

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Photo No. A-35 - Post-Test Rear Passenger Dummy Shoulder and Door Top View

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Photo No. A-36 - Post-Test Rear Passenger Dummy Contact

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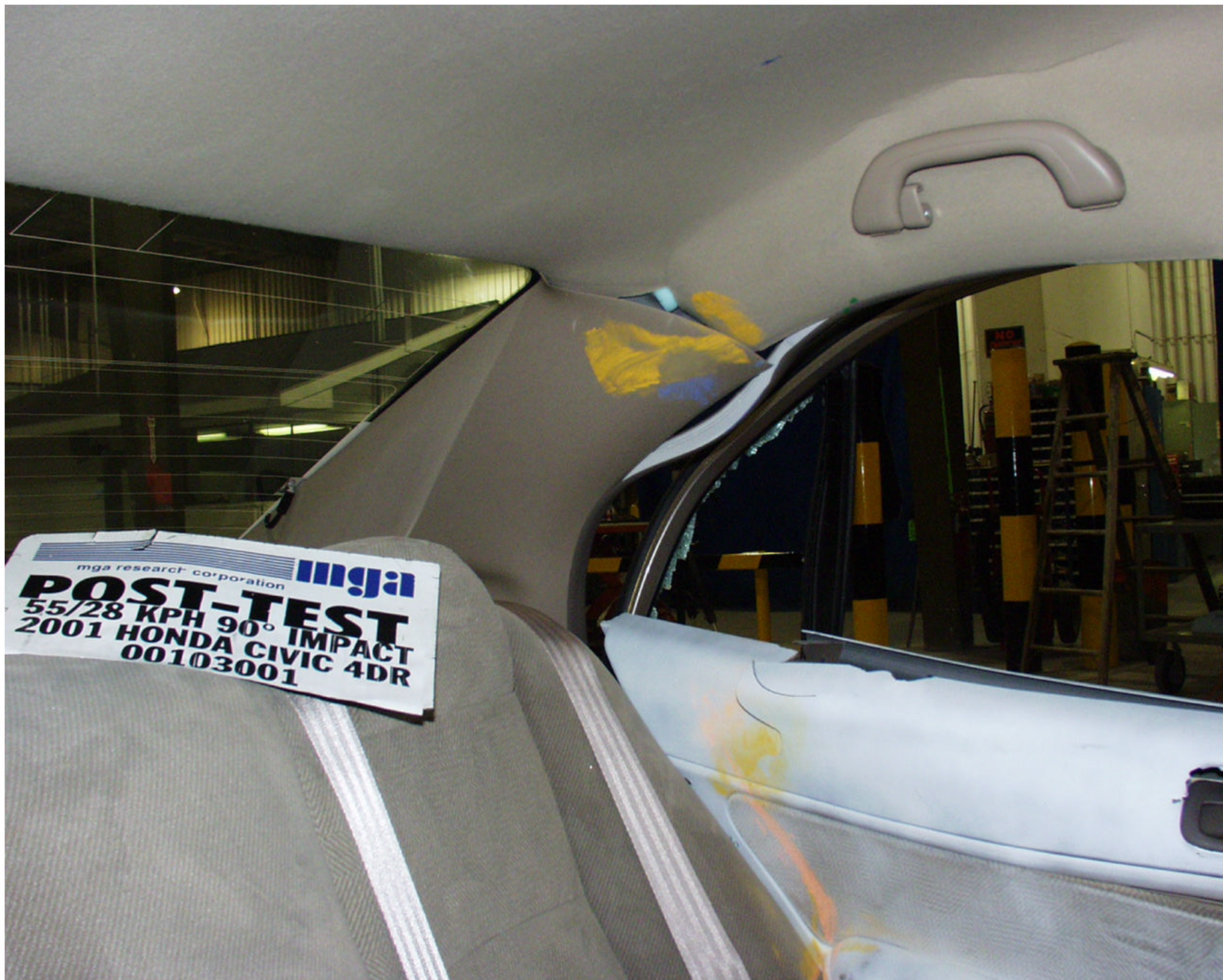


Photo No. A-37 - Post-Test Rear Passenger Dummy Head Contact



Photo No. A-38 - Pre-Test Left Front Impact Point on Vehicle

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Photo No. A-39 - Post-Test Left Front Impact Point on Vehicle

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Photo No. A-40 - Pre-Test Fuel Filler Cap View



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Photo No. A-41 – Impact

TIRE INFORMATION

SEATING CAPACITY		VEHICLE CAPACITY WEIGHT	850lbs
		TOTAL 5	FRONT 2 REAR 3
RECOMMENDED TIRE SIZE	COLD TIRE INFLATION PRESSURE		SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION
P185/70R14 87S	FRONT	210kPa, 30psi	
	REAR	210kPa, 30psi	
COMPACT SPARE TIRE	UP TO VEHICLE CAPACITY WEIGHT		
T115/70D14 88M	420kPa, 60psi		

B0

A-42

Photo No. A-42 - Vehicle Certification Label

A-43

MFD. BY HONDA OF AMERICA MFG., INC. 9/00
GVWR 3395LBS GAWR F 1765LBS R 1665LBS
THIS VEHICLE CONFORMS TO ALL APPLICABLE
FEDERAL MOTOR VEHICLE SAFETY, BUMPER,
AND THEFT PREVENTION STANDARDS IN EFFECT
ON THE DATE OF MANUFACTURE SHOWN ABOVE:

V.I.N. 1HGES16571L010437



PASSENGER CAR

Photo No. A-43 - Tire Placard

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Photo No. A-44 - Rollover 90°

A-45



Photo No. A-45 - Rollover 180°

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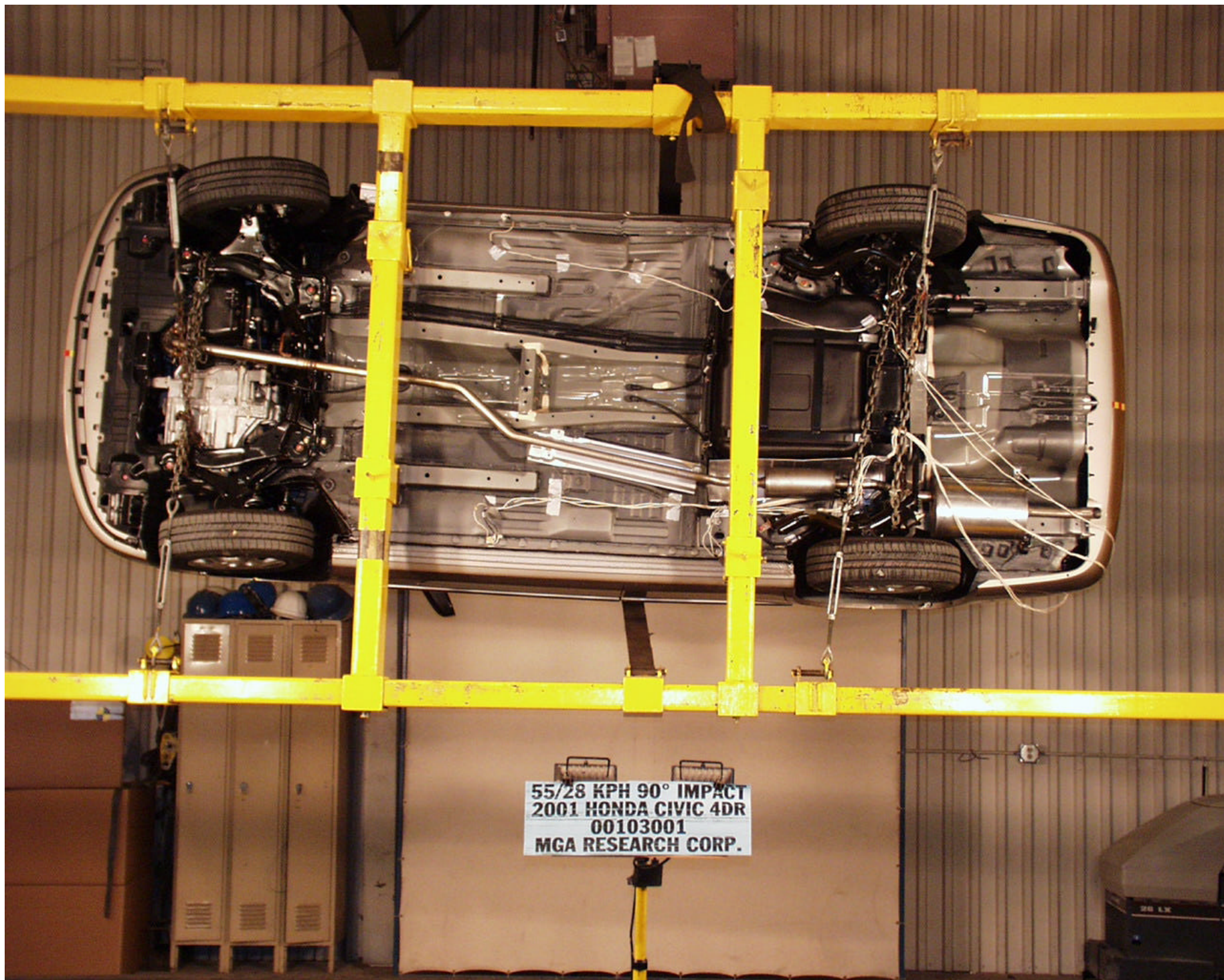


Photo No. A-46 - Rollover 270°

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Photo No. A-47 - Rollover 360°



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Photo No. A-48 - Left Front Attitude Point



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Photo No. A-49 - Right Front Attitude Point



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Photo No. A-50 - Left Rear Attitude Point



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Photo No. A-51 - Right Rear Attitude Point

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* No valid data after approximately 32 msec.

** No valid data collected

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* No valid data collected

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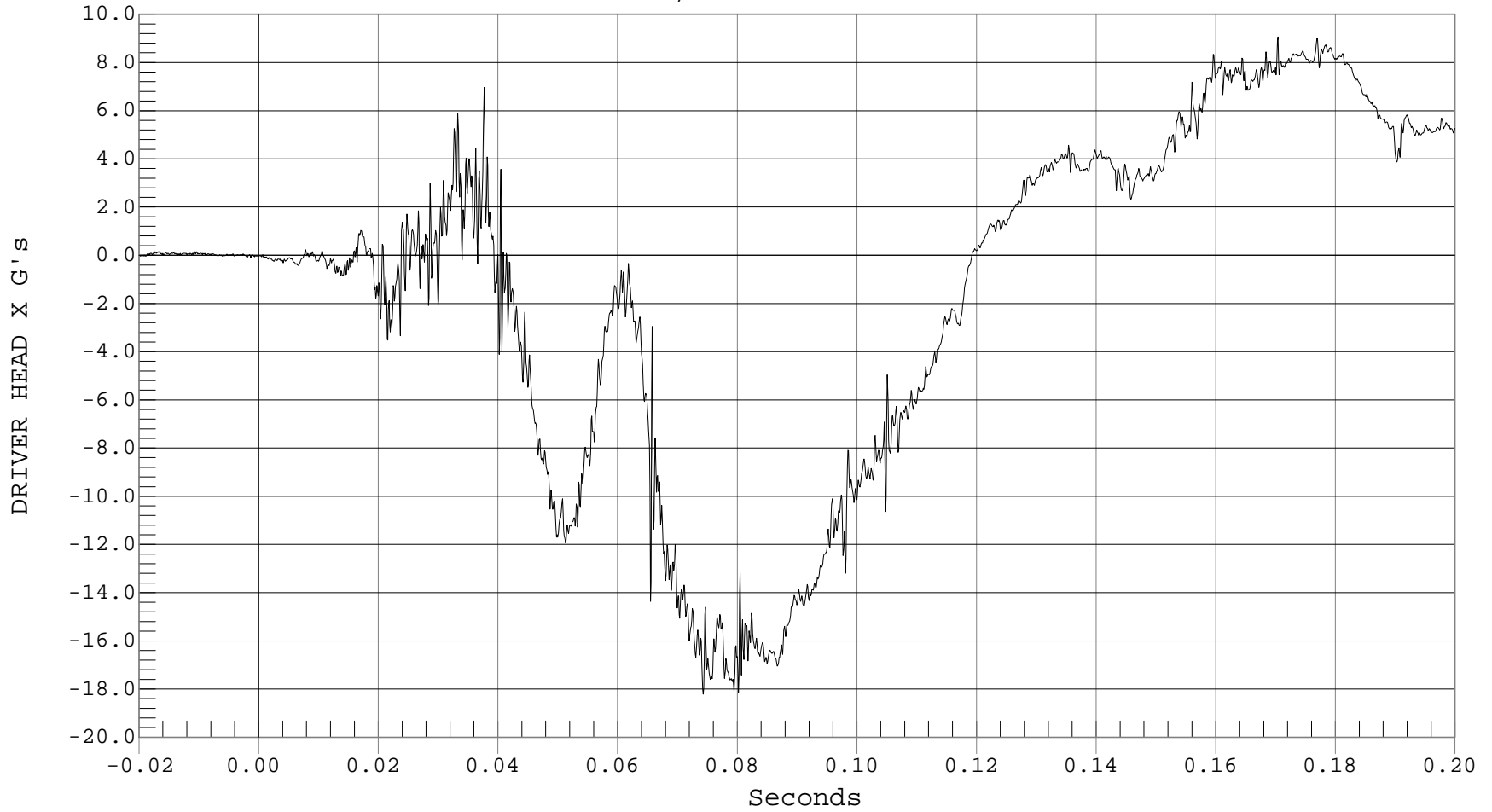
DRIVER HEAD X ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 DRIVER HEAD X, B00090AT.A01

Ymin = -18.21 G's @ 0.0743 Seconds, Ymax = 9.07 G's @ 0.1704 Seconds





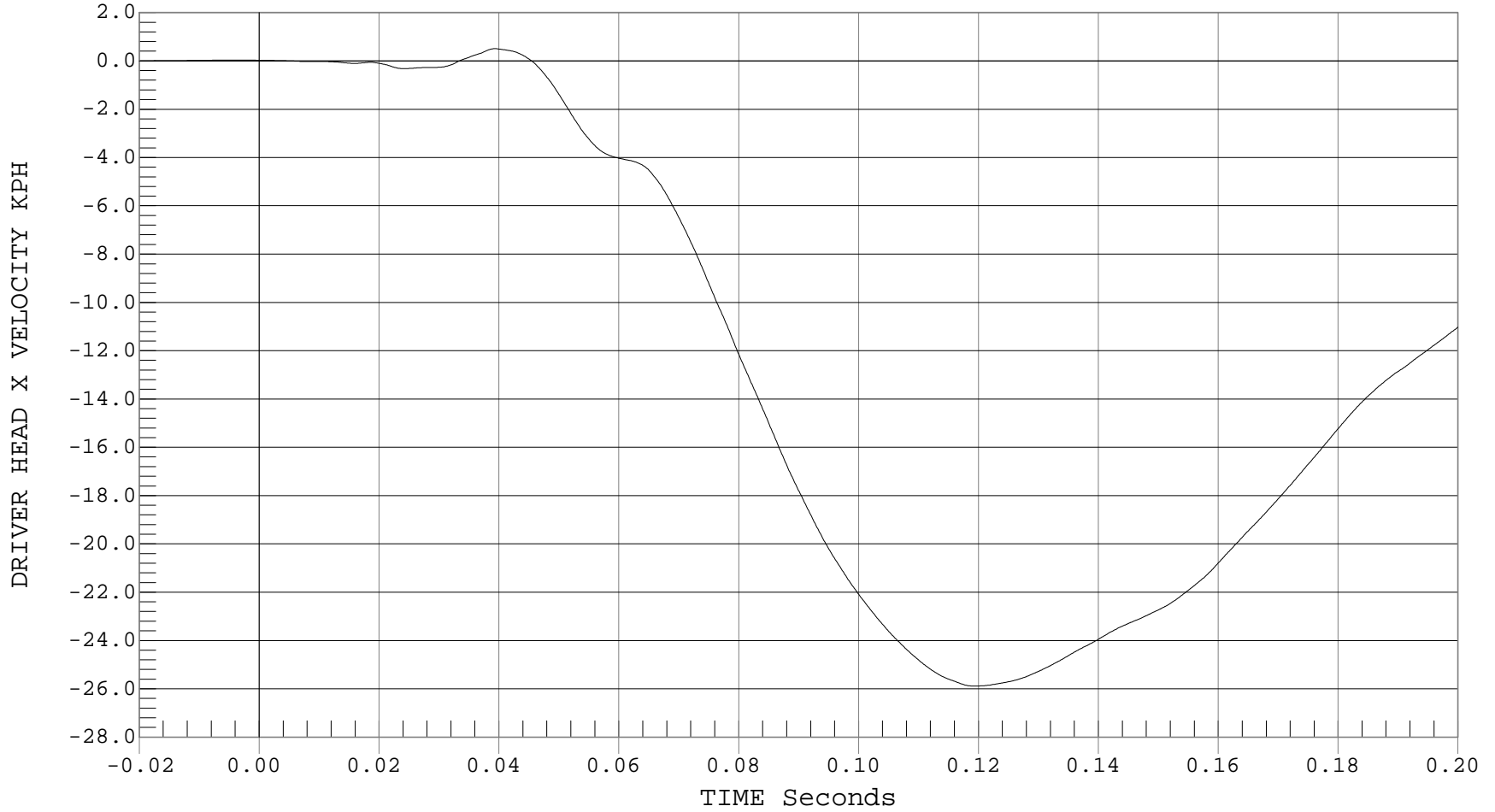
DRIVER HEAD X VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 DRIVER HEAD X VELOCITY, B00090AI.V01

Ymin = -25.89 KPH @ 0.1193 Seconds, Ymax = .51 KPH @ 0.0393 Seconds





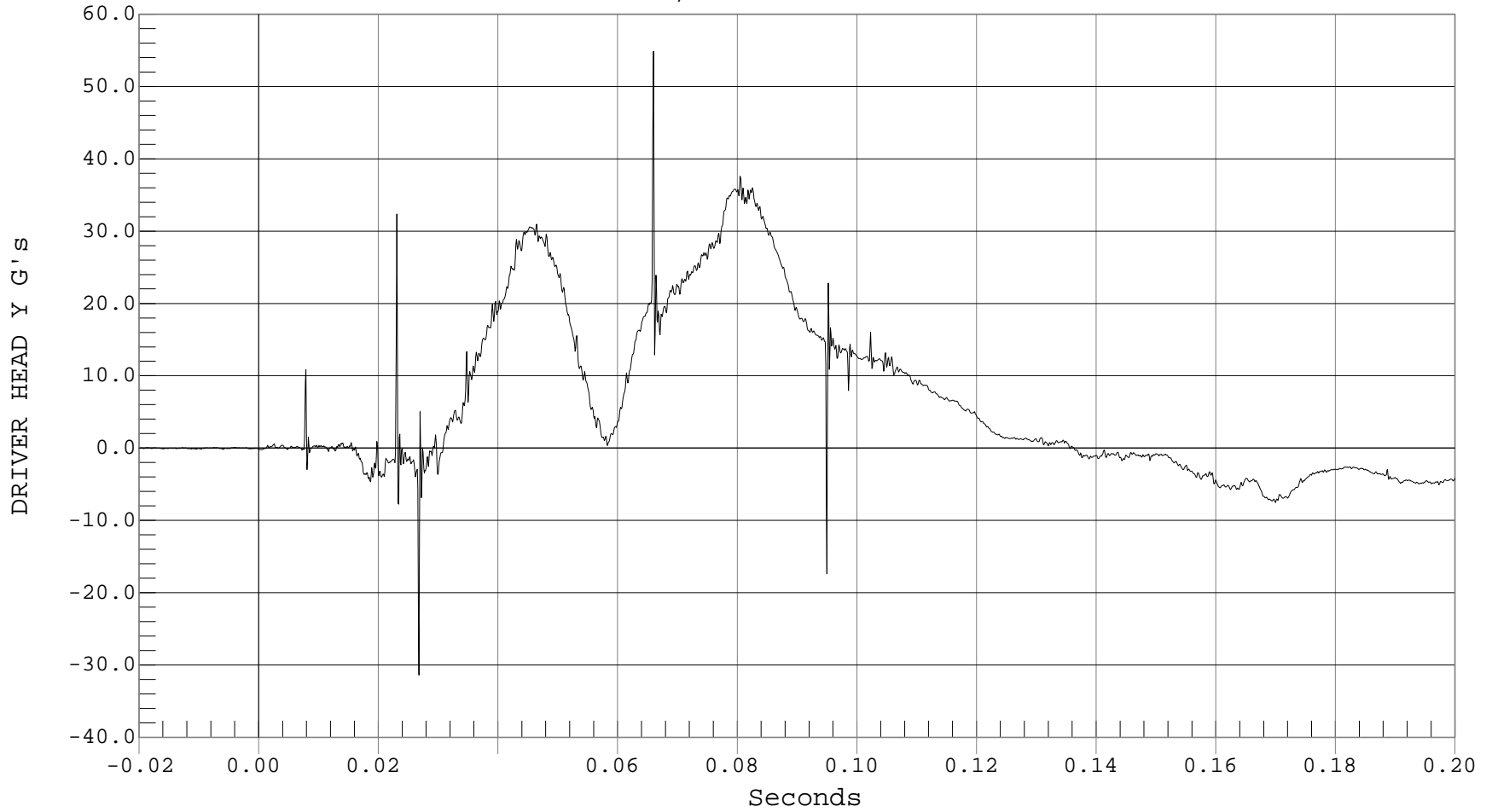
DRIVER HEAD Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 DRIVER HEAD Y, B00090AT.A02

Ymin = -31.43 G's @ 0.0268 Seconds, Ymax = 54.86 G's @ 0.0660 Seconds





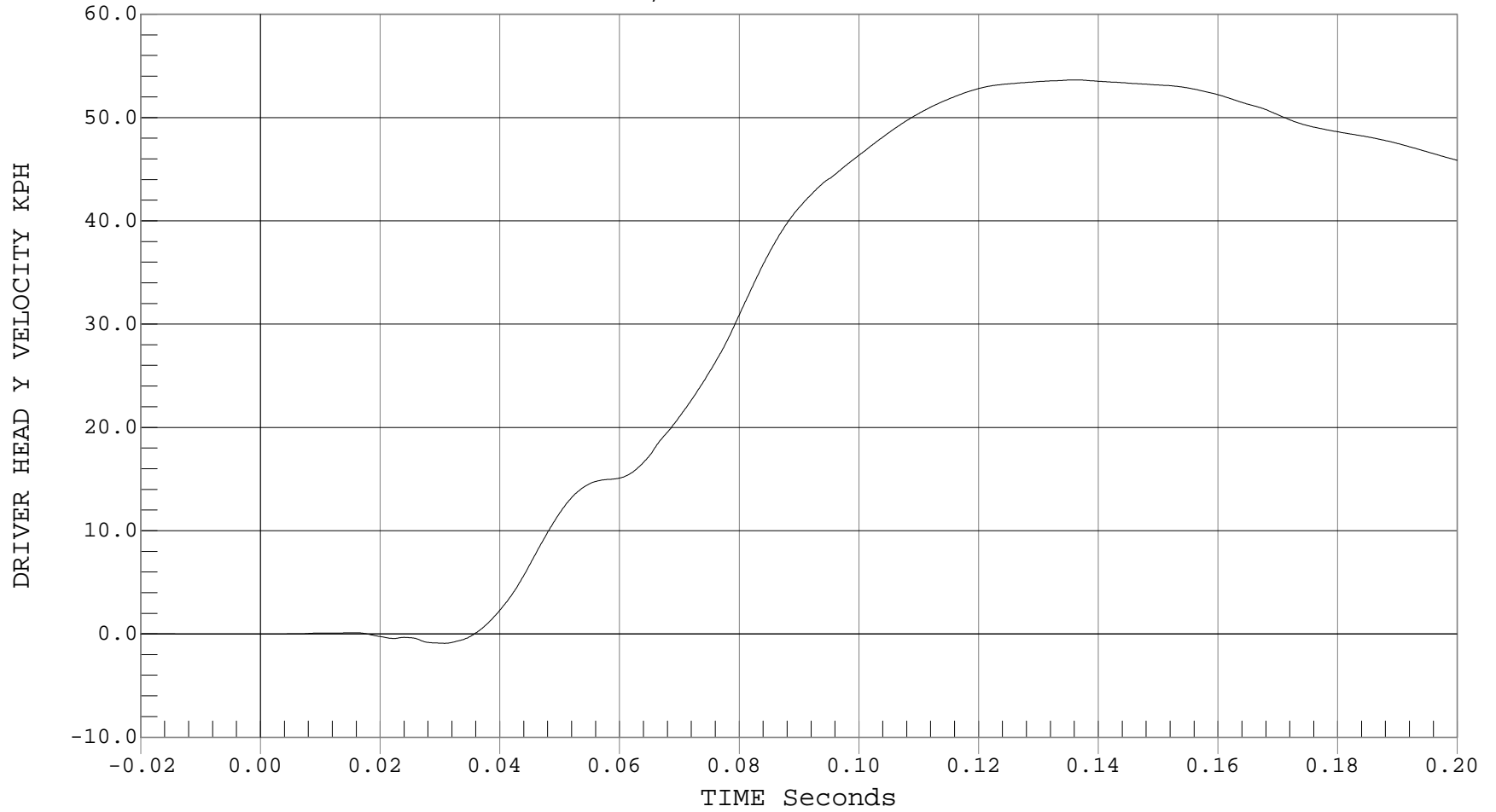
DRIVER HEAD Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 DRIVER HEAD Y VELOCITY, B00090AI.V02

Ymin = -.91 KPH @ 0.0307 Seconds, Ymax = 53.64 KPH @ 0.1361 Seconds





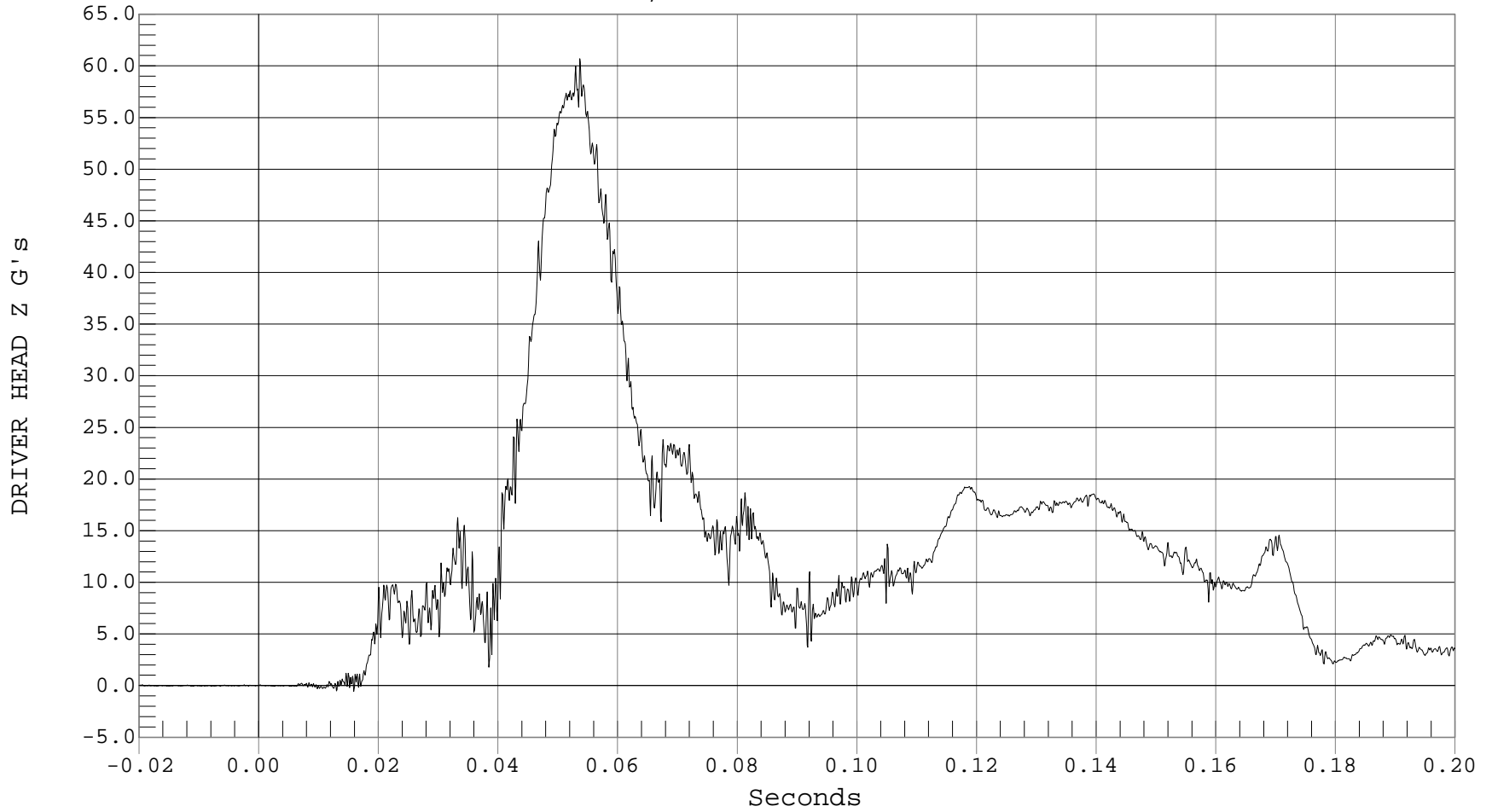
DRIVER HEAD Z ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 DRIVER HEAD Z, B00090AT.A03

Ymin = -.58 G's @ 0.0159 Seconds, Ymax = 60.69 G's @ 0.0537 Seconds





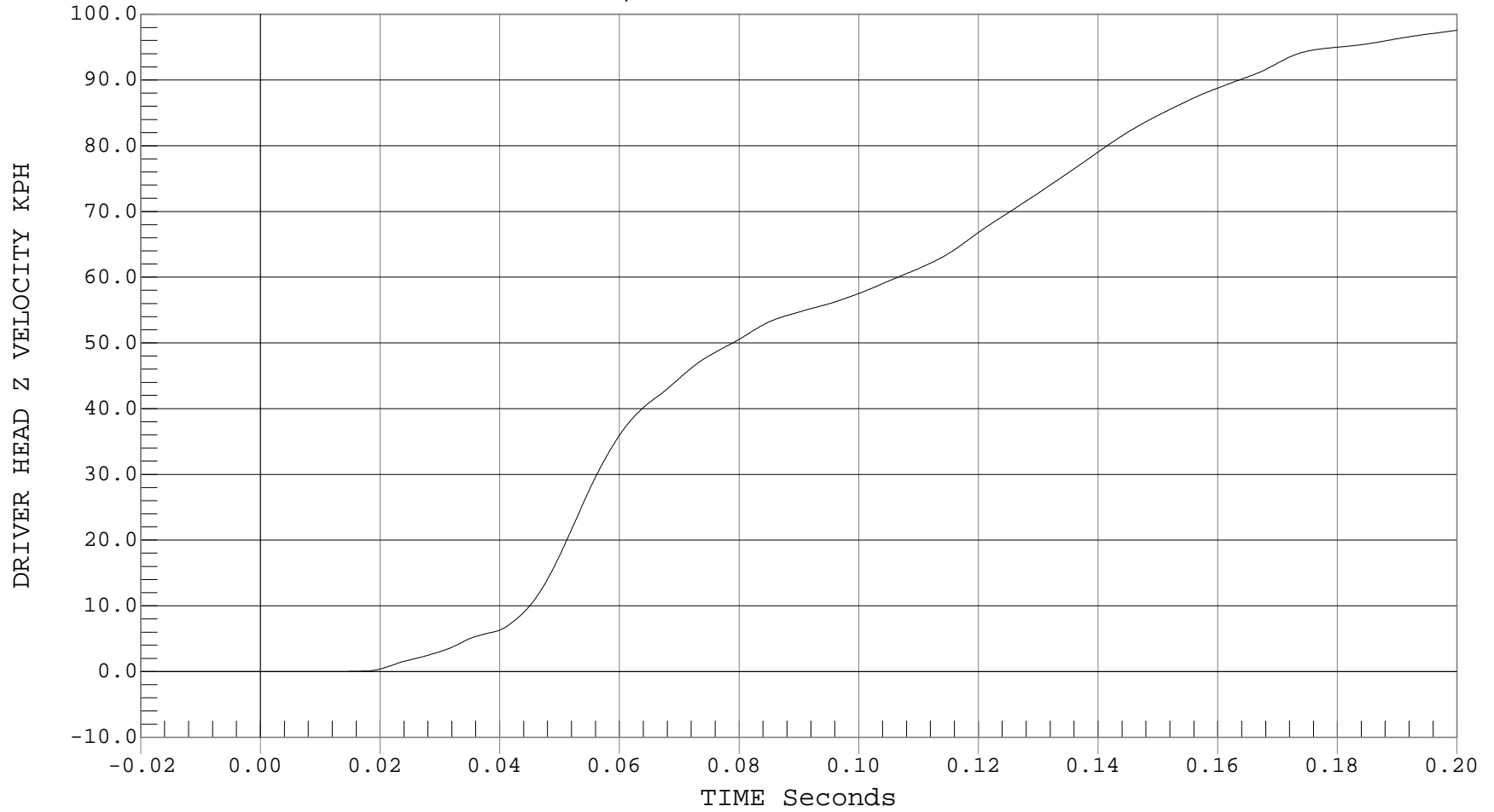
DRIVER HEAD Z VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 DRIVER HEAD Z VELOCITY, B00090AI.V03

Ymin = 0 KPH @ 0.0116 Seconds, Ymax = 97.57 KPH @ 0.2001 Seconds





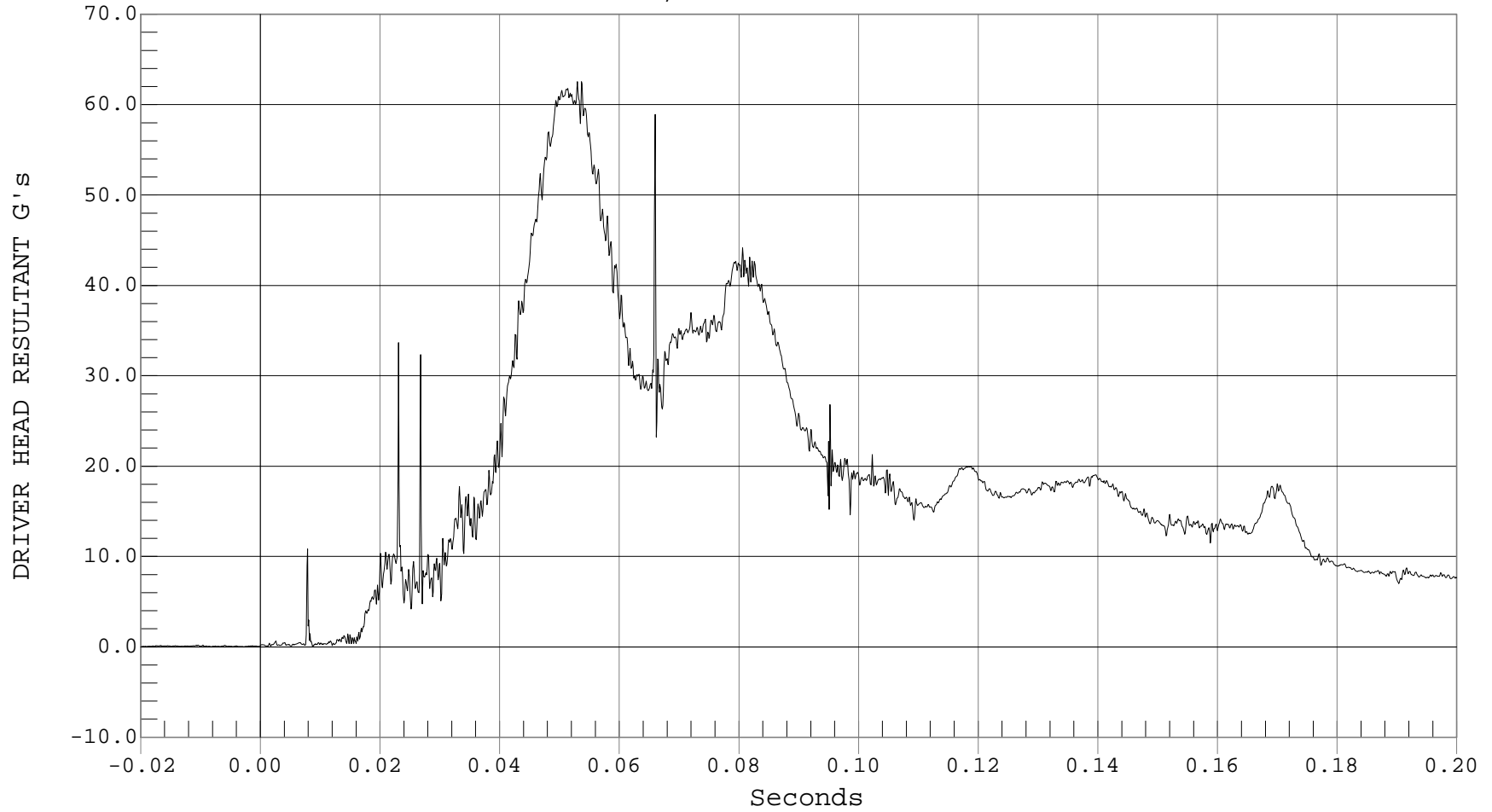
DRIVER HEAD RESULTANT ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 DRIVER HEAD RESULTANT, B00090AV.A01

Ymin = .02 G's @ -0.0027 Seconds, Ymax = 62.55 G's @ 0.0537 Seconds





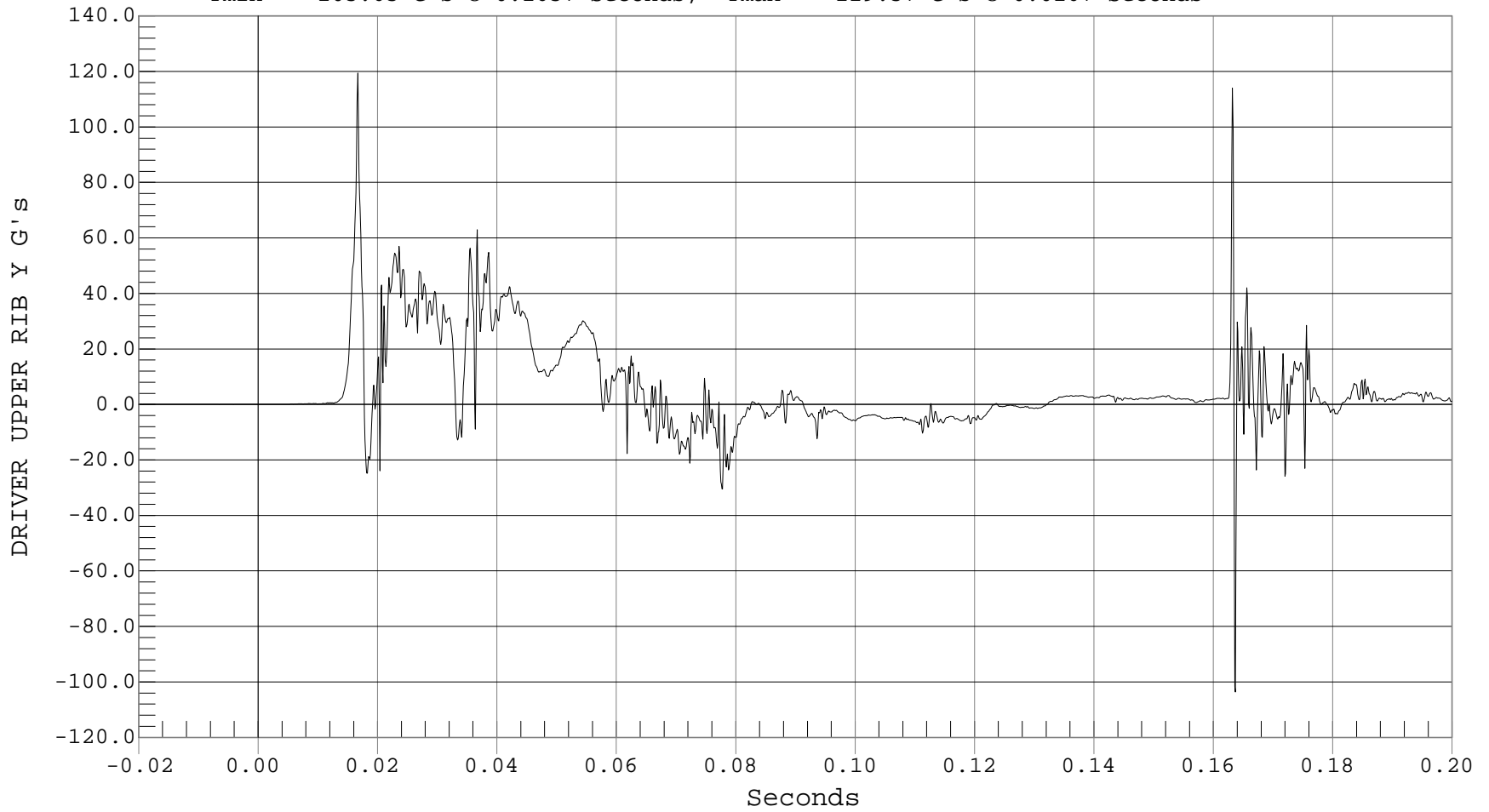
DRIVER UPPER RIB Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 DRIVER UPPER RIB Y, B00090AT.A04

Ymin = -103.63 G's @ 0.1637 Seconds, Ymax = 119.37 G's @ 0.0167 Seconds





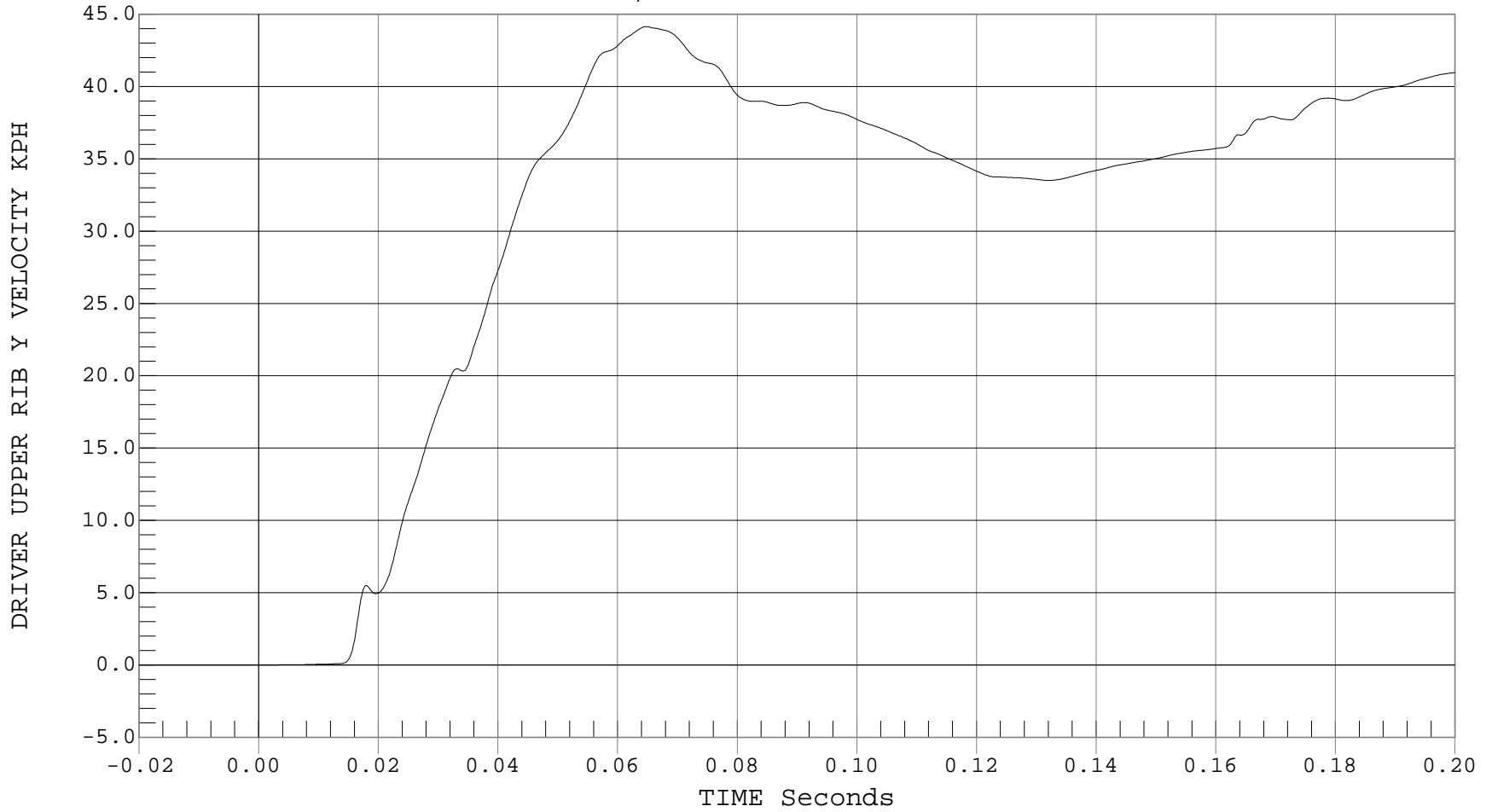
DRIVER UPPER RIB Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 DRIVER UPPER RIB Y VELOCITY, B00090AI.V04

Ymin = 0 KPH @ -0.0135 Seconds, Ymax = 44.15 KPH @ 0.0648 Seconds





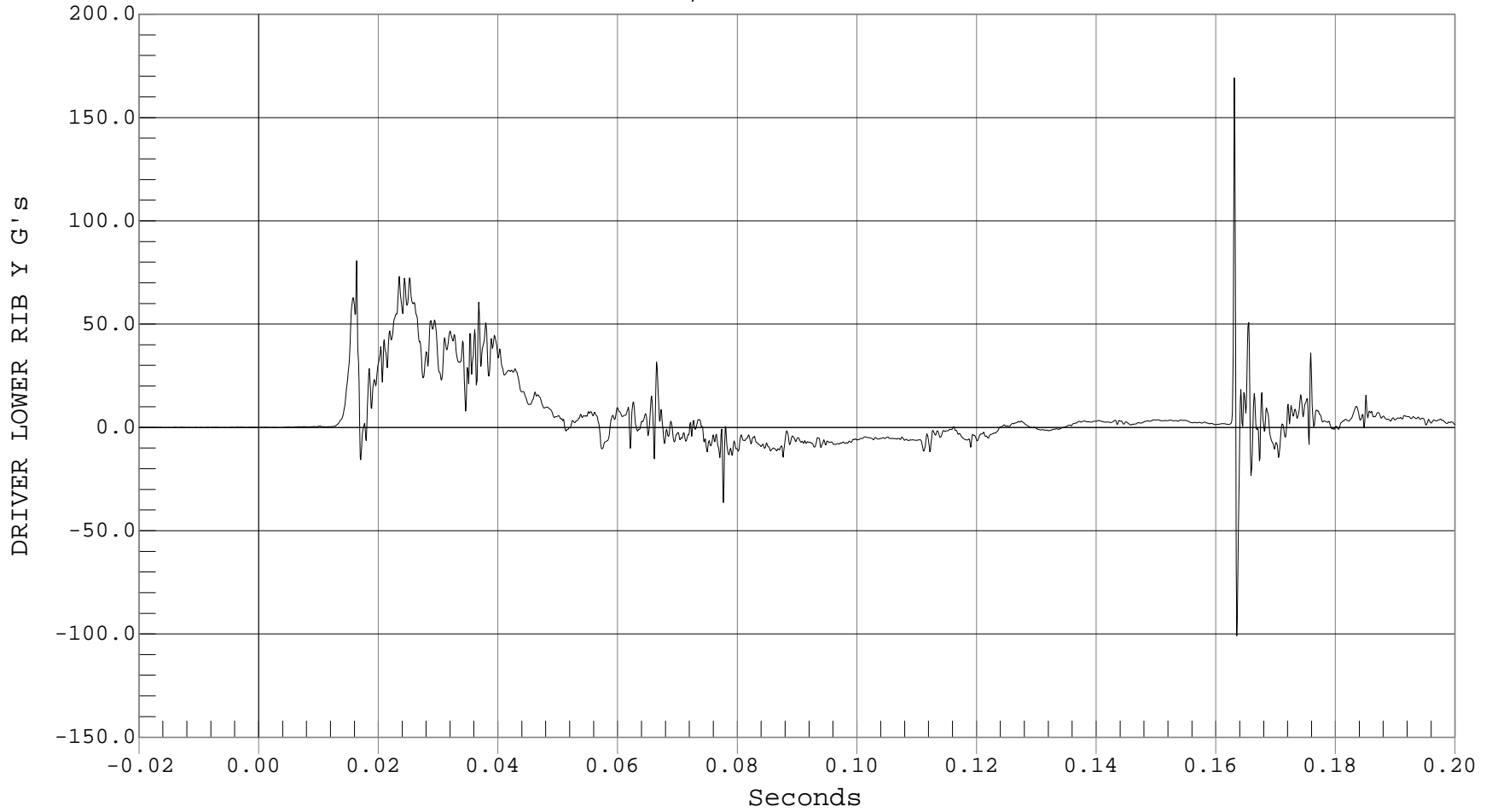
DRIVER LOWER RIB Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 DRIVER LOWER RIB Y, B00090AT.A05

Ymin = -100.95 G's @ 0.1635 Seconds, Ymax = 169.25 G's @ 0.1631 Seconds



B-10



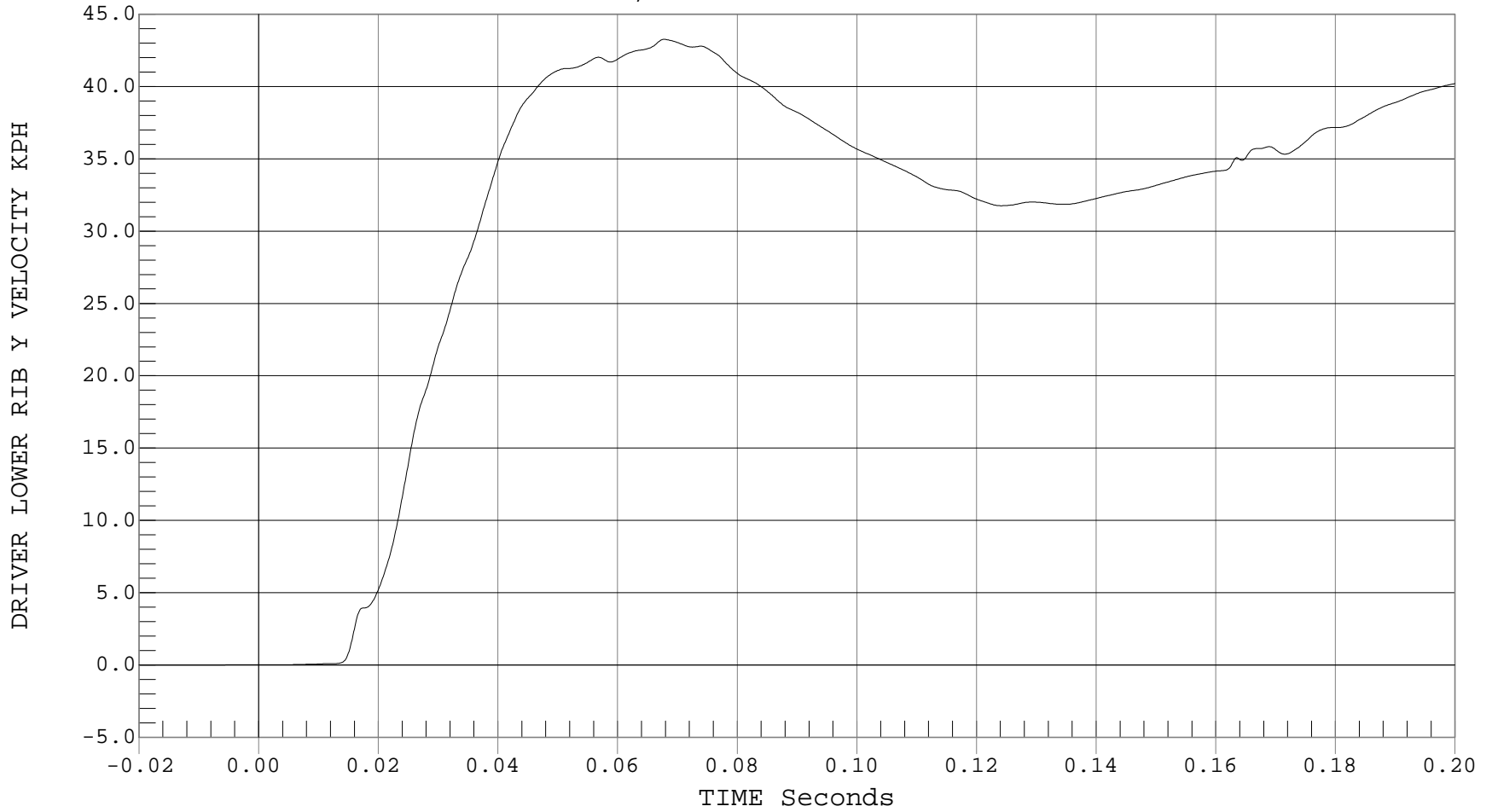
DRIVER LOWER RIB Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 DRIVER LOWER RIB Y VELOCITY, B00090AI.V05

Ymin = 0 KPH @ -0.0198 Seconds, Ymax = 43.27 KPH @ 0.0678 Seconds





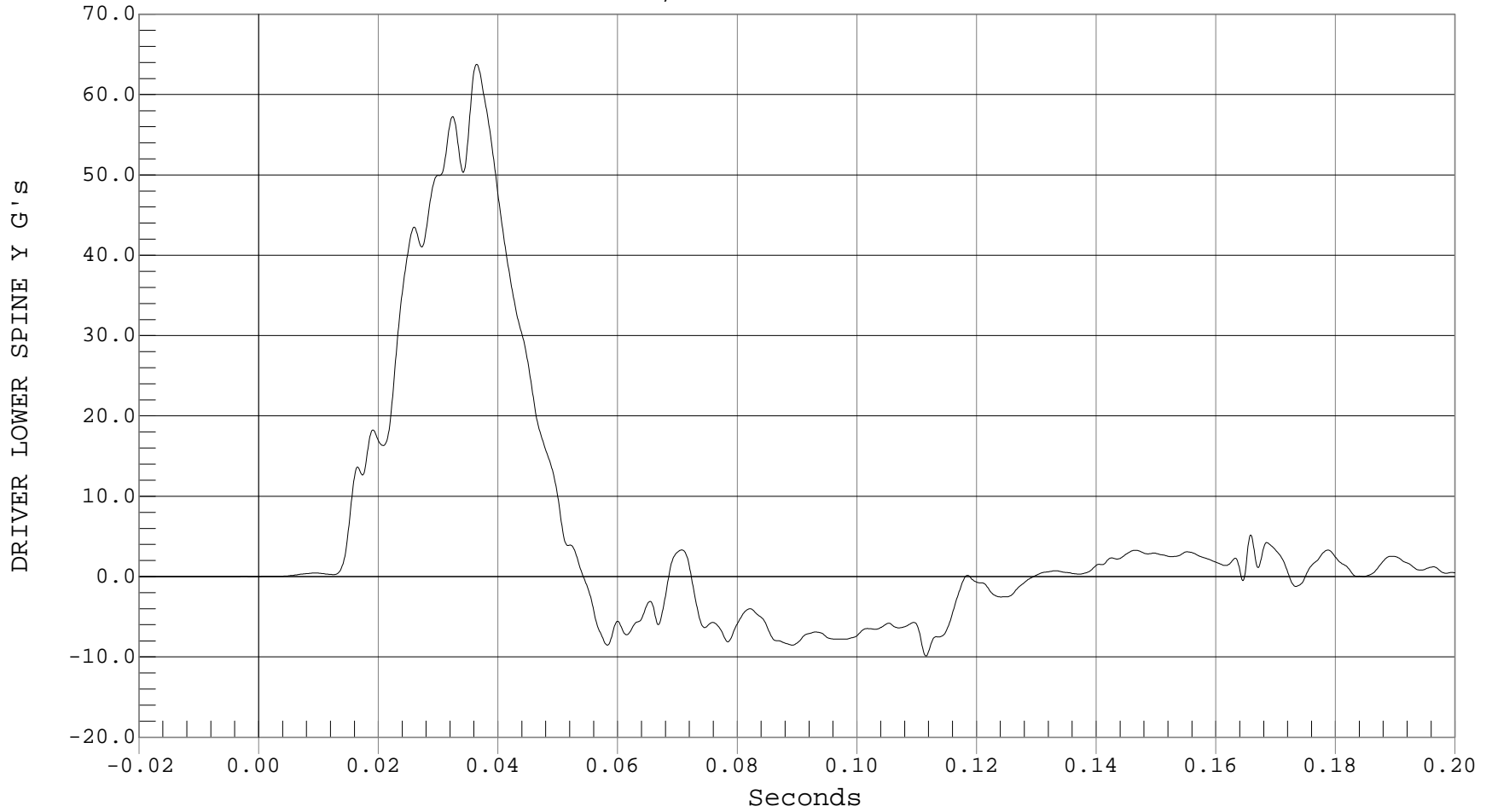
DRIVER LOWER SPINE Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 DRIVER LOWER SPINE Y, B00090AF.A06

Ymin = -9.91 G's @ 0.1116 Seconds, Ymax = 63.77 G's @ 0.0364 Seconds





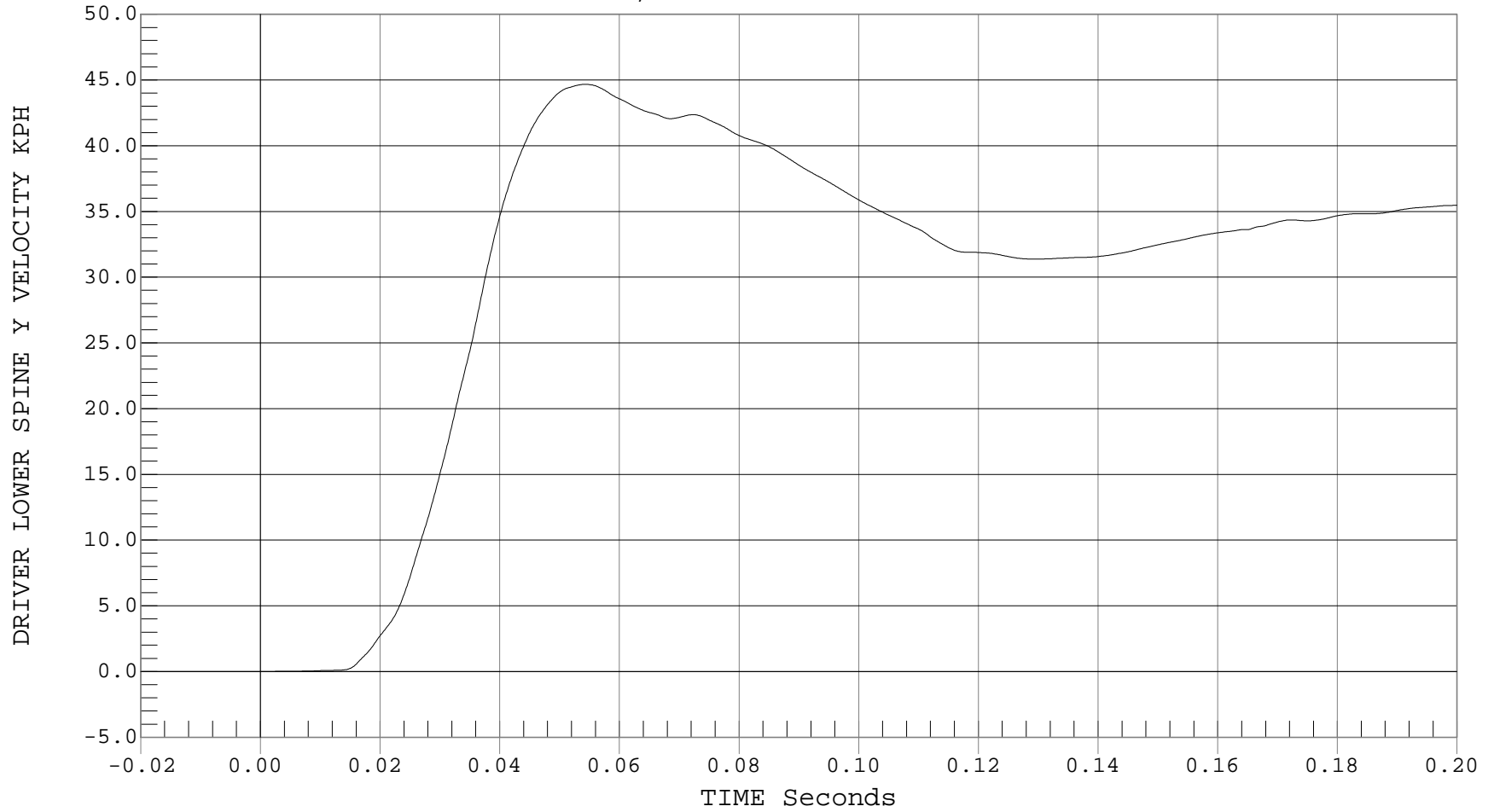
DRIVER LOWER SPINE Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 DRIVER LOWER SPINE Y VELOCITY, B00090AI.V06

Ymin = 0 KPH @ -0.0169 Seconds, Ymax = 44.67 KPH @ 0.0543 Seconds





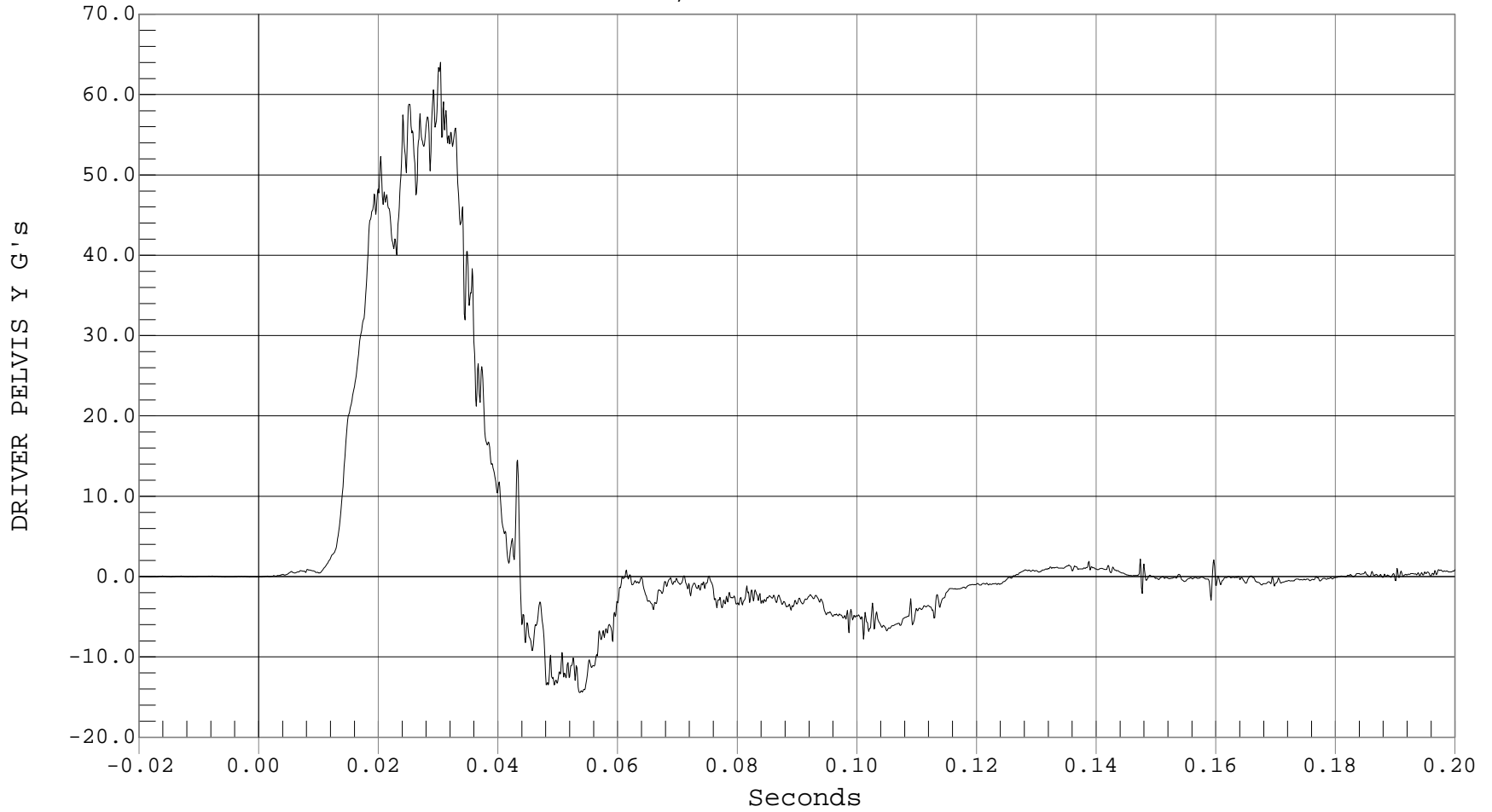
DRIVER PELVIS Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 DRIVER PELVIS Y, B00090AT.A07

Ymin = -14.44 G's @ 0.0537 Seconds, Ymax = 64.03 G's @ 0.0304 Seconds





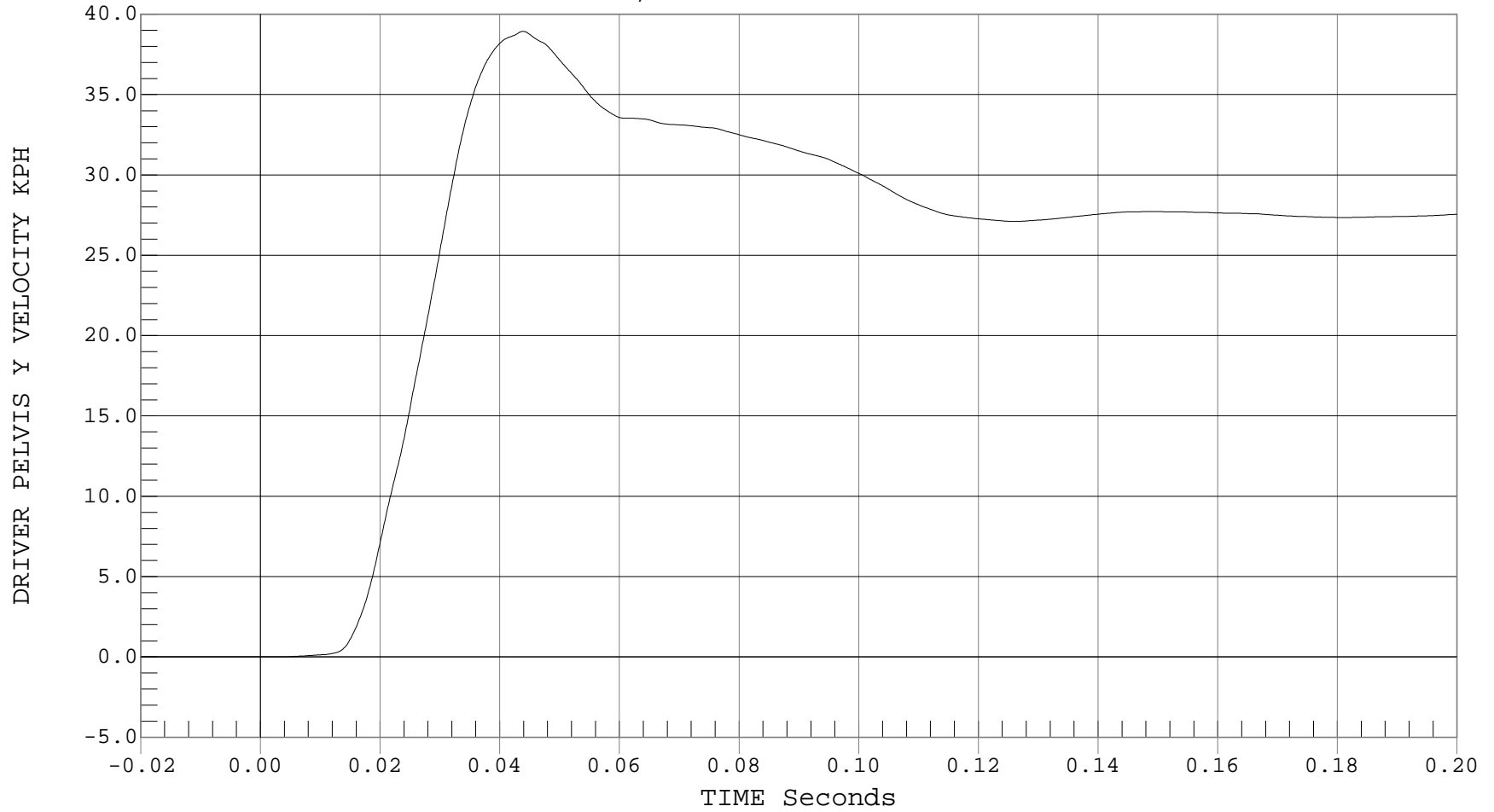
DRIVER PELVIS Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 DRIVER PELVIS Y VELOCITY, B00090AI.V07

Ymin = 0 KPH @ -0.0173 Seconds, Ymax = 38.94 KPH @ 0.0439 Seconds





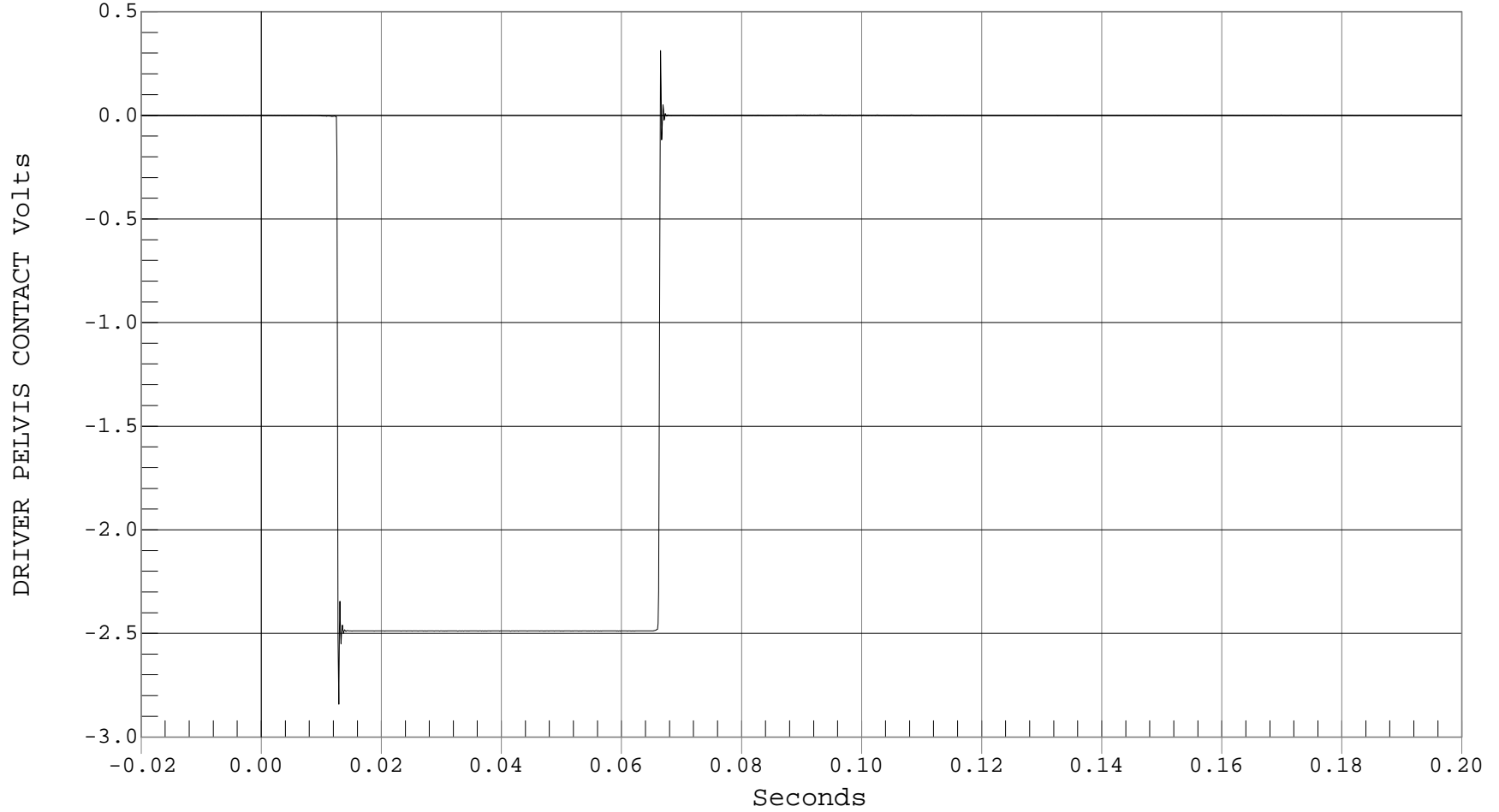
DRIVER PELVIS CONTACT

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 DRIVER PELVIS CONTACT, B000900T.050

Ymin = -2.84 Volts @ 0.0129 Seconds, Ymax = .31 Volts @ 0.0665 Seconds





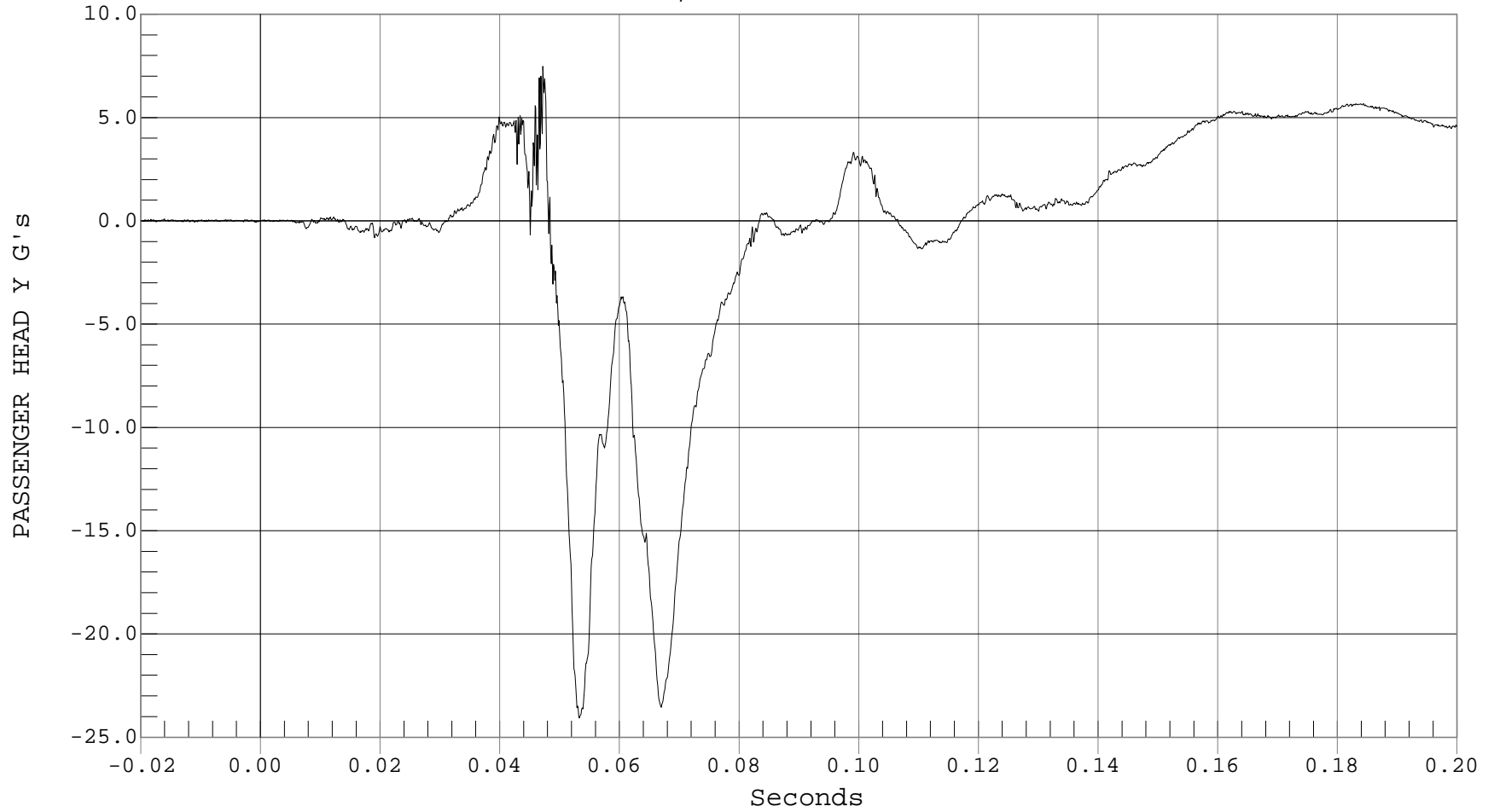
REAR PASSENGER HEAD X ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 PASSENGER HEAD Y, B00090AT.A09

Ymin = -24.07 G's @ 0.0533 Seconds, Ymax = 7.48 G's @ 0.0472 Seconds





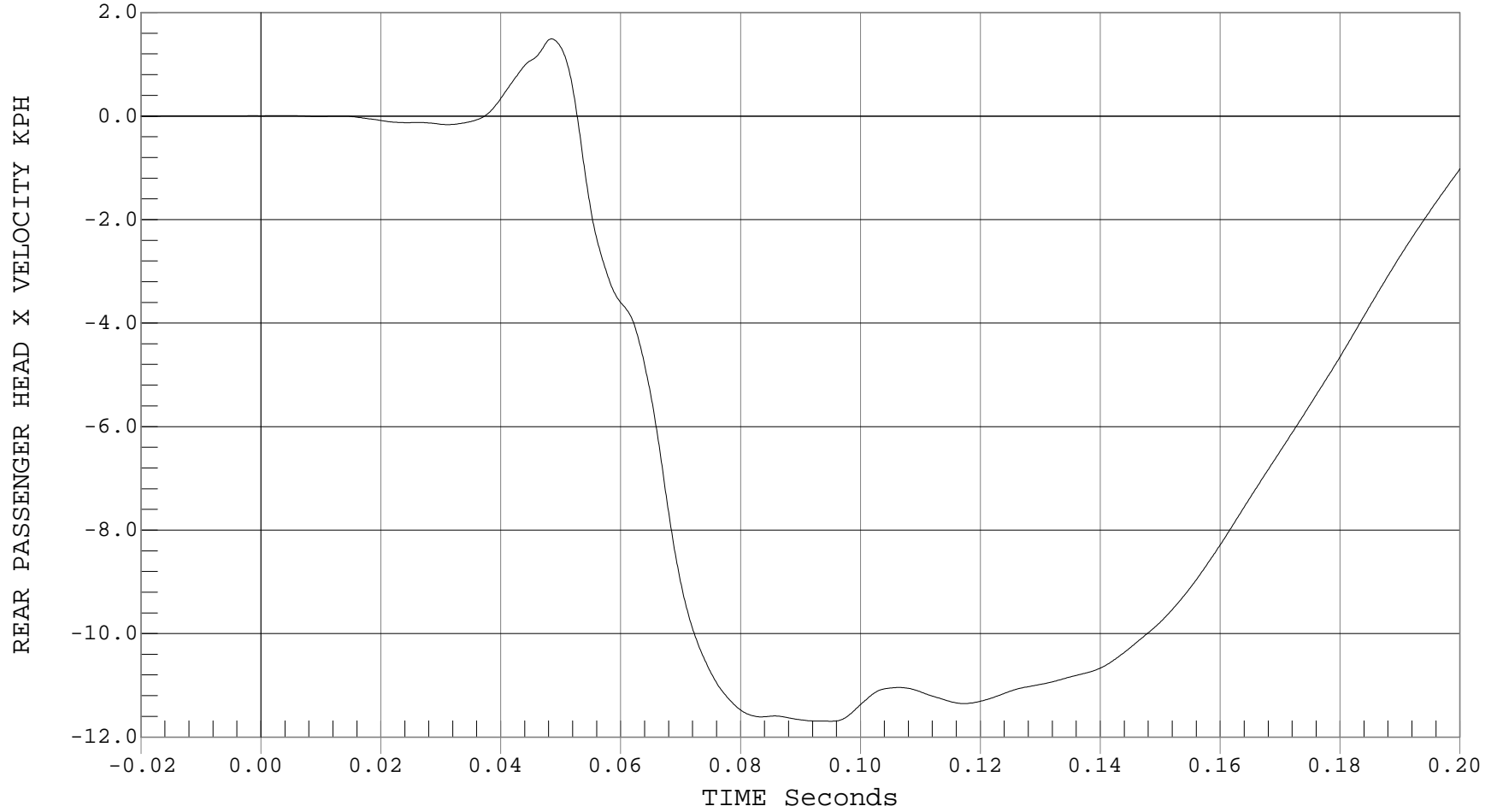
REAR PASSENGER HEAD X VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 REAR PASSENGER HEAD X VELOCITY, B00090AI.V09

Ymin = -11.69 KPH @ 0.0950 Seconds, Ymax = 1.49 KPH @ 0.0485 Seconds





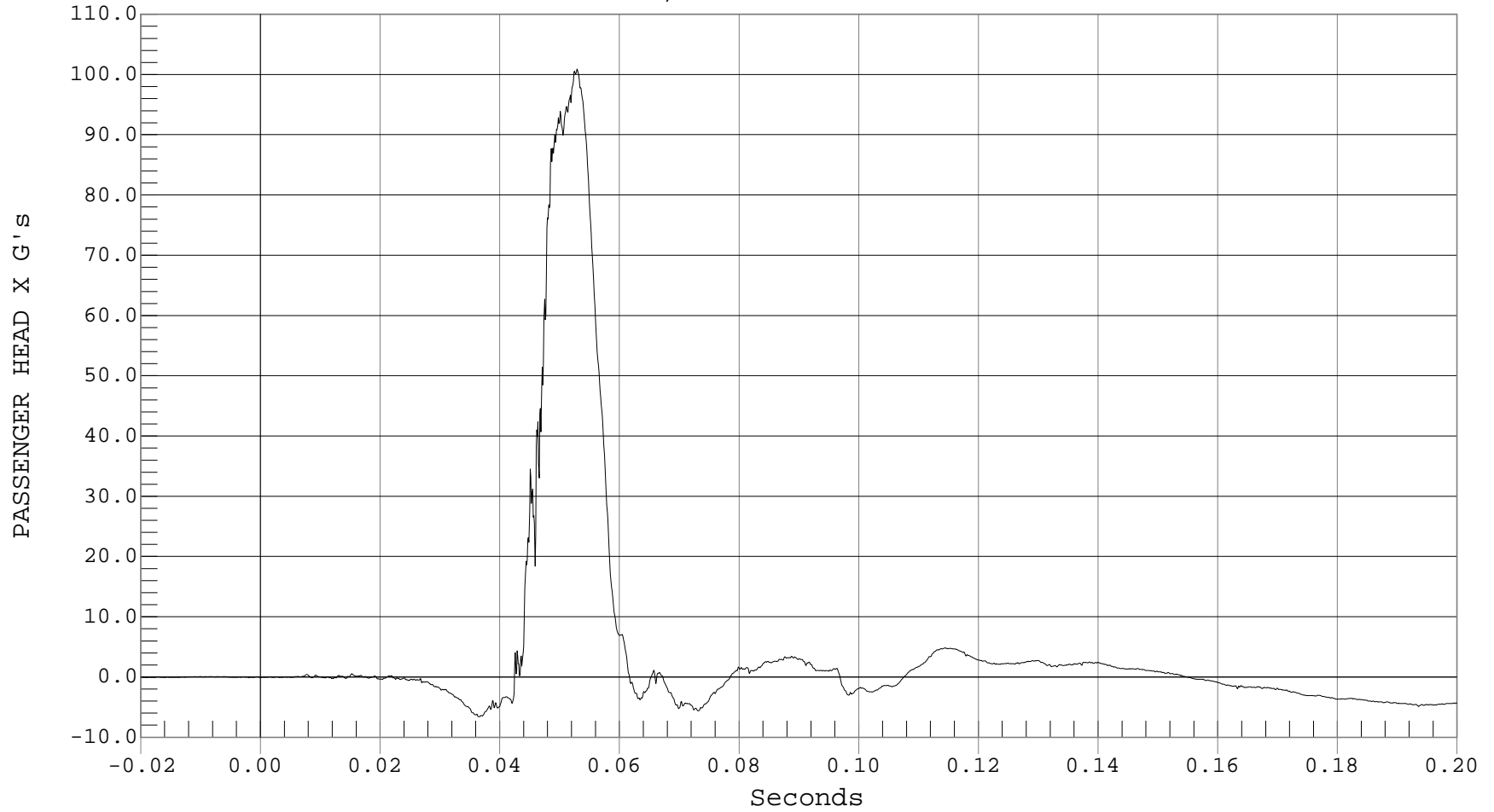
REAR PASSENGER HEAD Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 PASSENGER HEAD X, B00090AT.A08

Ymin = -6.59 G's @ 0.0366 Seconds, Ymax = 100.91 G's @ 0.0529 Seconds





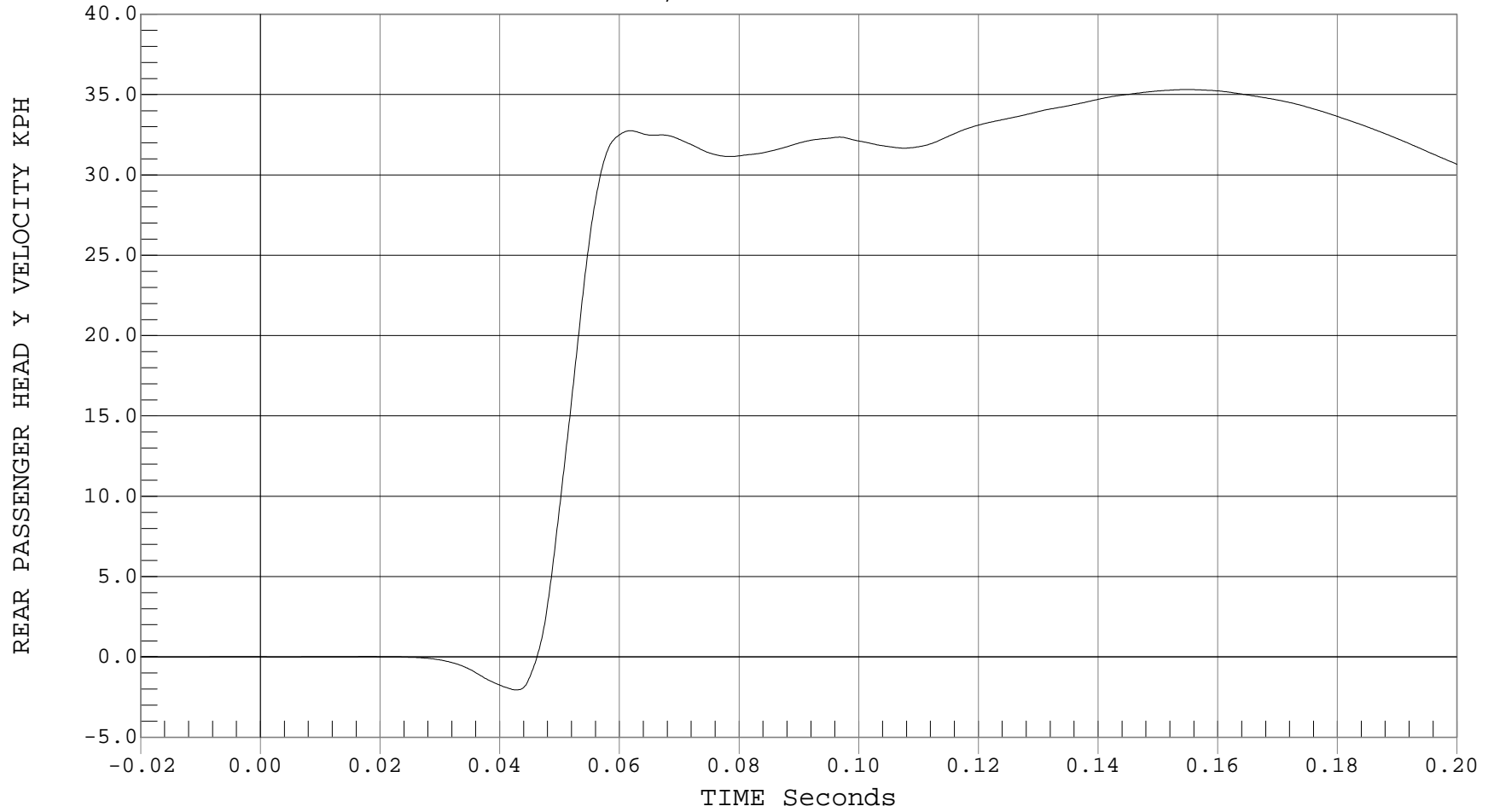
REAR PASSENGER HEAD Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 REAR PASSENGER HEAD Y VELOCITY, B00090AI.V08

Ymin = -2.06 KPH @ 0.0428 Seconds, Ymax = 35.31 KPH @ 0.1549 Seconds





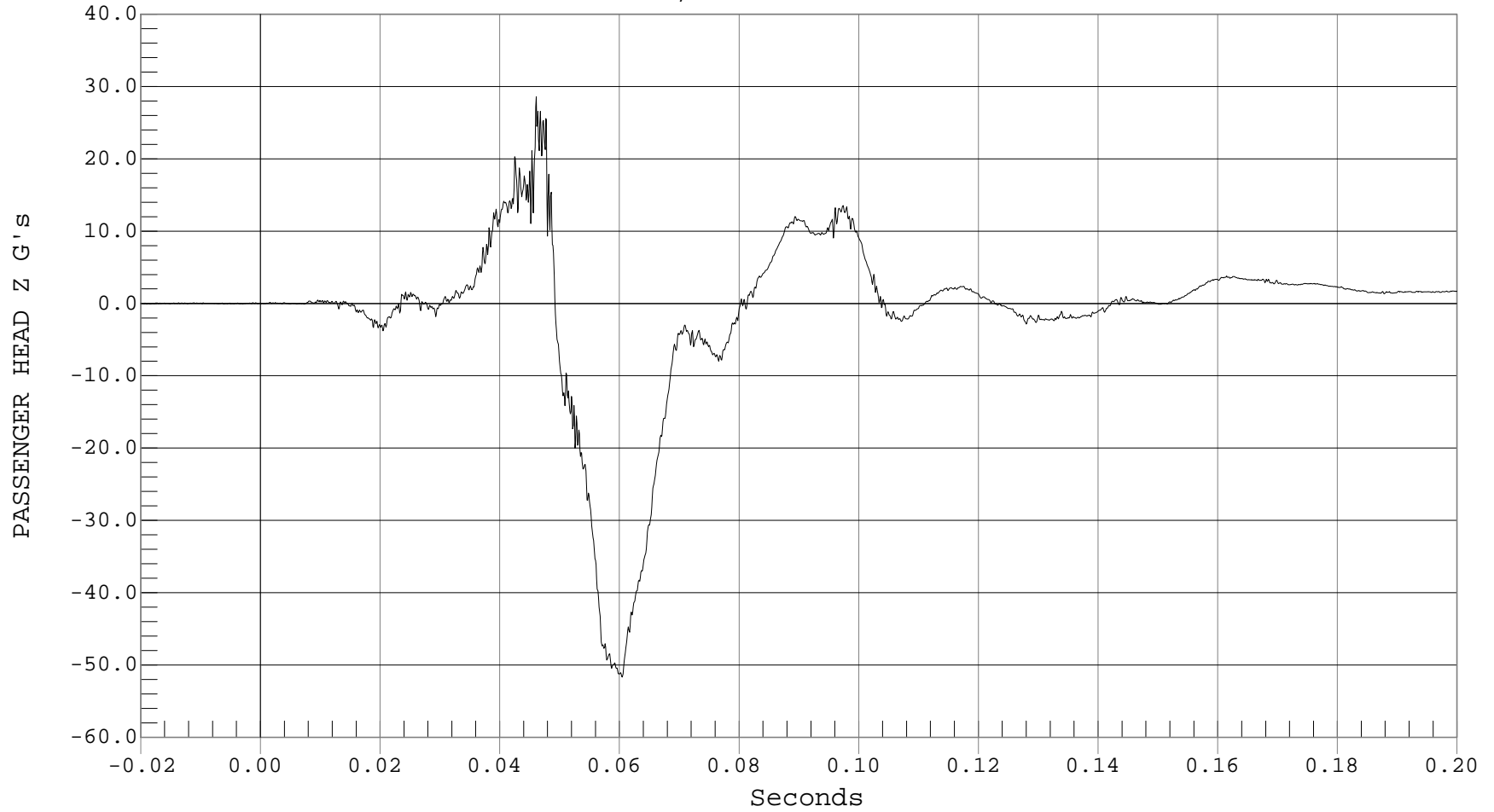
REAR PASSENGER HEAD Z ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 PASSENGER HEAD Z, B00090AT.A10

Ymin = -51.67 G's @ 0.0605 Seconds, Ymax = 28.57 G's @ 0.0461 Seconds



B-21



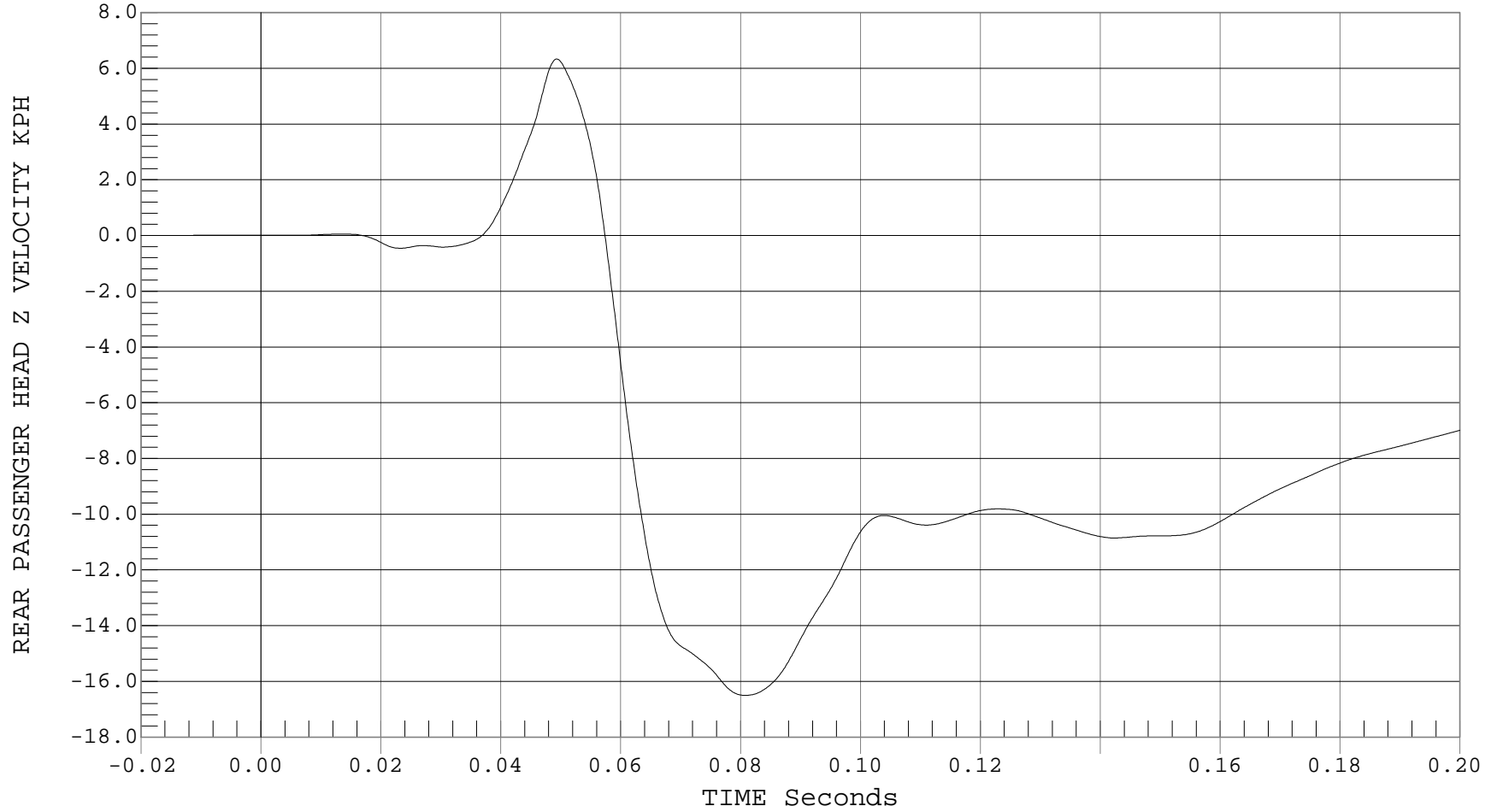
REAR PASSENGER HEAD Z VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 REAR PASSENGER HEAD Z VELOCITY, B00090AI.V10

Ymin = -16.5 KPH @ 0.0807 Seconds, Ymax = 6.33 KPH @ 0.0493 Seconds





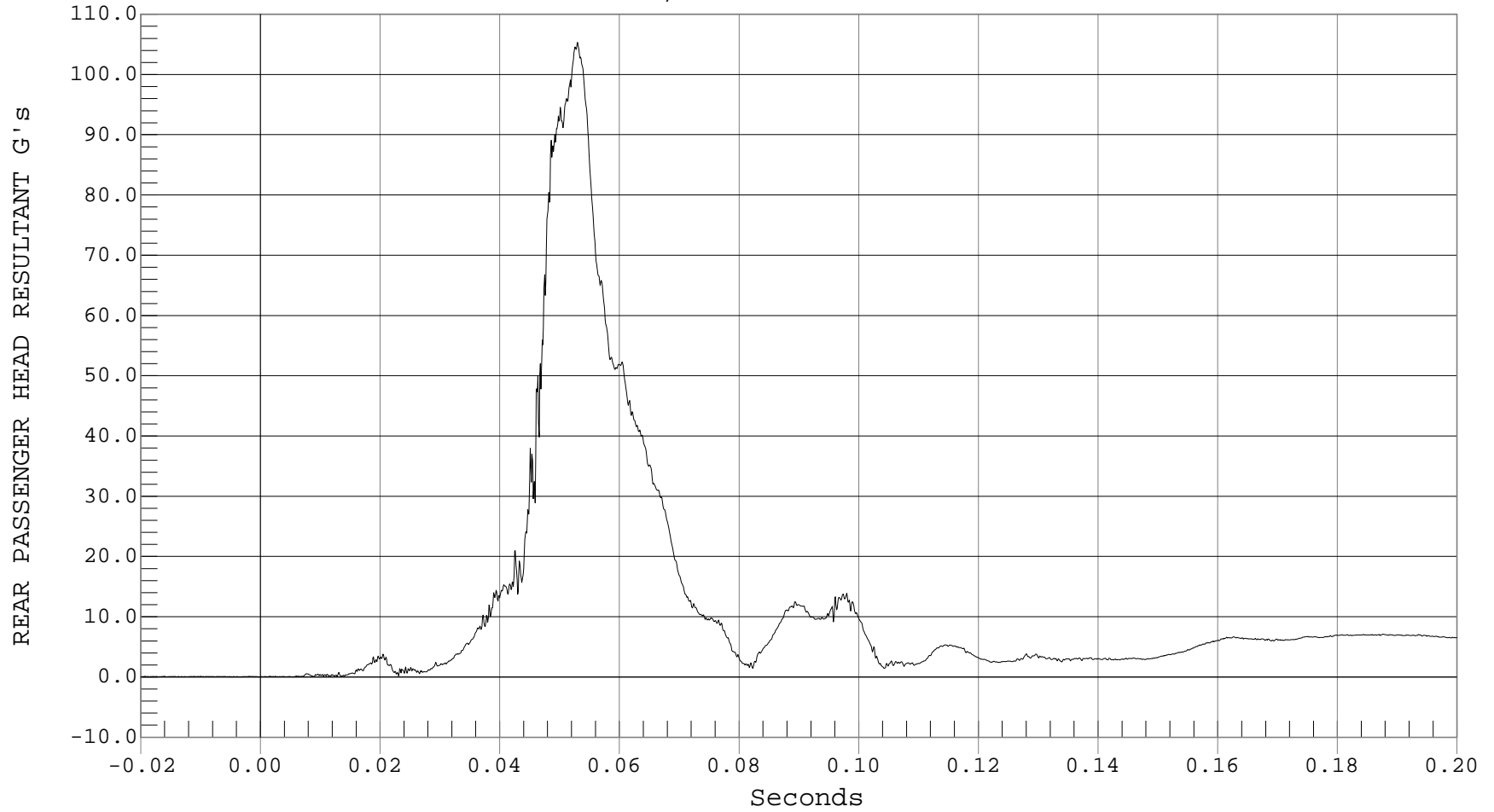
REAR PASSENGER HEAD RESULTANT ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 REAR PASSENGER HEAD RESULTANT, B00090AV.A08

Ymin = .01 G's @ -0.0047 Seconds, Ymax = 105.33 G's @ 0.0530 Seconds





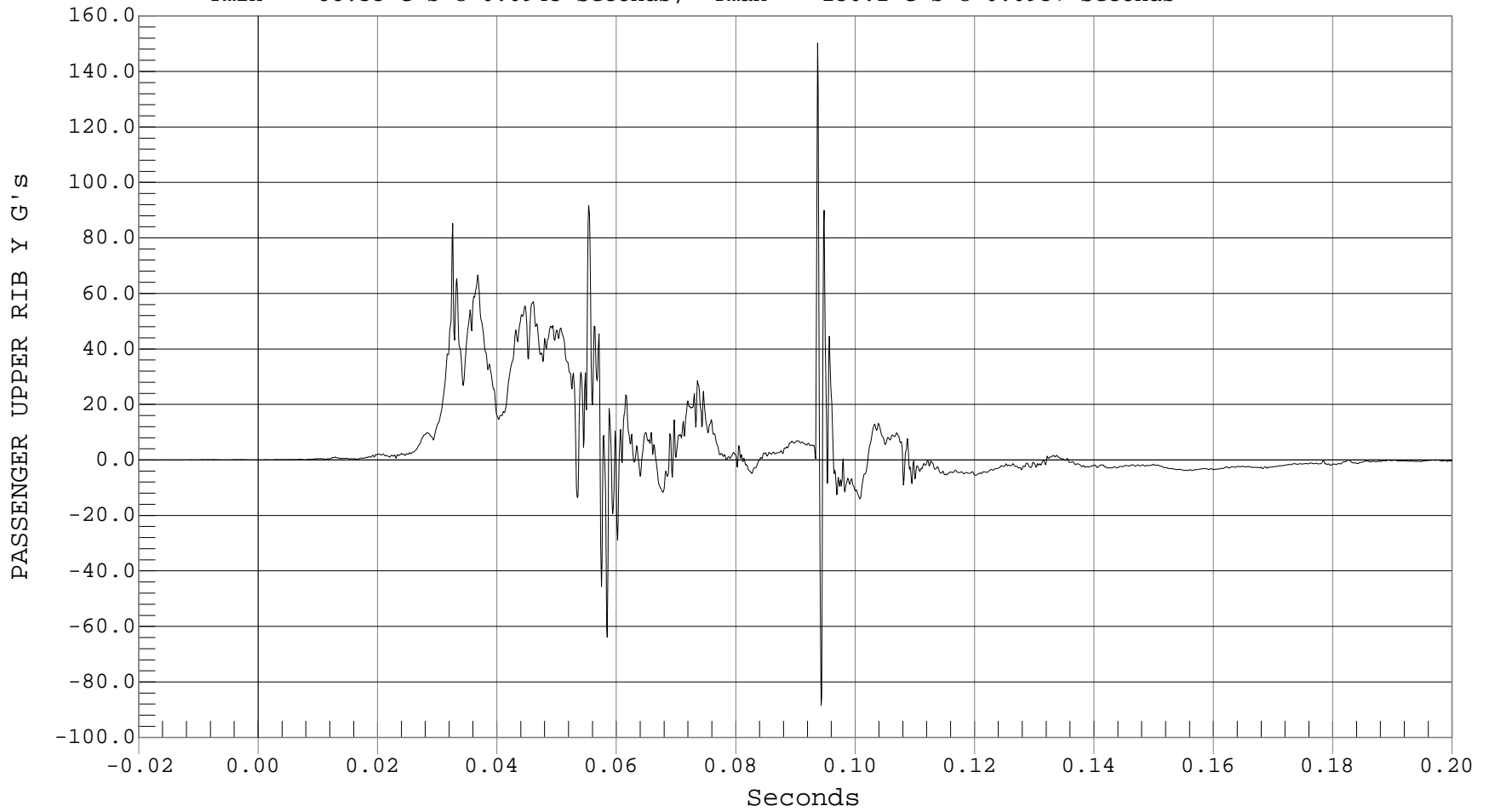
REAR PASSENGER UPPER RIB Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 PASSENGER UPPER RIB Y, B00090AT.A11

Ymin = -88.35 G's @ 0.0943 Seconds, Ymax = 150.2 G's @ 0.0937 Seconds





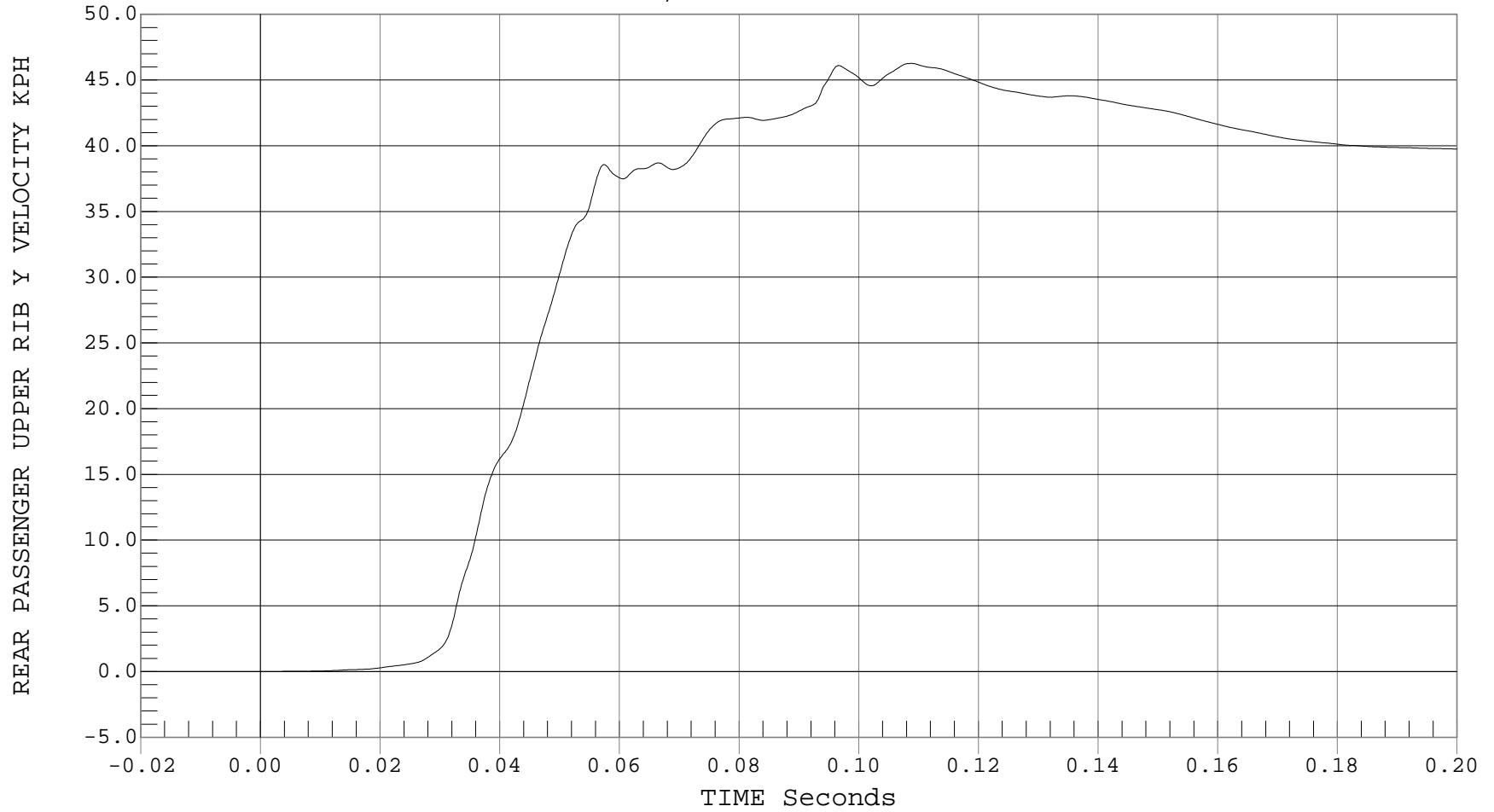
REAR PASSENGER UPPER RIB Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 REAR PASSENGER UPPER RIB Y VELOCITY, B00090AI.V11

Ymin = -.01 KPH @ -0.0121 Seconds, Ymax = 46.26 KPH @ 0.1088 Seconds





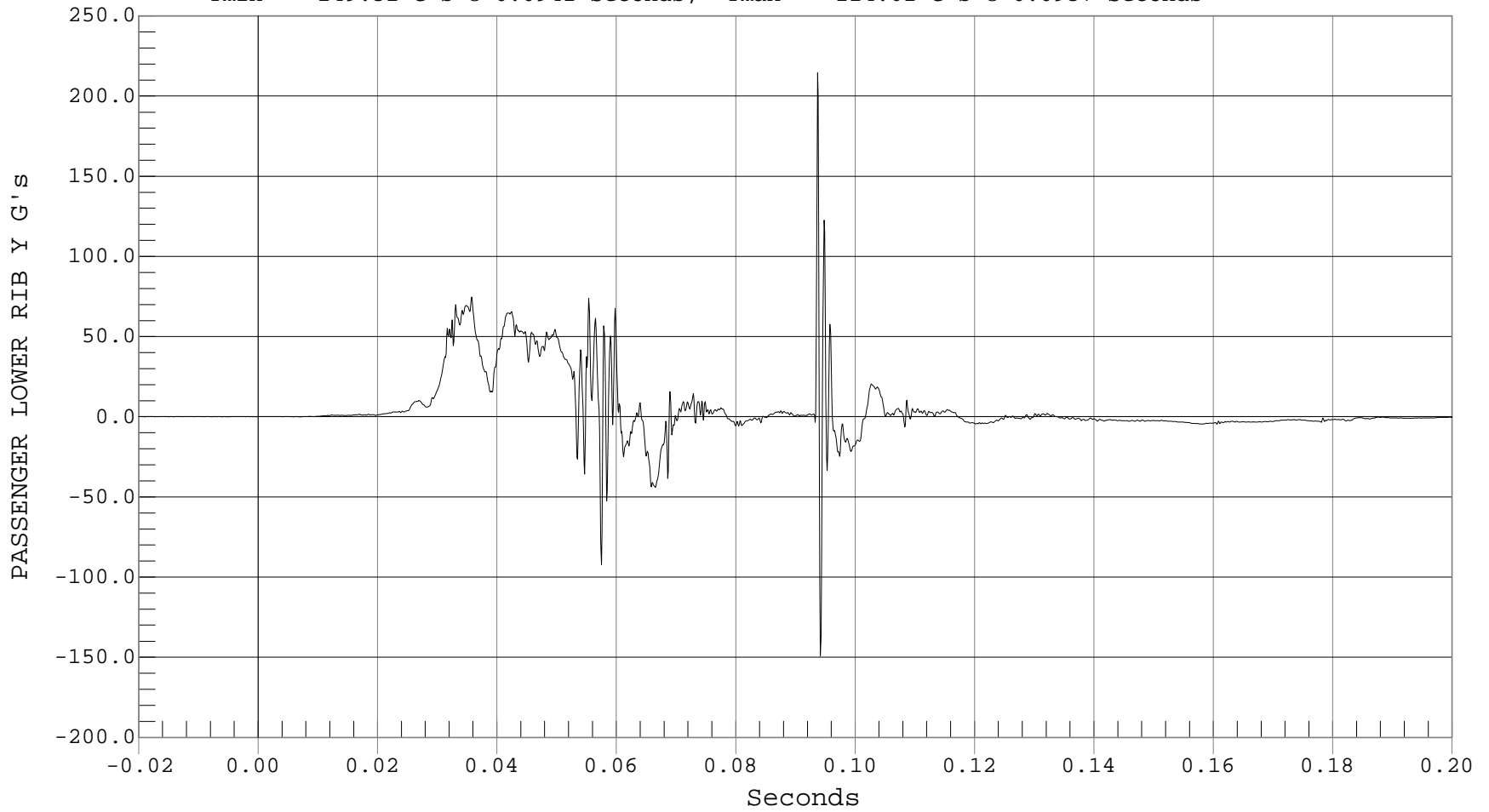
REAR PASSENGER LOWER RIB Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 PASSENGER LOWER RIB Y, B00090AT.A12

Ymin = -149.31 G's @ 0.0942 Seconds, Ymax = 214.62 G's @ 0.0937 Seconds





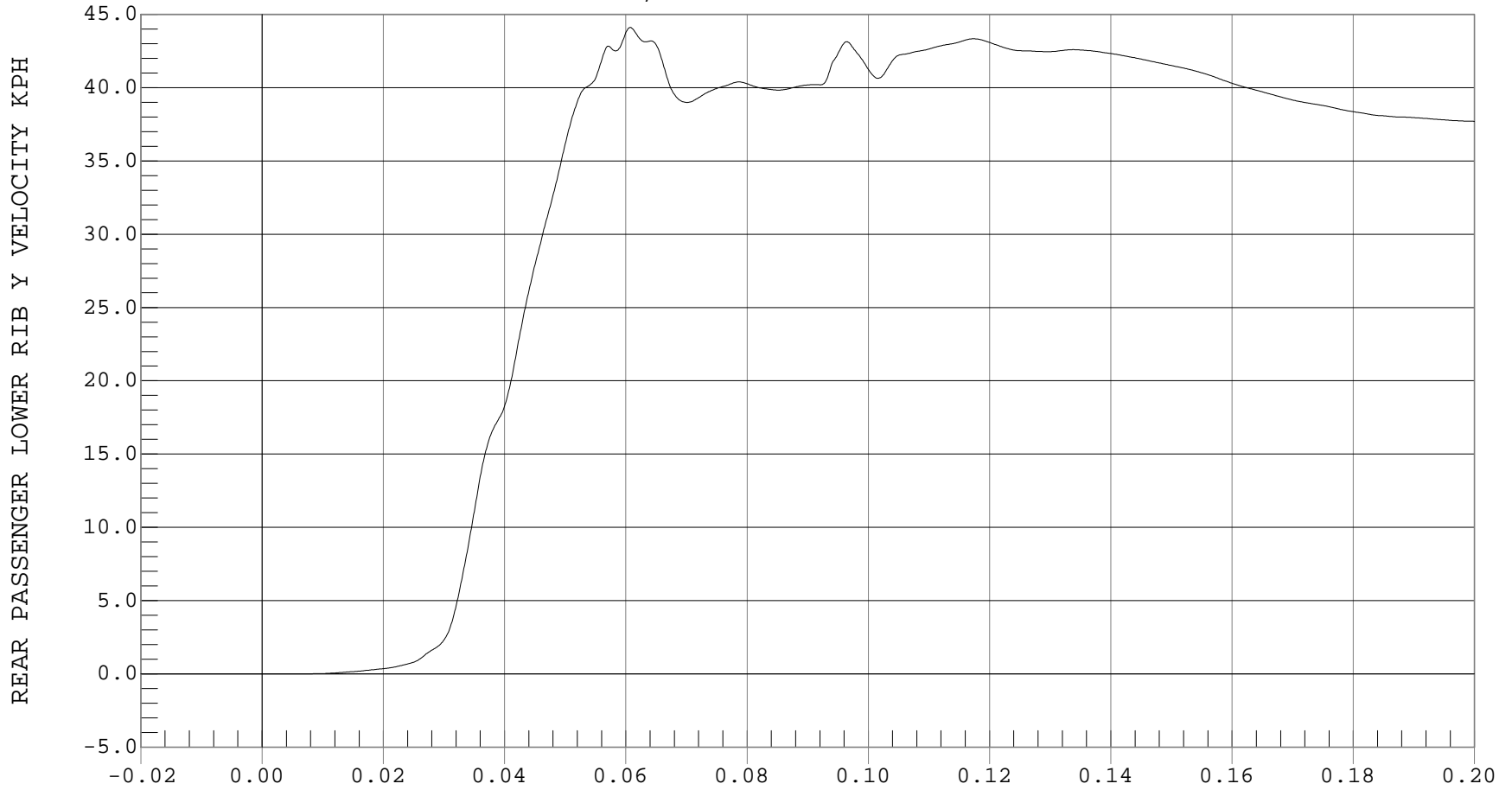
REAR PASSENGER LOWER RIB Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 REAR PASSENGER LOWER RIB Y VELOCITY, B00090AI.V12

Ymin = 0 KPH @ -0.0198 Seconds, Ymax = 44.11 KPH @ 0.0607 Seconds





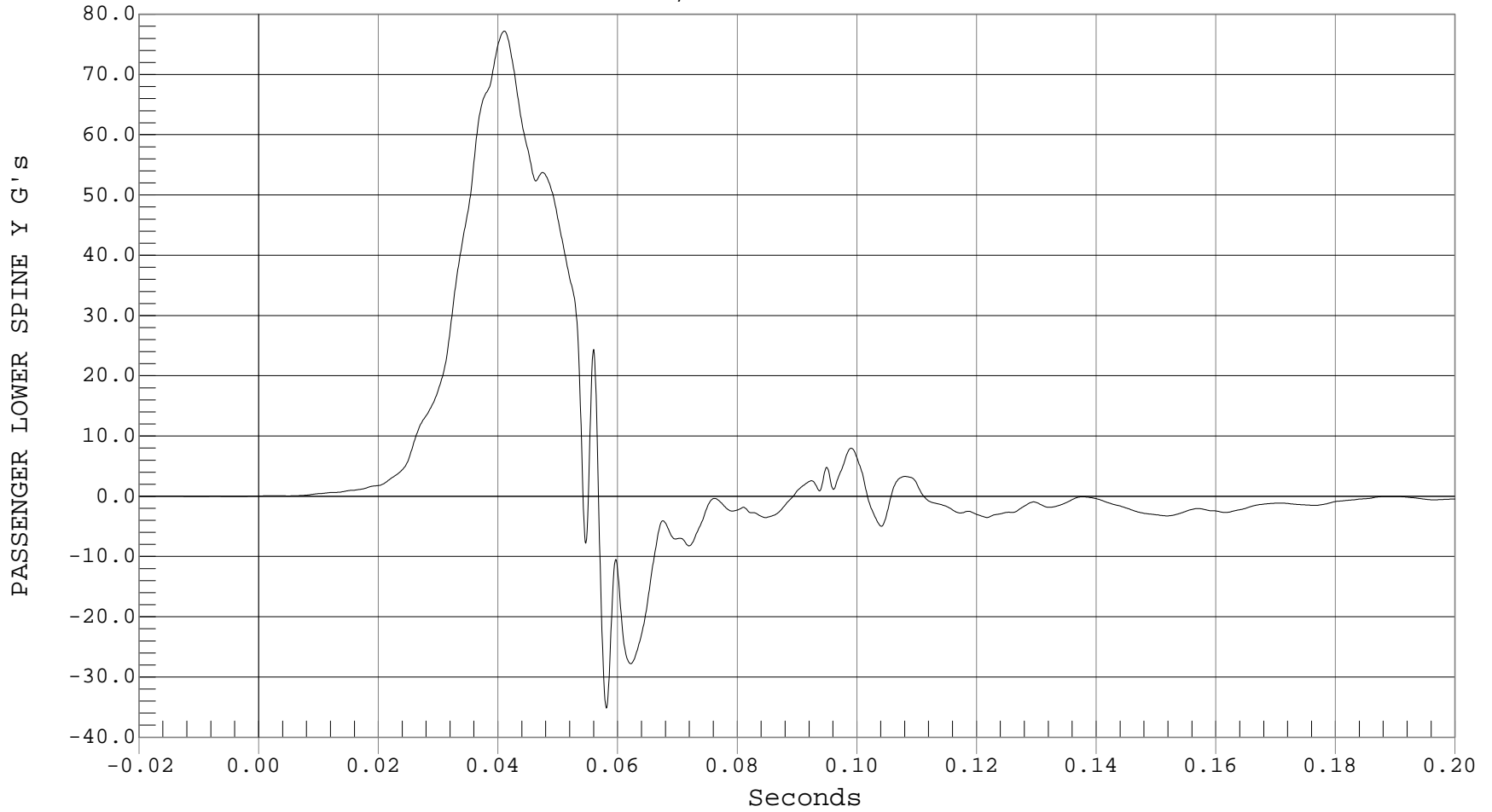
REAR PASSENGER LOWER SPINE Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 PASSENGER LOWER SPINE Y, B00090AF.A13

Ymin = -35.16 G's @ 0.0581 Seconds, Ymax = 77.2 G's @ 0.0411 Seconds





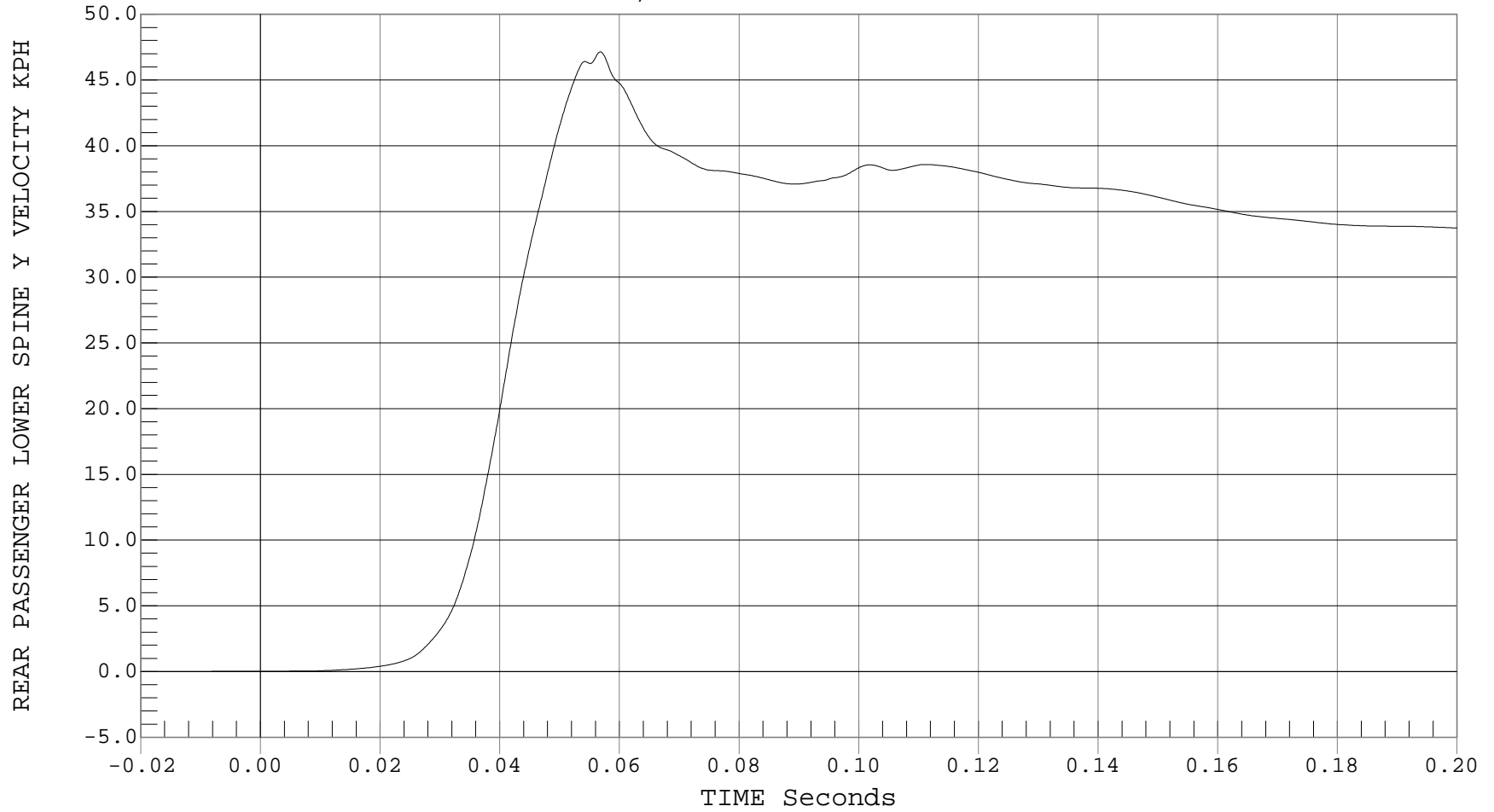
REAR PASSENGER LOWER SPINE Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 REAR PASSENGER LOWER SPINE Y VELOCITY, B00090AI.V13

Ymin = 0 KPH @ -0.0198 Seconds, Ymax = 47.14 KPH @ 0.0568 Seconds





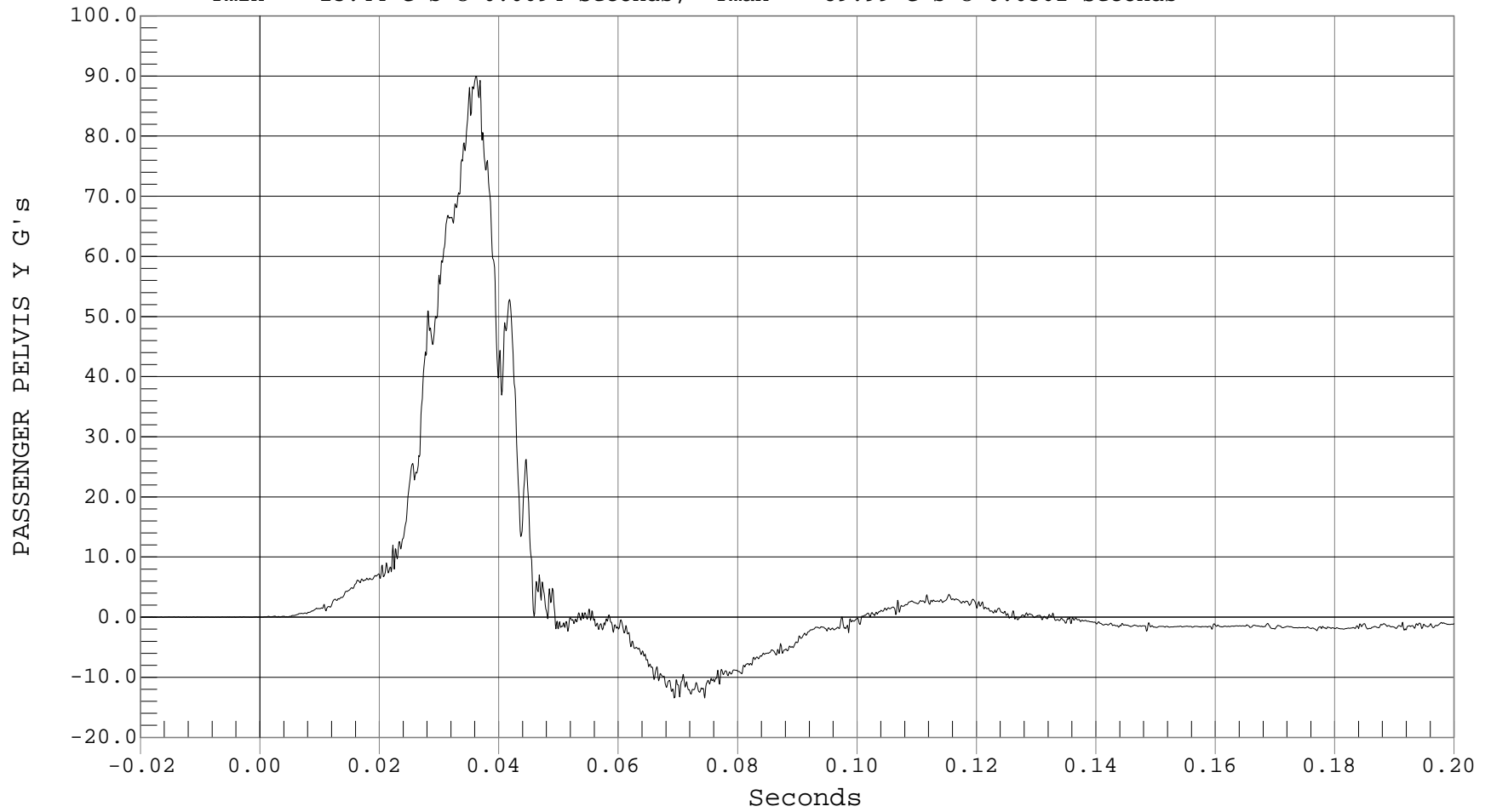
REAR PASSENGER PELVIS Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 PASSENGER PELVIS Y, B00090AT.A14

Ymin = -13.44 G's @ 0.0694 Seconds, Ymax = 89.99 G's @ 0.0362 Seconds



B-30



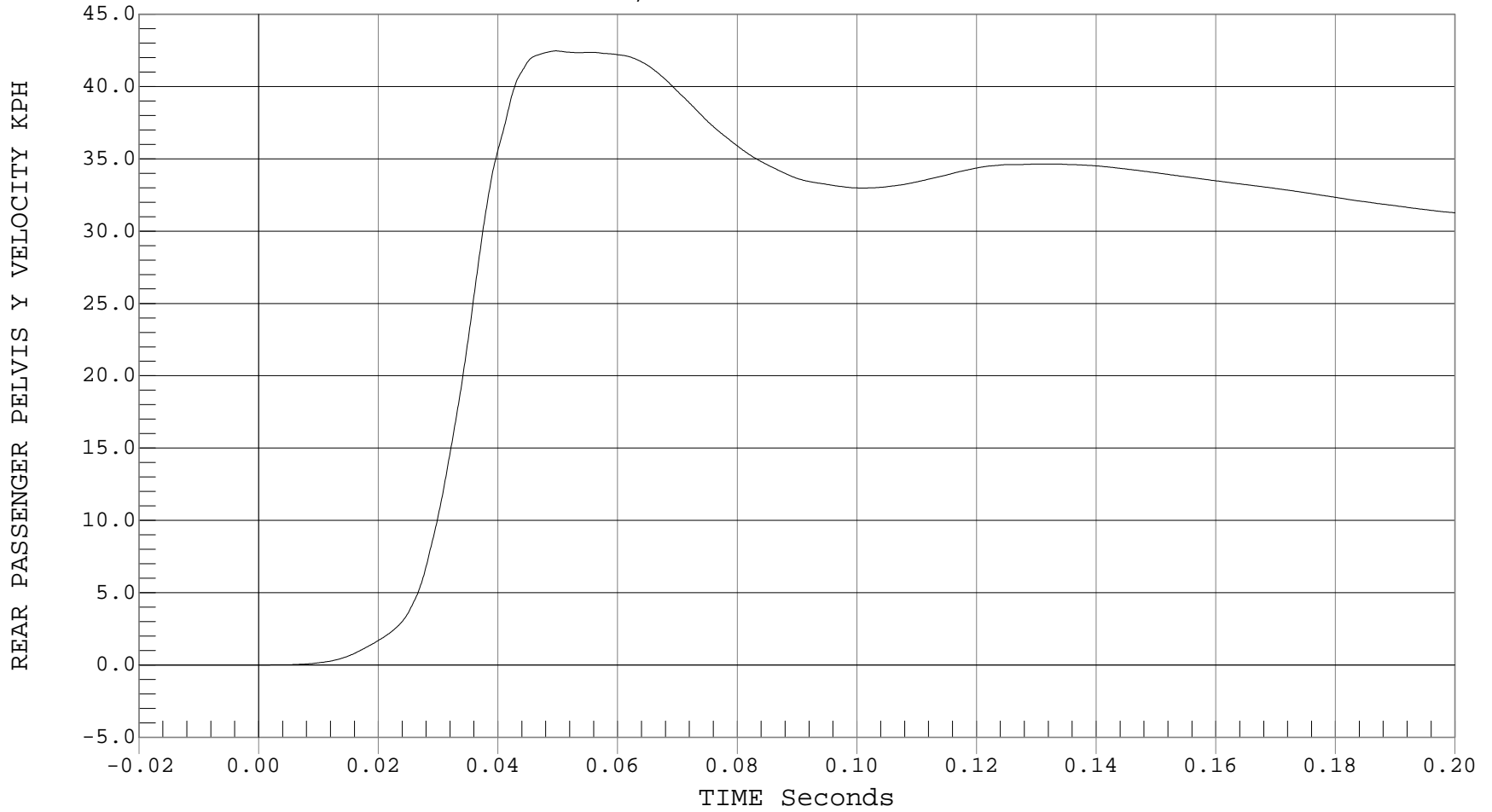
REAR PASSENGER PELVIS Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 REAR PASSENGER PELVIS Y VELOCITY, B00090AI.V14

Ymin = 0 KPH @ -0.0192 Seconds, Ymax = 42.47 KPH @ 0.0497 Seconds





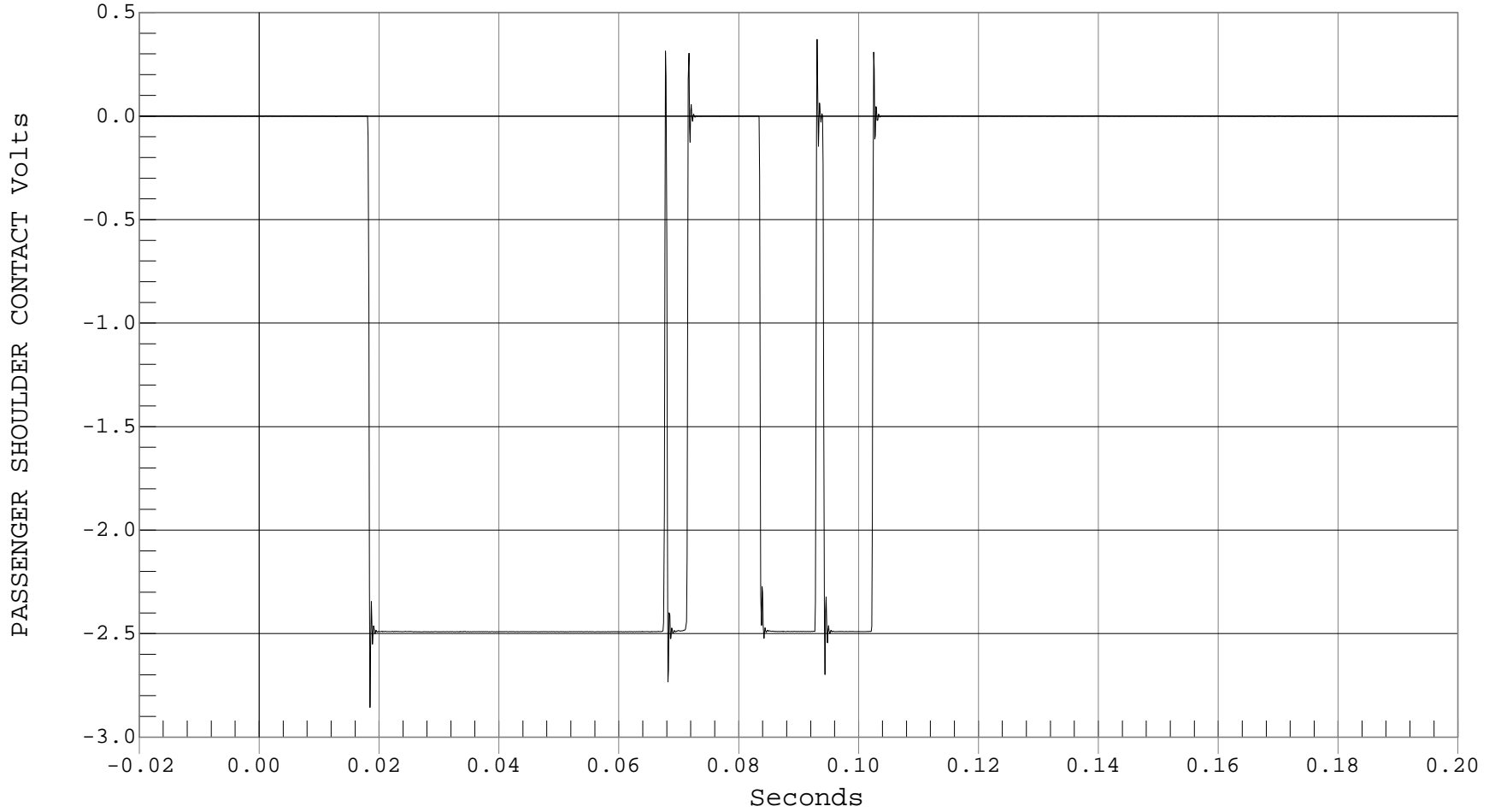
REAR PASSENGER SHOULDER CONTACT

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 PASSENGER SHOULDER CONTACT, B000900T.051

Ymin = -2.86 Volts @ 0.0185 Seconds, Ymax = .37 Volts @ 0.0931 Seconds





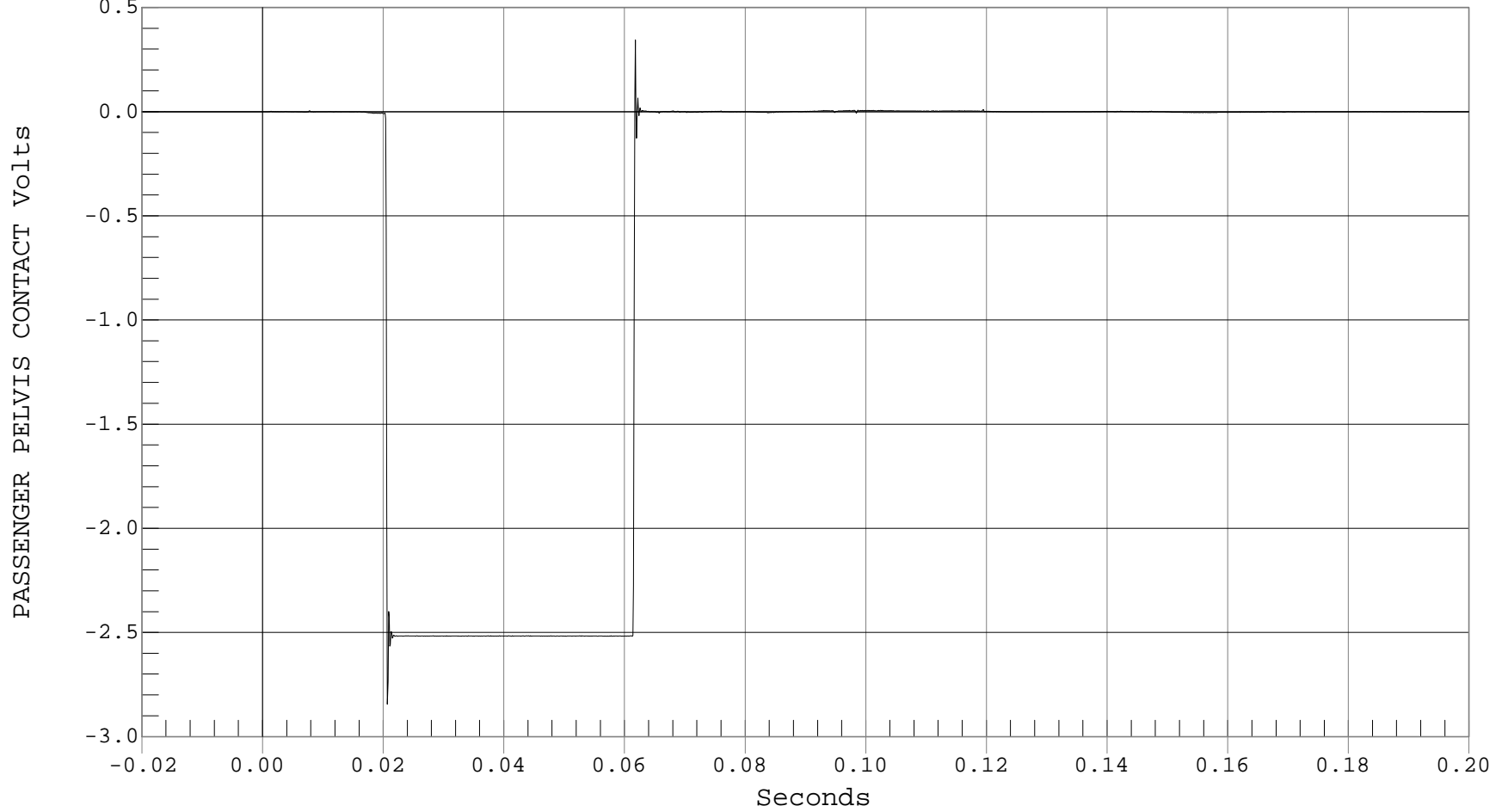
REAR PASSENGER PELVIS CONTACT

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 PASSENGER PELVIS CONTACT, B000900T.052

Ymin = -2.84 Volts @ 0.0207 Seconds, Ymax = .34 Volts @ 0.0618 Seconds





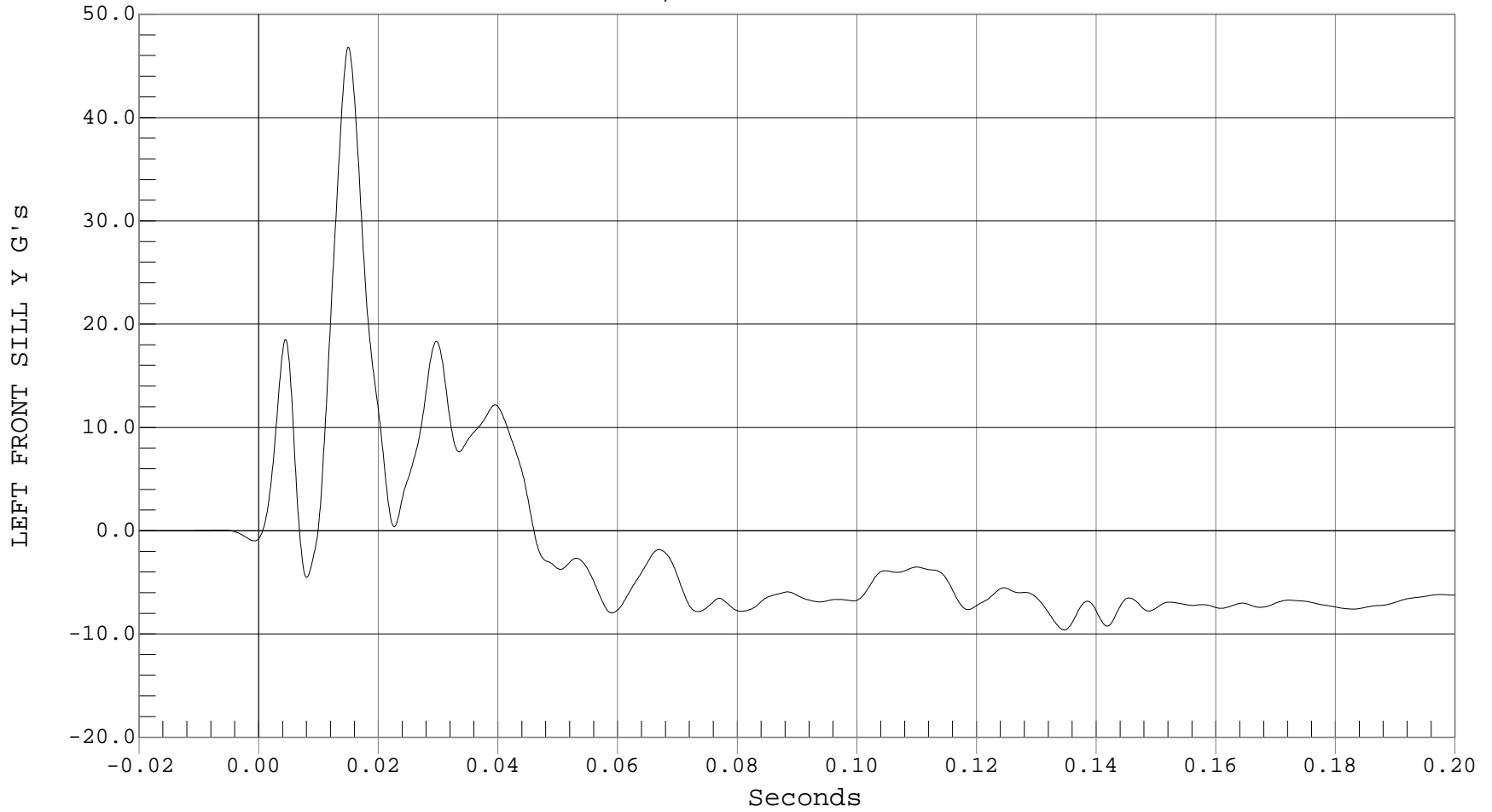
LEFT SIDE SILL AT FRONT SEAT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 LEFT FRONT SILL Y, B00090AF.A21

Ymin = -9.61 G's @ 0.1347 Seconds, Ymax = 46.82 G's @ 0.0150 Seconds





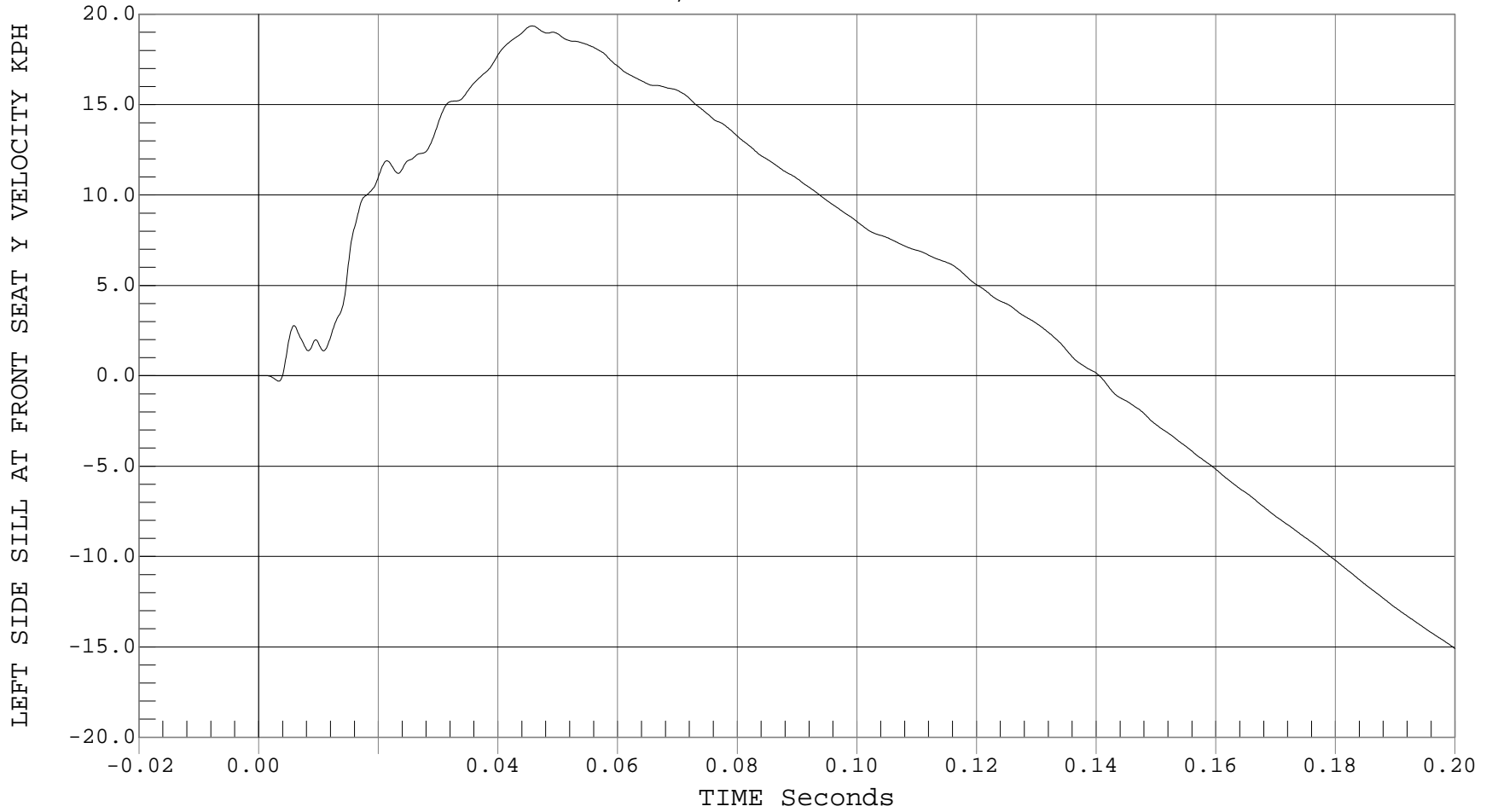
LEFT SIDE SILL AT FRONT SEAT Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 LEFT SIDE SILL AT FRONT SEAT Y VELOCITY, B00090AI.V21

Ymin = -15.12 KPH @ 0.2001 Seconds, Ymax = 19.35 KPH @ 0.0457 Seconds





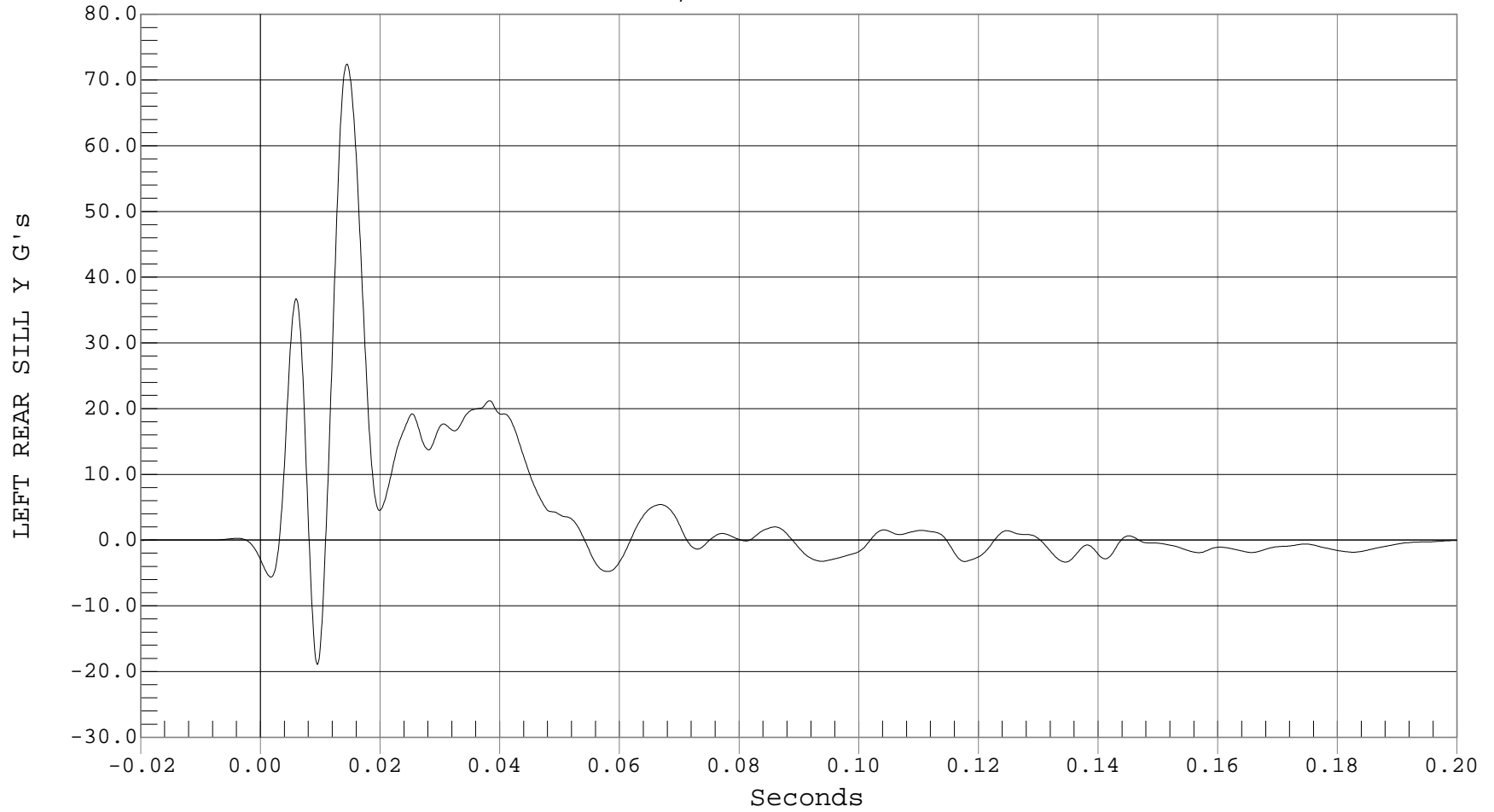
LEFT SIDE SILL AT REAR SEAT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 LEFT REAR SILL Y, B00090AF.A22

Ymin = -18.93 G's @ 0.0095 Seconds, Ymax = 72.41 G's @ 0.0145 Seconds





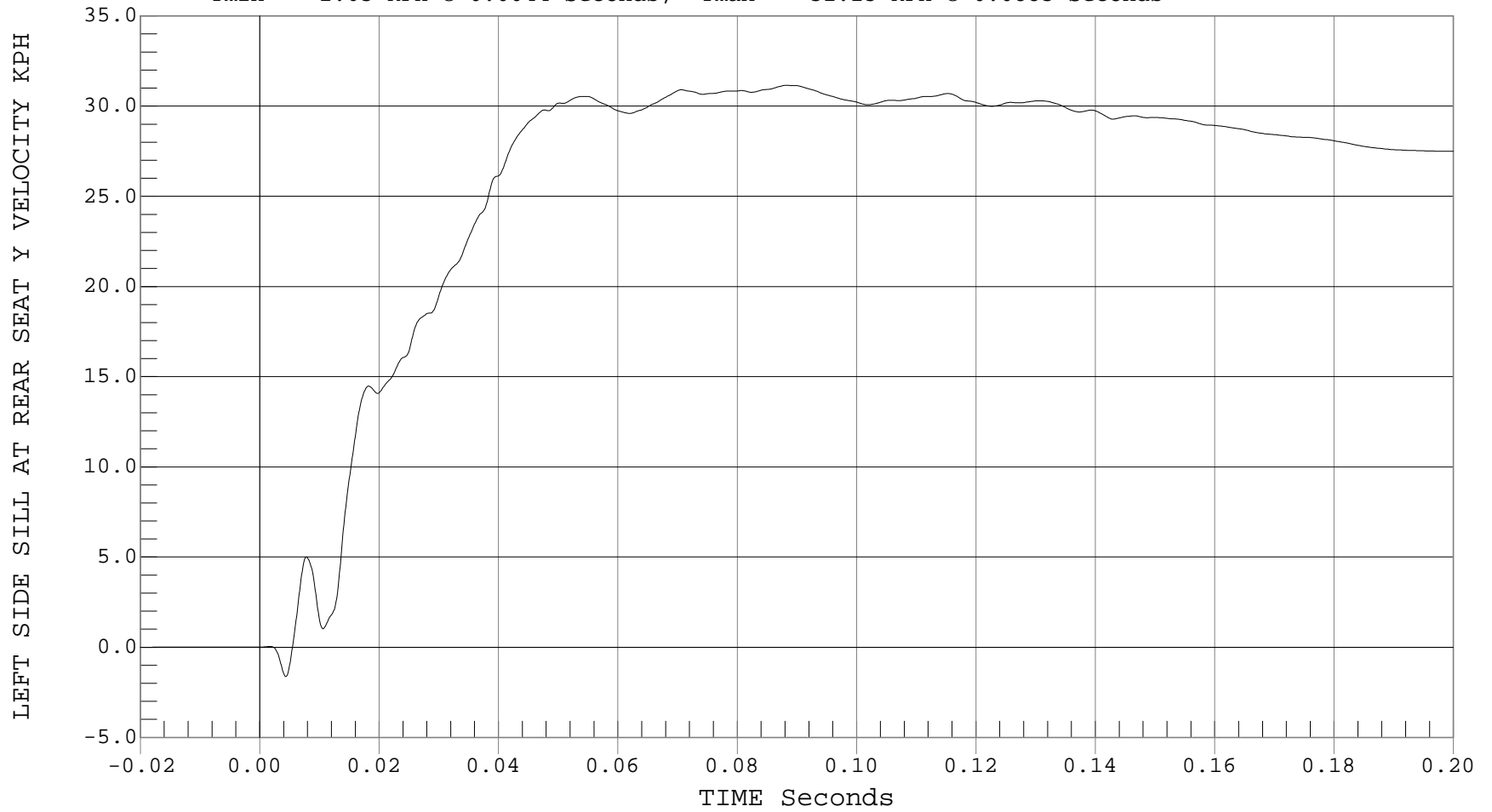
LEFT SIDE SILL AT REAR SEAT Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 LEFT SIDE SILL AT REAR SEAT Y VELOCITY, B00090AI.V22

Ymin = -1.63 KPH @ 0.0044 Seconds, Ymax = 31.15 KPH @ 0.0883 Seconds





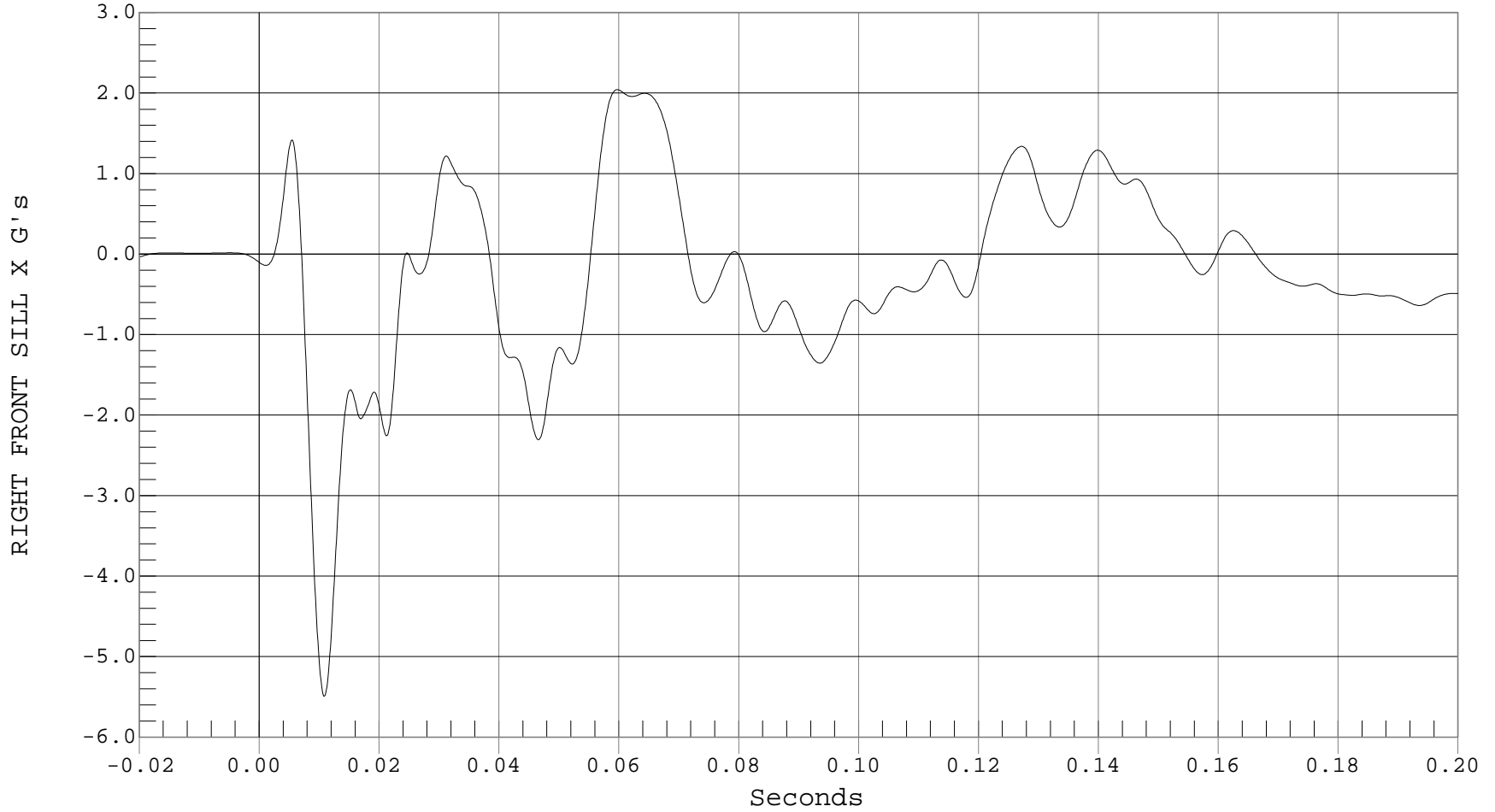
RIGHT SIDE SILL AT FRONT SEAT X ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 RIGHT FRONT SILL X, B00090AF.A15

Ymin = -5.49 G's @ 0.0109 Seconds, Ymax = 2.04 G's @ 0.0598 Seconds





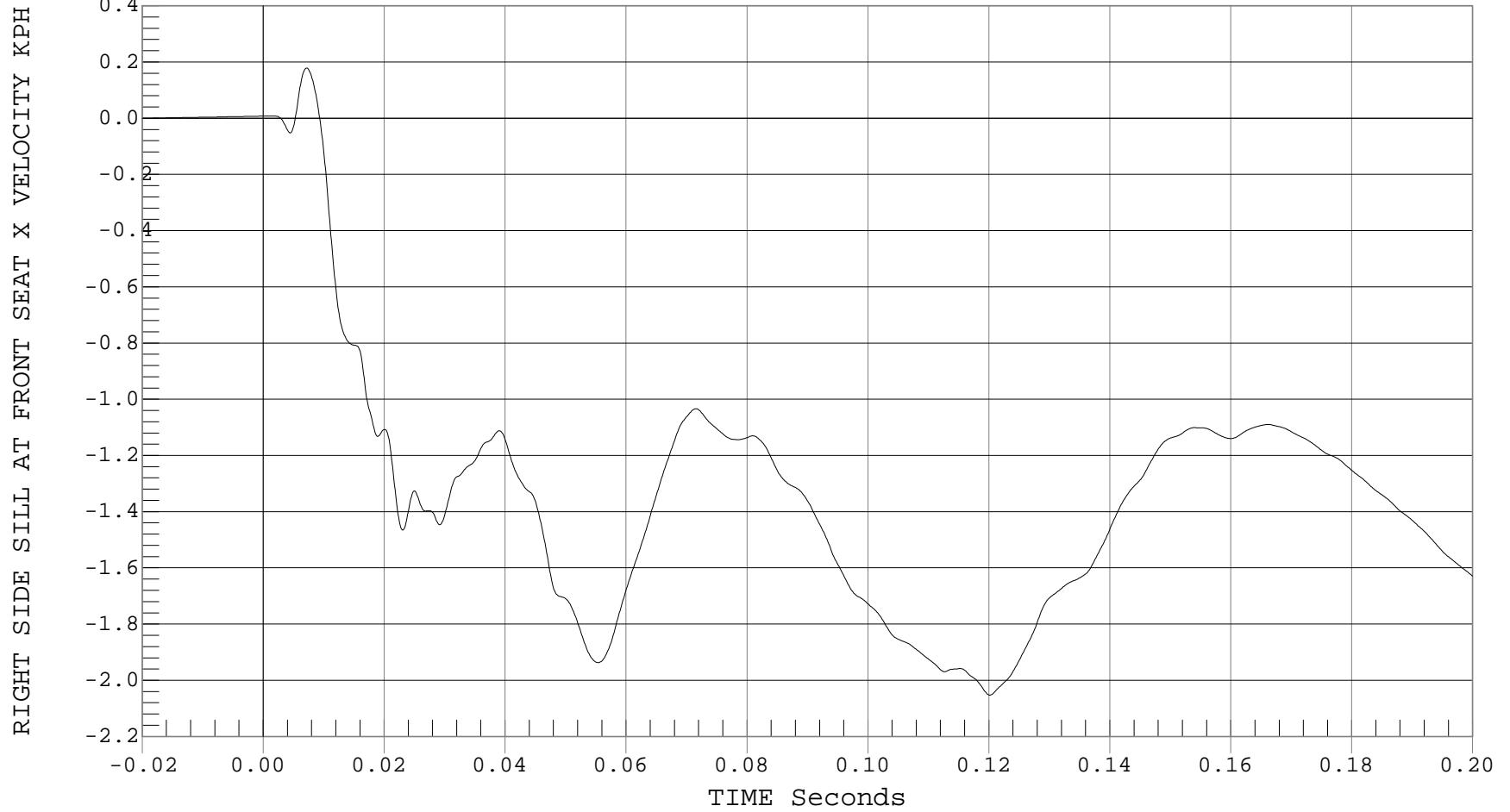
RIGHT SIDE SILL AT FRONT SEAT X VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 RIGHT SIDE SILL AT FRONT SEAT X VELOCITY, B00090AI.V15

Ymin = -2.05 KPH @ 0.1202 Seconds, Ymax = .18 KPH @ 0.0072 Seconds





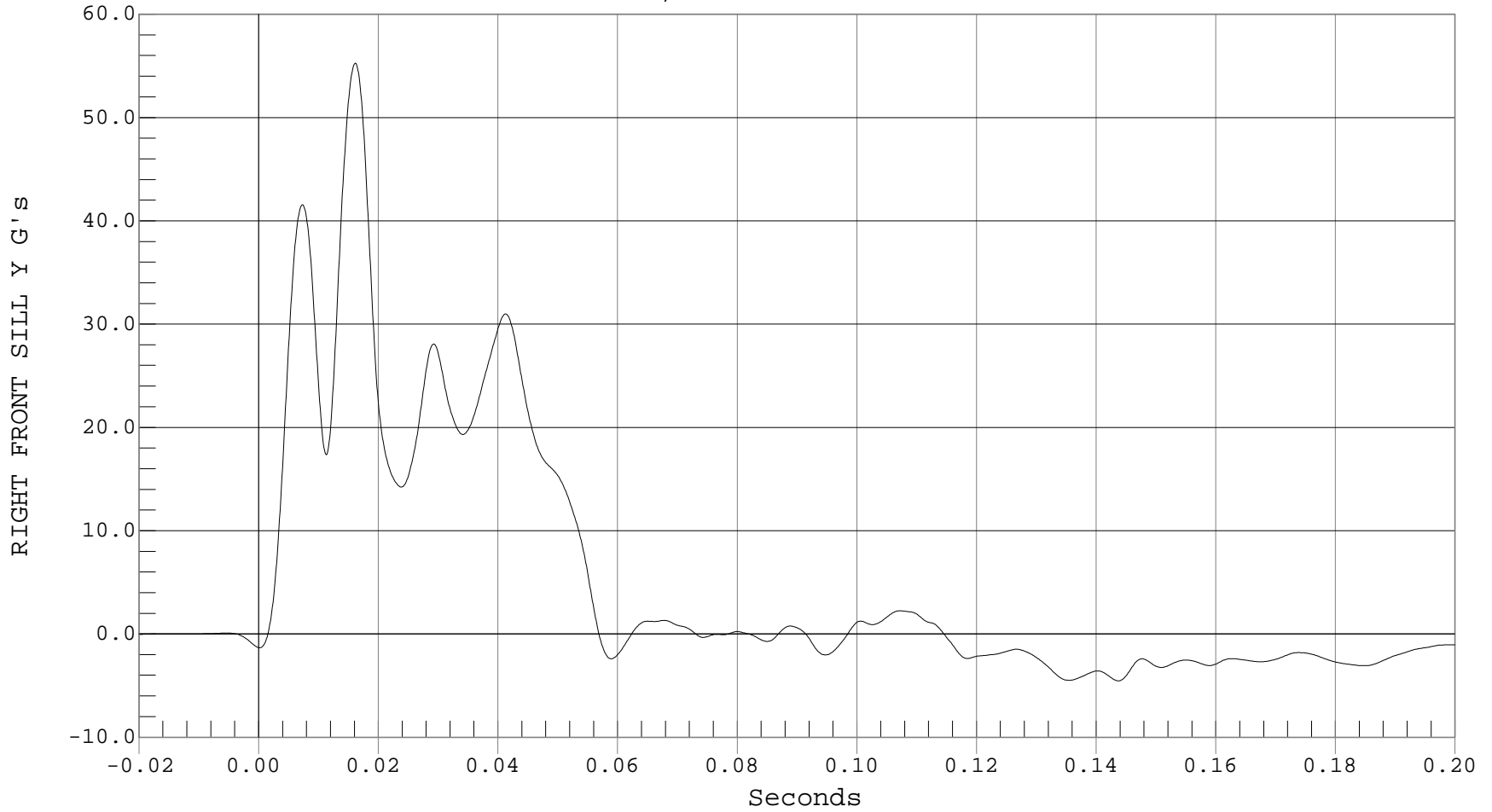
RIGHT SIDE SILL AT FRONT SEAT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 RIGHT FRONT SILL Y, B00090AF.A16

Ymin = -4.54 G's @ 0.1437 Seconds, Ymax = 55.26 G's @ 0.0162 Seconds





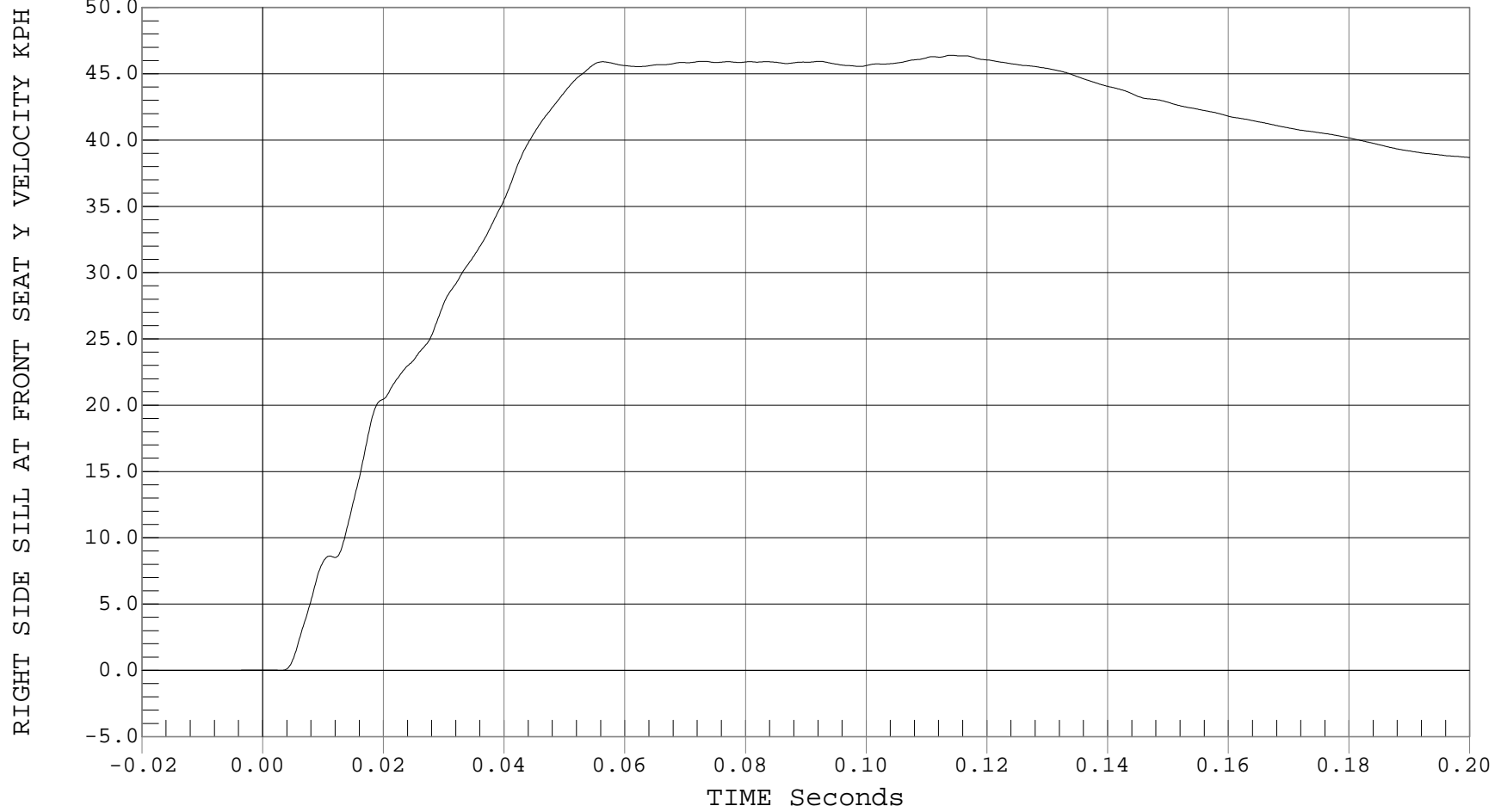
RIGHT SIDE SILL AT FRONT SEAT Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 RIGHT SIDE SILL AT FRONT SEAT Y VELOCITY, B00090AI.V16

Ymin = 0 KPH @ 0.0031 Seconds, Ymax = 46.4 KPH @ 0.1141 Seconds





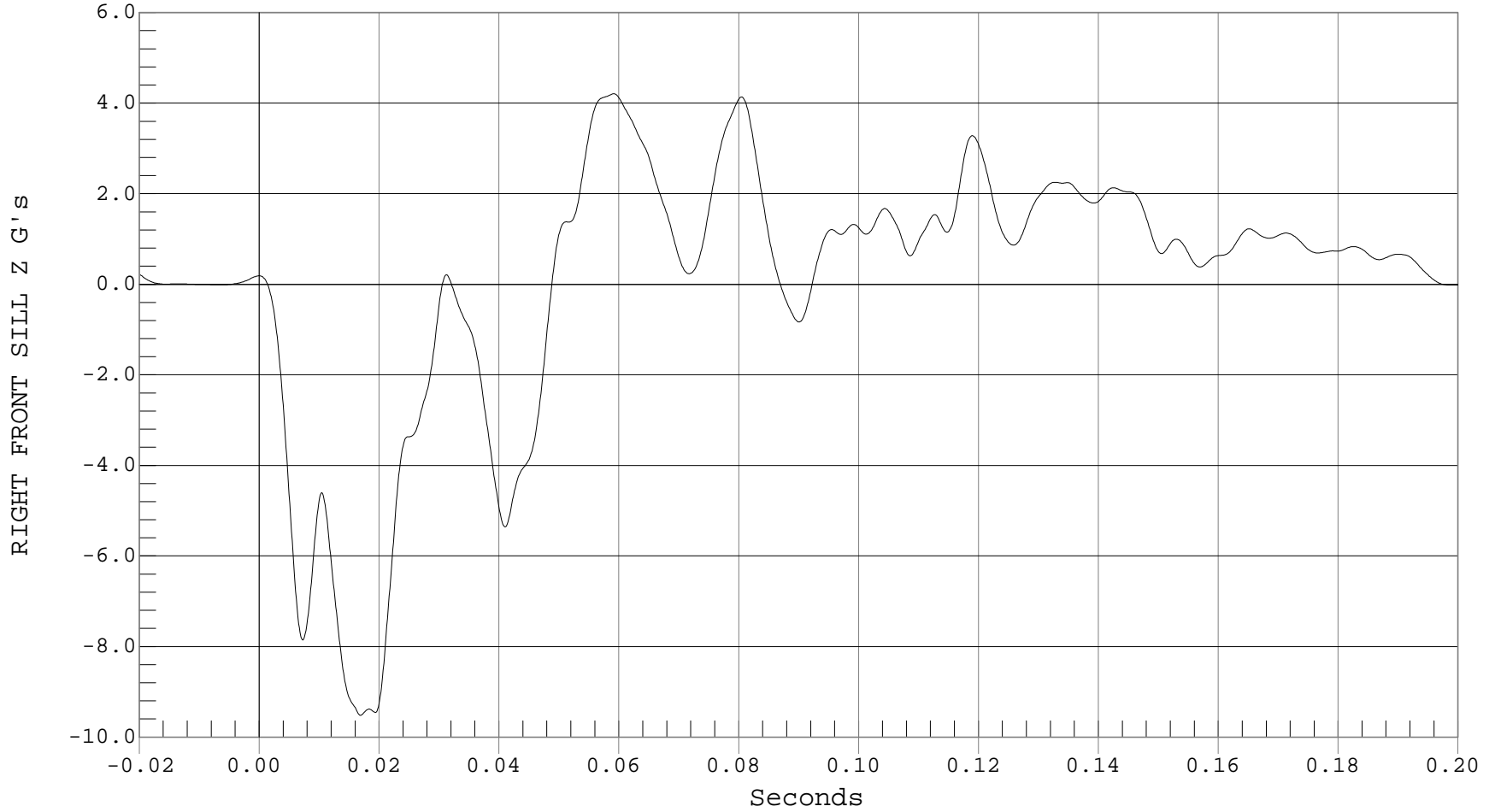
RIGHT SIDE SILL AT FRONT SEAT Z ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 RIGHT FRONT SILL Z, B00090AF.A17

Ymin = -9.52 G's @ 0.0169 Seconds, Ymax = 4.21 G's @ 0.0592 Seconds





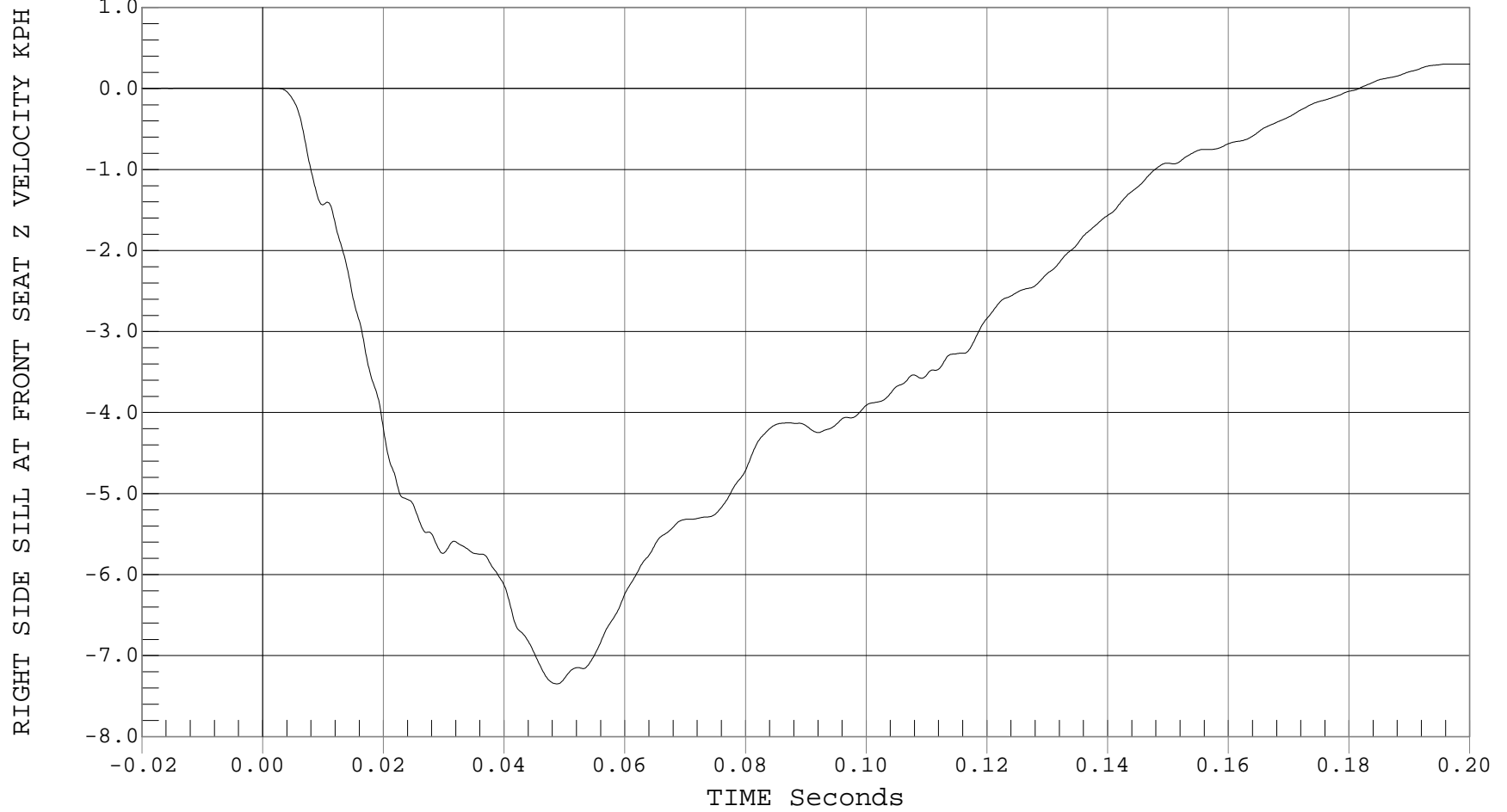
RIGHT SIDE SILL AT FRONT SEAT Z VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 RIGHT SIDE SILL AT FRONT SEAT Z VELOCITY, B00090AI.V17

Ymin = -7.35 KPH @ 0.0488 Seconds, Ymax = .3 KPH @ 0.1964 Seconds





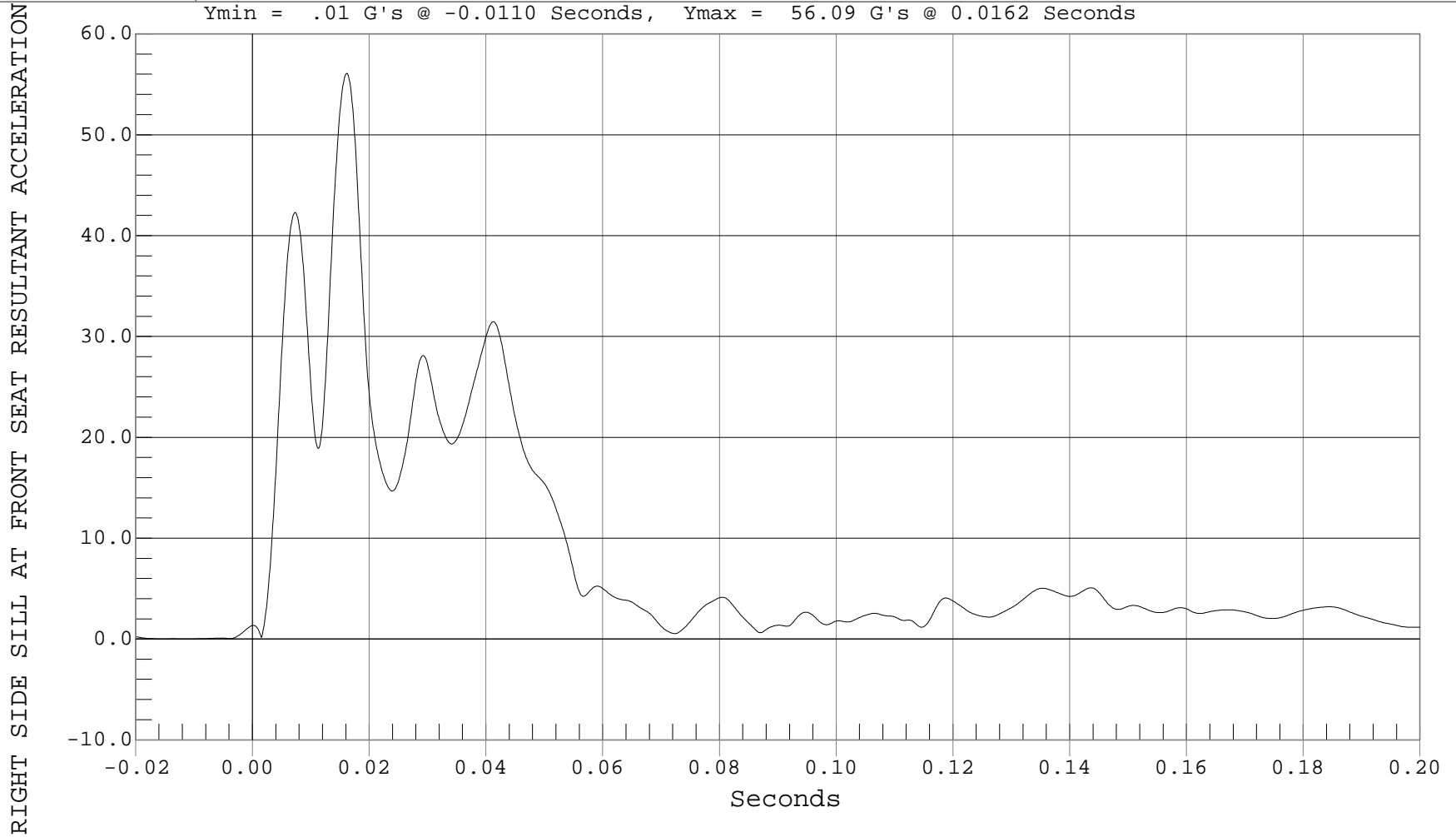
RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION, B00090AV.A15

Ymin = .01 G's @ -0.0110 Seconds, Ymax = 56.09 G's @ 0.0162 Seconds



B-44



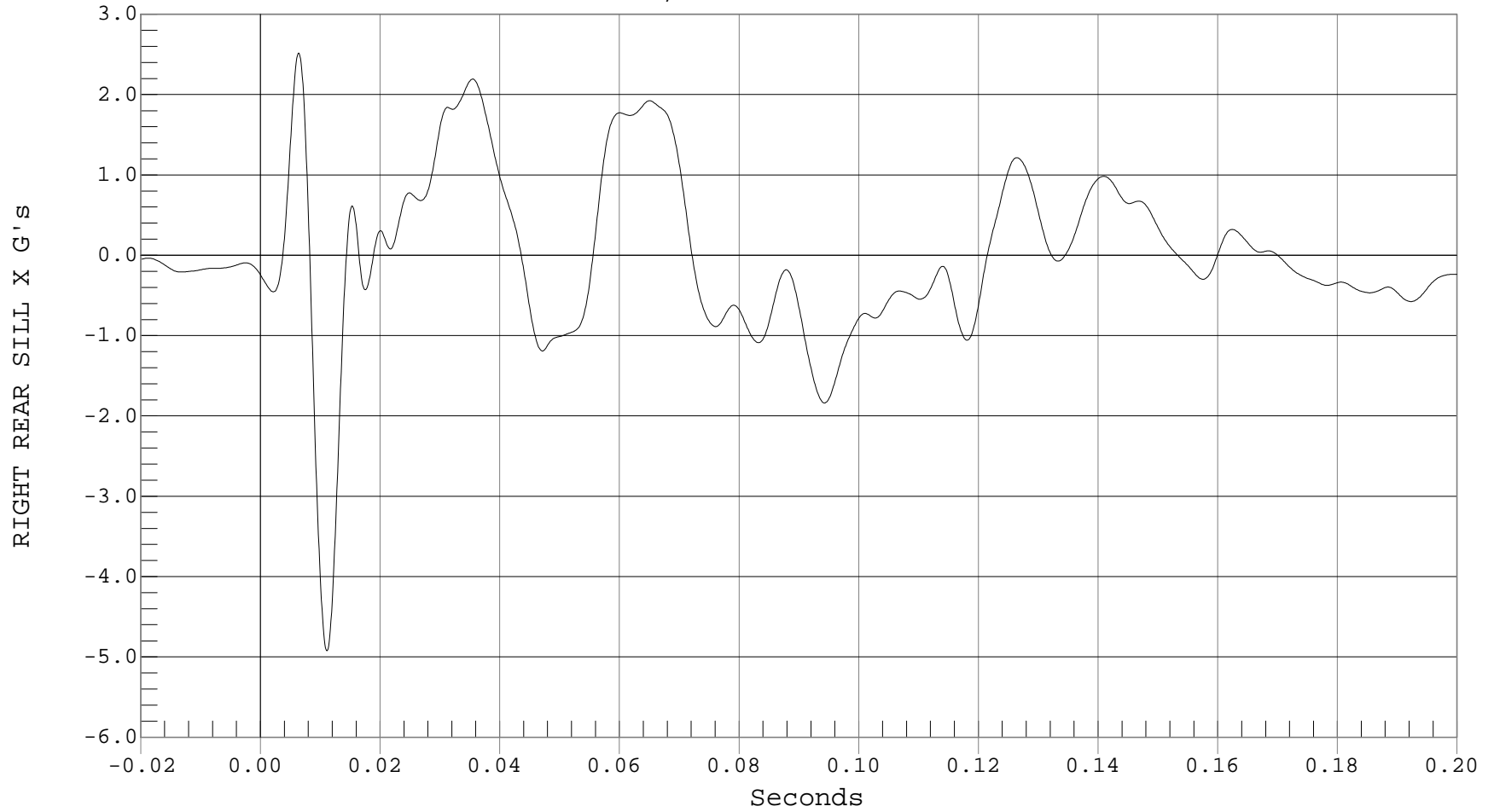
RIGHT SIDE SILL AT REAR SEAT X ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 RIGHT REAR SILL X, B00090AF.A18

Ymin = -4.92 G's @ 0.0111 Seconds, Ymax = 2.52 G's @ 0.0064 Seconds



B-45



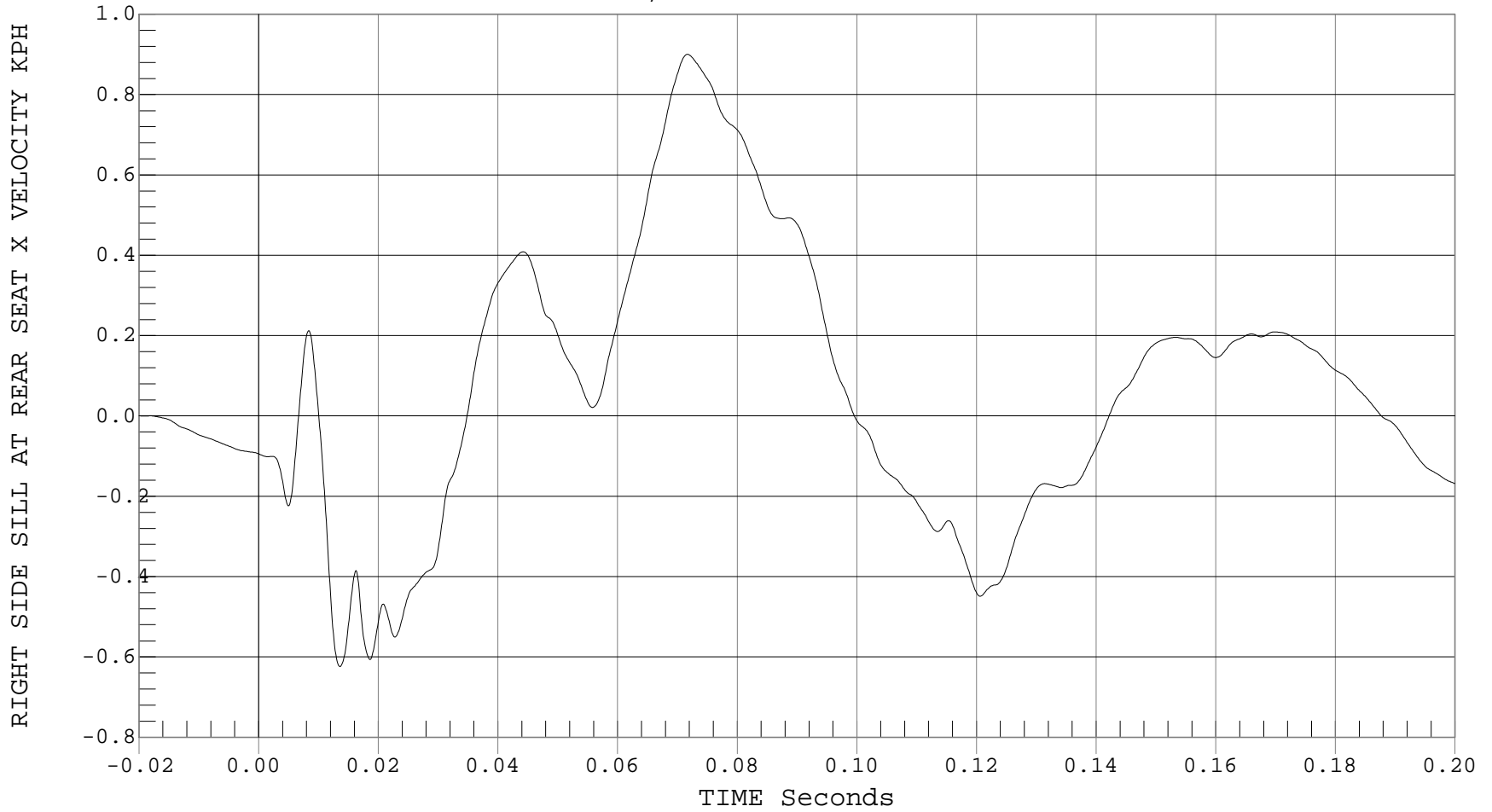
RIGHT SIDE SILL AT REAR SEAT X VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 RIGHT SIDE SILL AT REAR SEAT X VELOCITY, B00090AI.V18

Ymin = -.62 KPH @ 0.0136 Seconds, Ymax = .9 KPH @ 0.0717 Seconds





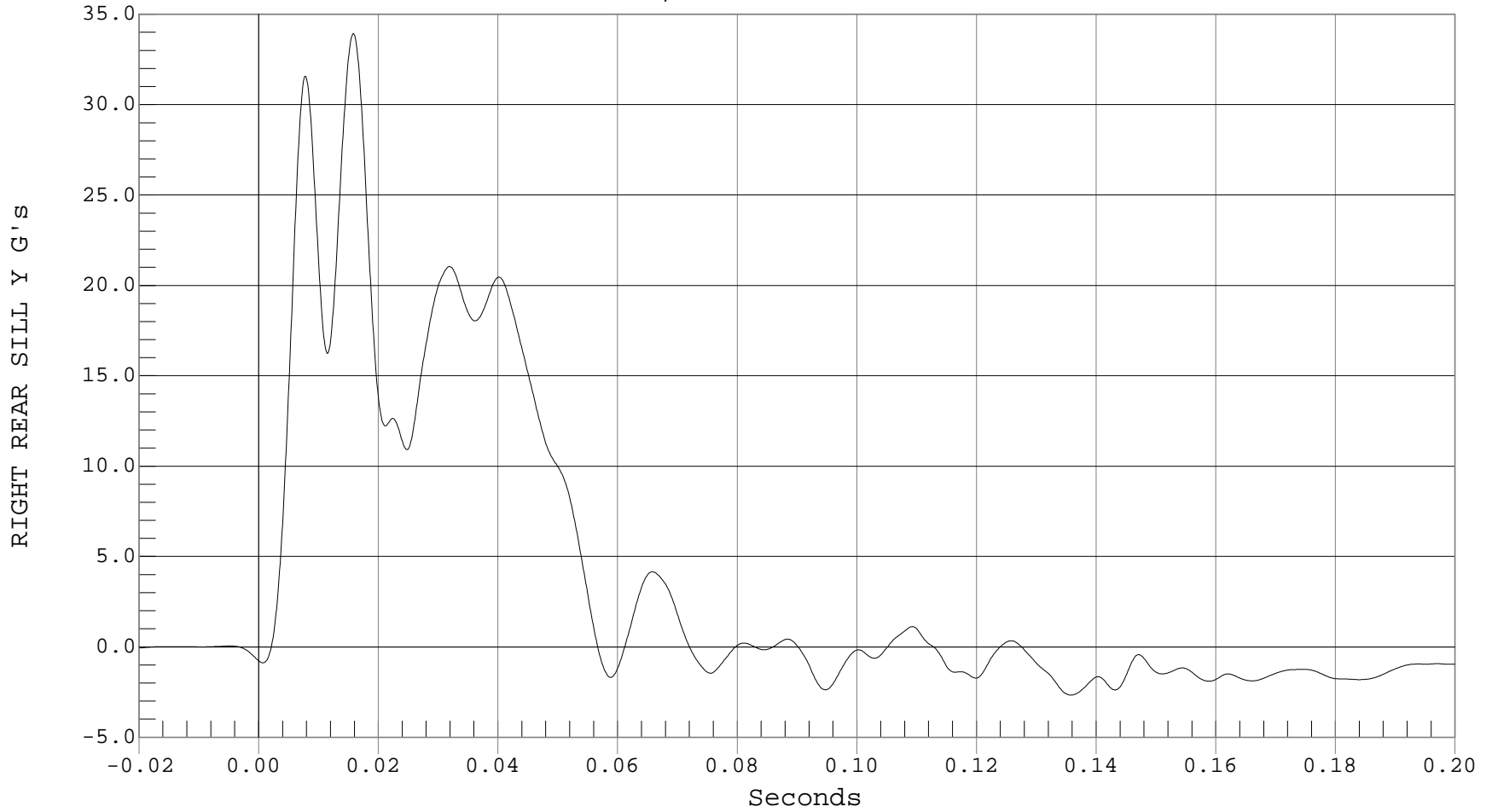
RIGHT SIDE SILL AT REAR SEAT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 RIGHT REAR SILL Y, B00090AF.A19

Ymin = -2.66 G's @ 0.1358 Seconds, Ymax = 33.92 G's @ 0.0158 Seconds





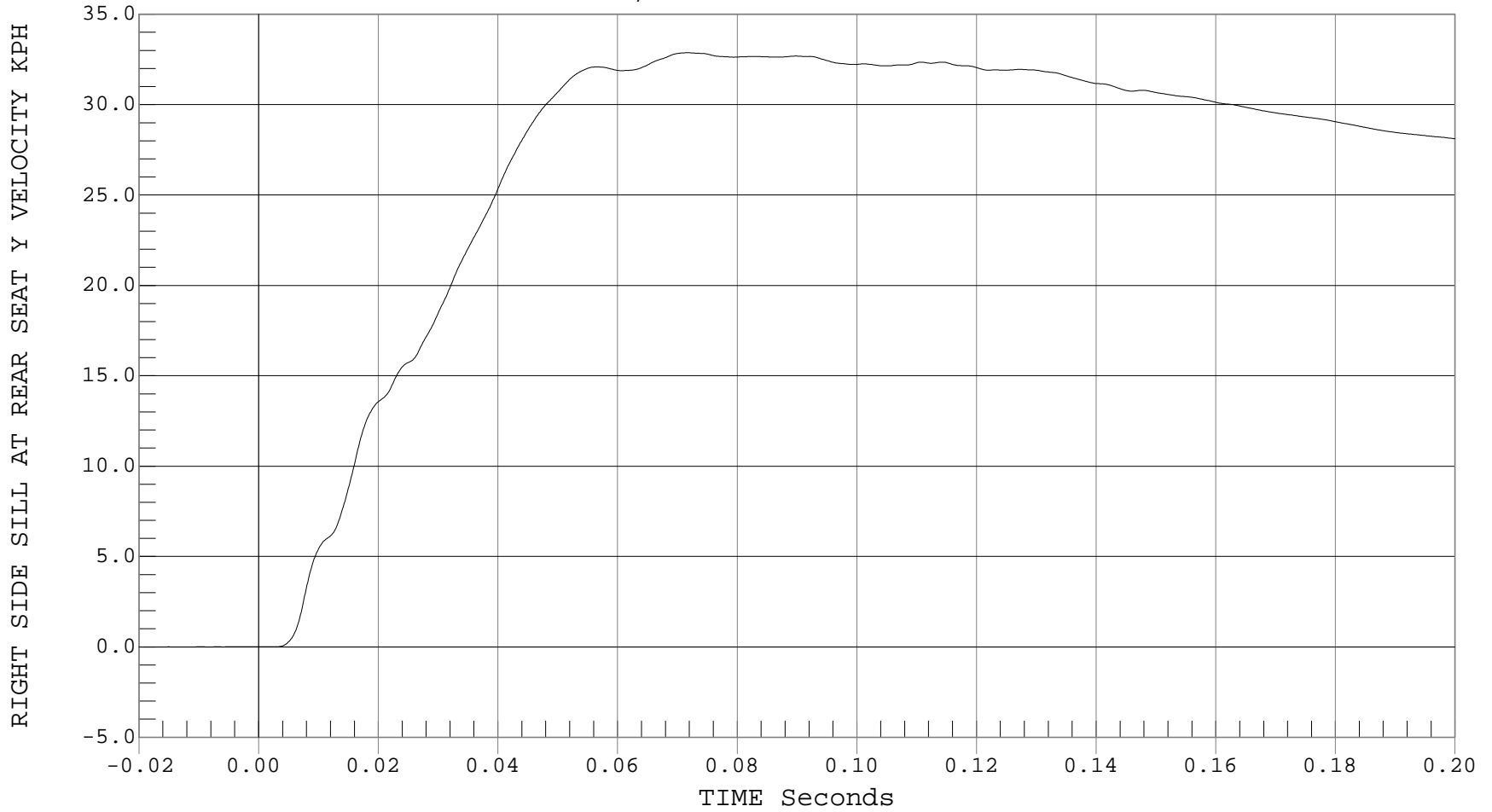
RIGHT SIDE SILL AT REAR SEAT Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 RIGHT SIDE SILL AT REAR SEAT Y VELOCITY, B00090AI.V19

Ymin = 0 KPH @ -0.0190 Seconds, Ymax = 32.87 KPH @ 0.0717 Seconds





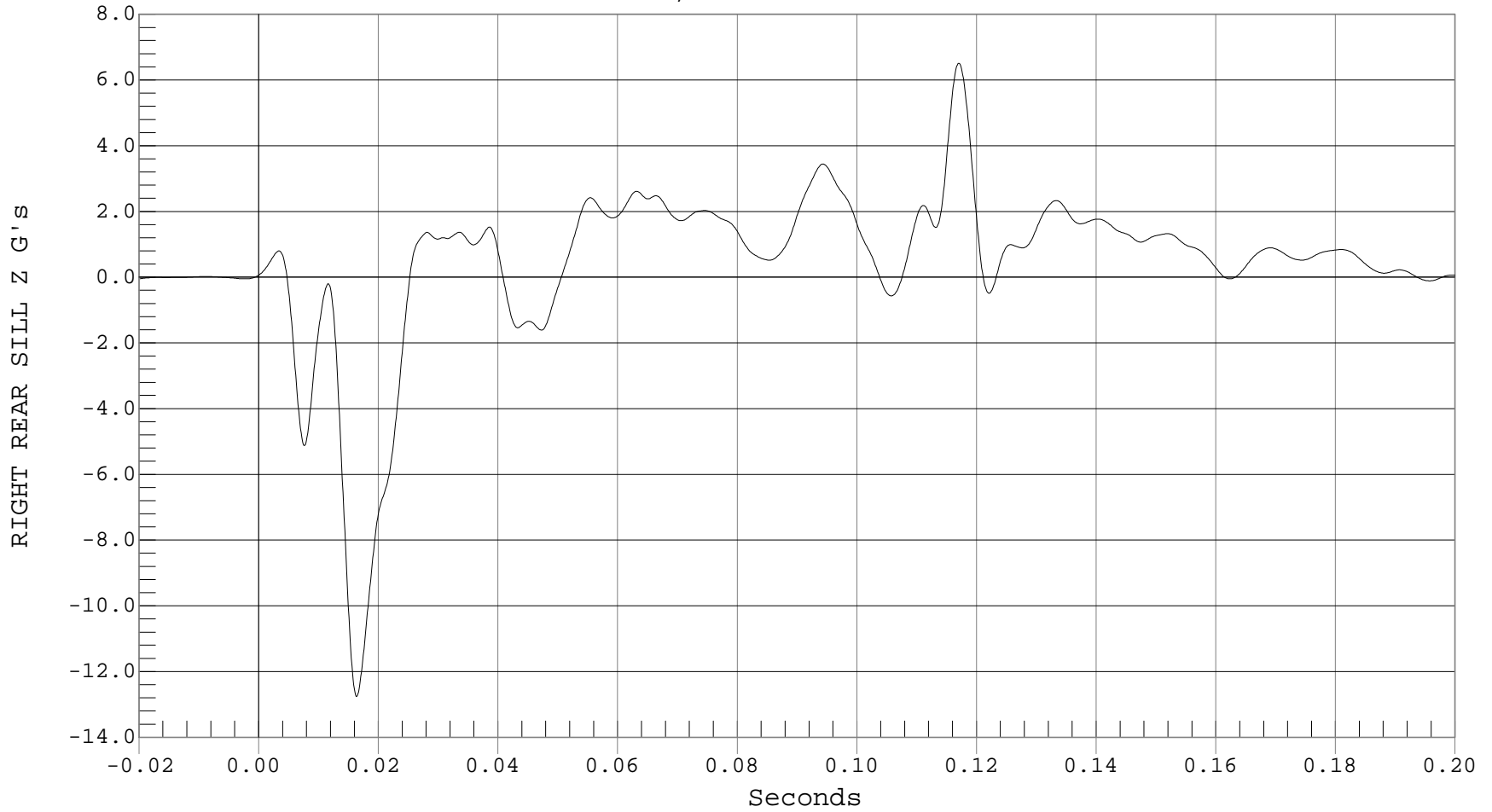
RIGHT SIDE SILL AT REAR SEAT Z ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 RIGHT REAR SILL Z, B00090AF.A20

Ymin = -12.76 G's @ 0.0164 Seconds, Ymax = 6.51 G's @ 0.1170 Seconds





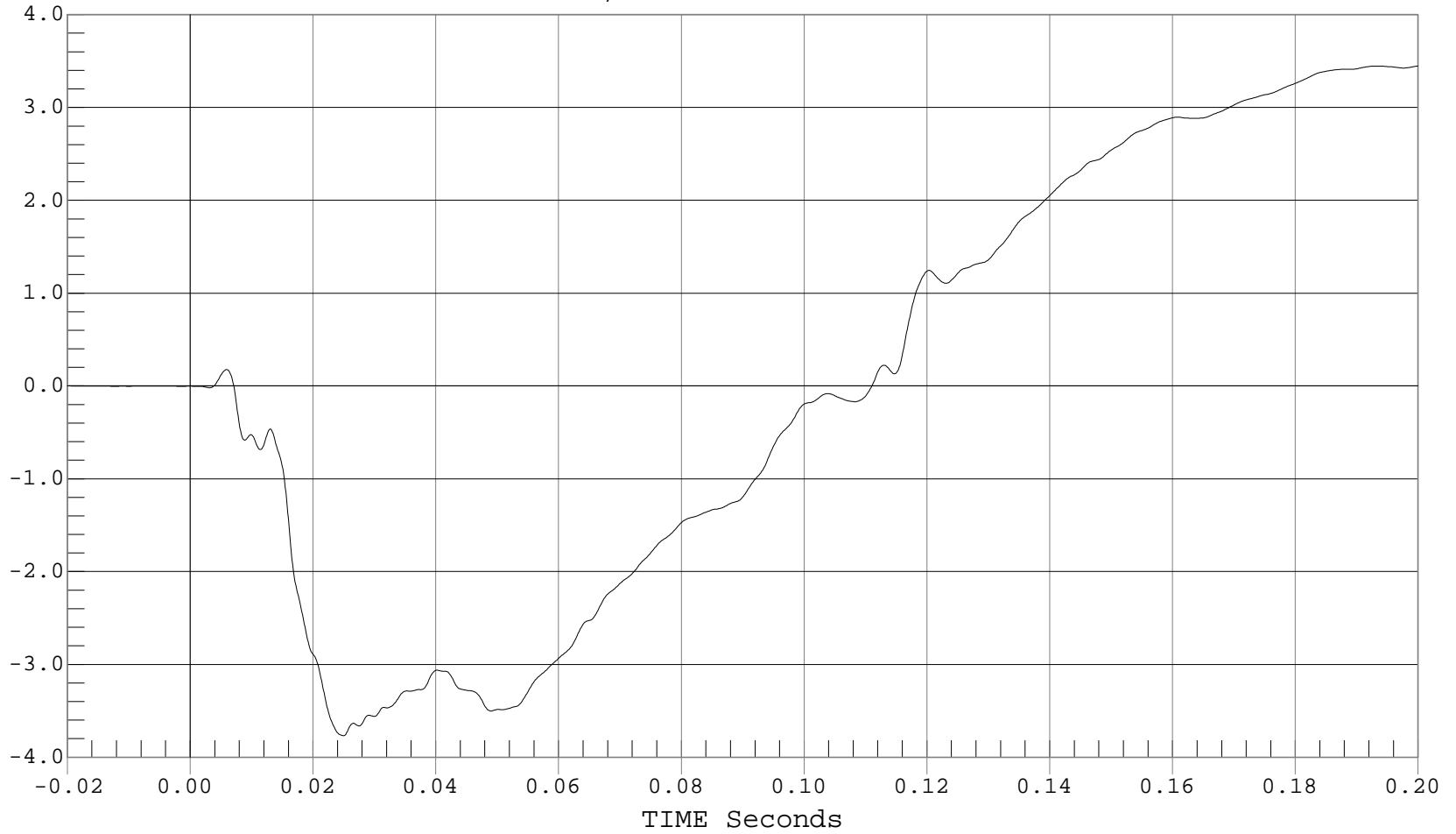
RIGHT SIDE SILL AT REAR SEAT Z VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

Ymin = -3.77 KPH @ 0.0250 Seconds, Ymax = 3.45 KPH @ 0.2001 Seconds

RIGHT SIDE SILL AT REAR SEAT Z VELOCITY KPH





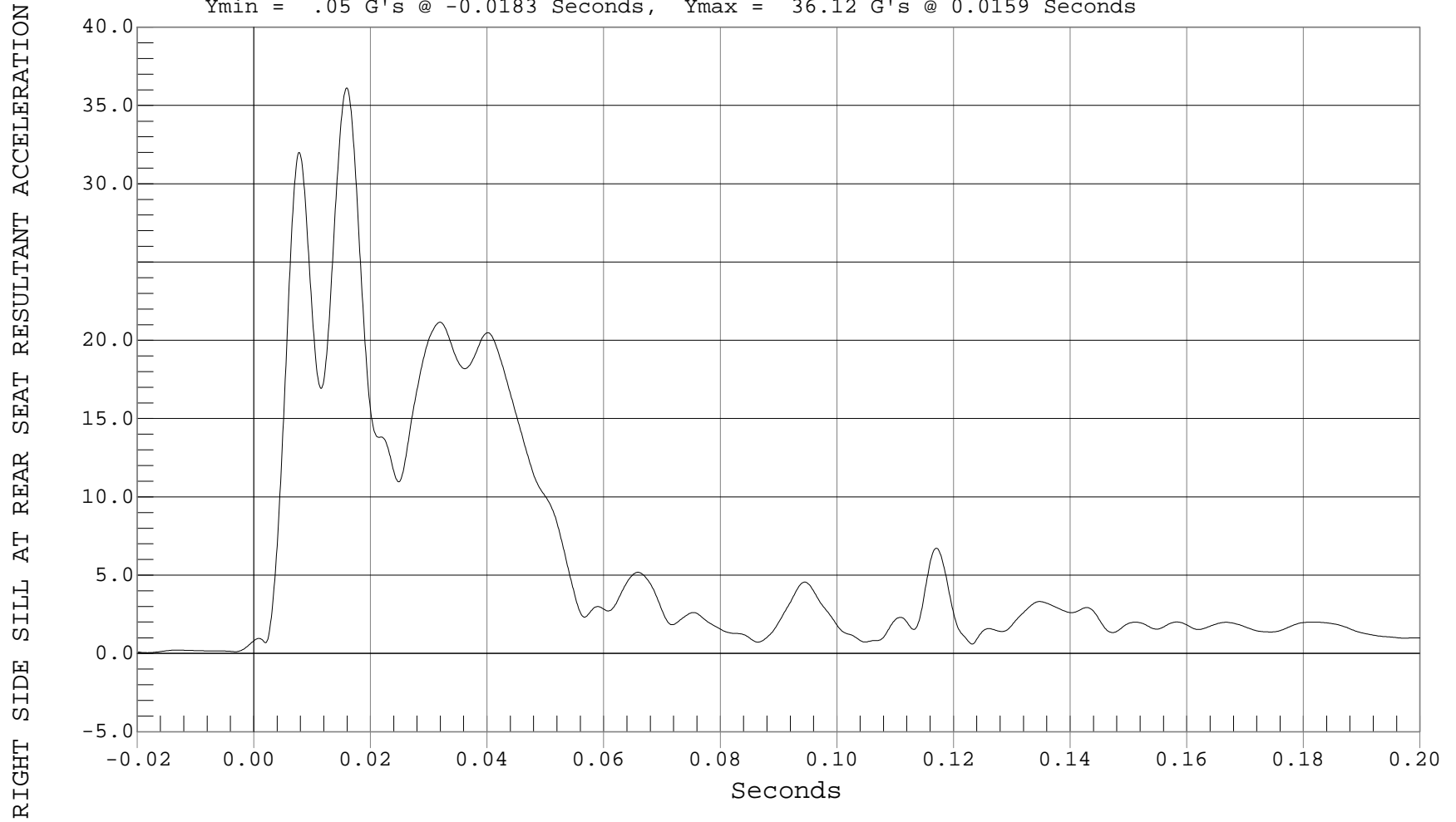
RIGHT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 RIGHT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION, B00090AV.A18

Ymin = .05 G's @ -0.0183 Seconds, Ymax = 36.12 G's @ 0.0159 Seconds



B-51



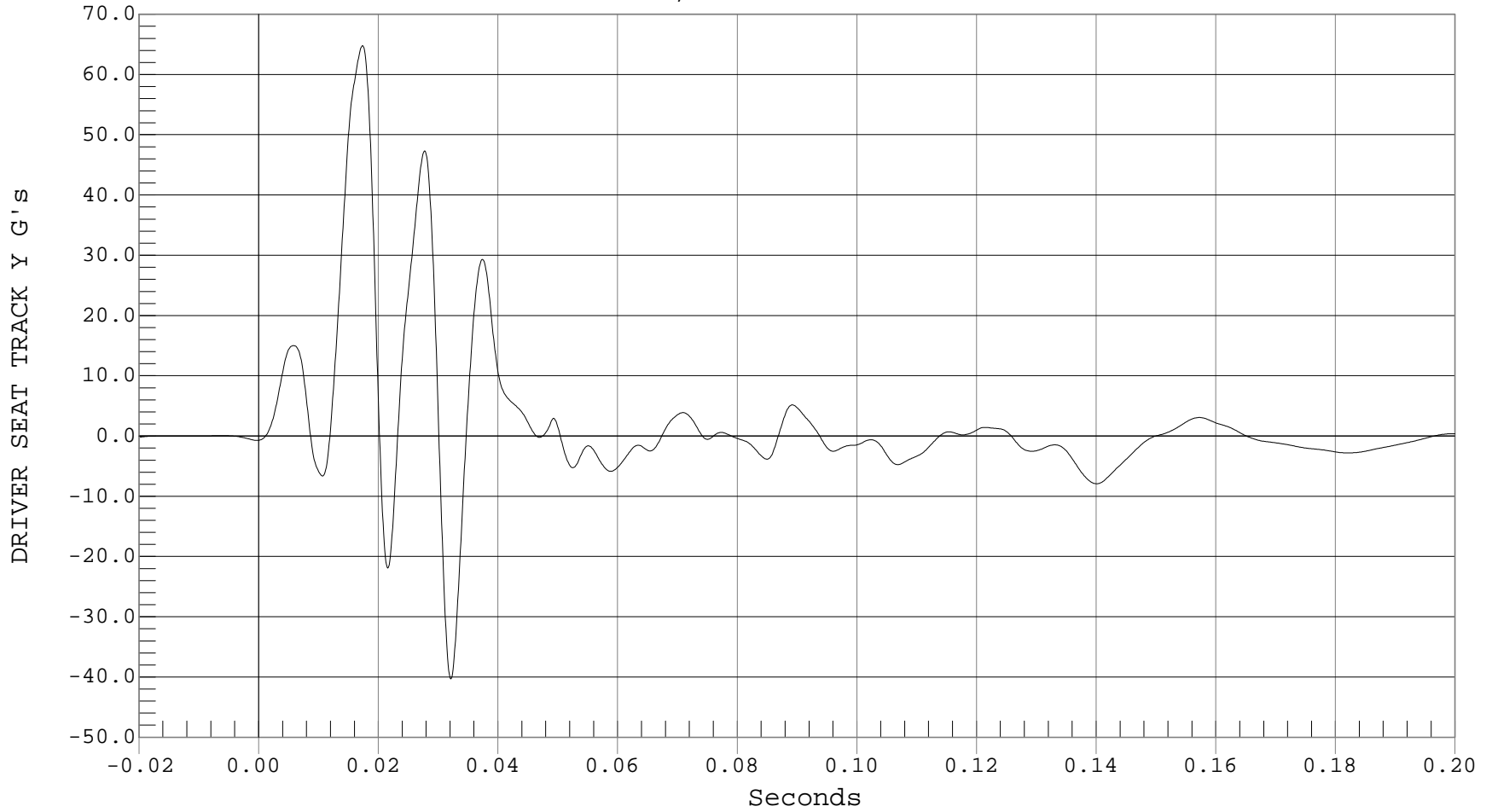
LEFT DRIVERS SEAT TRACK Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 DRIVER SEAT TRACK Y, B00090AF.A30

Ymin = -40.32 G's @ 0.0321 Seconds, Ymax = 64.79 G's @ 0.0174 Seconds





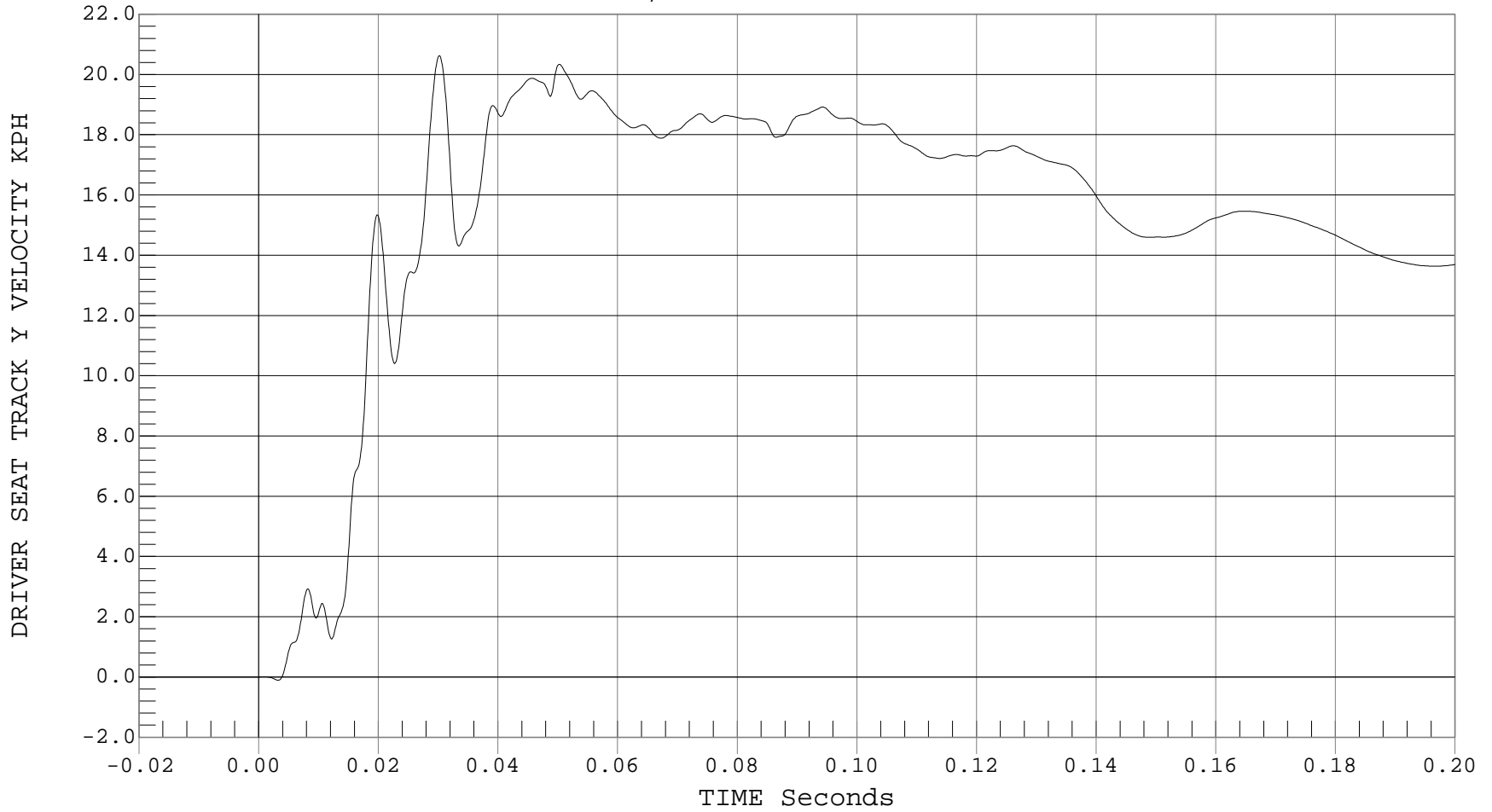
LEFT DRIVERS SEAT TRACK Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 DRIVER SEAT TRACK Y VELOCITY, B00090AI.V30

Ymin = -.11 KPH @ 0.0033 Seconds, Ymax = 20.63 KPH @ 0.0302 Seconds





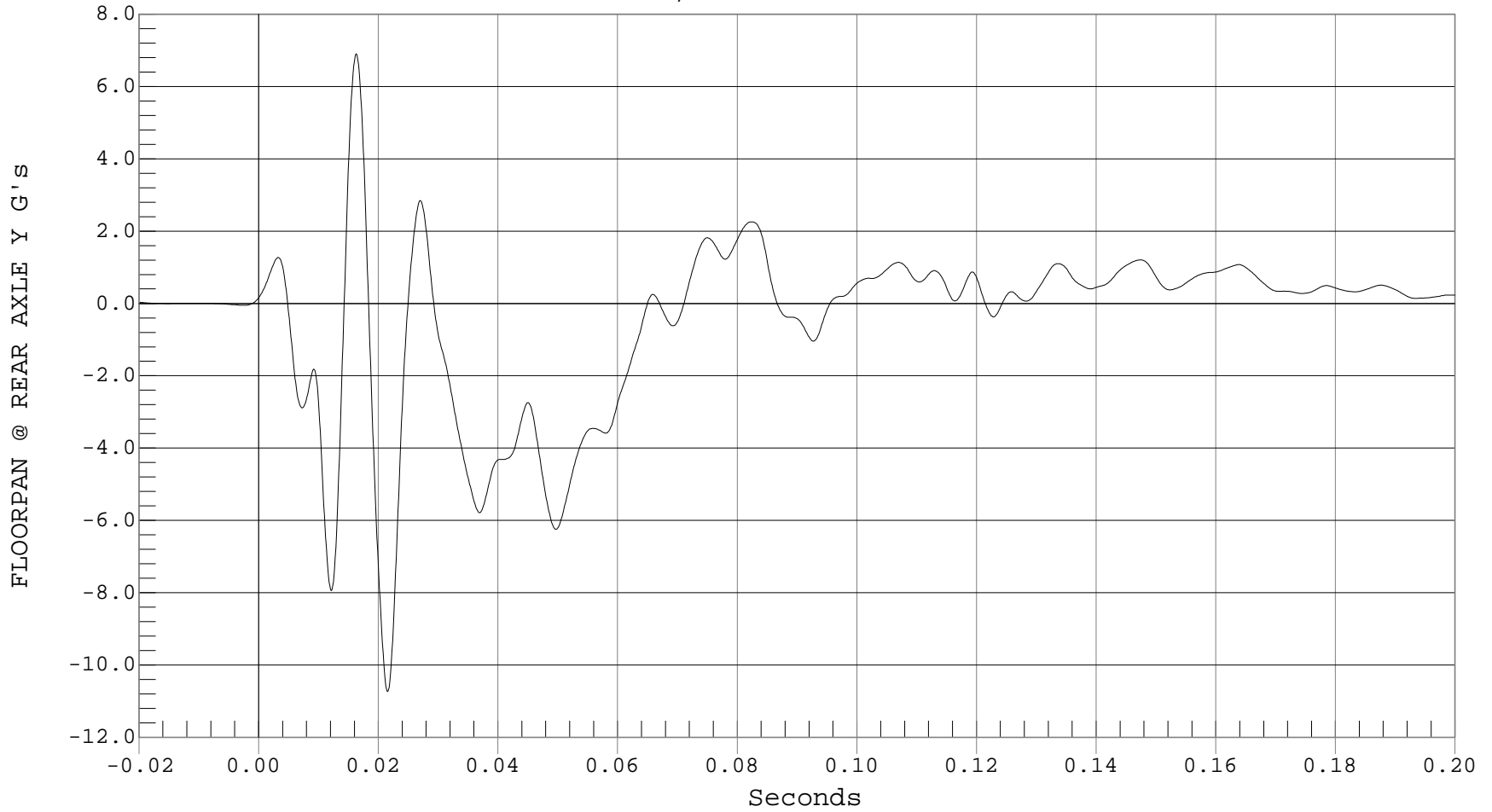
REAR FLOORPAN ABOVE AXLE X ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 FLOORPAN @ REAR AXLE Y, B00090AF.A24

Ymin = -10.74 G's @ 0.0216 Seconds, Ymax = 6.91 G's @ 0.0163 Seconds





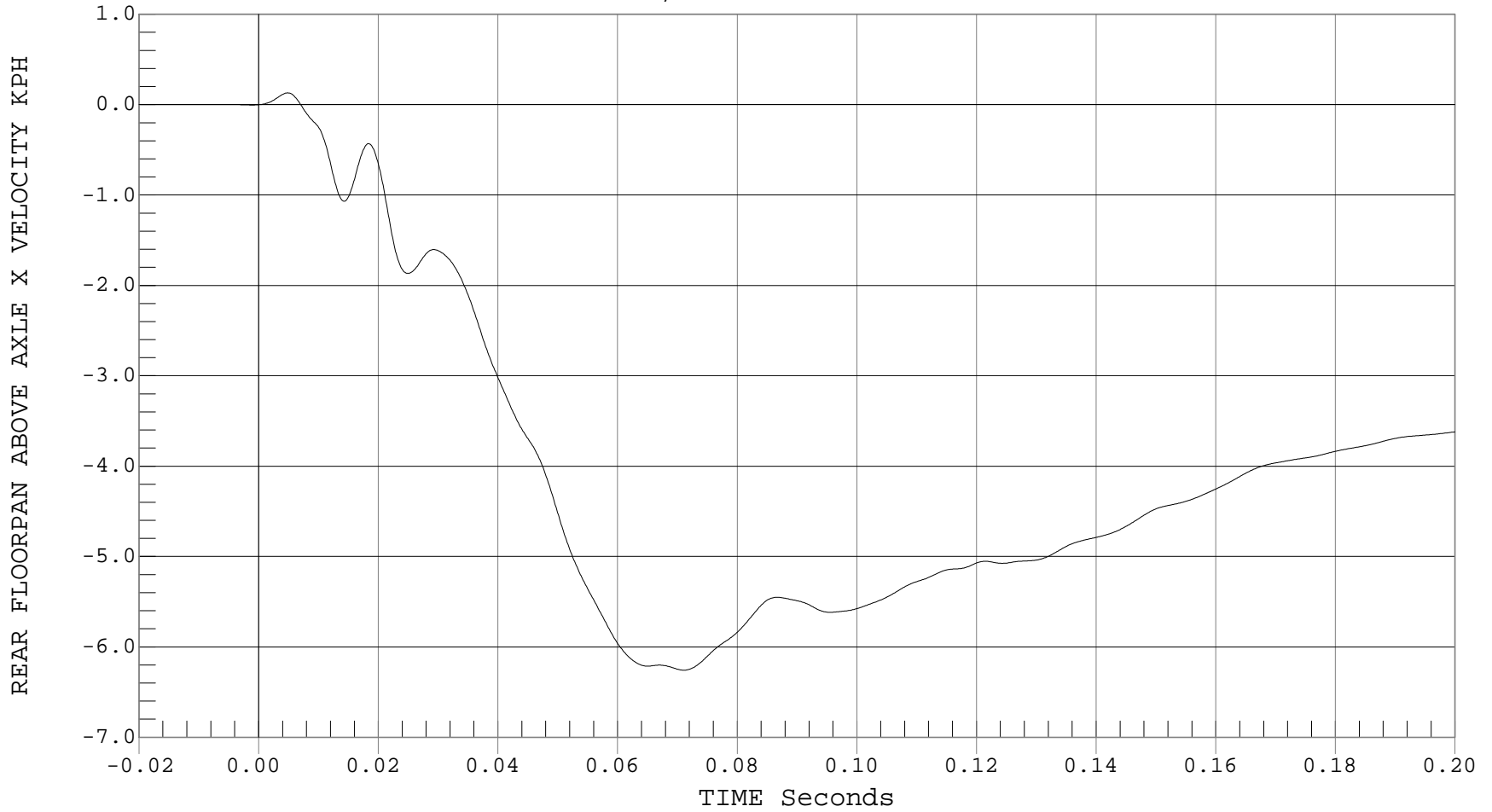
REAR FLOORPAN ABOVE AXLE X VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 REAR FLOORPAN ABOVE AXLE X VELOCITY, B00090AI.V24

Ymin = -6.26 KPH @ 0.0711 Seconds, Ymax = .13 KPH @ 0.0049 Seconds





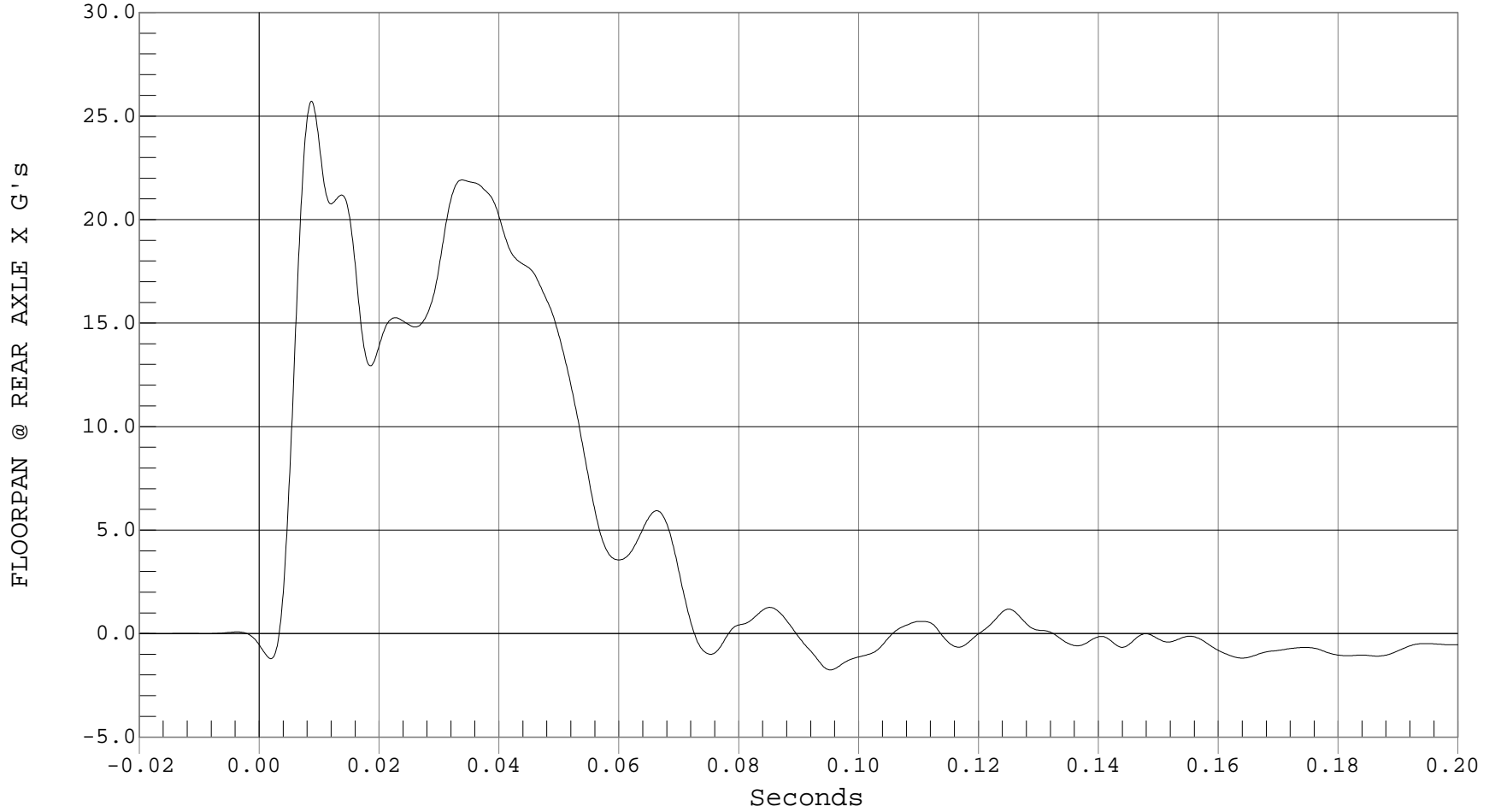
REAR FLOORPAN ABOVE AXLE Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 FLOORPAN @ REAR AXLE X, B00090AF.A23

Ymin = -1.76 G's @ 0.0953 Seconds, Ymax = 25.71 G's @ 0.0087 Seconds





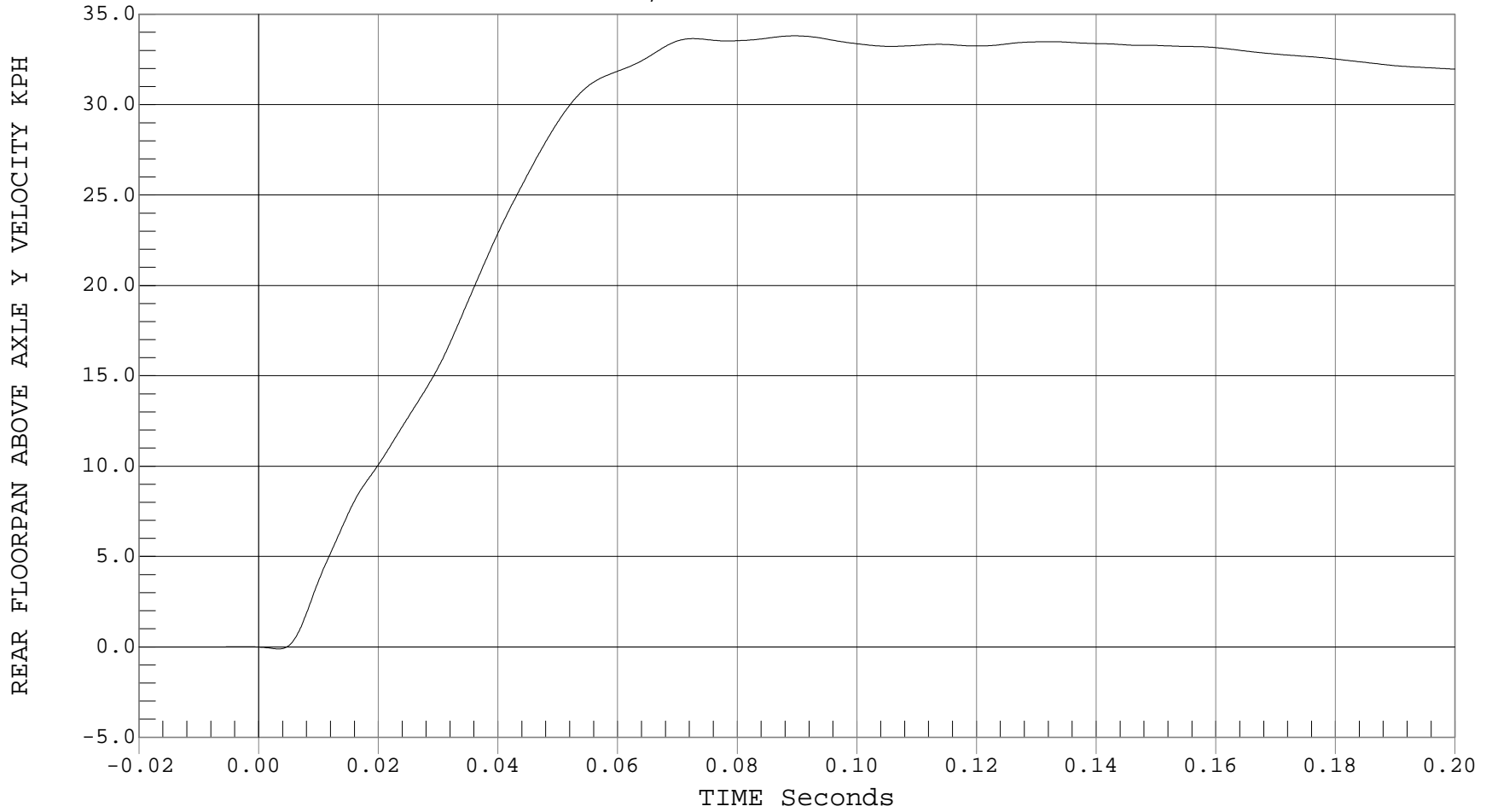
REAR FLOORPAN ABOVE AXLE Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 REAR FLOORPAN ABOVE AXLE Y VELOCITY, B00090AI.V23

Ymin = -.11 KPH @ 0.0033 Seconds, Ymax = 33.81 KPH @ 0.0896 Seconds





REAR FLOORPAN ABOVE AXLE Z ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT

Test Date: 10-30-00

Component: 2001 HONDA CIVIC 4 DOOR

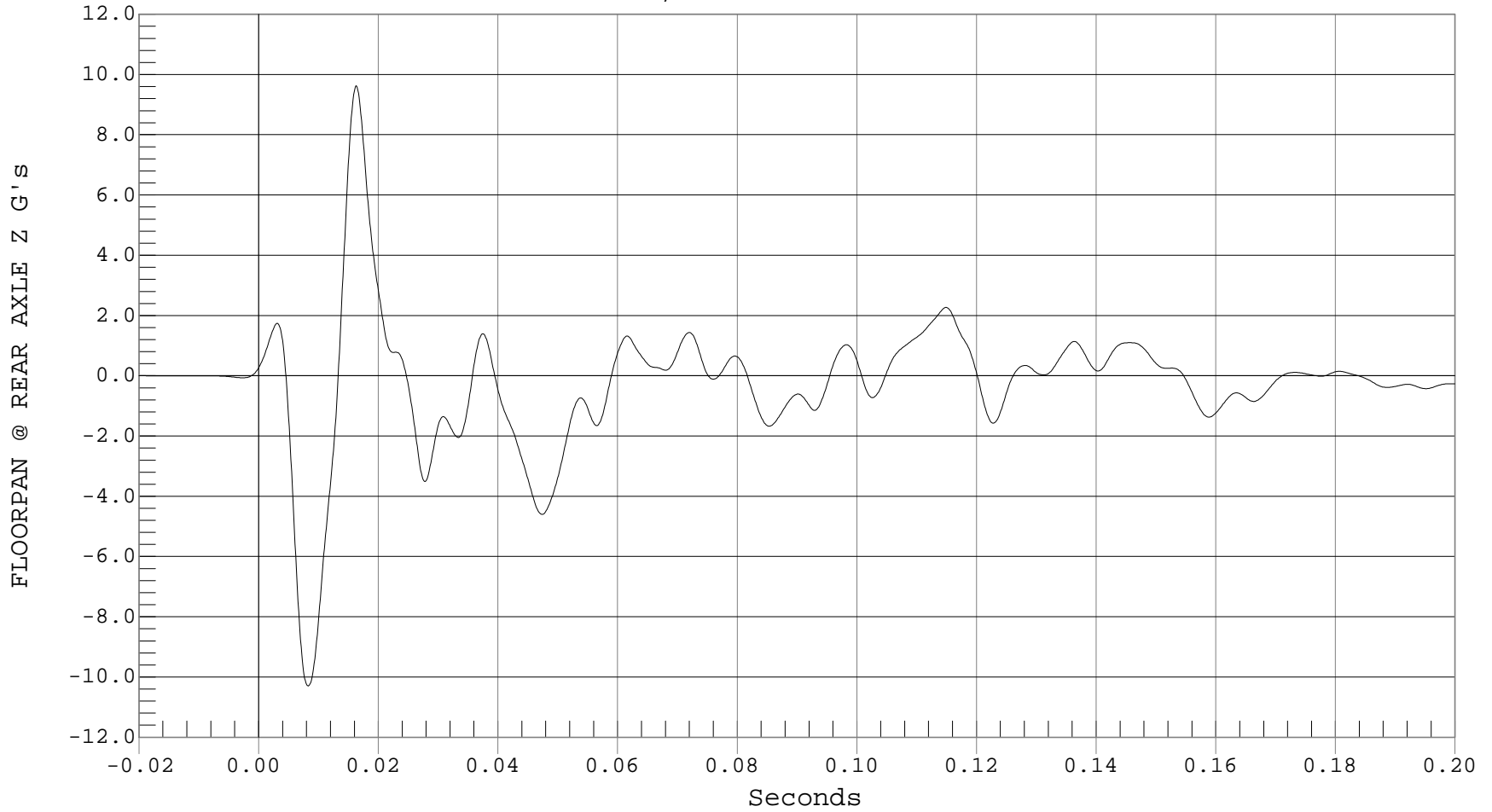
Speed: 38.4 MPH, 61.8 KPH

Other Info:

Filter Class: 60

— 1 FLOORPAN @ REAR AXLE Z, B00090AF.A25

Ymin = -10.3 G's @ 0.0083 Seconds, Ymax = 9.63 G's @ 0.0163 Seconds





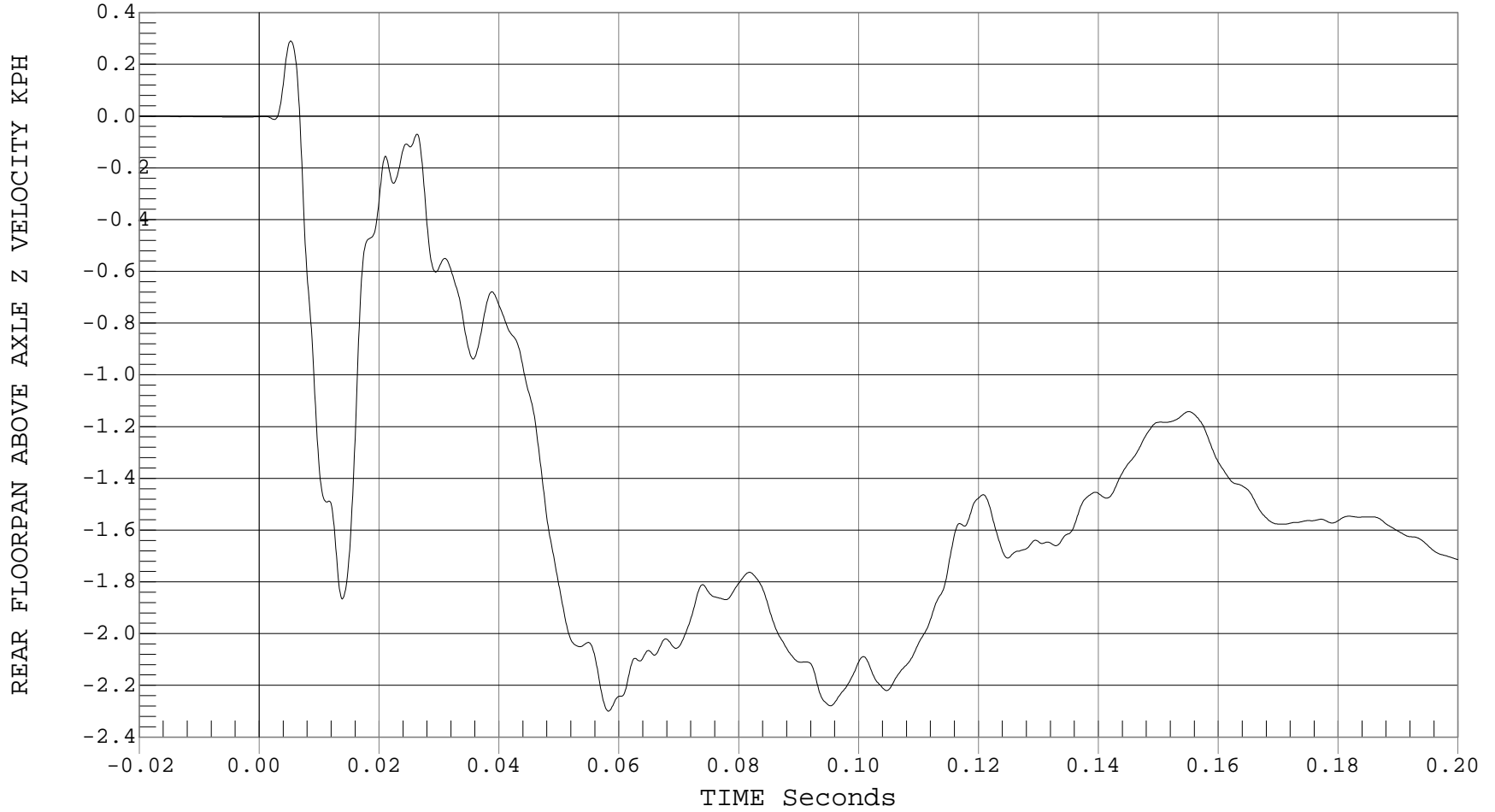
REAR FLOORPAN ABOVE AXLE Z VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 REAR FLOORPAN ABOVE AXLE Z VELOCITY, B00090AI.V25

Ymin = -2.3 KPH @ 0.0583 Seconds, Ymax = .29 KPH @ 0.0053 Seconds





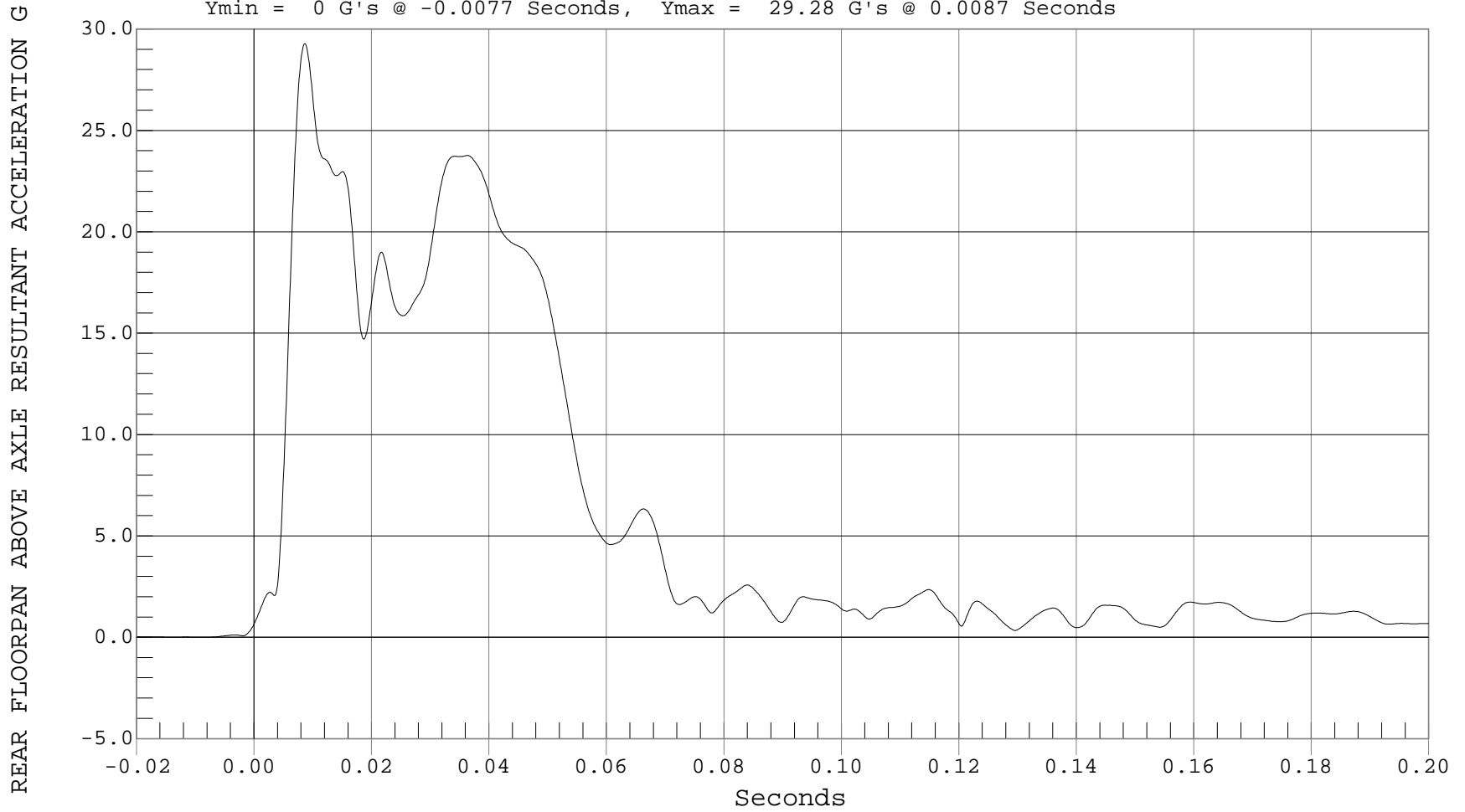
REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION, B00090AV.A23

Ymin = 0 G's @ -0.0077 Seconds, Ymax = 29.28 G's @ 0.0087 Seconds



B-60



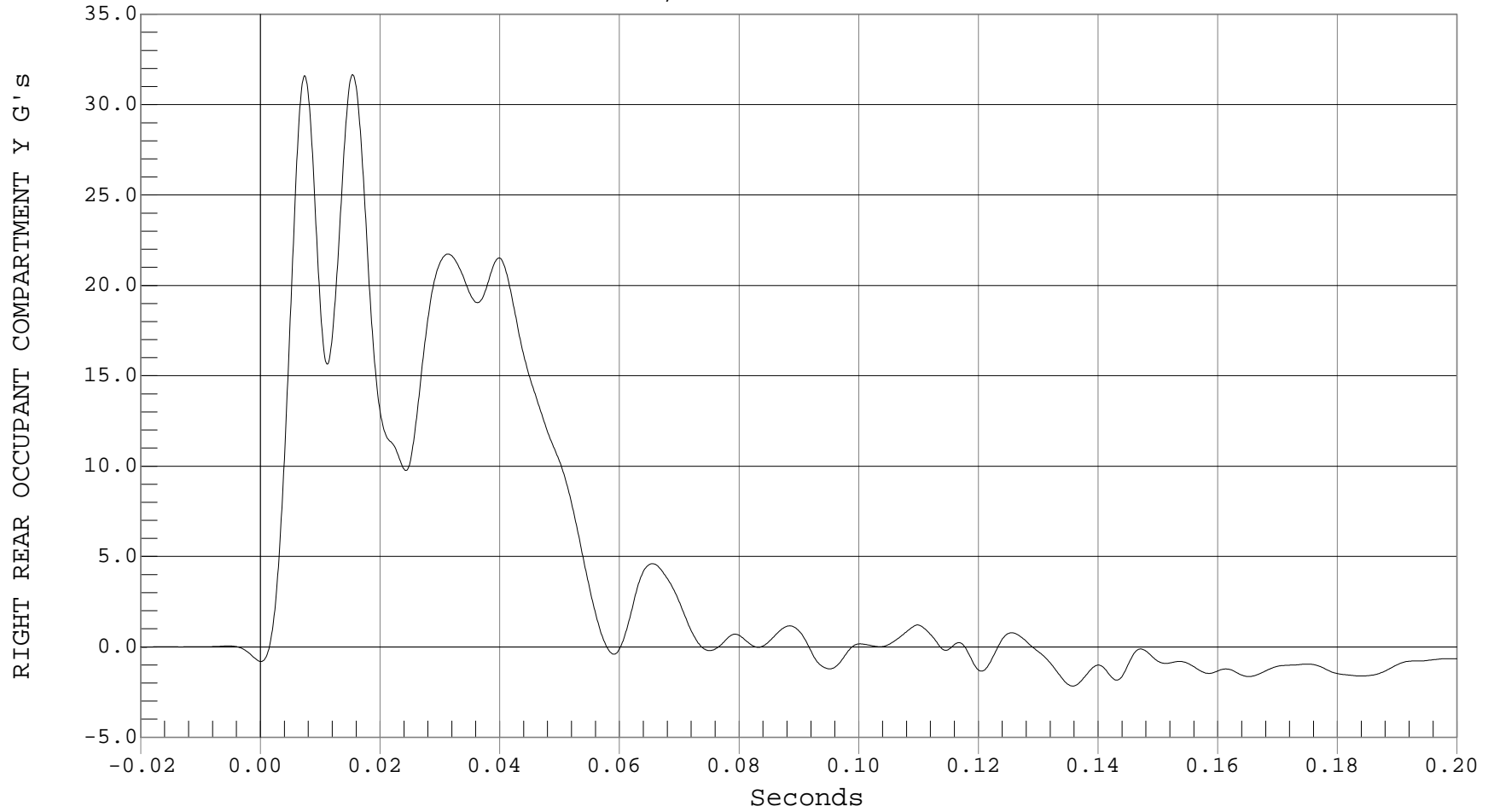
RIGHT REAR OCCUPANT COMPARTMENT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 RIGHT REAR OCCUPANT COMPARTMENT Y, B00090AF.A31

Ymin = -2.17 G's @ 0.1358 Seconds, Ymax = 31.66 G's @ 0.0154 Seconds





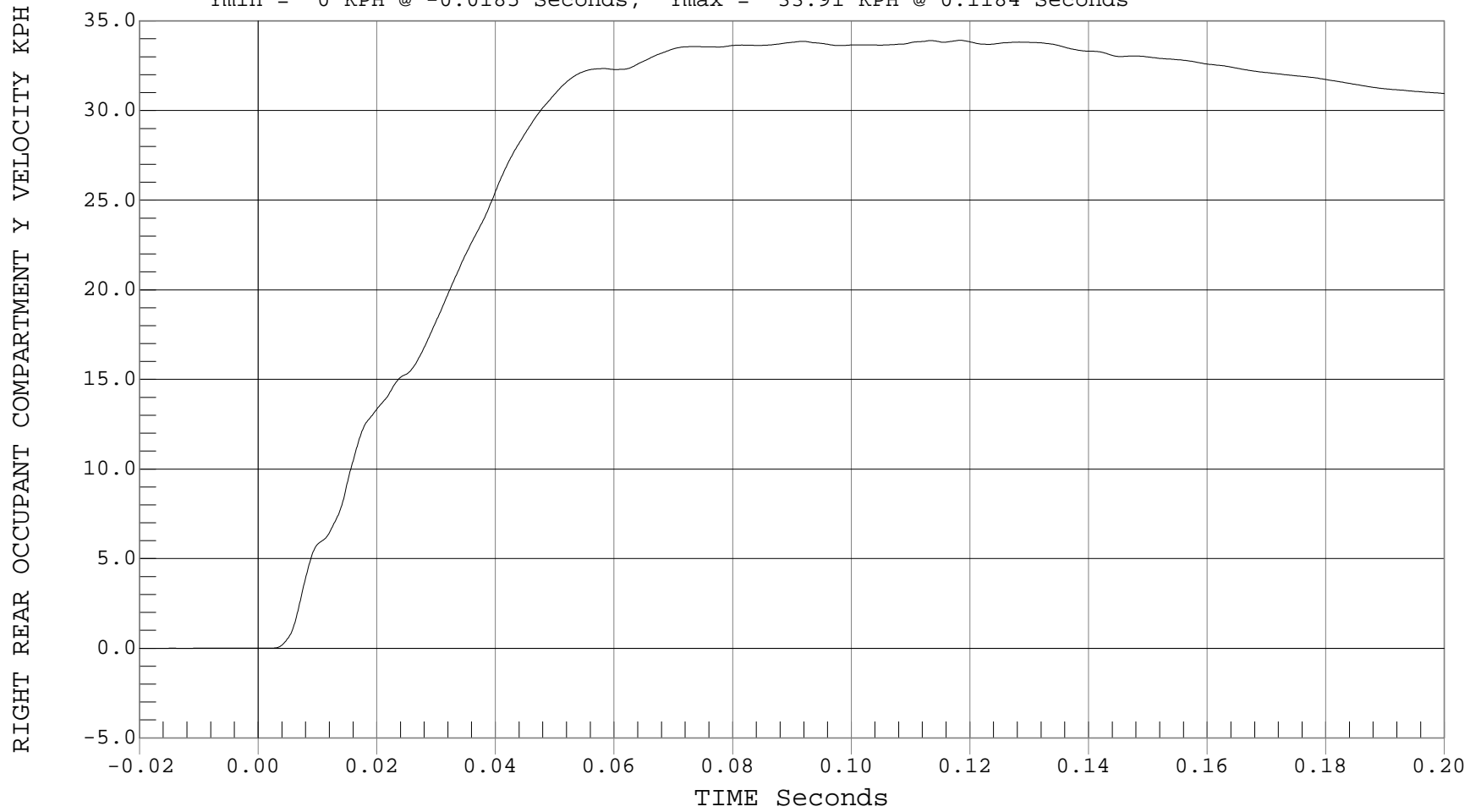
RIGHT REAR OCCUPANT COMPARTMENT Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 RIGHT REAR OCCUPANT COMPARTMENT Y VELOCITY, B00090AI.V31

Ymin = 0 KPH @ -0.0185 Seconds, Ymax = 33.91 KPH @ 0.1184 Seconds





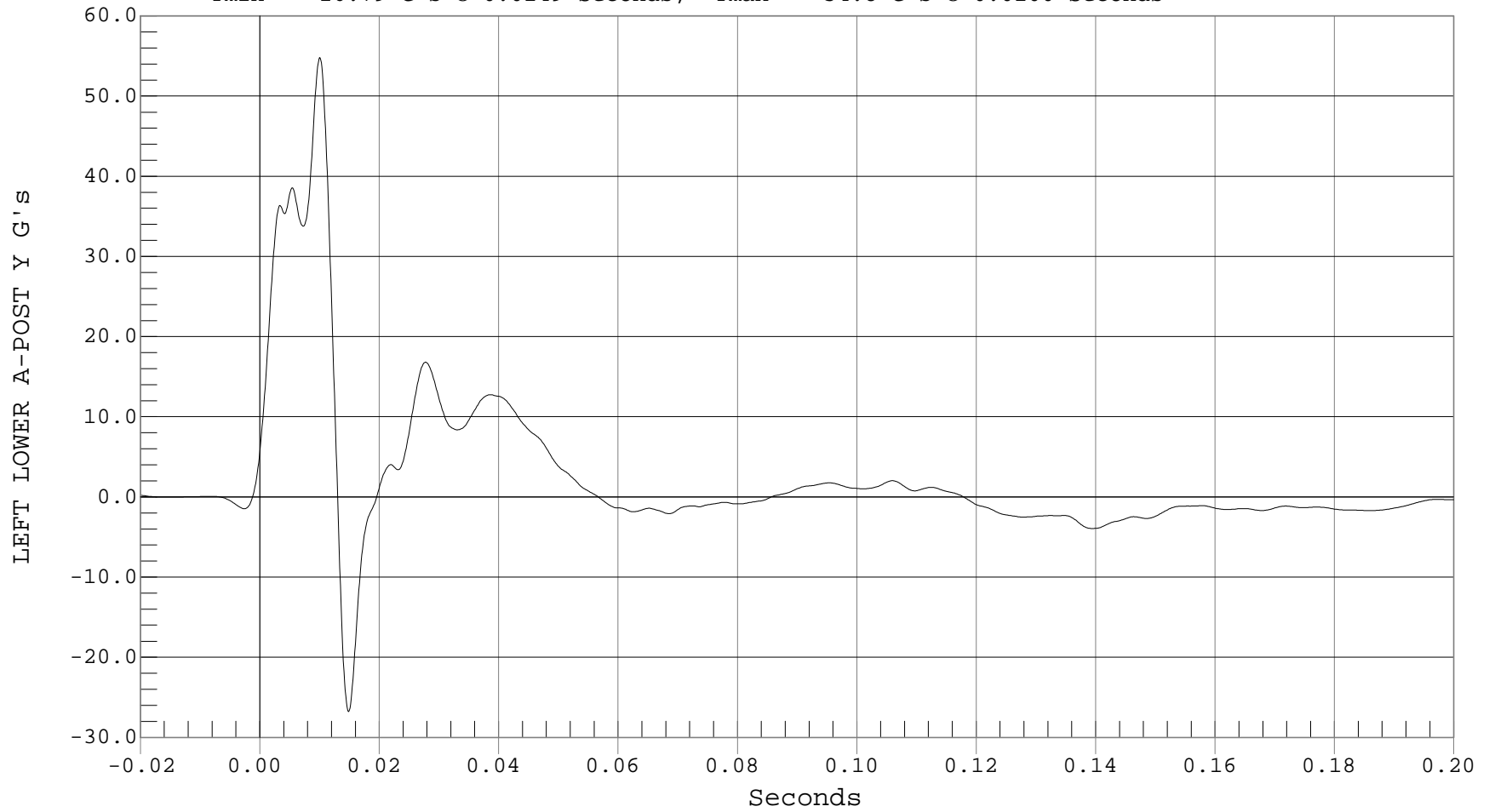
LEFT LOWER A-POST Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 LEFT LOWER A-POST Y, B00090AF.A27

Ymin = -26.79 G's @ 0.0149 Seconds, Ymax = 54.8 G's @ 0.0100 Seconds





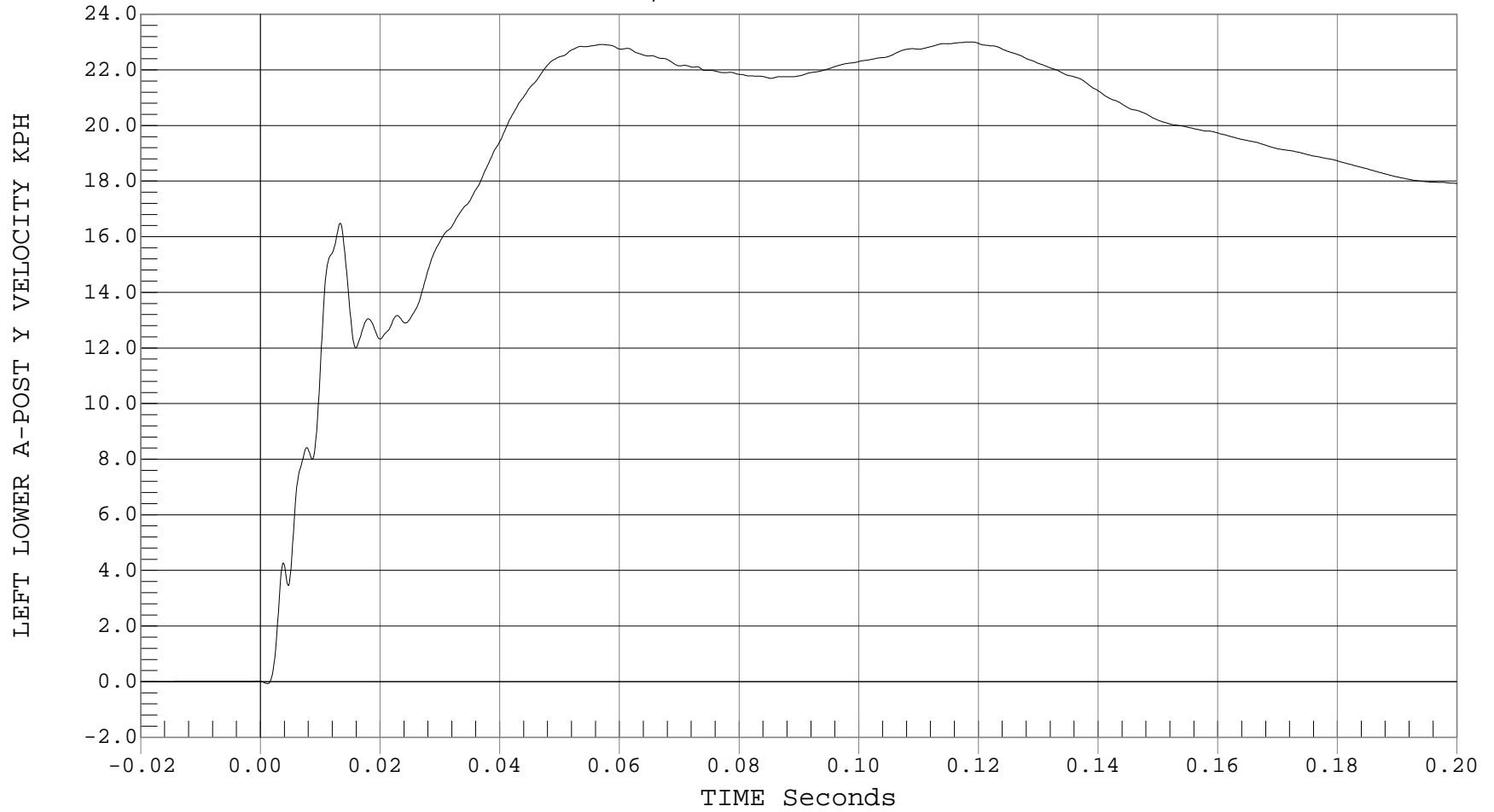
LEFT LOWER A-POST Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 LEFT LOWER A-POST Y VELOCITY, B00090AI.V27

Ymin = -.07 KPH @ 0.0012 Seconds, Ymax = 23 KPH @ 0.1183 Seconds





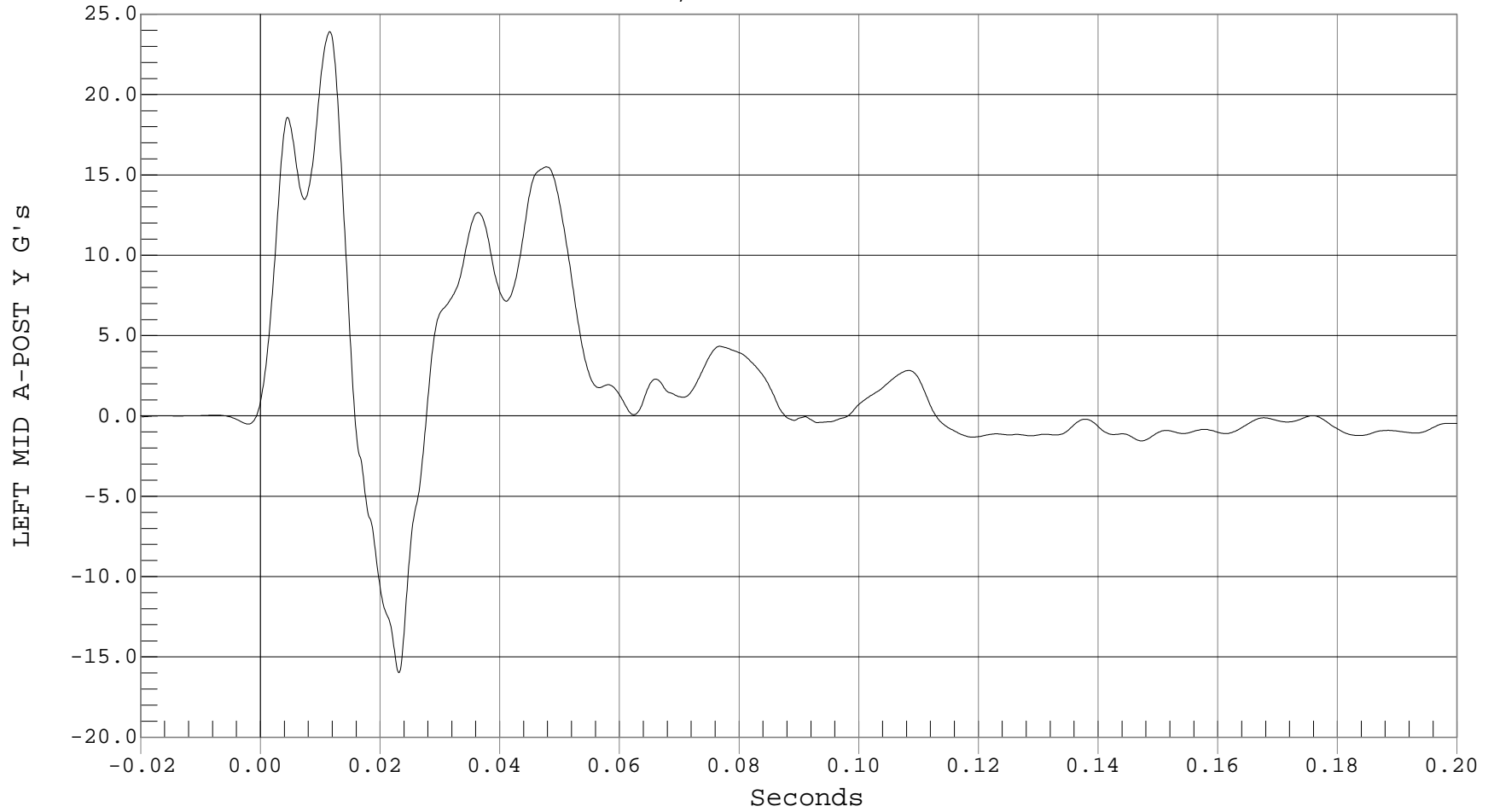
LEFT MID A-POST Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 LEFT MID A-POST Y, B00090AF.A26

Ymin = -15.98 G's @ 0.0232 Seconds, Ymax = 23.92 G's @ 0.0116 Seconds



B-65



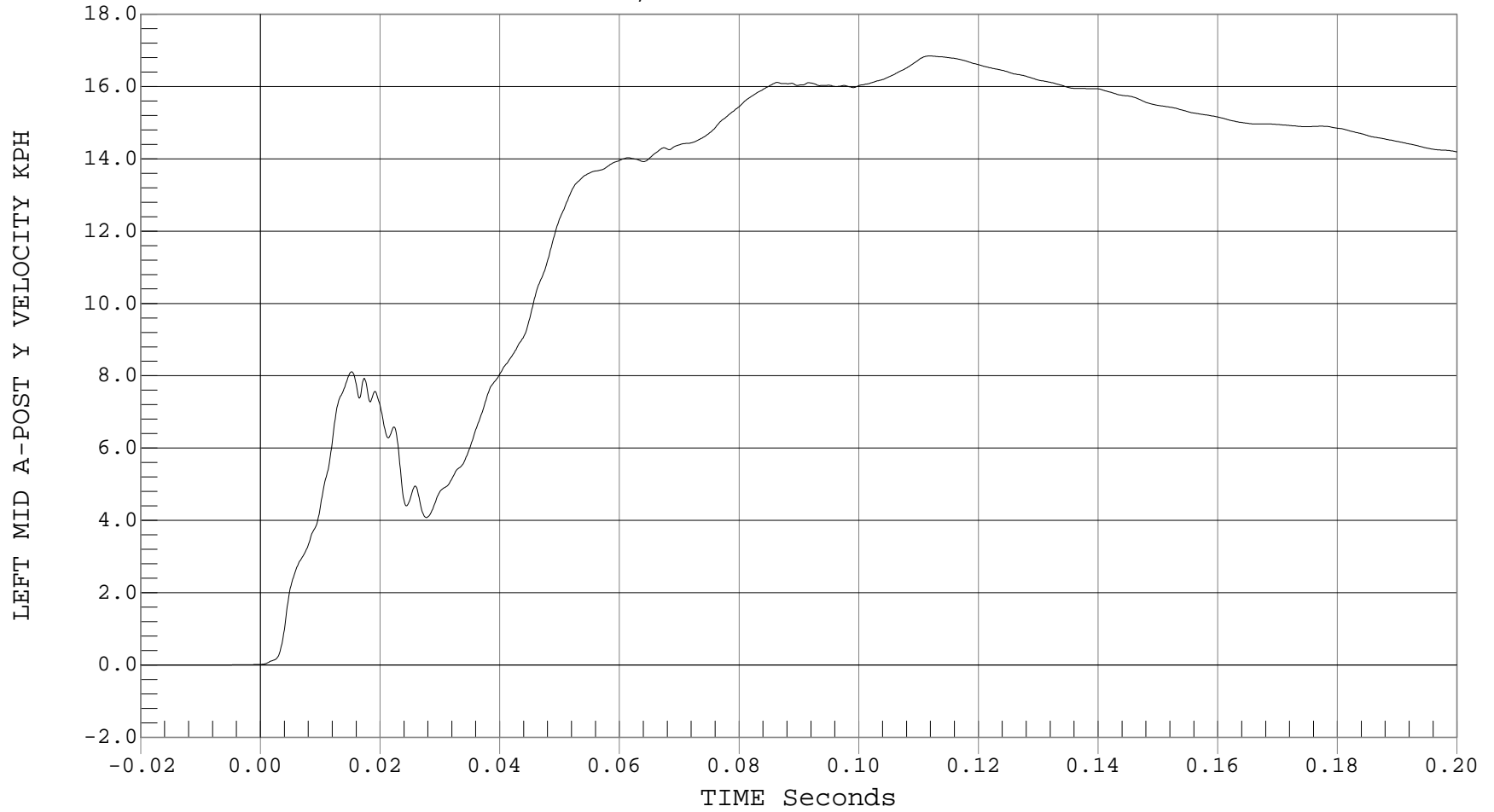
LEFT MID A-POST Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 LEFT MID A-POST Y VELOCITY, B00090AI.V26

Ymin = 0 KPH @ -0.0127 Seconds, Ymax = 16.85 KPH @ 0.1119 Seconds





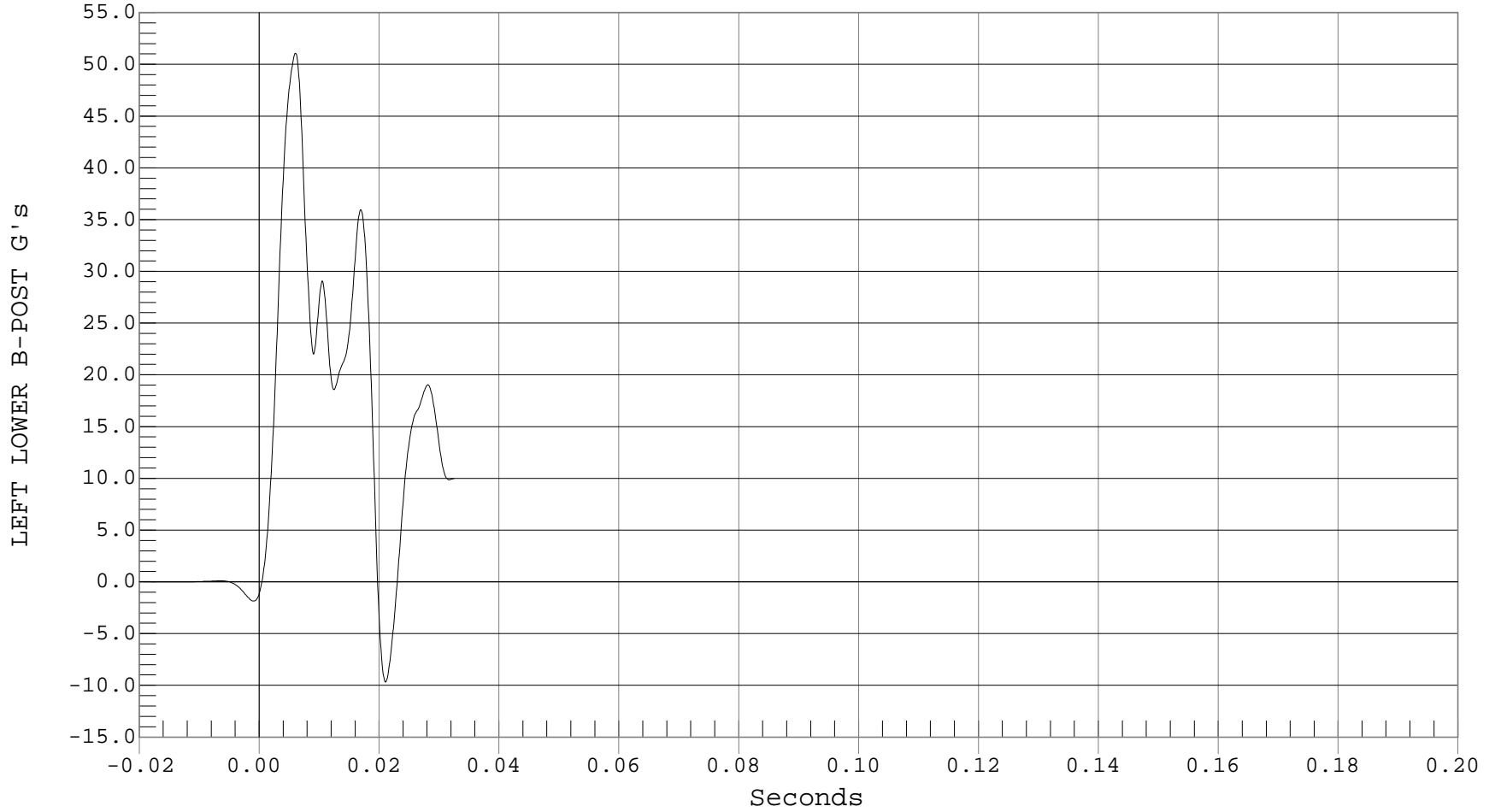
LEFT LOWER B-POST Y ACCELERATION (QD AFTER 32 MSEC.)

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 LEFT LOWER B-POST, B00090AF.A29

Ymin = -9.69 G's @ 0.0211 Seconds, Ymax = 51.08 G's @ 0.0061 Seconds



B-67



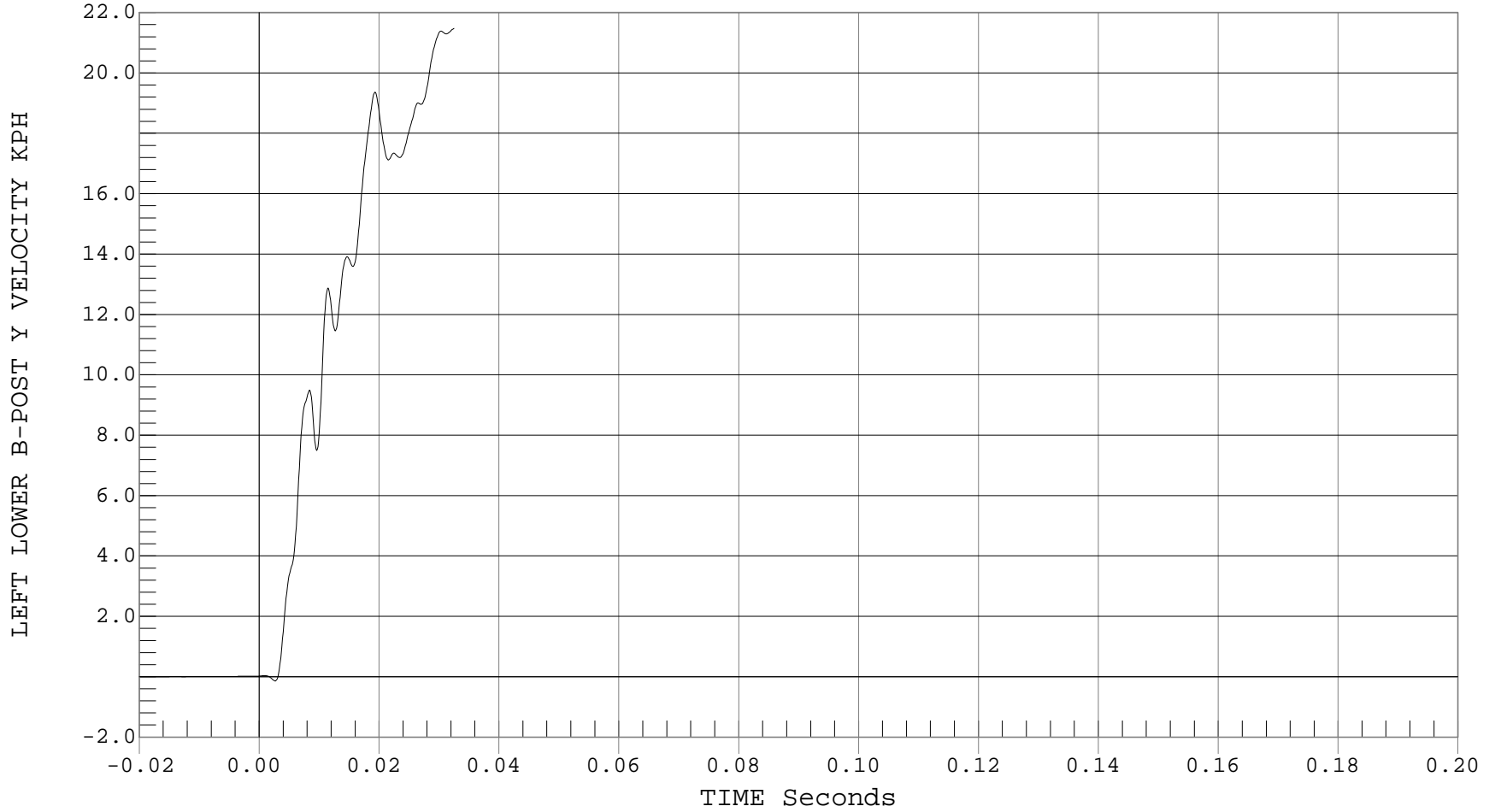
LEFT LOWER B-POST Y VELOCITY (QD AFTER 32 MSEC.)

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 LEFT LOWER B-POST Y VELOCITY, B00090AI.V29

Ymin = -.14 KPH @ 0.0027 Seconds, Ymax = 21.48 KPH @ 0.0325 Seconds





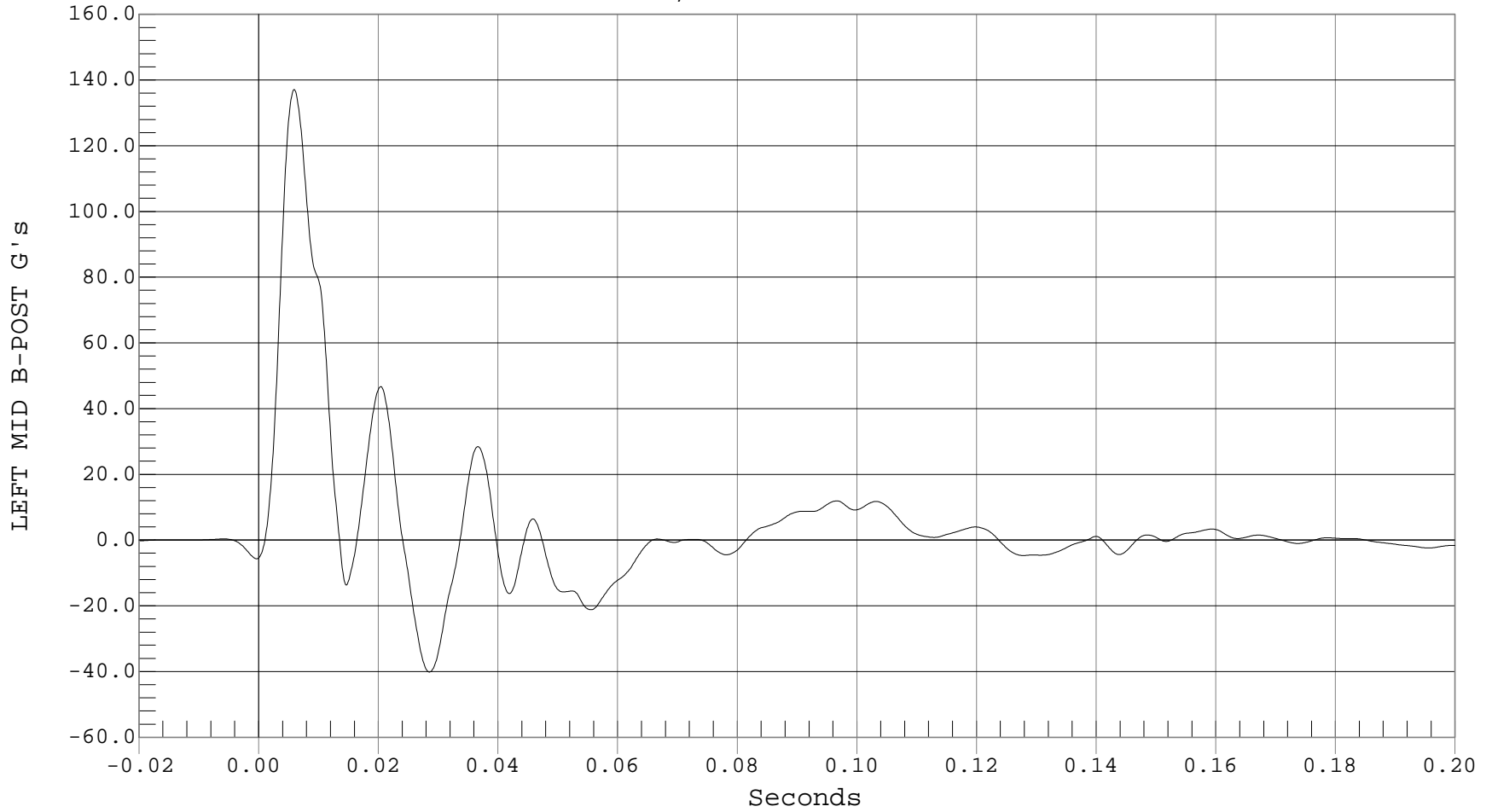
LEFT MID B-POST Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 LEFT MID B-POST, B00090AF.A28

Ymin = -40.18 G's @ 0.0285 Seconds, Ymax = 137.12 G's @ 0.0059 Seconds



B-69



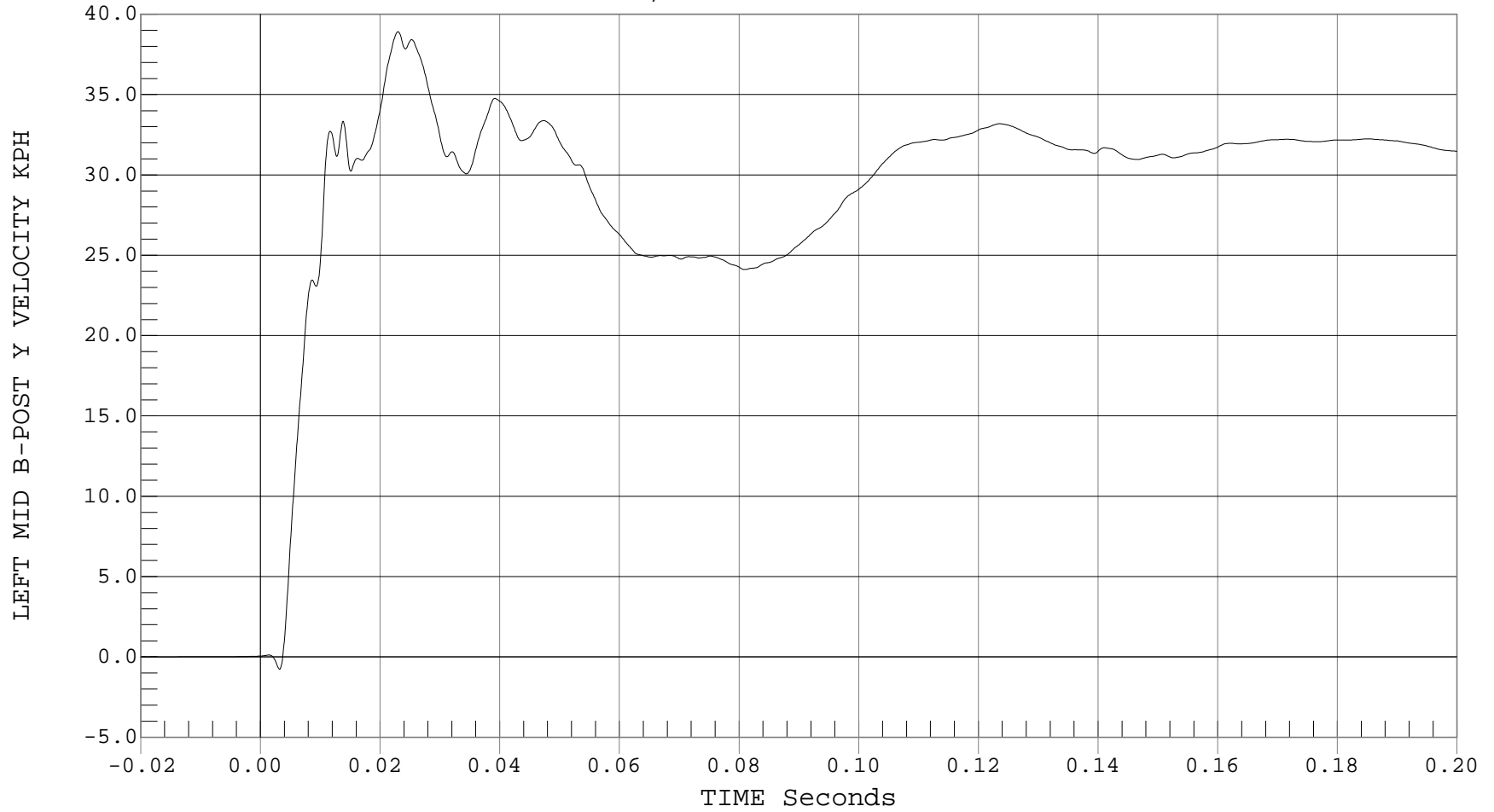
LEFT MID B-POST Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 LEFT MID B-POST Y VELOCITY, B00090AI.V28

Ymin = -.77 KPH @ 0.0032 Seconds, Ymax = 38.91 KPH @ 0.0230 Seconds



B-70



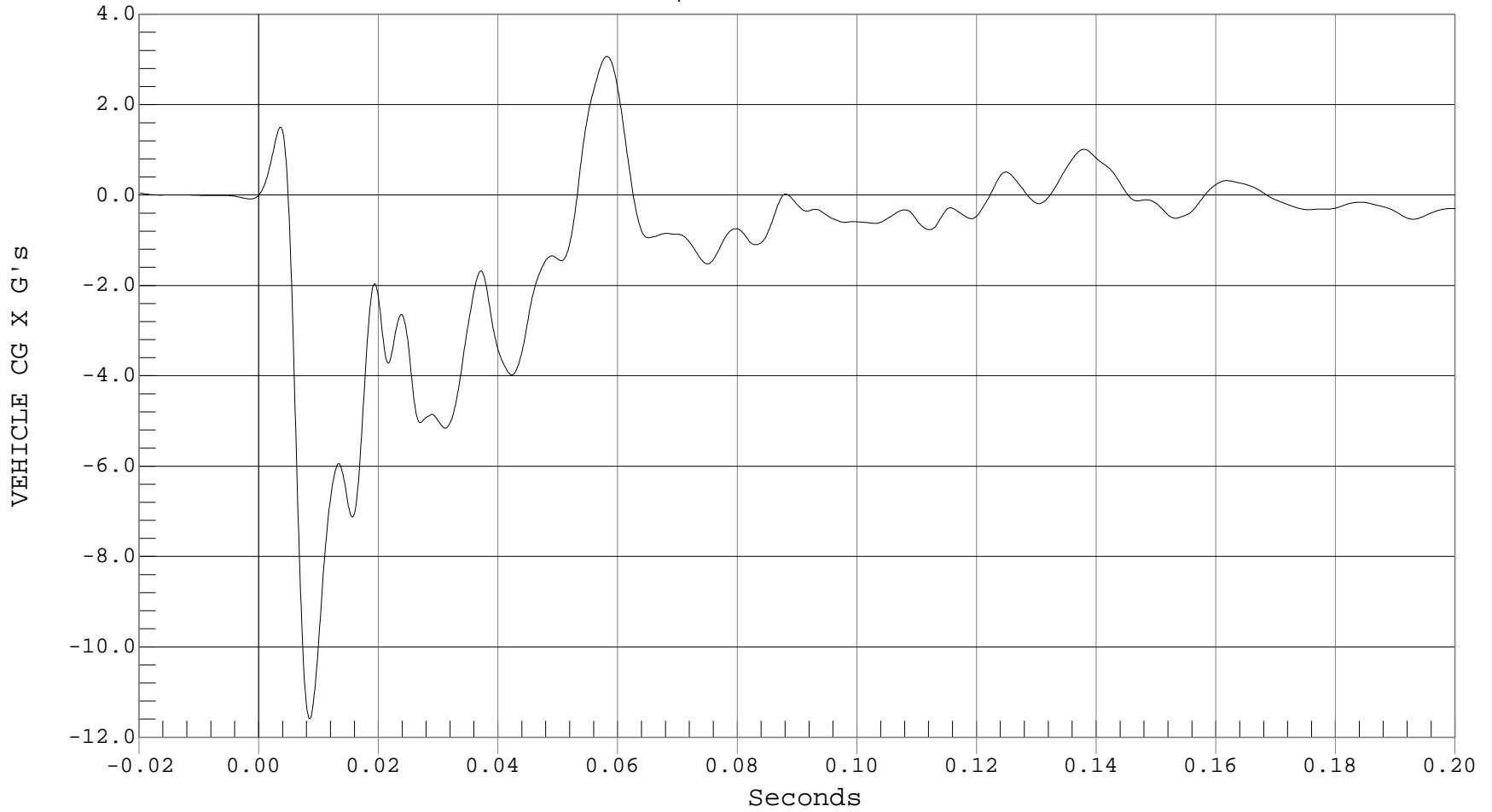
VEHICLE CG X ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 VEHICLE CG X, B00090AF.A33

Ymin = -11.59 G's @ 0.0085 Seconds, Ymax = 3.07 G's @ 0.0582 Seconds





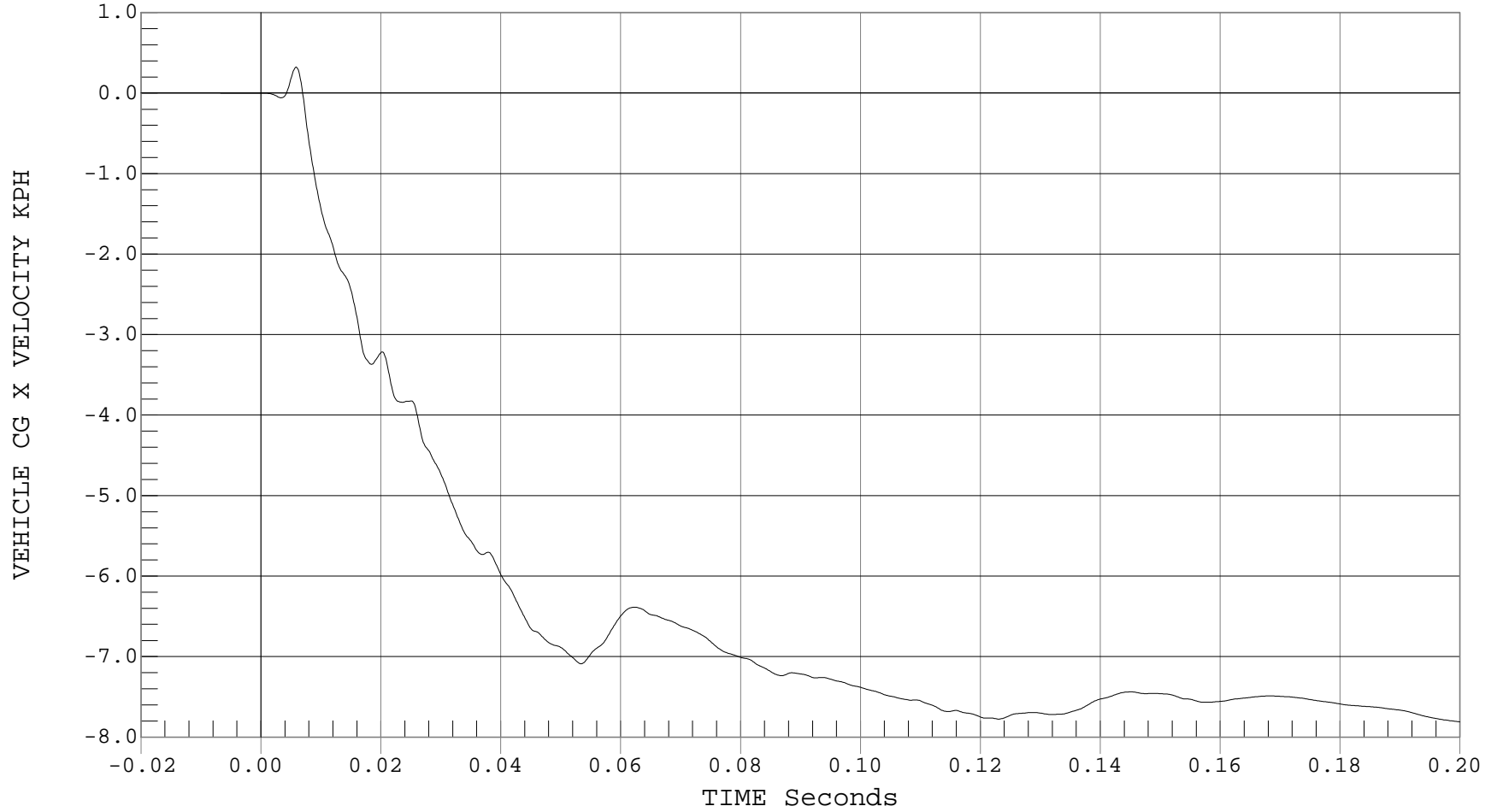
VEHICLE CG X VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 VEHICLE CG X VELOCITY, B00090AI.V33

Ymin = -7.81 KPH @ 0.2001 Seconds, Ymax = .32 KPH @ 0.0059 Seconds





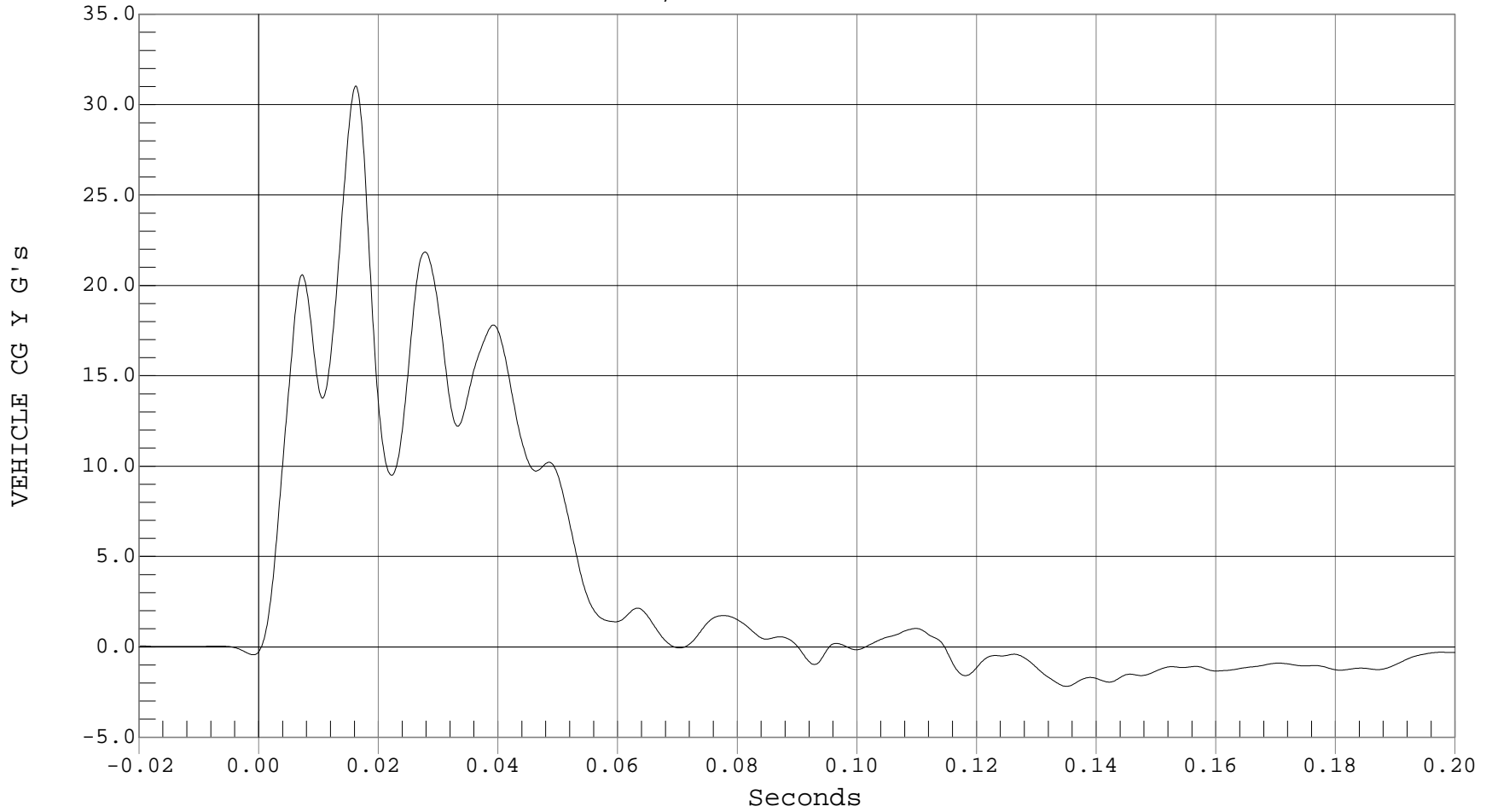
VEHICLE CG Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 VEHICLE CG Y, B00090AF.A34

Ymin = -2.19 G's @ 0.1351 Seconds, Ymax = 31.03 G's @ 0.0162 Seconds





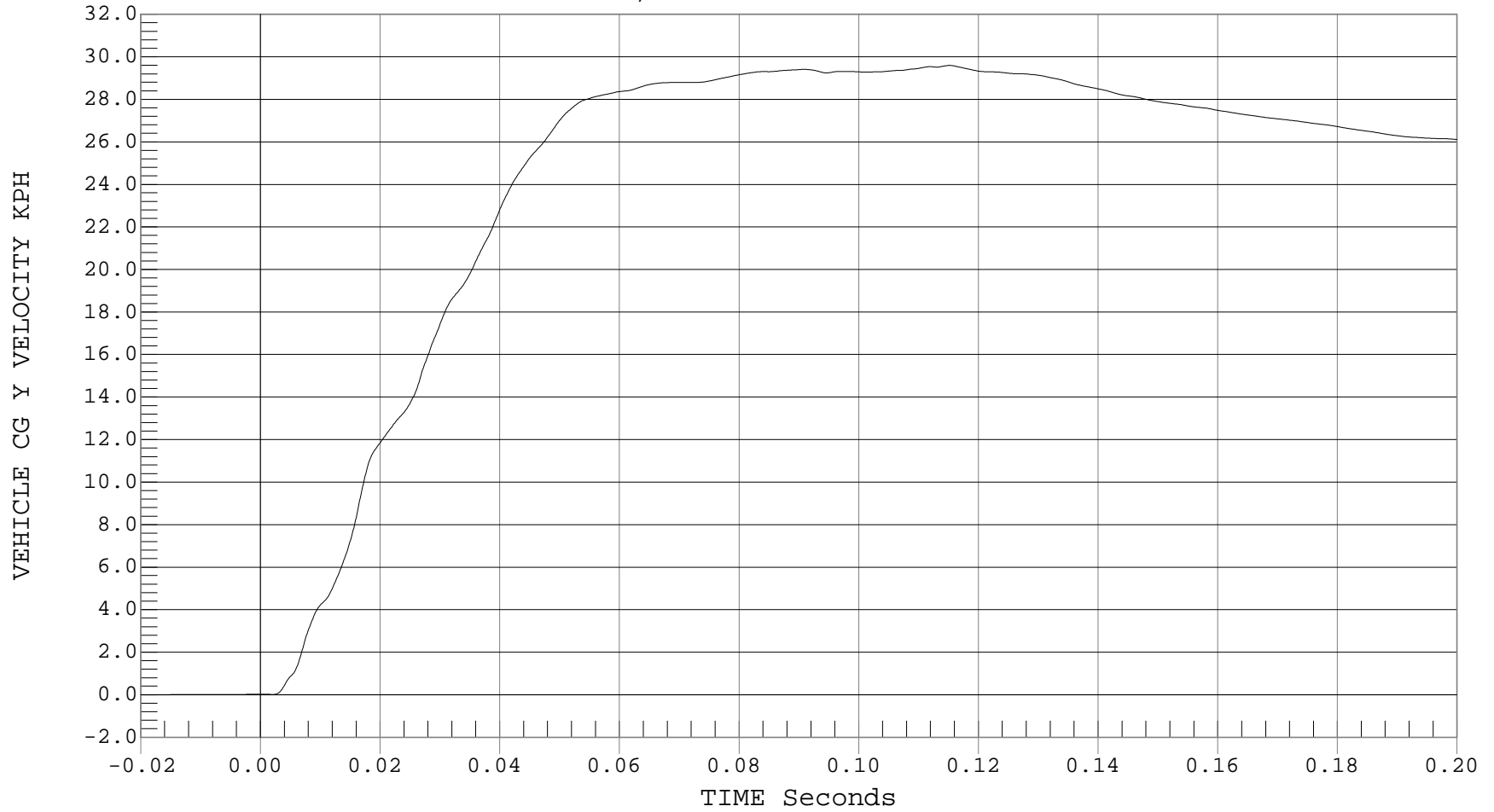
VEHICLE CG Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 VEHICLE CG Y VELOCITY, B00090AI.V34

Ymin = 0 KPH @ -0.0198 Seconds, Ymax = 29.6 KPH @ 0.1152 Seconds





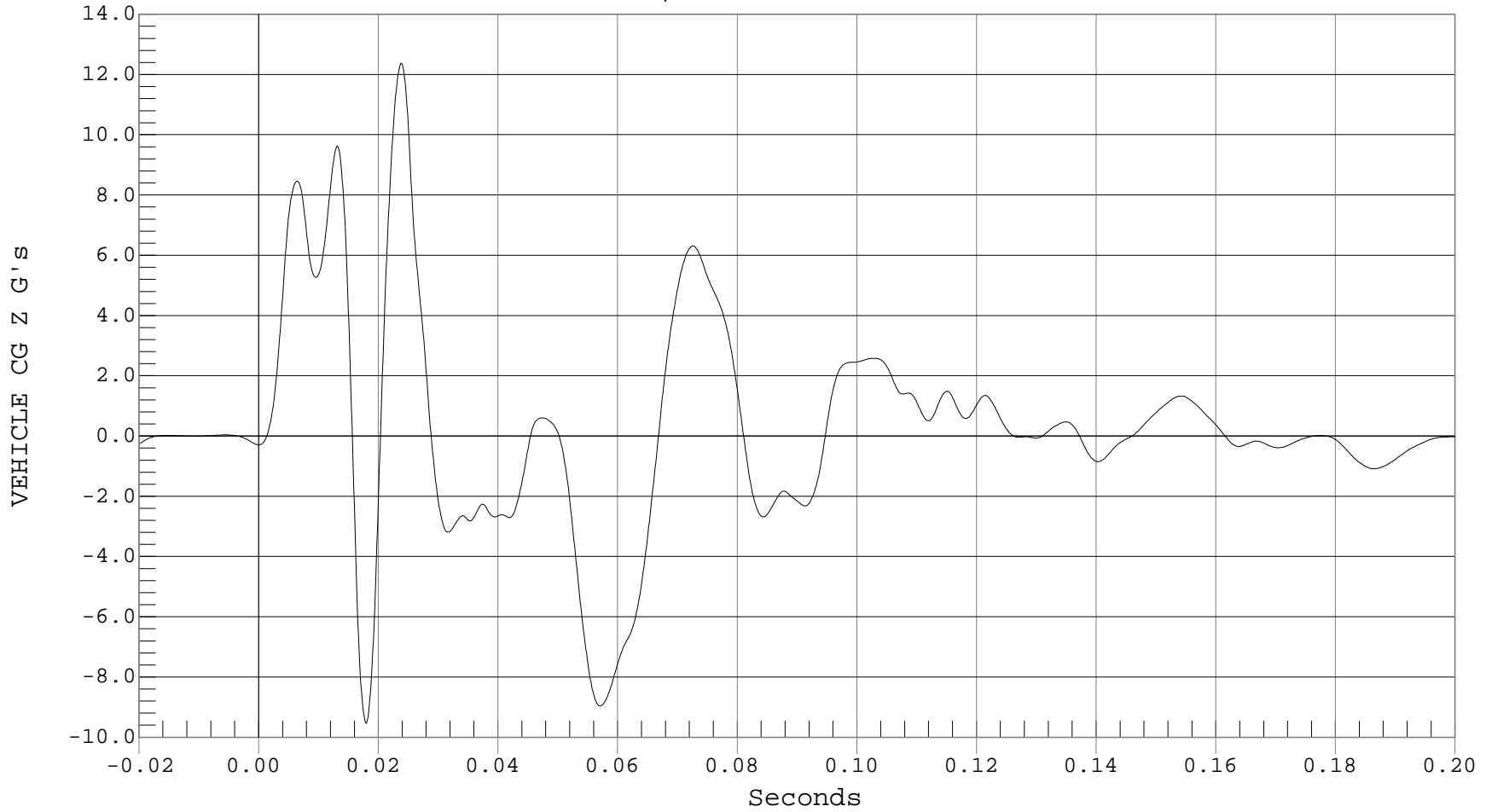
VEHICLE CG Z ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 VEHICLE CG Z, B00090AF.A35

Ymin = -9.54 G's @ 0.0180 Seconds, Ymax = 12.37 G's @ 0.0238 Seconds



B-75



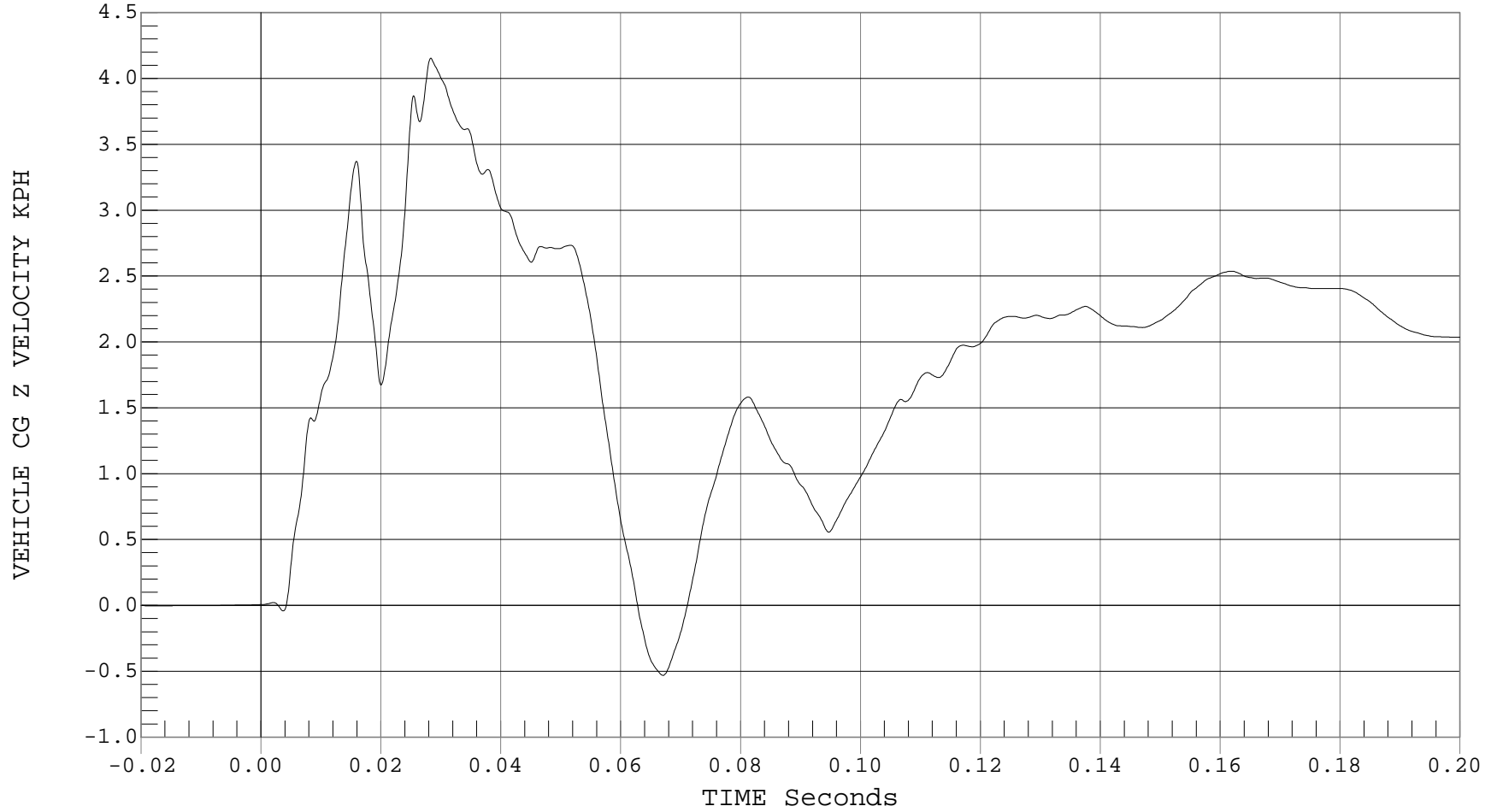
VEHICLE CG Z VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 VEHICLE CG Z VELOCITY, B00090AI.V35

Ymin = -.53 KPH @ 0.0671 Seconds, Ymax = 4.15 KPH @ 0.0283 Seconds





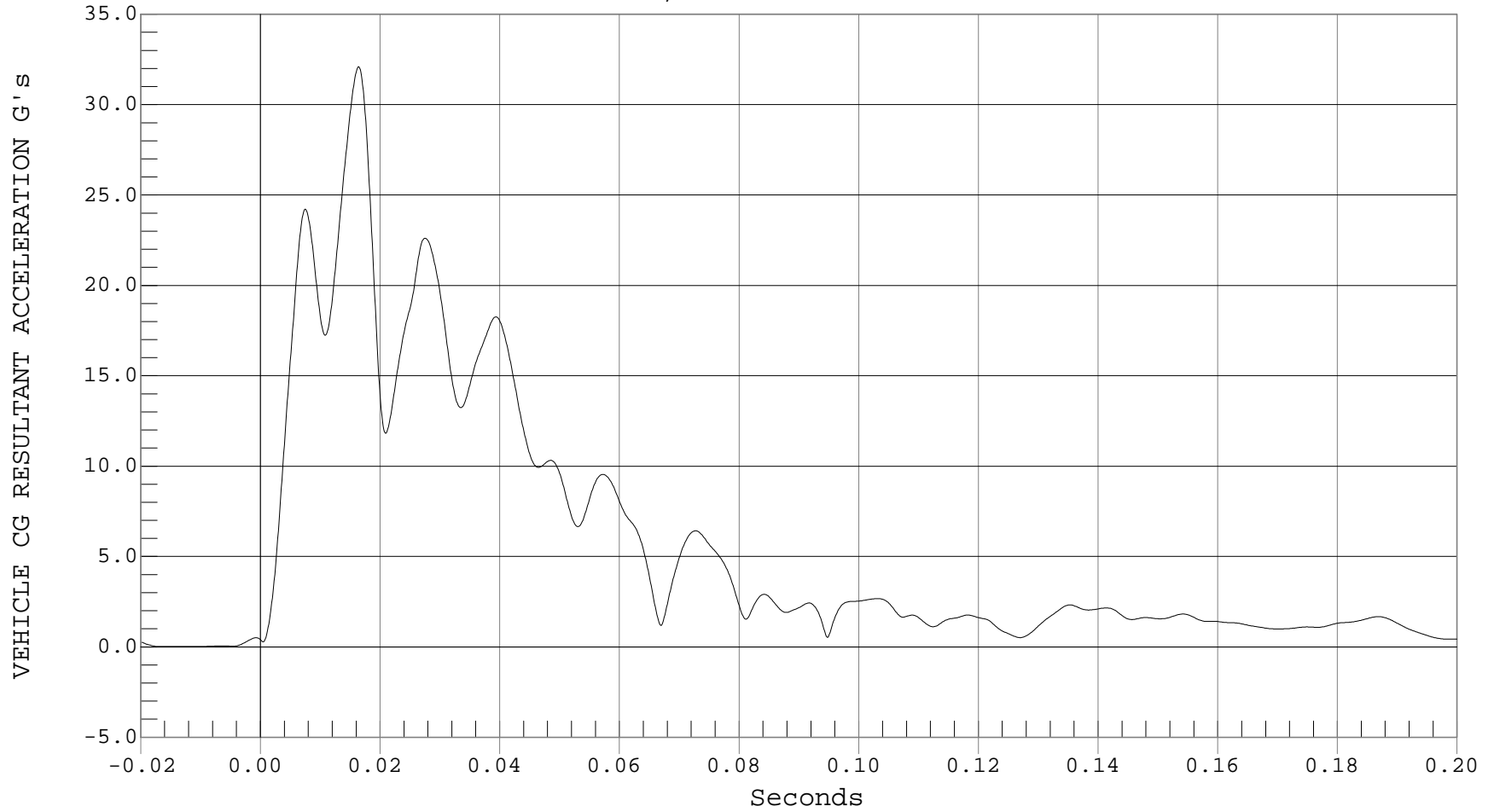
VEHICLE CG RESULTANT ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 VEHICLE CG RESULTANT ACCELERATION, B00090AV.A33

Ymin = .02 G's @ -0.0123 Seconds, Ymax = 32.1 G's @ 0.0164 Seconds



Left Front Door Midrear Y Acceleration
No Valid Data Collected

Left Front Door Midrear Y Velocity
No Valid Data Collected



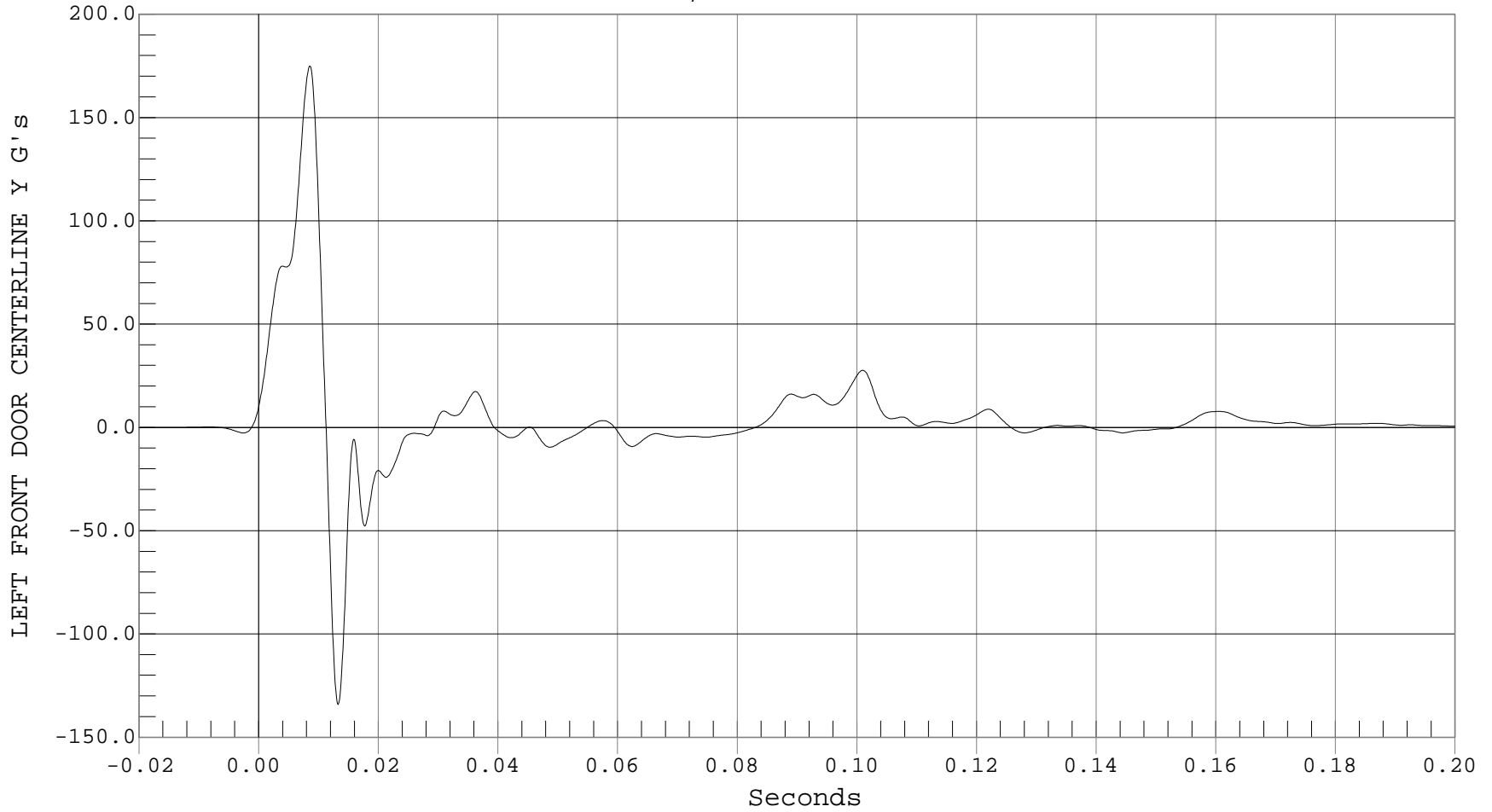
LEFT FRONT DOOR CENTERLINE Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 LEFT FRONT DOOR CENTERLINE Y, B00090AF.A36

Ymin = -134.11 G's @ 0.0133 Seconds, Ymax = 174.93 G's @ 0.0086 Seconds





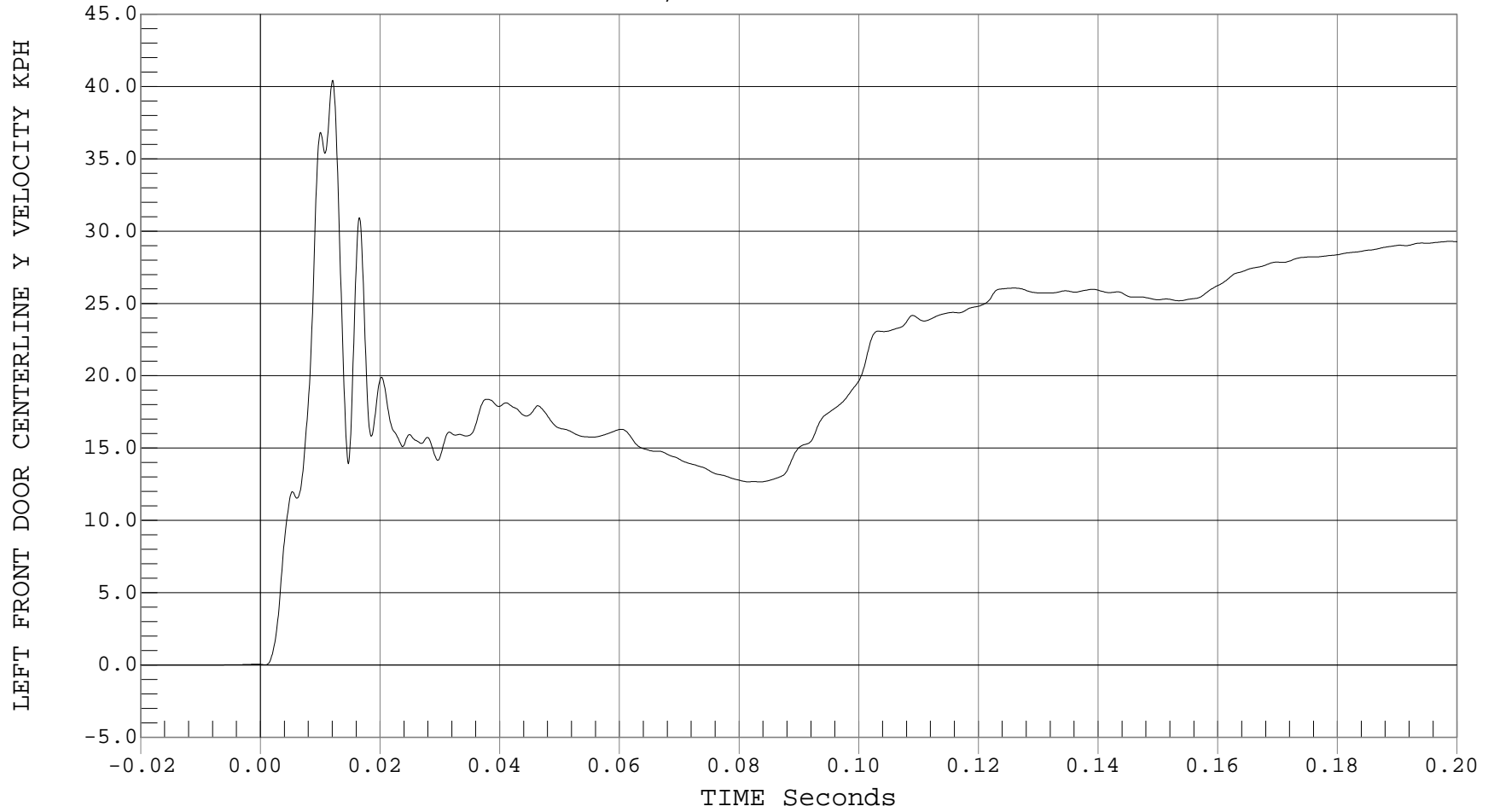
LEFT FRONT DOOR CENTERLINE Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 LEFT FRONT DOOR CENTERLINE Y VELOCITY, B00090AI.V36

Ymin = -.01 KPH @ -0.0122 Seconds, Ymax = 40.44 KPH @ 0.0121 Seconds





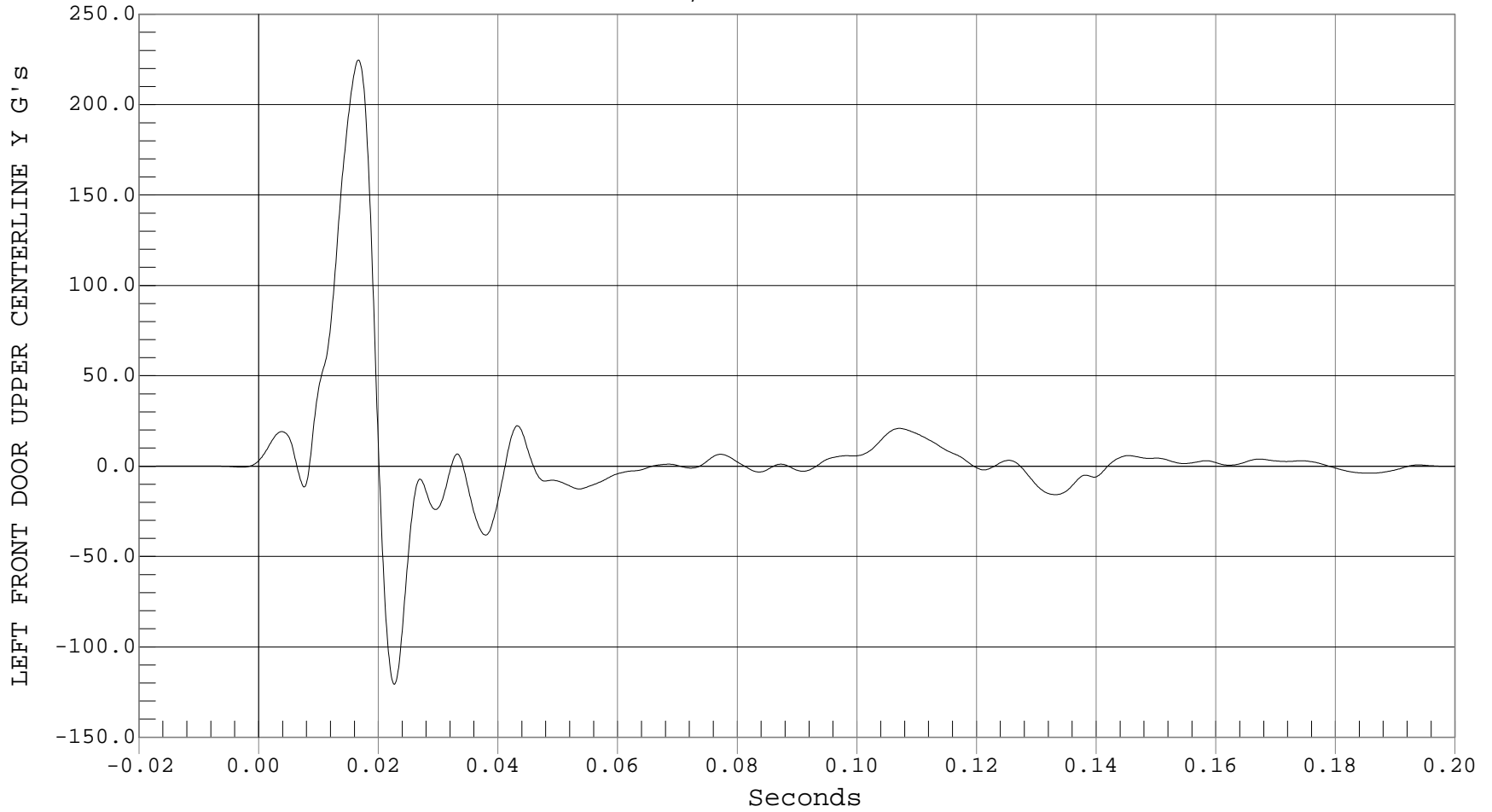
LEFT FRONT DOOR UPPER CENTERLINE Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 LEFT FRONT DOOR UPPER CENTERLINE Y, B00090AF.A38

Ymin = -120.73 G's @ 0.0227 Seconds, Ymax = 224.69 G's @ 0.0167 Seconds





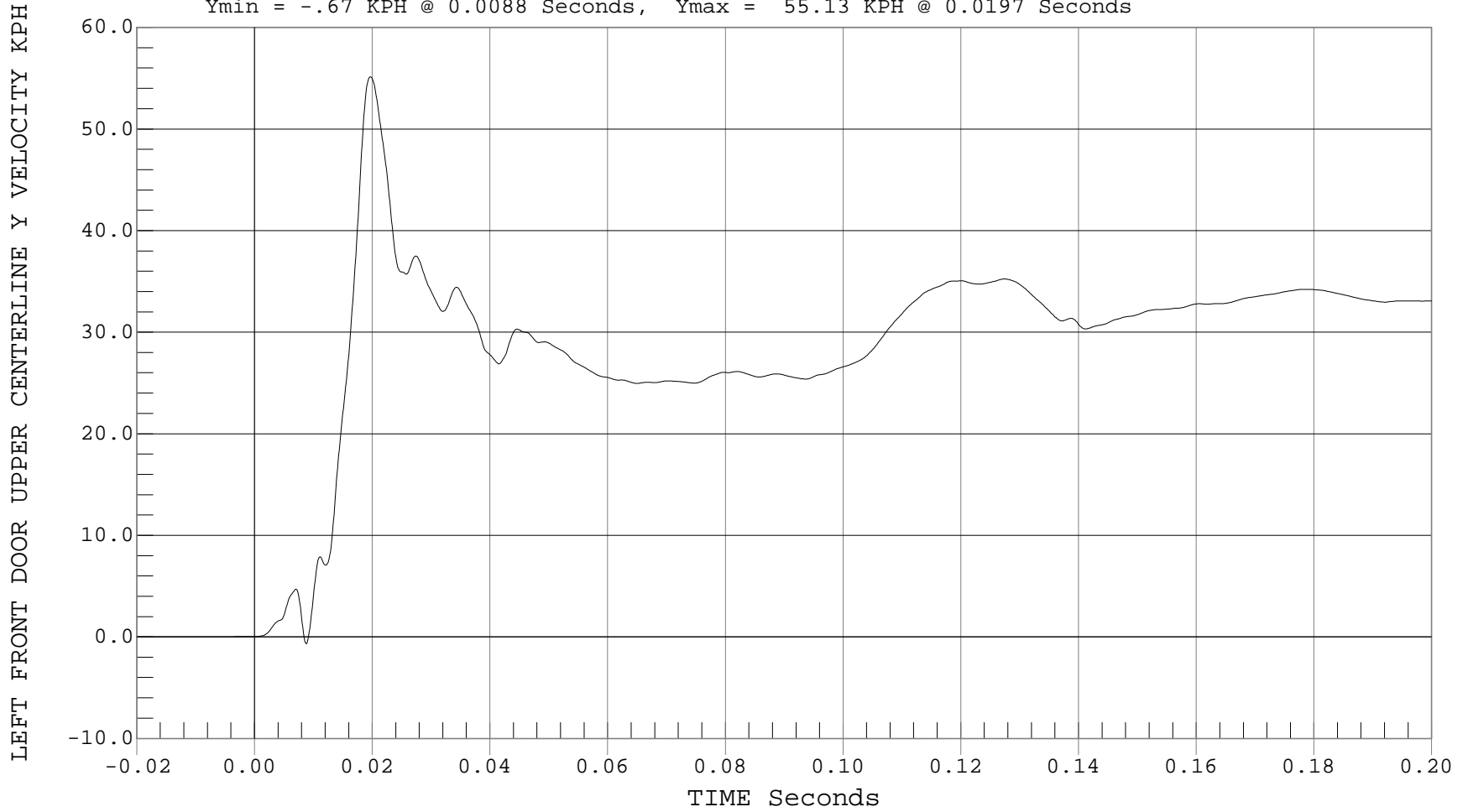
LEFT FRONT DOOR UPPER CENTERLINE Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 LEFT FRONT DOOR UPPER CENTERLINE Y VELOCITY, B00090AI.V38

Ymin = -.67 KPH @ 0.0088 Seconds, Ymax = 55.13 KPH @ 0.0197 Seconds





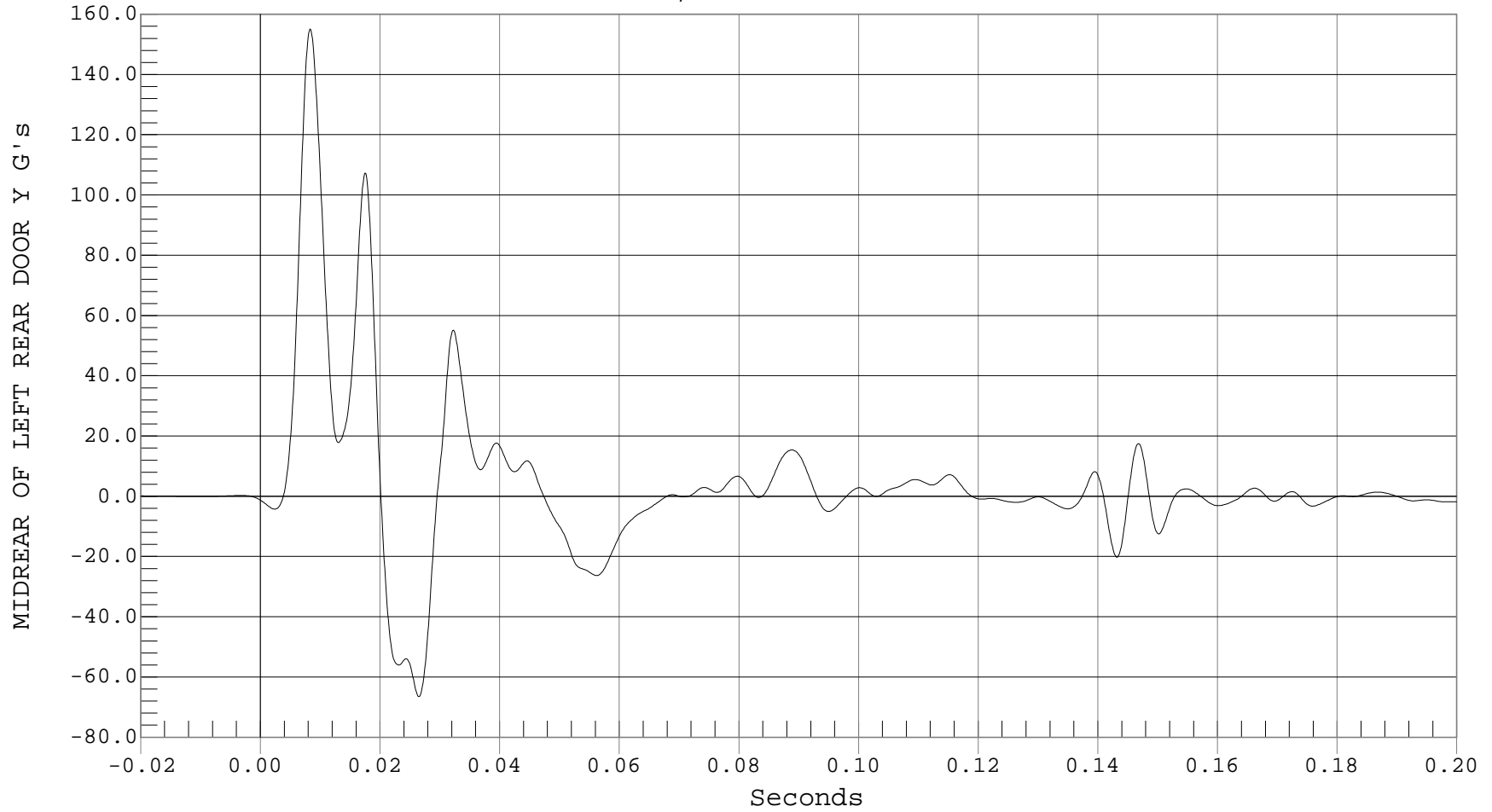
LEFT REAR DOOR MIDREAR Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 MIDREAR OF LEFT REAR DOOR Y, B00090AF.A39

Ymin = -66.57 G's @ 0.0265 Seconds, Ymax = 155.11 G's @ 0.0083 Seconds





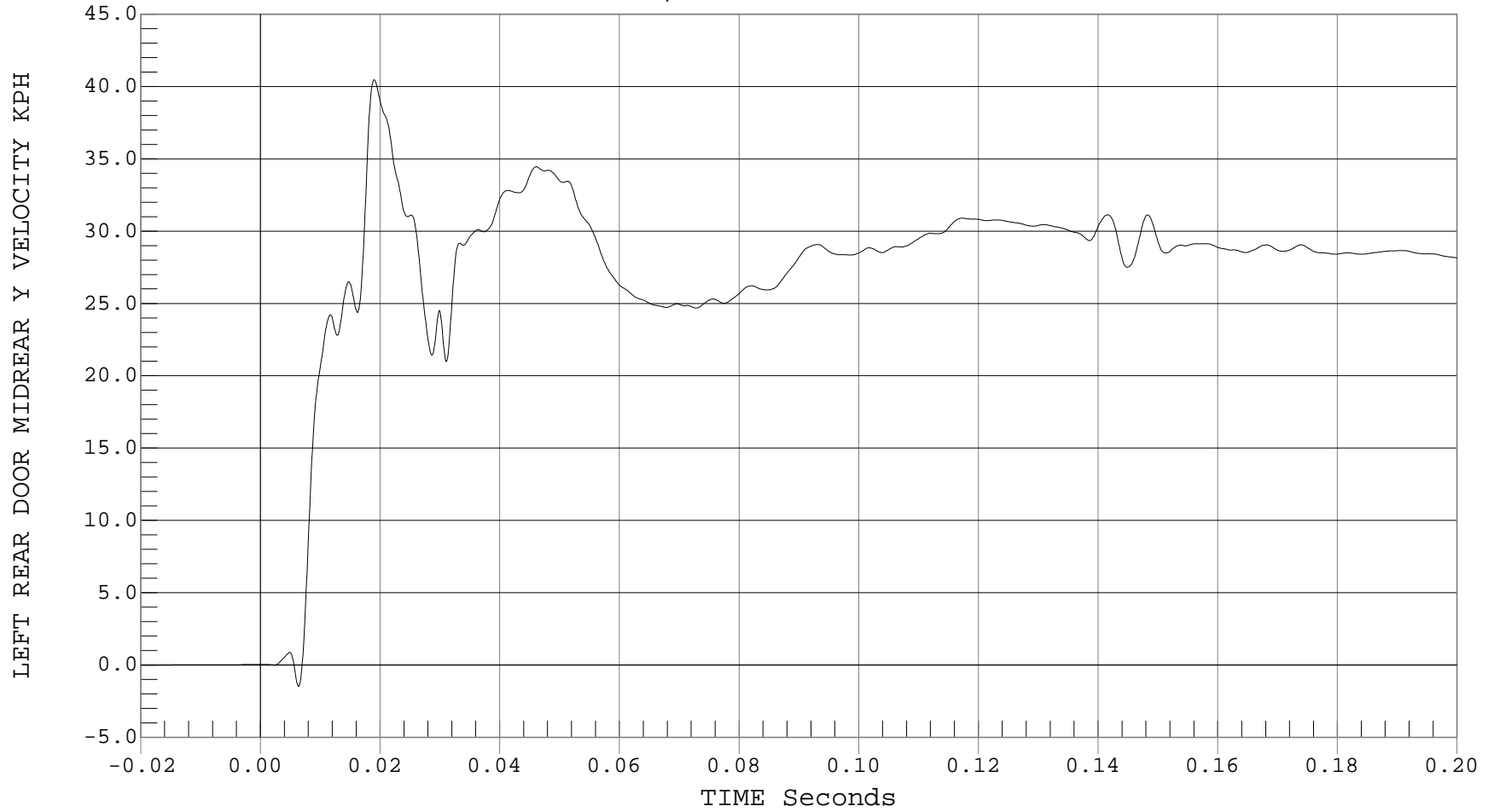
LEFT REAR DOOR MIDREAR Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 LEFT REAR DOOR MIDREAR Y VELOCITY, B00090AI.V39

Ymin = -1.49 KPH @ 0.0064 Seconds, Ymax = 40.47 KPH @ 0.0190 Seconds





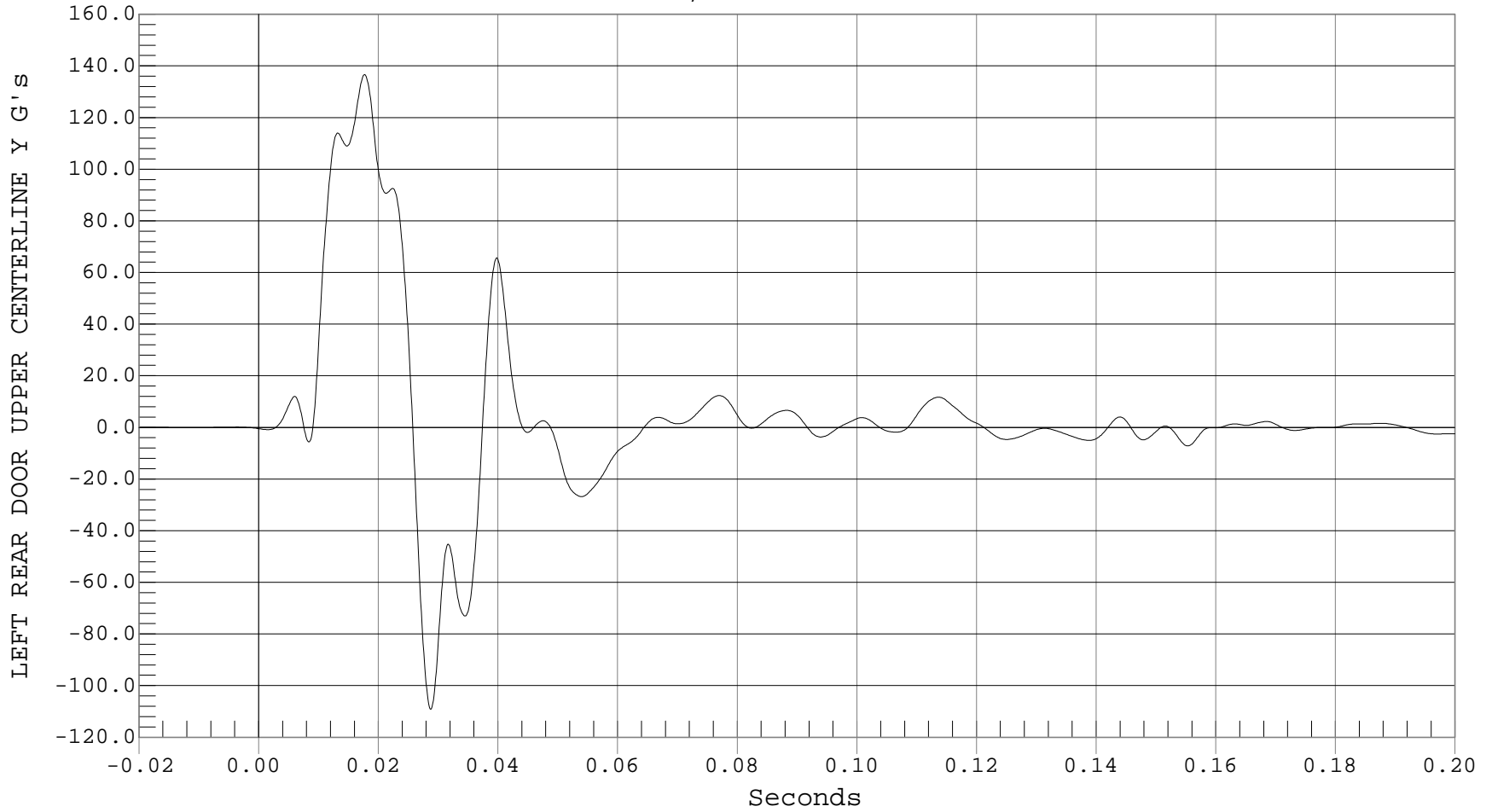
LEFT REAR DOOR UPPER CENTERLINE Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 LEFT REAR DOOR UPPER CENTERLINE Y, B00090AF.A40

Ymin = -109.11 G's @ 0.0288 Seconds, Ymax = 136.68 G's @ 0.0177 Seconds





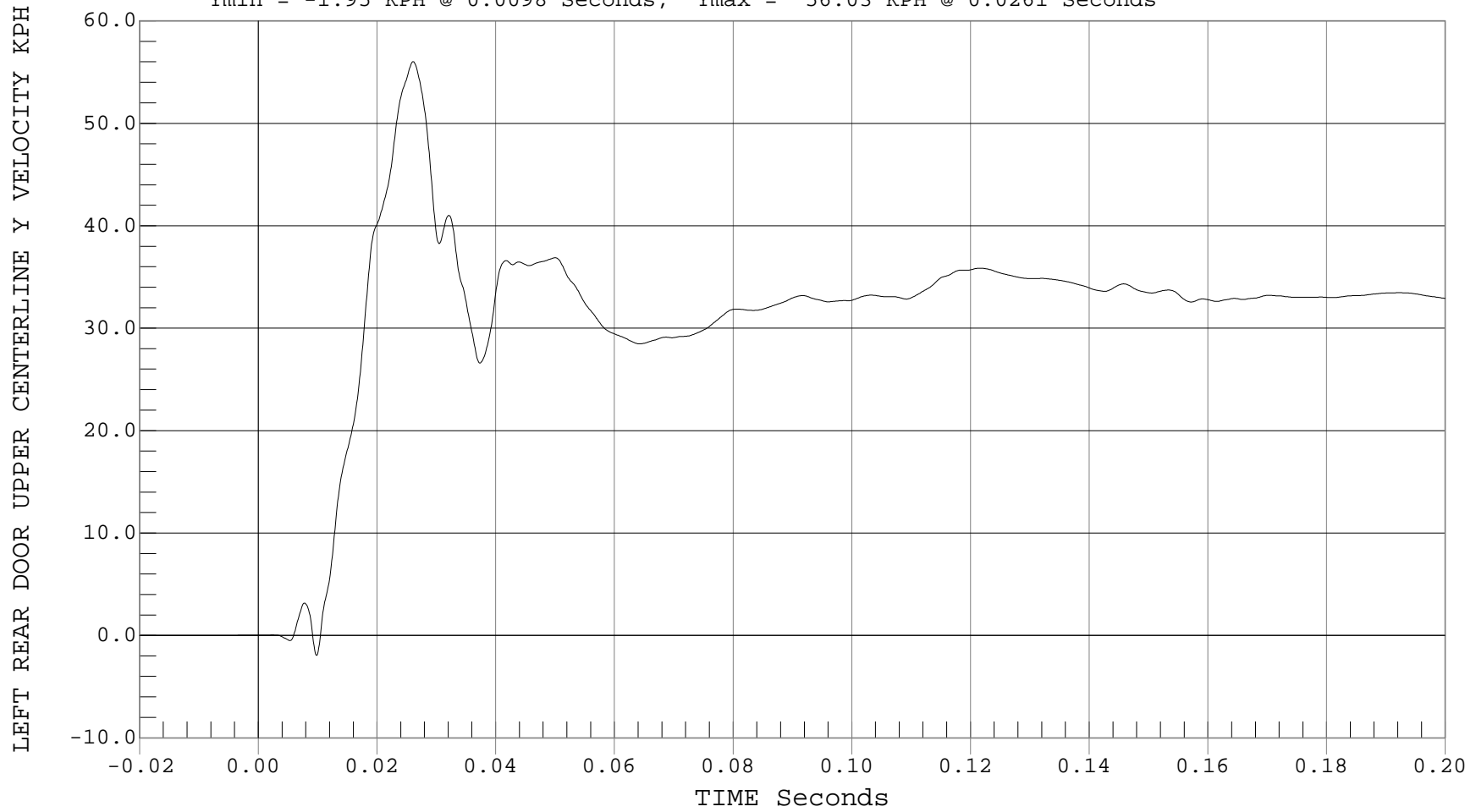
LEFT REAR DOOR UPPER CENTERLINE Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 LEFT REAR DOOR UPPER CENTERLINE Y VELOCITY, B00090AI.V40

Ymin = -1.95 KPH @ 0.0098 Seconds, Ymax = 56.03 KPH @ 0.0261 Seconds





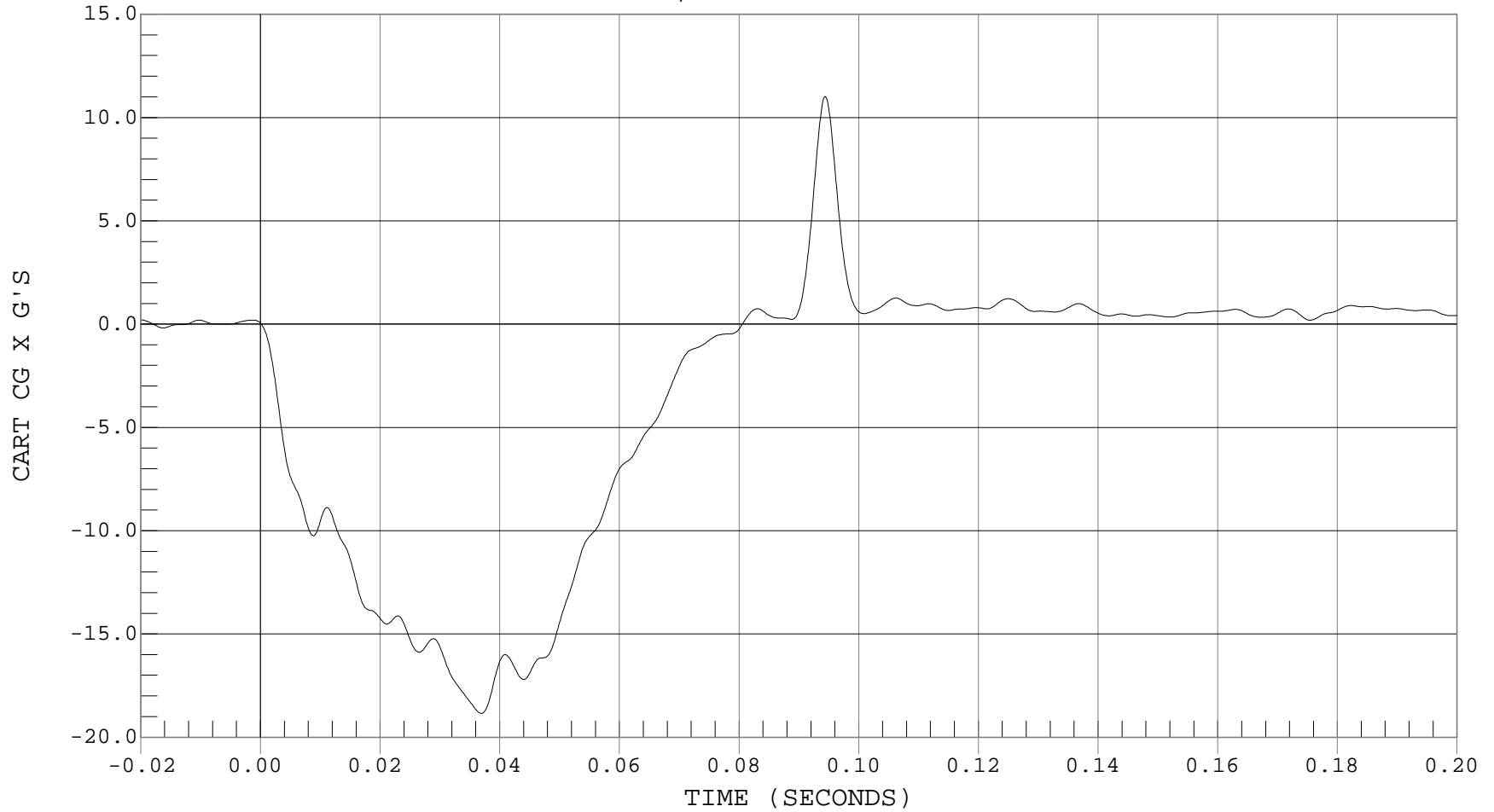
MOVING BARRIER CG X ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 CART CG X, C00090AF.A02

Ymin = -18.85 G'S @ 0.0369 SECONDS, Ymax = 11.02 G'S @ 0.0944 SECONDS





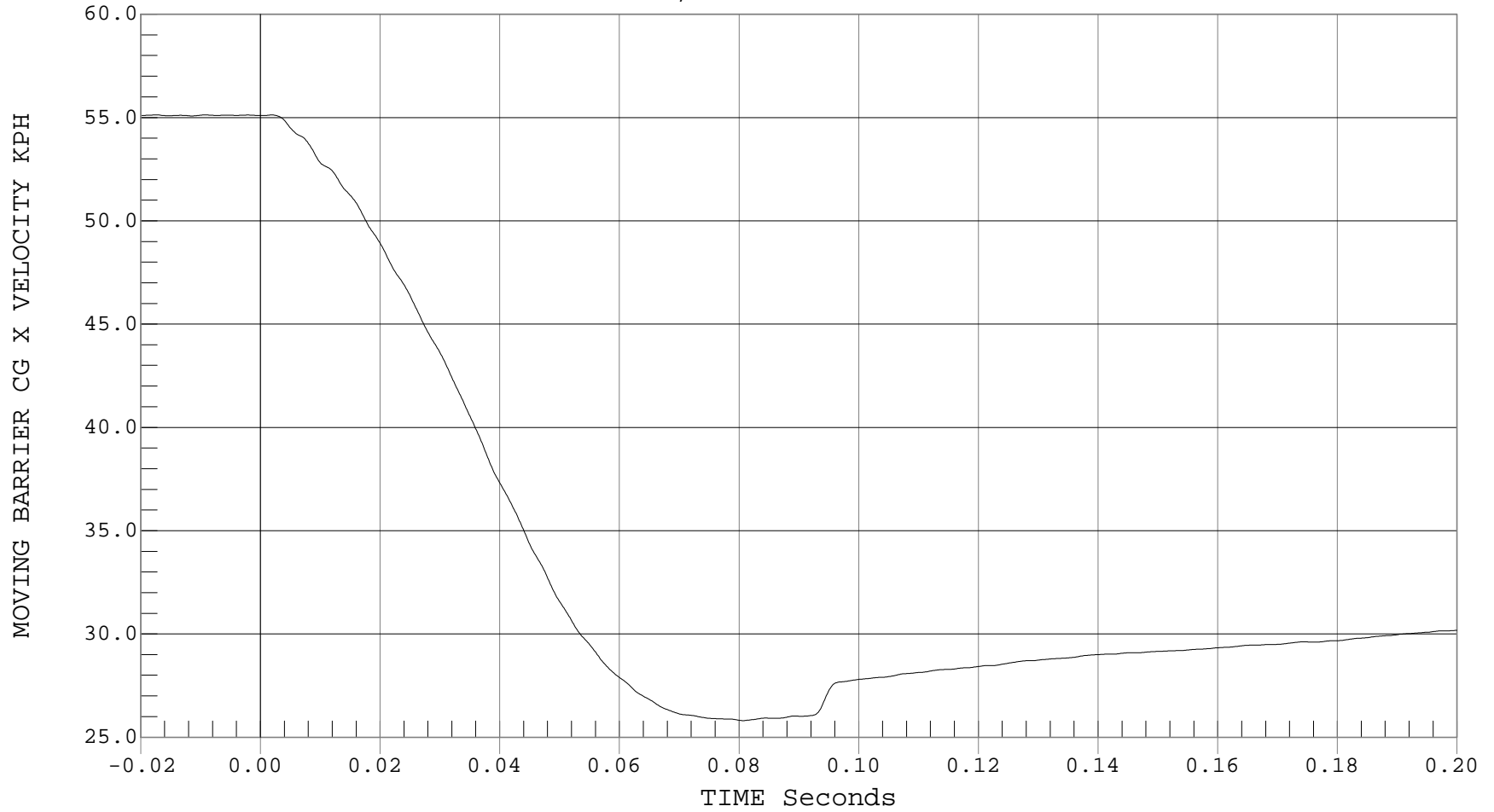
MOVING BARRIER CG X VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 MOVING BARRIER CG X VELOCITY, C00090AI.V02

Ymin = 25.81 KPH @ 0.0807 Seconds, Ymax = 55.12 KPH @ -0.0174 Seconds



Moving Barrier CG Y Acceleration
No Valid Data Collected



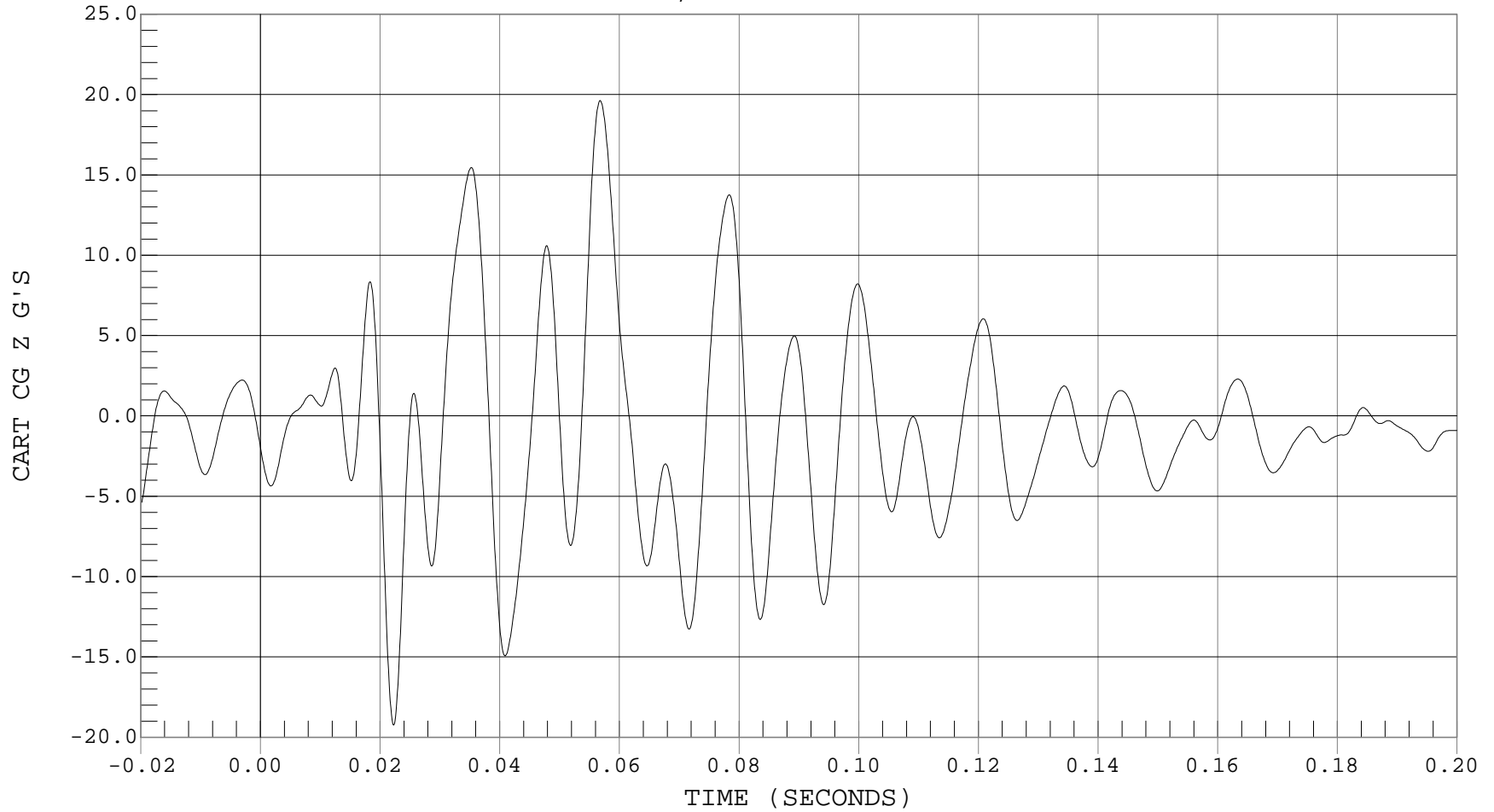
MOVING BARRIER CG Z ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 CART CG Z, C00090AF.A04

Ymin = -19.24 G'S @ 0.0223 SECONDS, Ymax = 19.63 G'S @ 0.0568 SECONDS



B-91



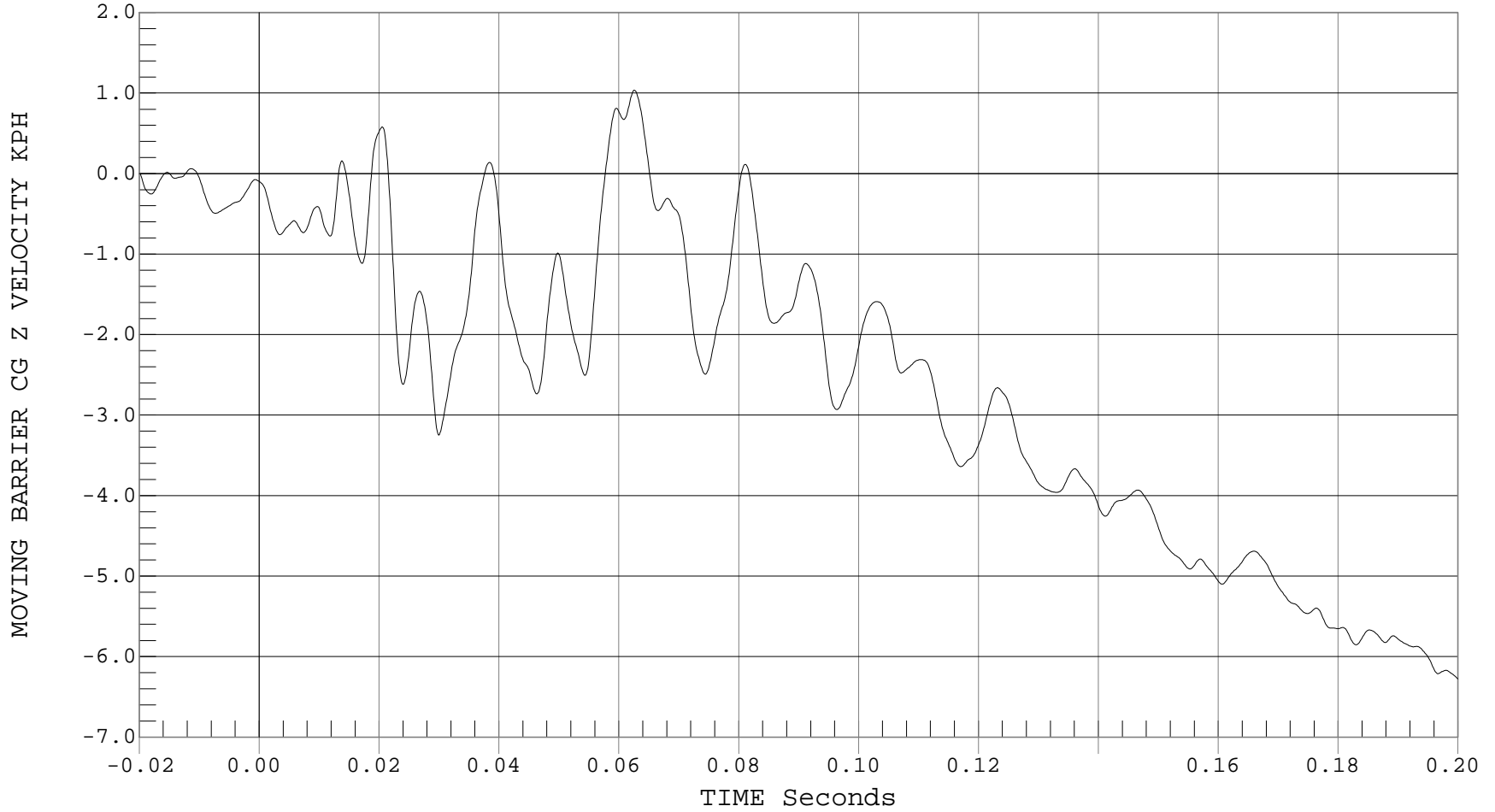
MOVING BARRIER CG Z VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 MOVING BARRIER CG Z VELOCITY, C00090AI.V04

Ymin = -6.28 KPH @ 0.2001 Seconds, Ymax = 1.04 KPH @ 0.0626 Seconds





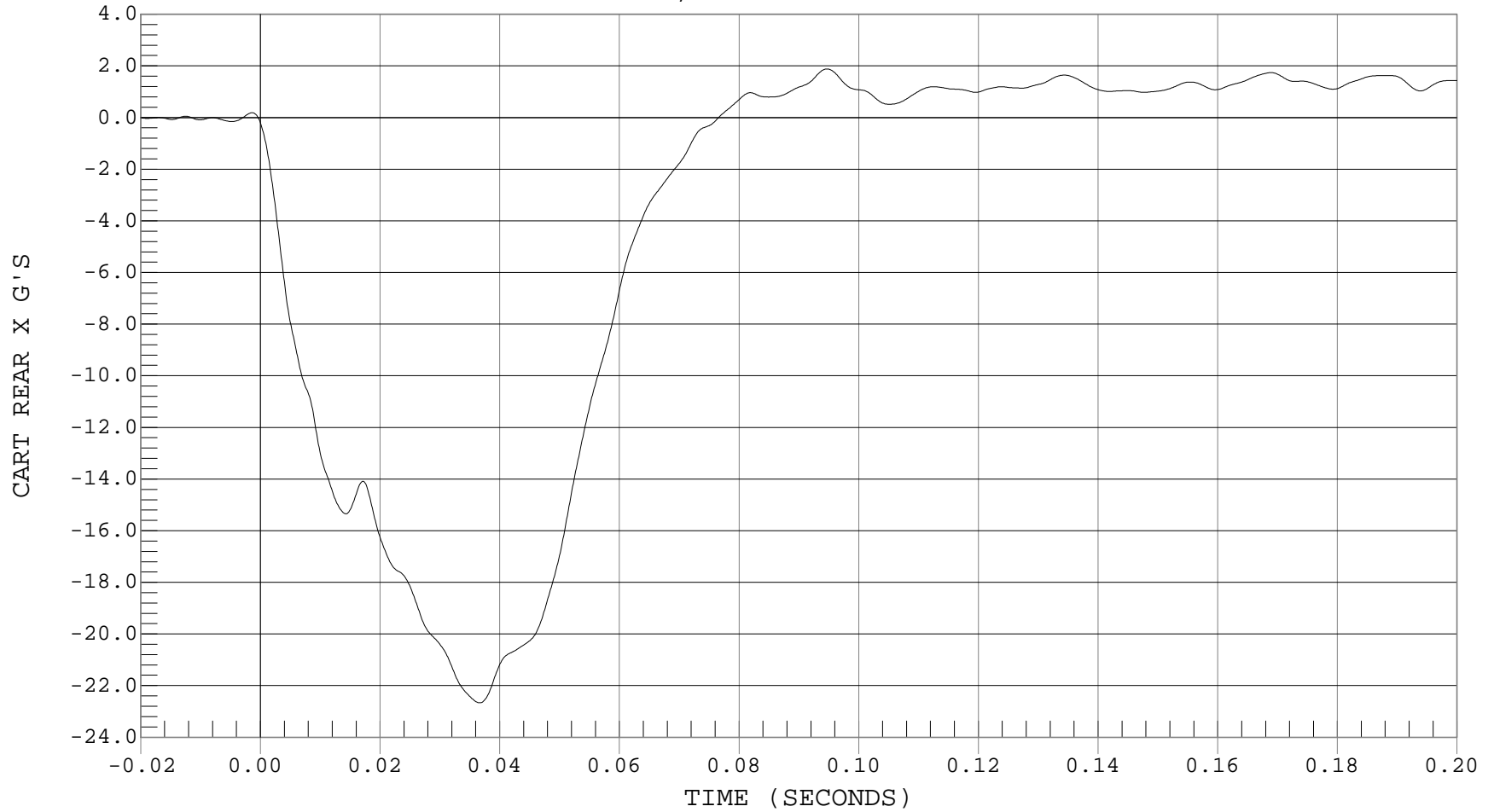
MOVING BARRIER REAR AXLE X ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 CART REAR X, C00090AF.A05

Ymin = -22.67 G'S @ 0.0367 SECONDS, Ymax = 1.88 G'S @ 0.0947 SECONDS





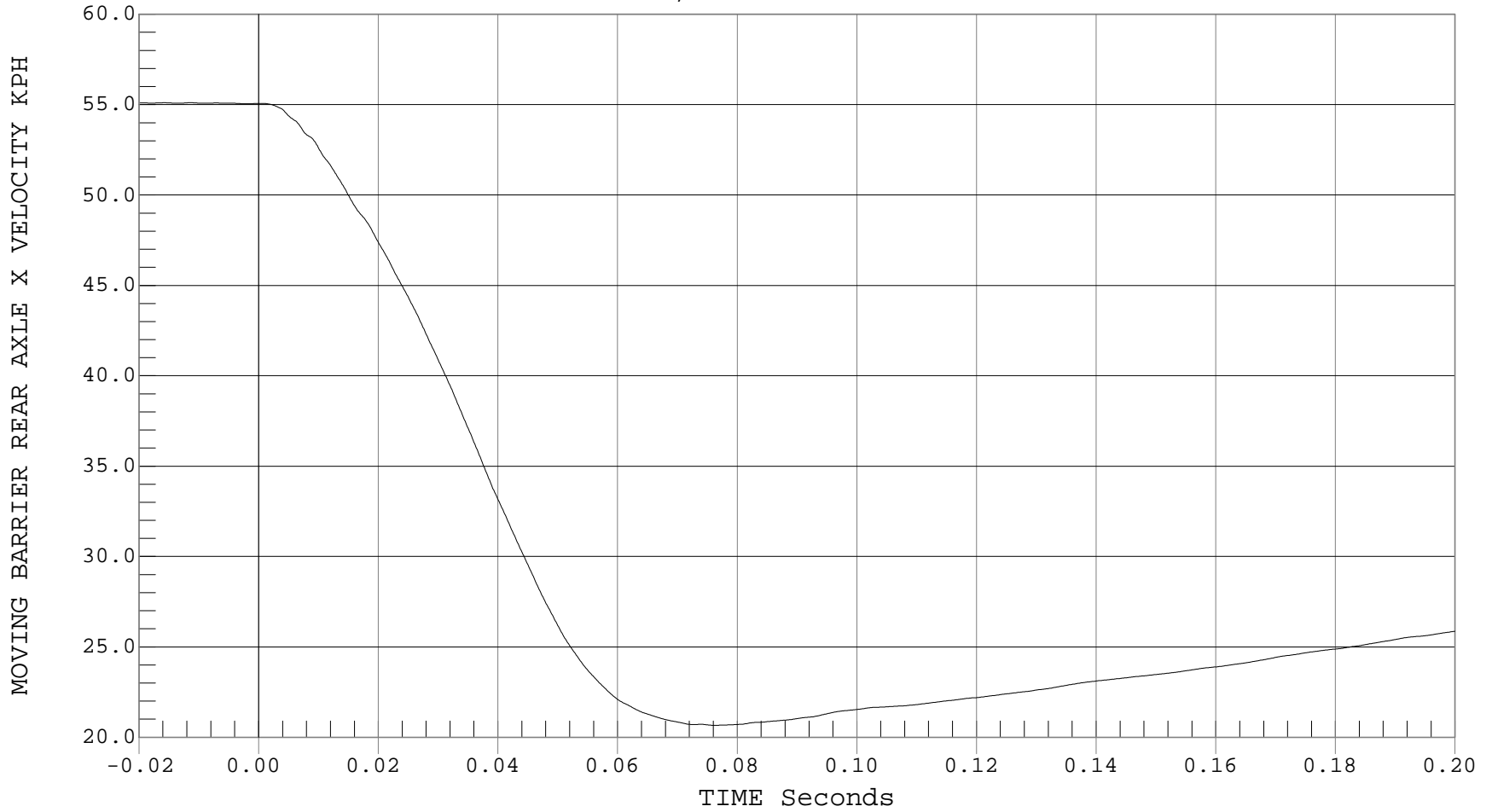
MOVING BARRIER REAR AXLE X VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 MOVING BARRIER REAR AXLE X VELOCITY, C00090AI.V05

Ymin = 20.66 KPH @ 0.0763 Seconds, Ymax = 55.1 KPH @ -0.0114 Seconds





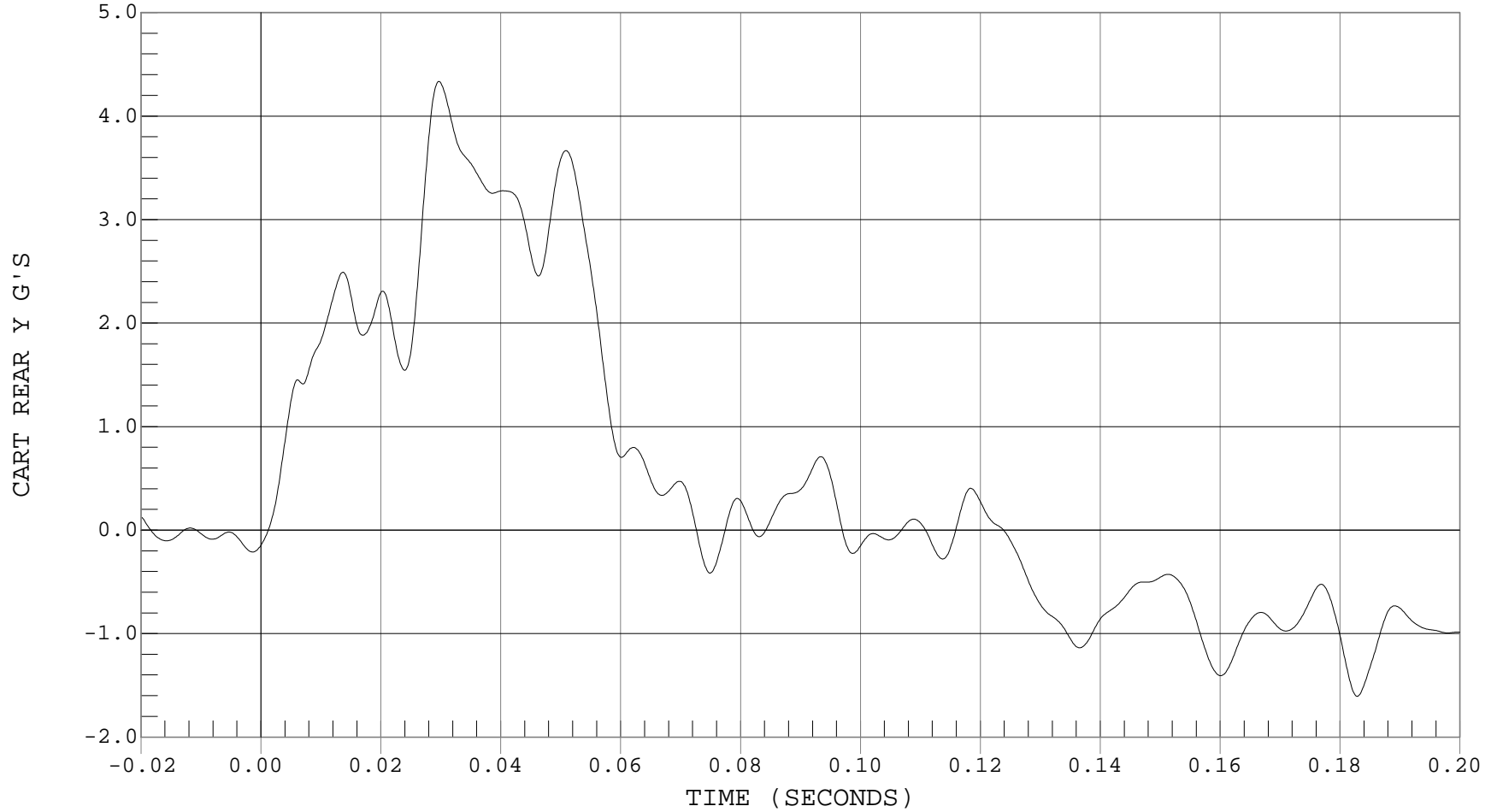
MOVING BARRIER REAR AXLE Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 60

— 1 CART REAR Y, C00090AF.A06

Ymin = -1.61 G'S @ 0.1829 SECONDS, Ymax = 4.33 G'S @ 0.0297 SECONDS





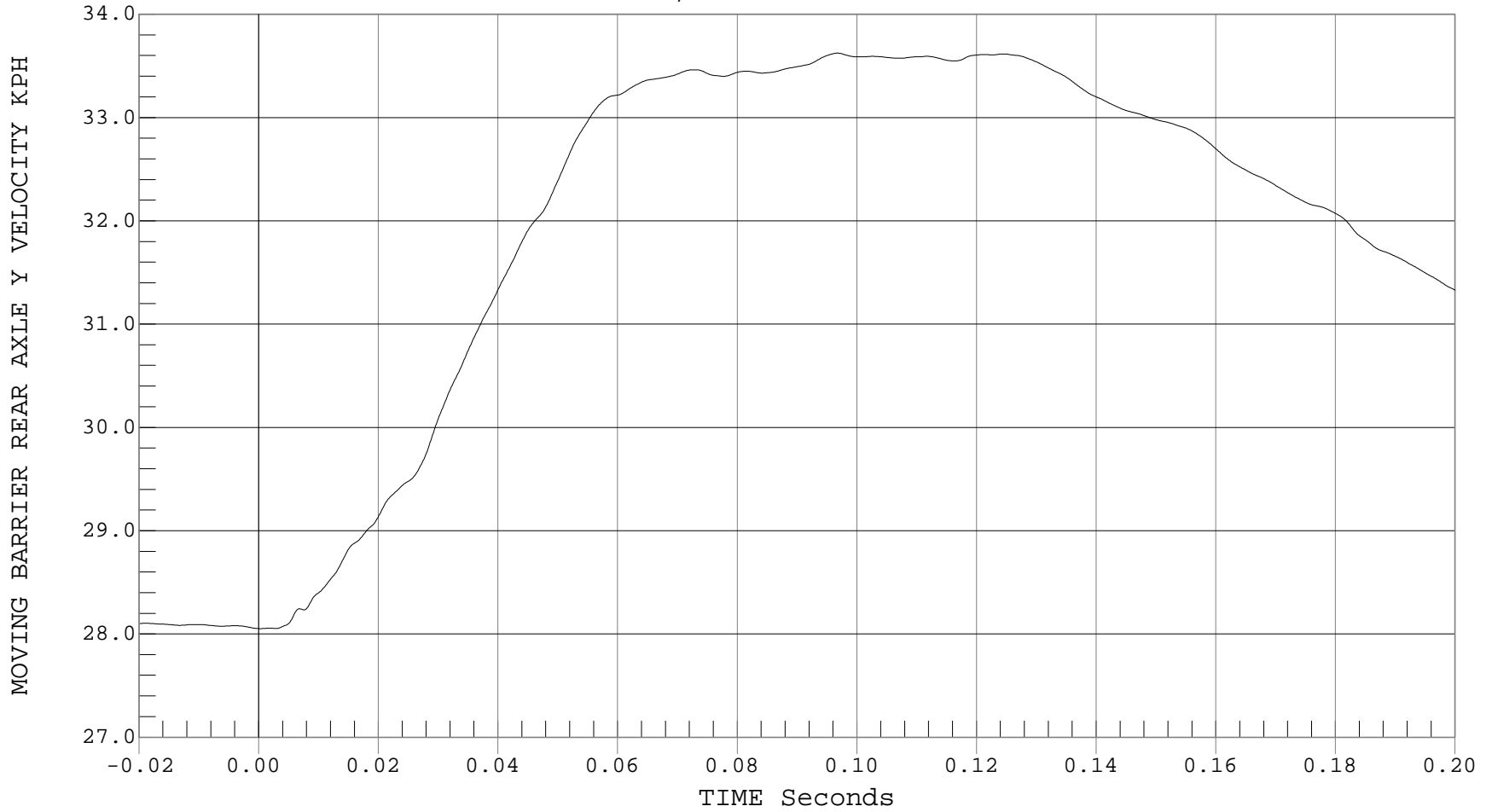
MOVING BARRIER REAR AXLE Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 MOVING BARRIER REAR AXLE Y VELOCITY, C00090AI.V06

Ymin = 28.05 KPH @ 0.0002 Seconds, Ymax = 33.62 KPH @ 0.0968 Seconds





LEFT BARRIER CONTACT

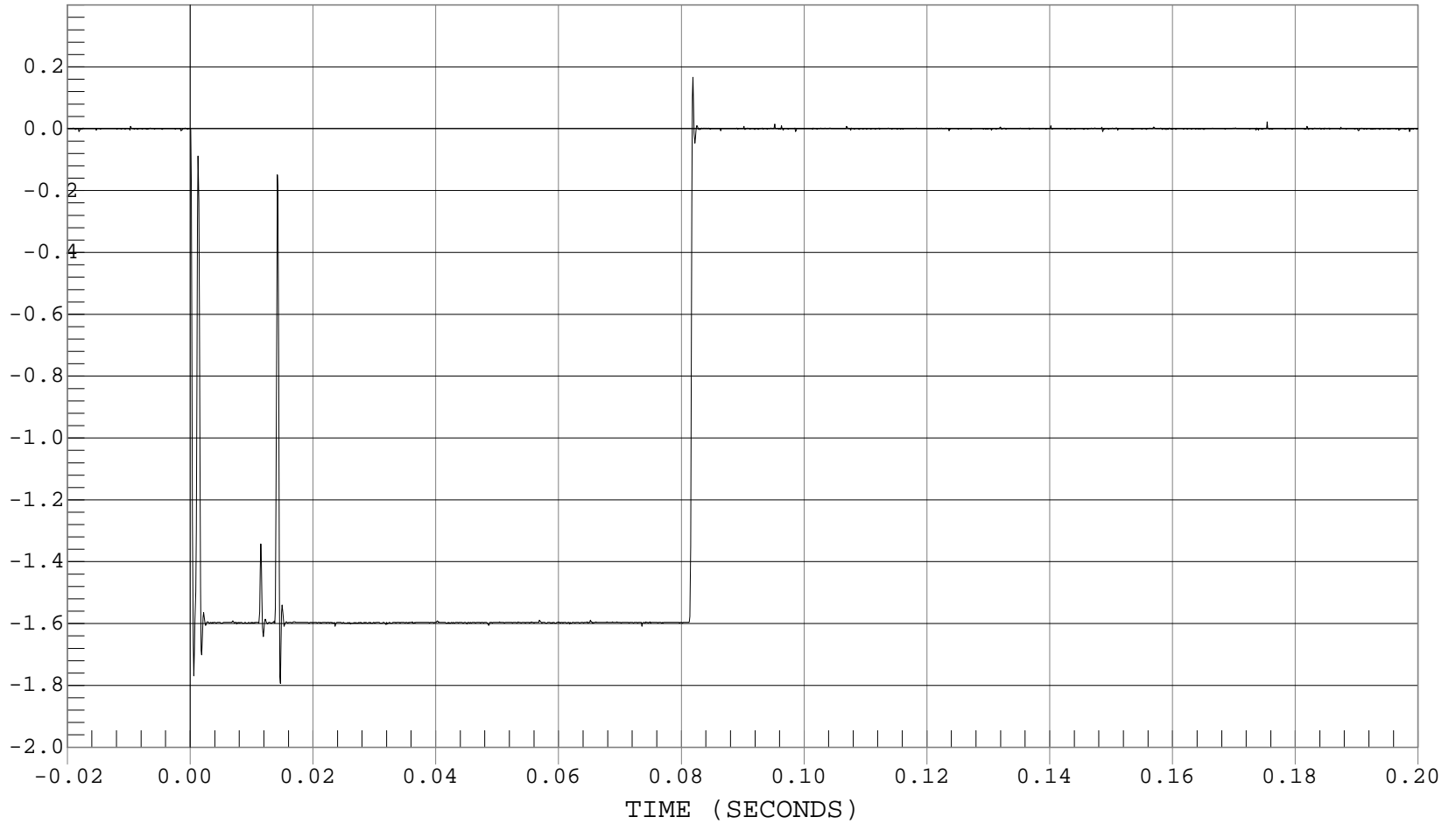
Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 0

— 1 LEFT BARRIER CONTACT, C000900T.009

Ymin = -1.79 VOLTS @ 0.0147 SECONDS, Ymax = .17 VOLTS @ 0.0819 SECONDS

LEFT BARRIER CONTACT VOLTS





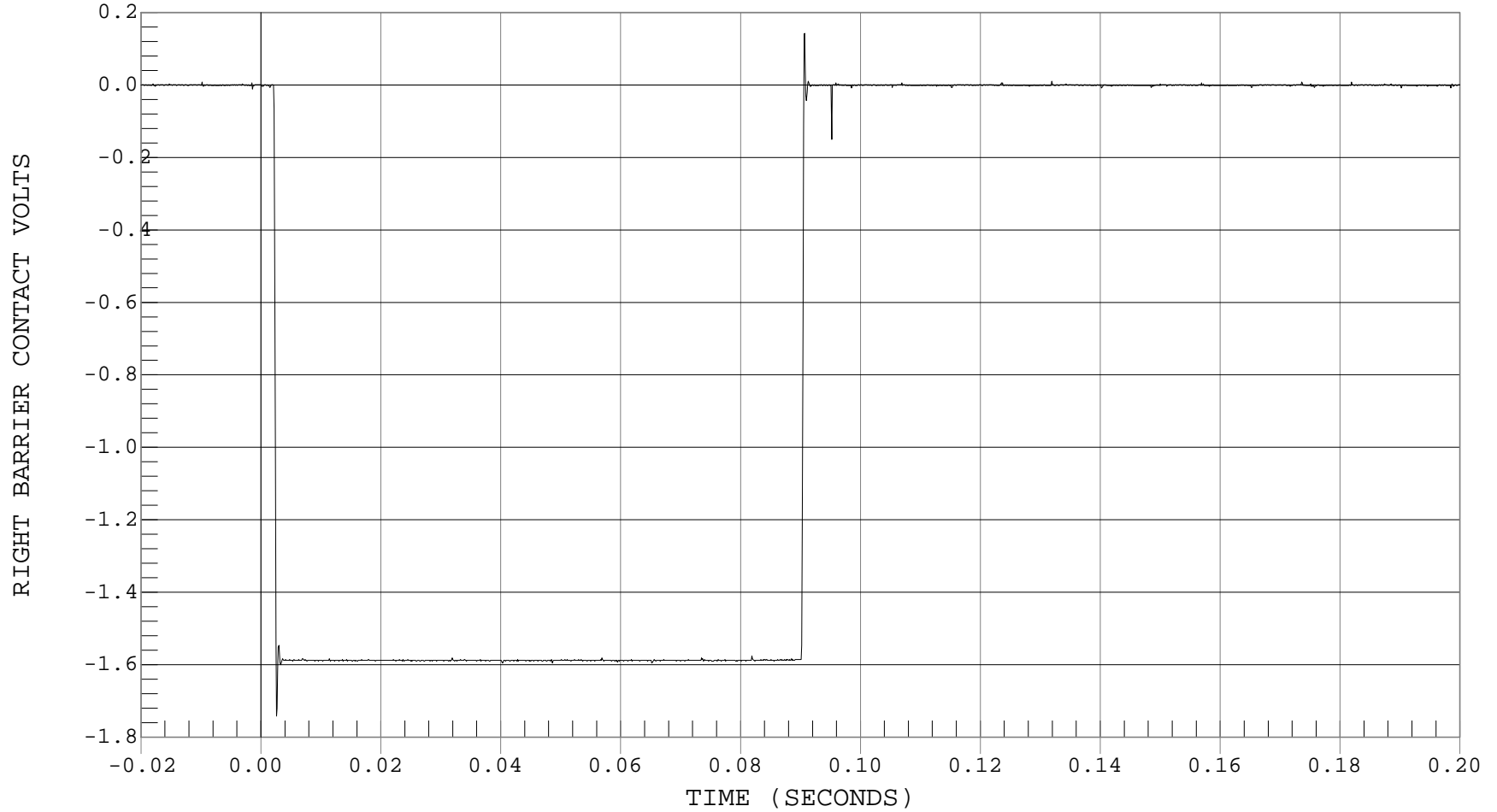
RIGHT BARRIER CONTACT

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 0

— 1 RIGHT BARRIER CONTACT, C000900T.010

Ymin = -1.74 VOLTS @ 0.0026 SECONDS, Ymax = .14 VOLTS @ 0.0907 SECONDS





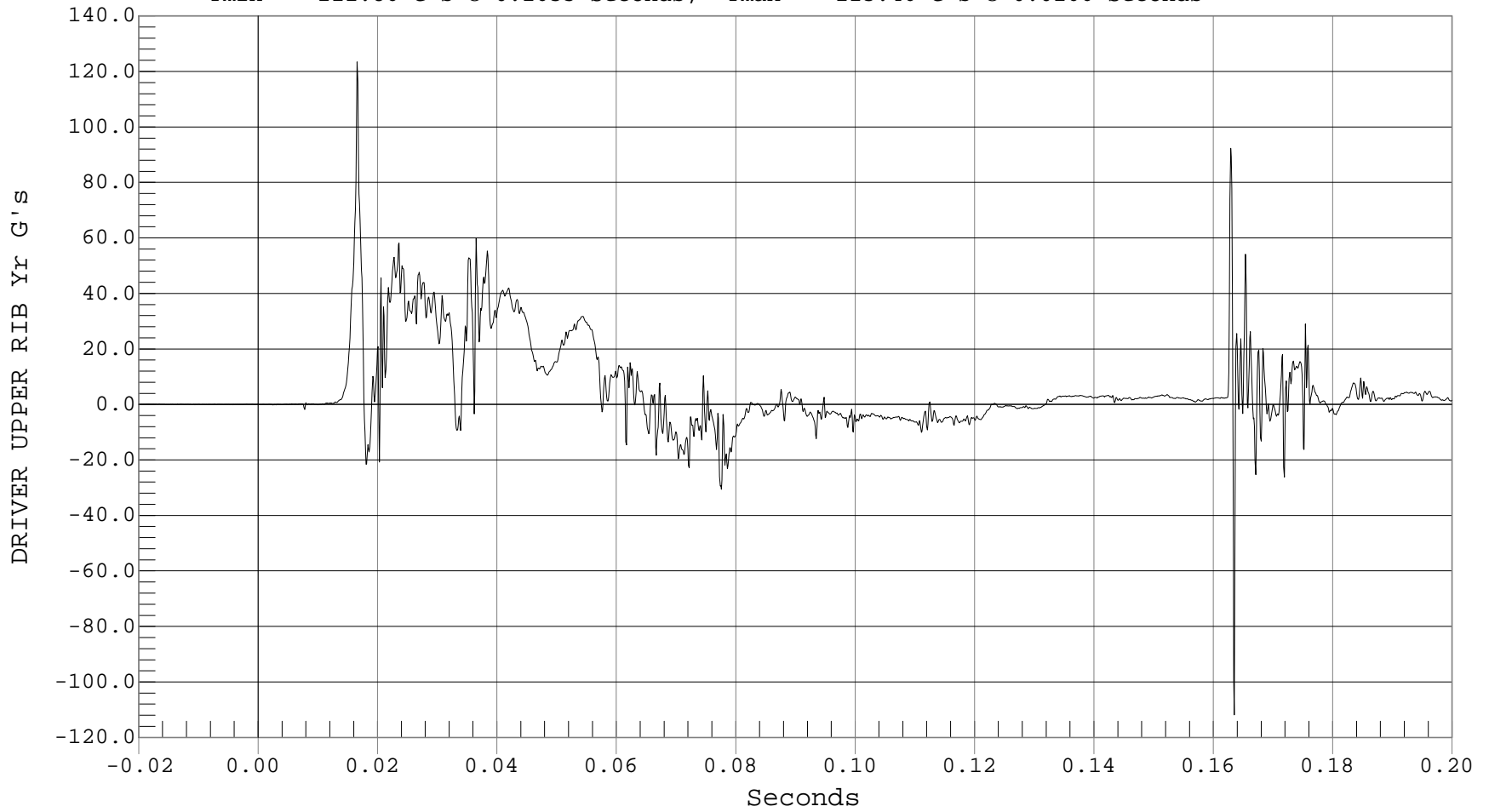
DRIVER UPPER RIB REDUNDANT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 DRIVER UPPER RIB Yr, B00090AT.A41

Ymin = -111.86 G's @ 0.1635 Seconds, Ymax = 123.46 G's @ 0.0166 Seconds



B-99



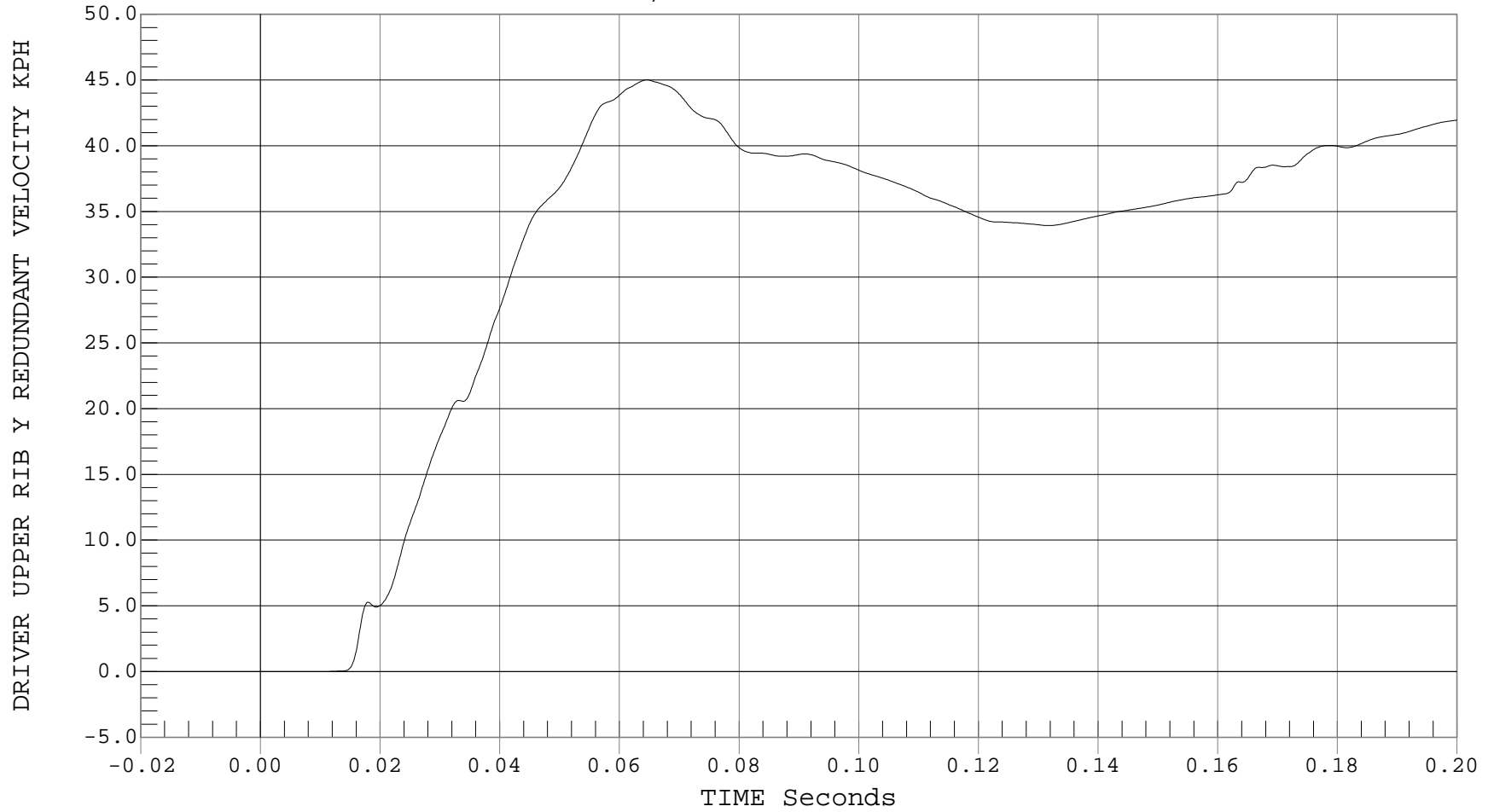
DRIVER UPPER RIB REDUNDANT Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 DRIVER UPPER RIB Y REDUNDANT VELOCITY, B00090AI.V41

Ymin = -.01 KPH @ 0.0043 Seconds, Ymax = 45.01 KPH @ 0.0646 Seconds





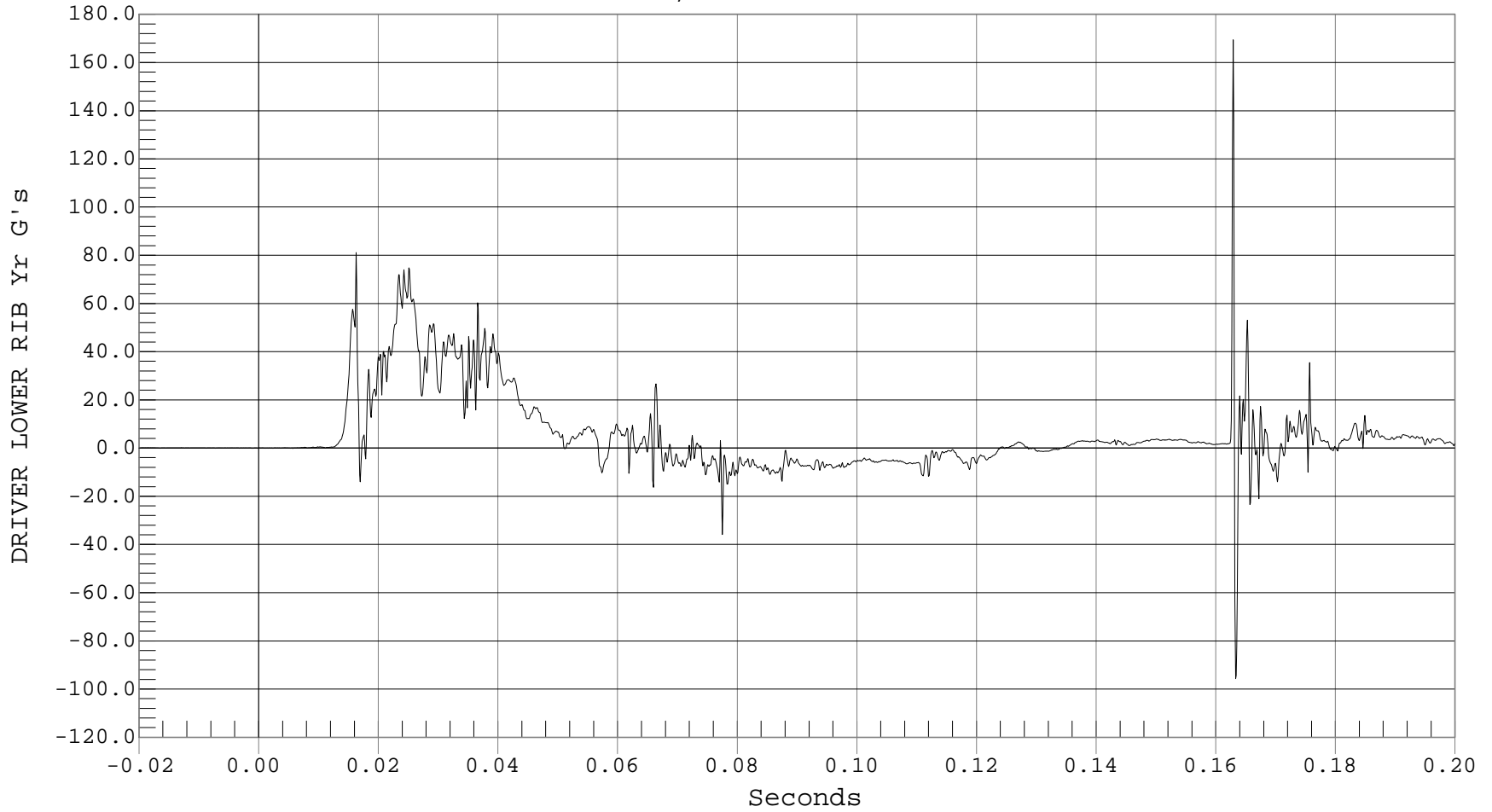
DRIVER LOWER RIB REDUNDANT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 DRIVER LOWER RIB Yr, B00090AT.A42

Ymin = -95.68 G's @ 0.1633 Seconds, Ymax = 169.41 G's @ 0.1629 Seconds





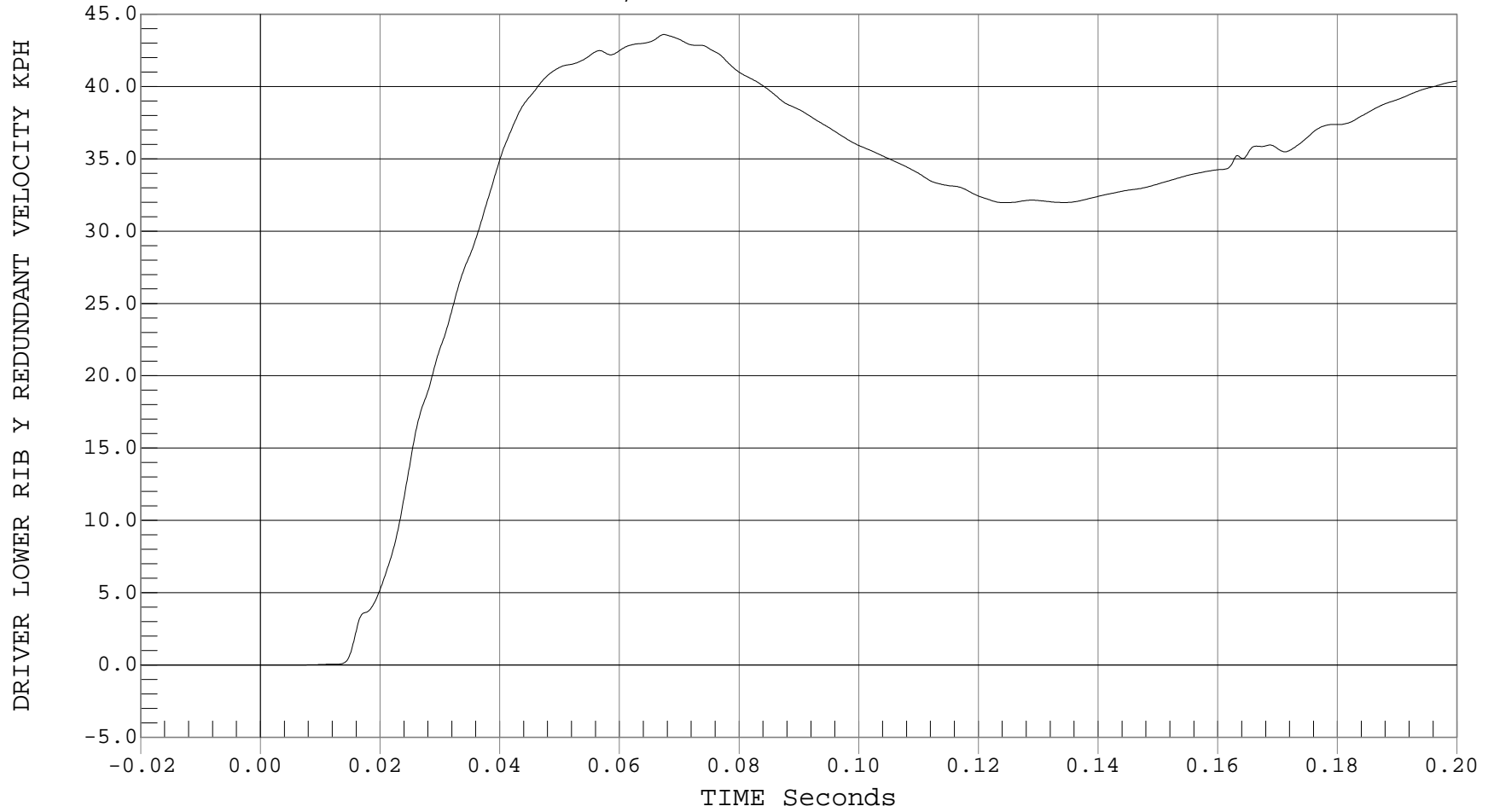
DRIVER LOWER RIB REDUNDANT Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 DRIVER LOWER RIB Y REDUNDANT VELOCITY, B00090AI.V42

Ymin = 0 KPH @ 0.0042 Seconds, Ymax = 43.6 KPH @ 0.0674 Seconds





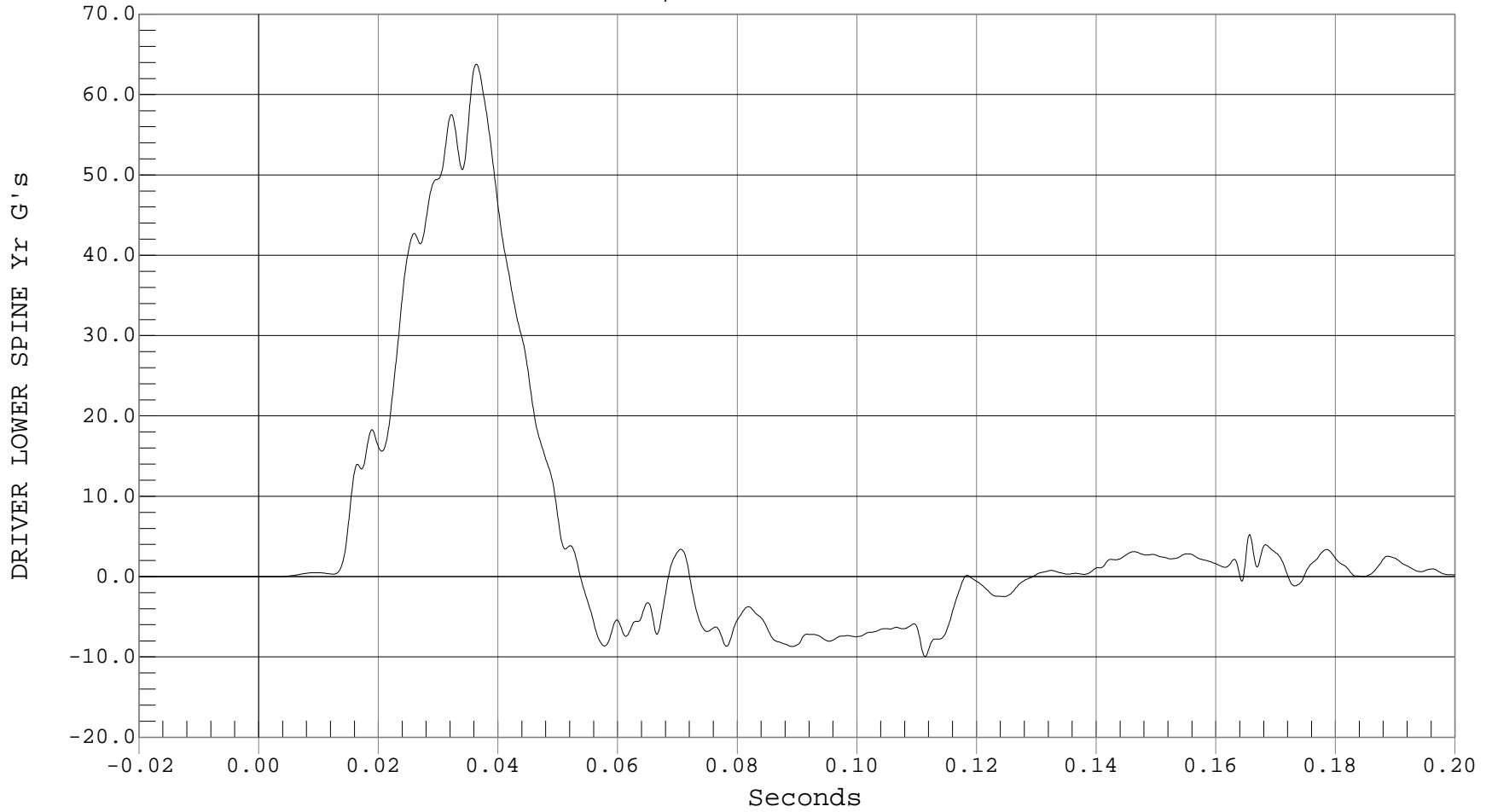
DRIVER LOWER SPINE REDUNDANT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 DRIVER LOWER SPINE Yr, B00090AF.A43

Ymin = -9.96 G's @ 0.1114 Seconds, Ymax = 63.79 G's @ 0.0364 Seconds





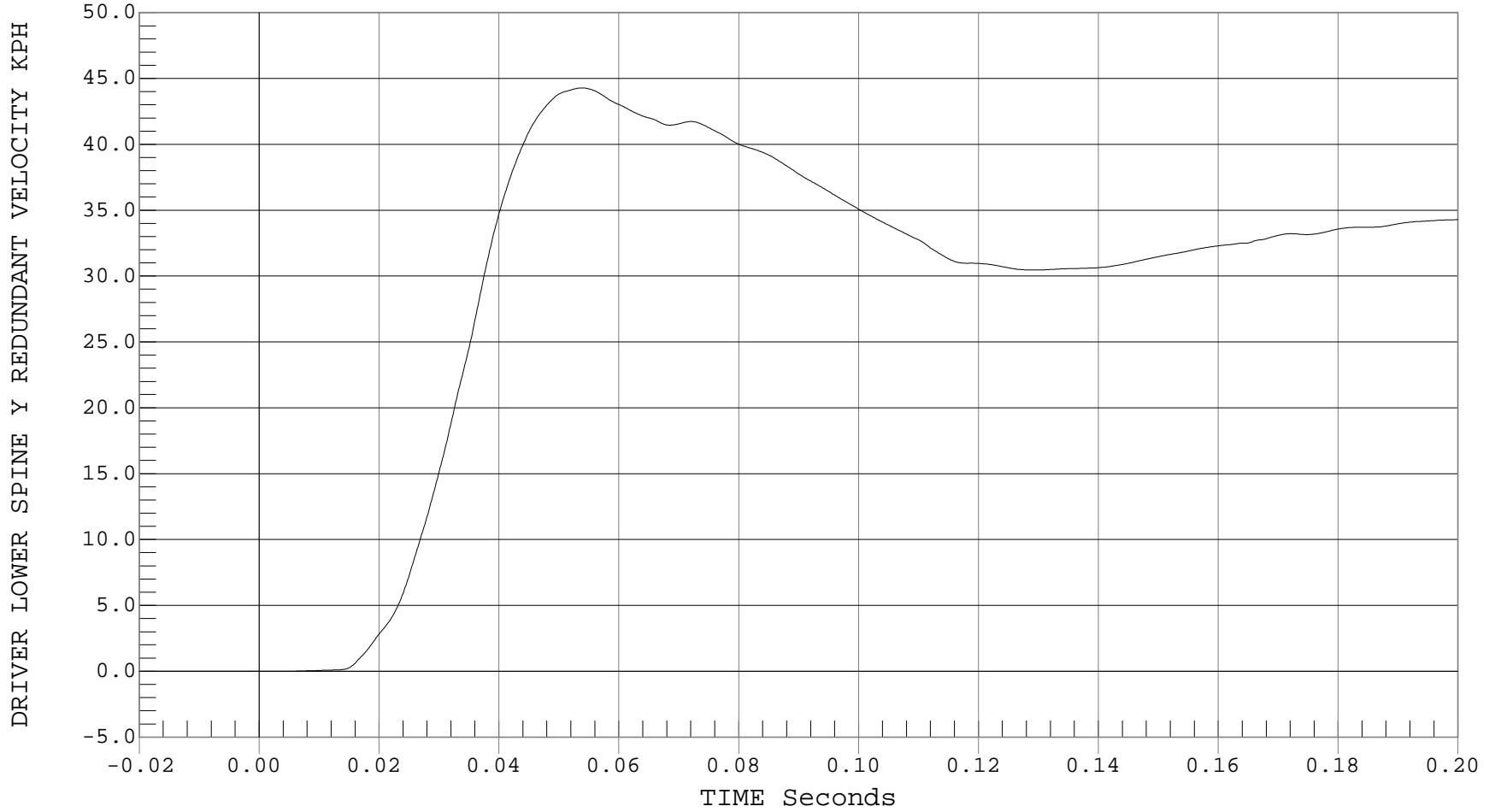
DRIVER LOWER SPINE REDUNDANT Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 DRIVER LOWER SPINE Y REDUNDANT VELOCITY, B00090AI.V43

Ymin = 0 KPH @ -0.0198 Seconds, Ymax = 44.28 KPH @ 0.0538 Seconds





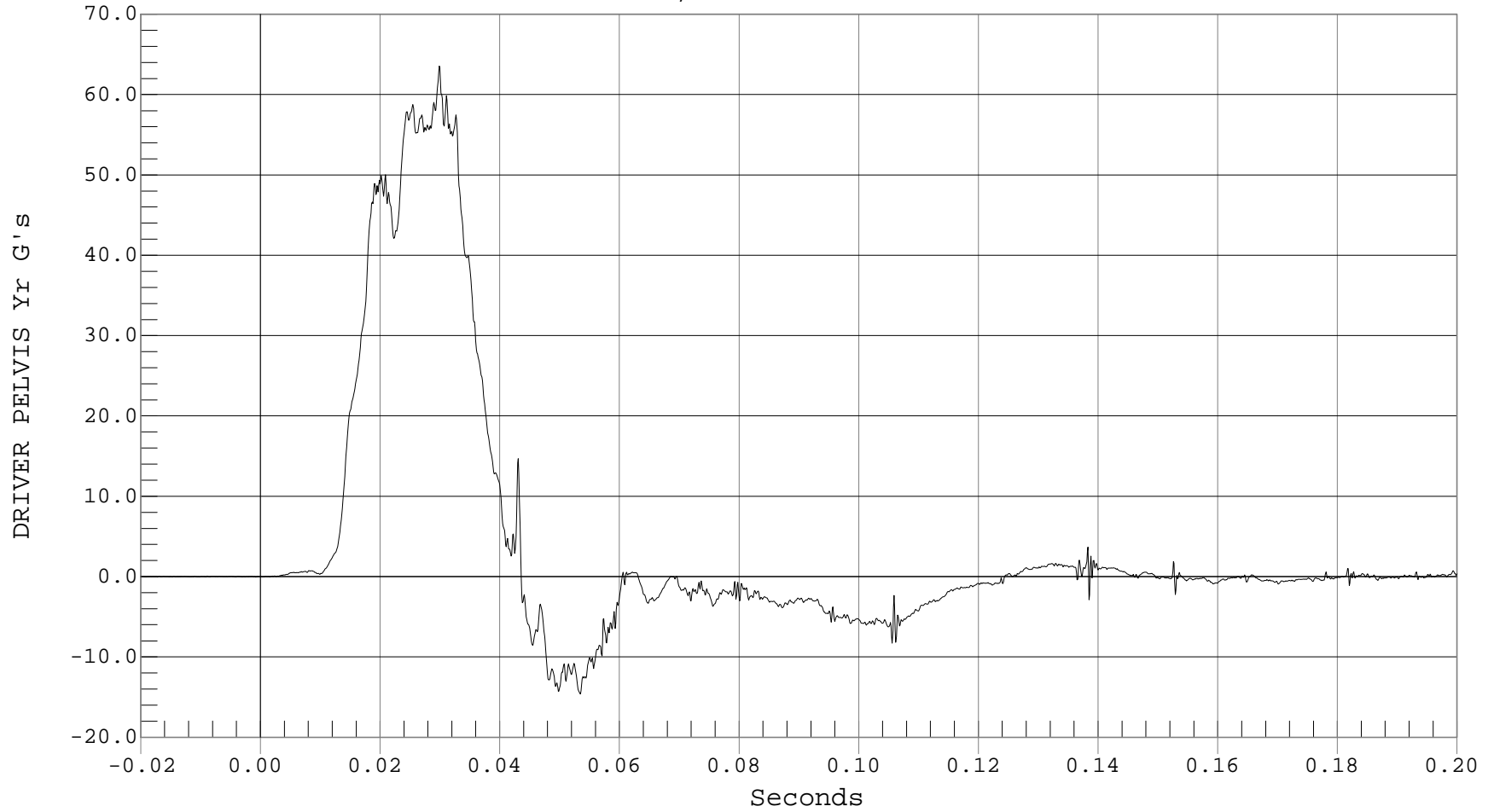
DRIVER PELVIS REDUNDANT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 DRIVER PELVIS Yr, B00090AT.A44

Ymin = -14.62 G's @ 0.0535 Seconds, Ymax = 63.54 G's @ 0.0299 Seconds





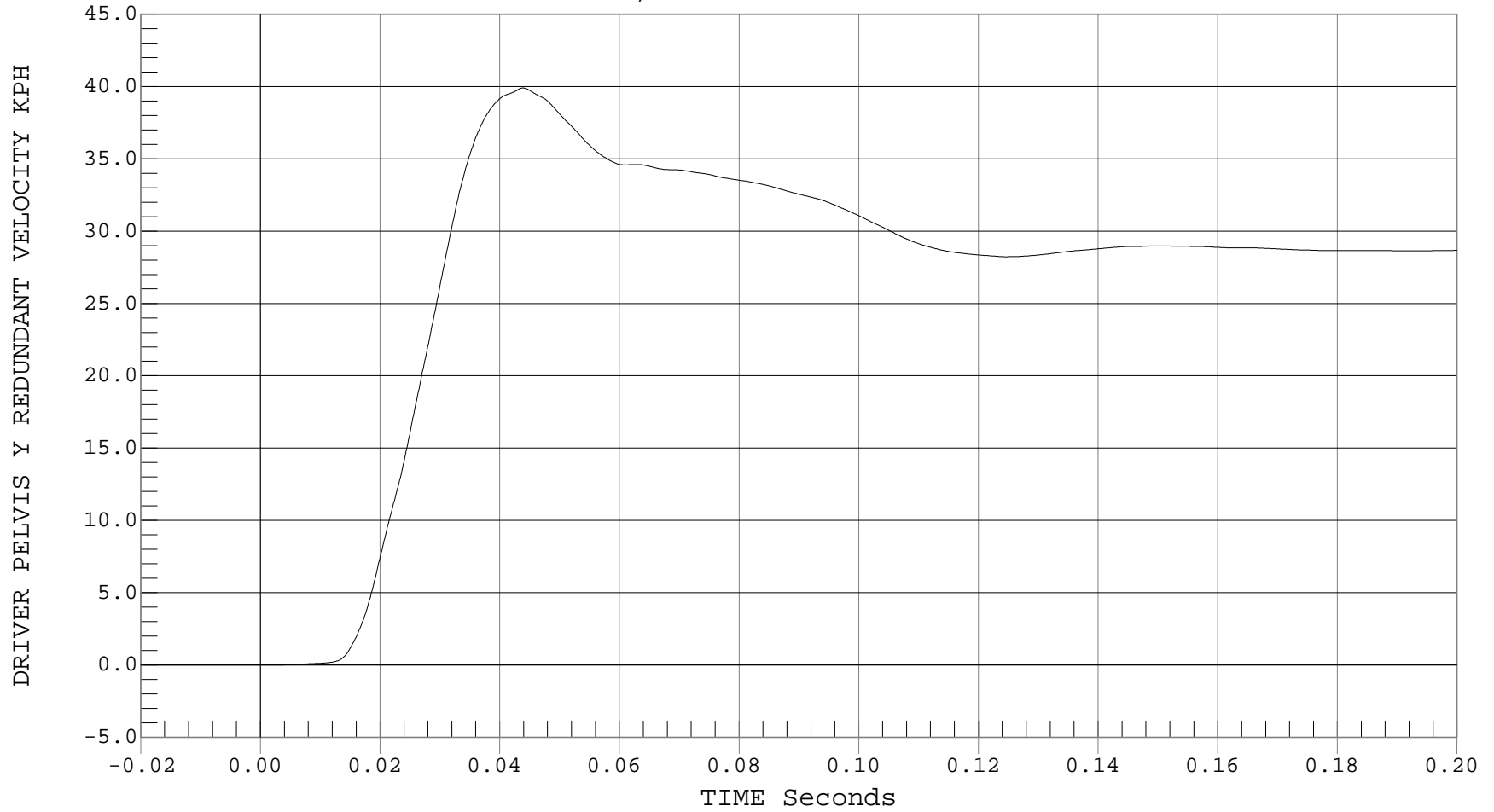
DRIVER PELVIS REDUNDANT Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 DRIVER PELVIS Y REDUNDANT VELOCITY, B00090AI.V44

Ymin = 0 KPH @ -0.0094 Seconds, Ymax = 39.9 KPH @ 0.0439 Seconds





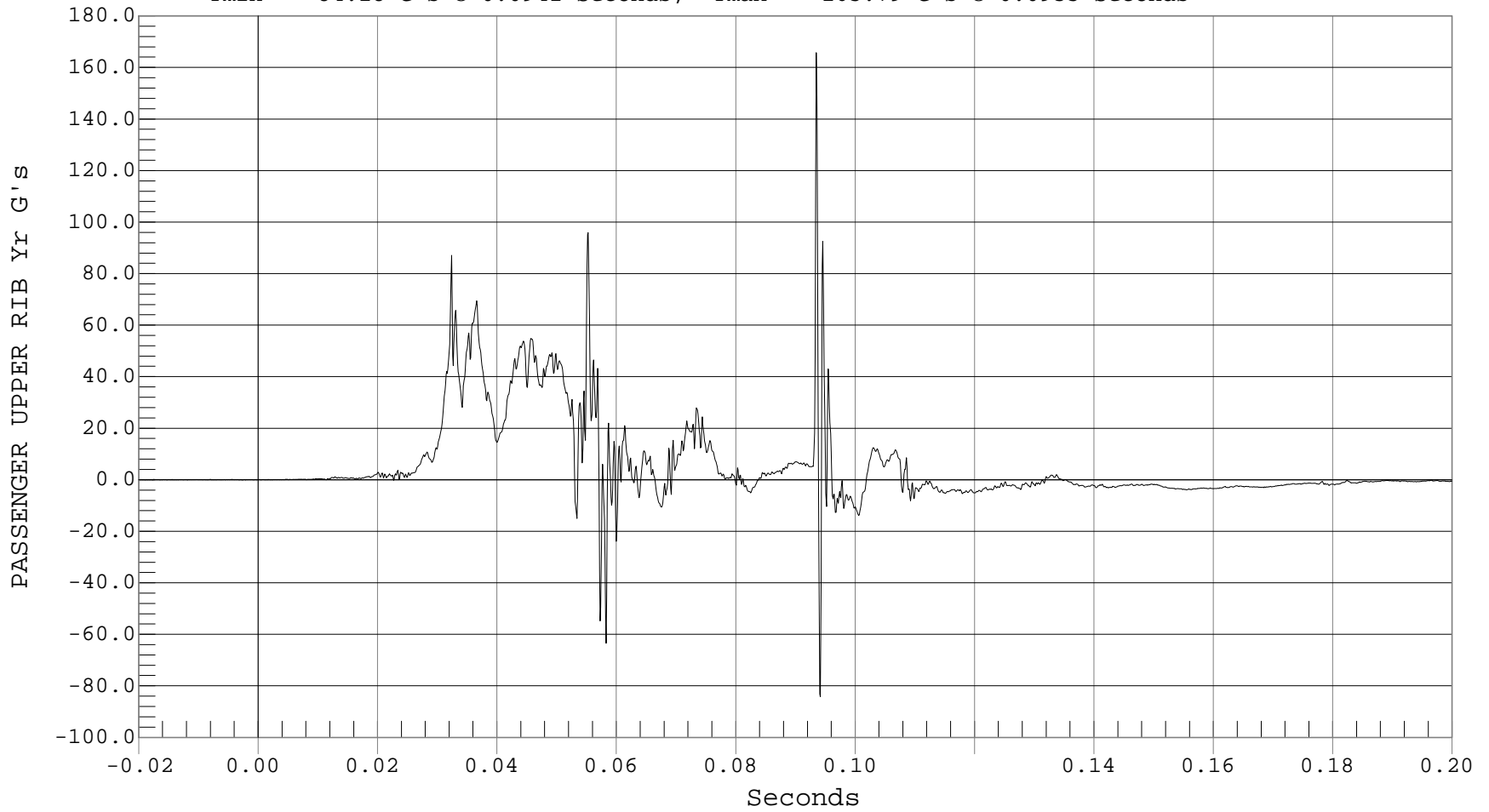
PASSENGER UPPER RIB REDUNDANT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 PASSENGER UPPER RIB Yr, B00090AT.A45

Ymin = -84.18 G's @ 0.0942 Seconds, Ymax = 165.79 G's @ 0.0935 Seconds





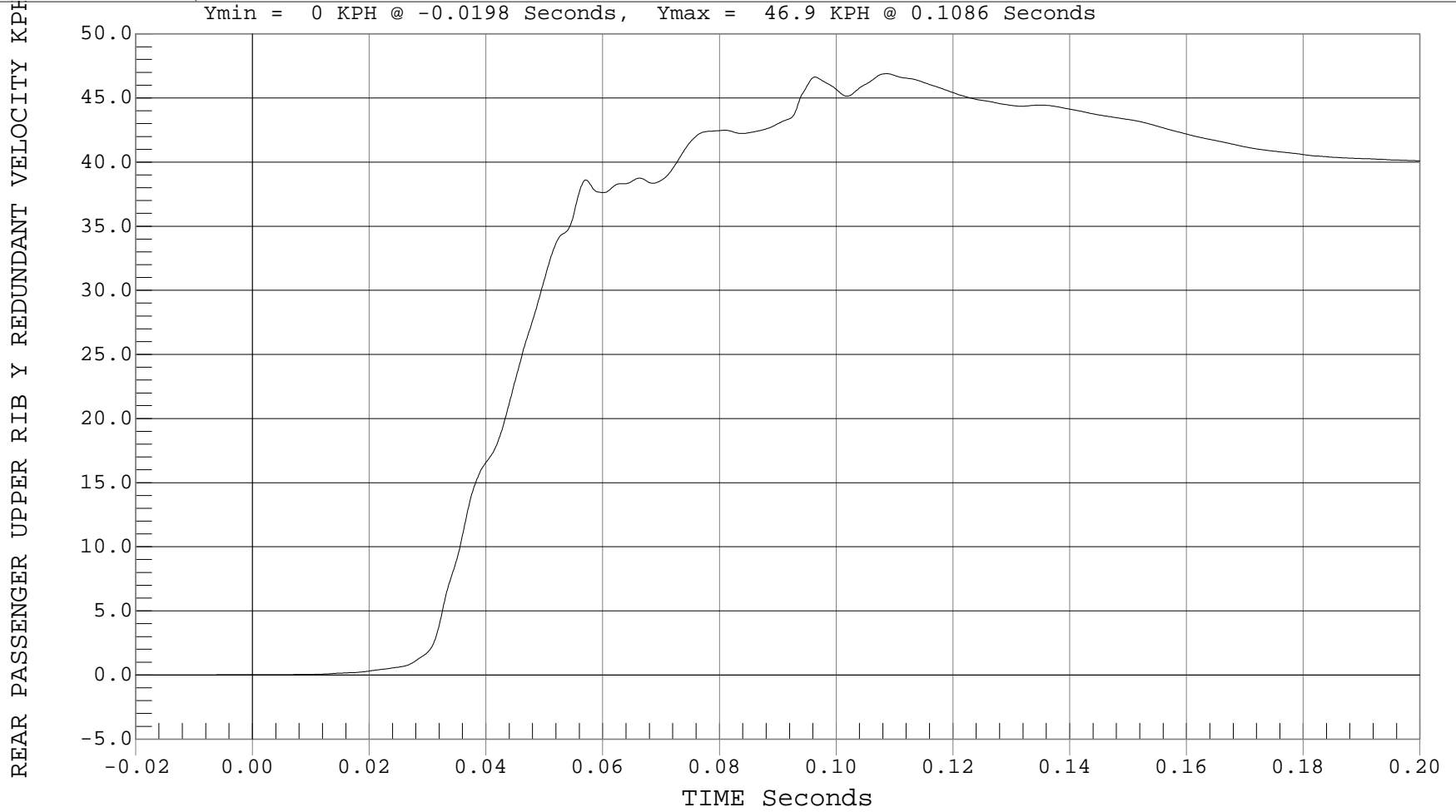
PASSENGER UPPER RIB REDUNDANT Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 REAR PASSENGER UPPER RIB Y REDUNDANT VELOCITY, B00090AI.V45

Ymin = 0 KPH @ -0.0198 Seconds, Ymax = 46.9 KPH @ 0.1086 Seconds





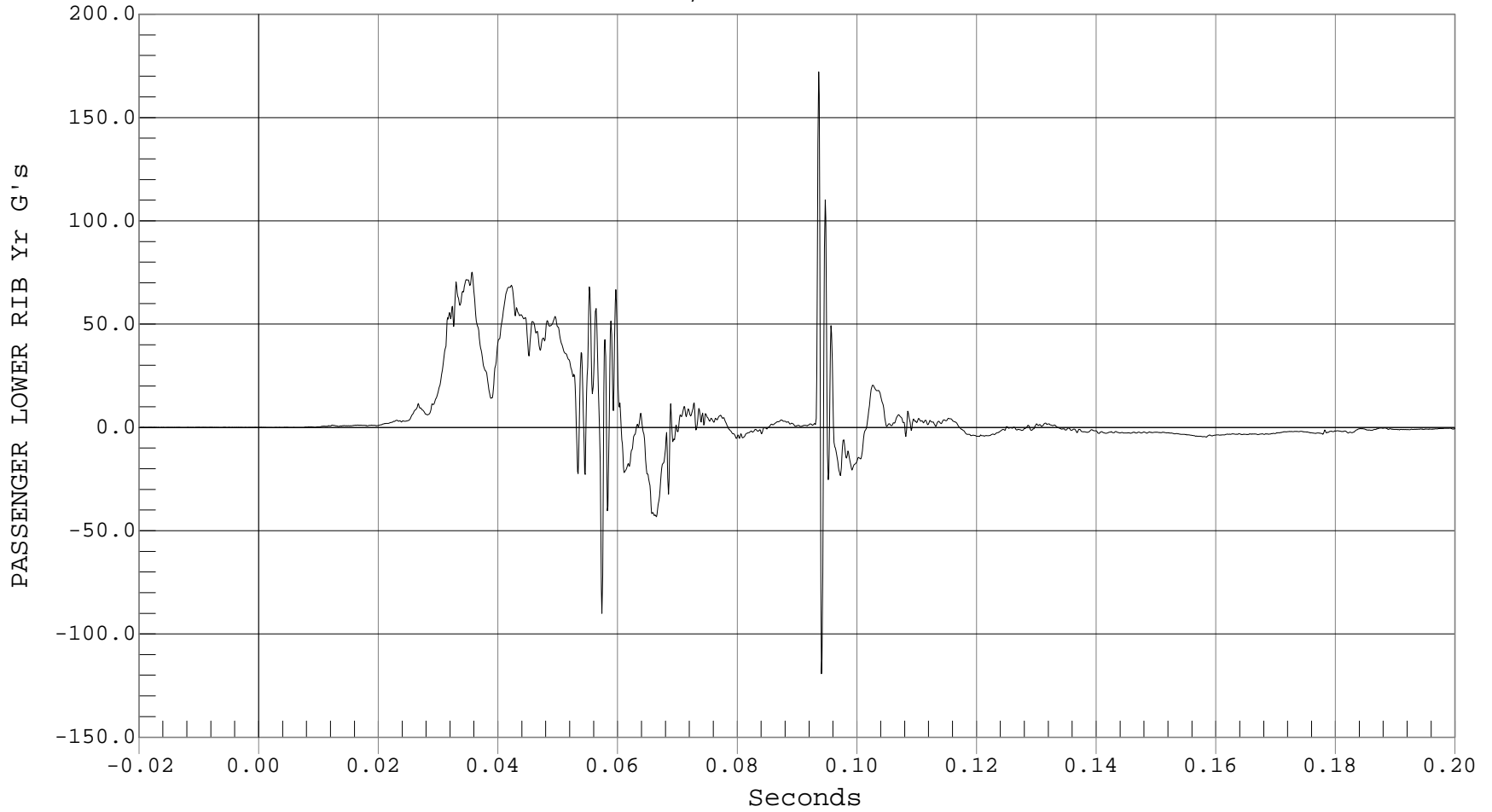
PASSENGER LOWER RIB REDUNDANT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 PASSENGER LOWER RIB Yr, B00090AT.A46

Ymin = -119.35 G's @ 0.0941 Seconds, Ymax = 172.13 G's @ 0.0936 Seconds





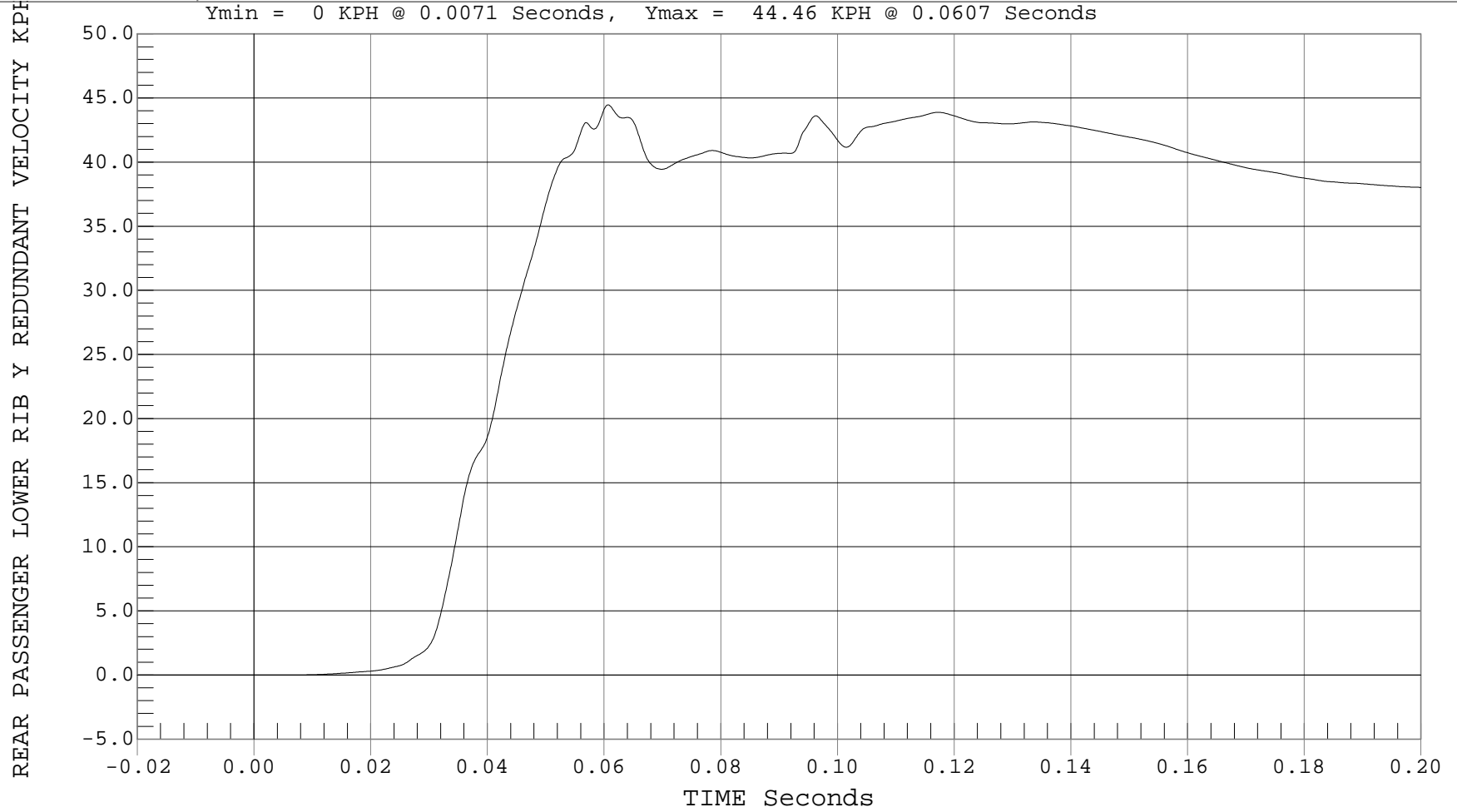
PASSENGER LOWER RIB REDUNDANT Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 REAR PASSENGER LOWER RIB Y REDUNDANT VELOCITY, B00090AI.V46

Ymin = 0 KPH @ 0.0071 Seconds, Ymax = 44.46 KPH @ 0.0607 Seconds



B-110



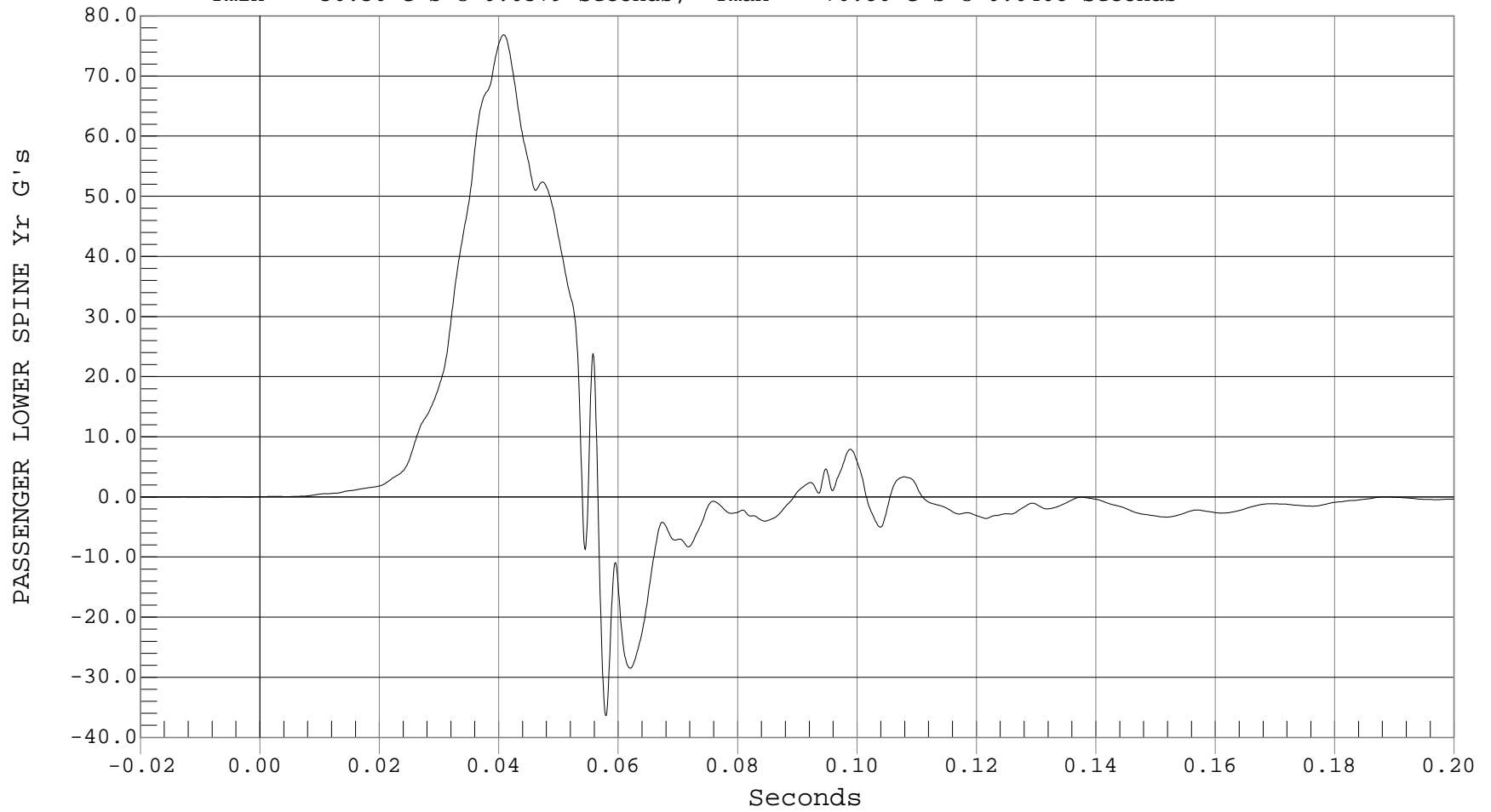
PASSENGER LOWER SPINE REDUNDANT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 PASSENGER LOWER SPINE Yr, B00090AF.A47

Ymin = -36.36 G's @ 0.0579 Seconds, Ymax = 76.86 G's @ 0.0408 Seconds





PASSENGER LOWER SPINE REDUNDANT Y VELOCITY

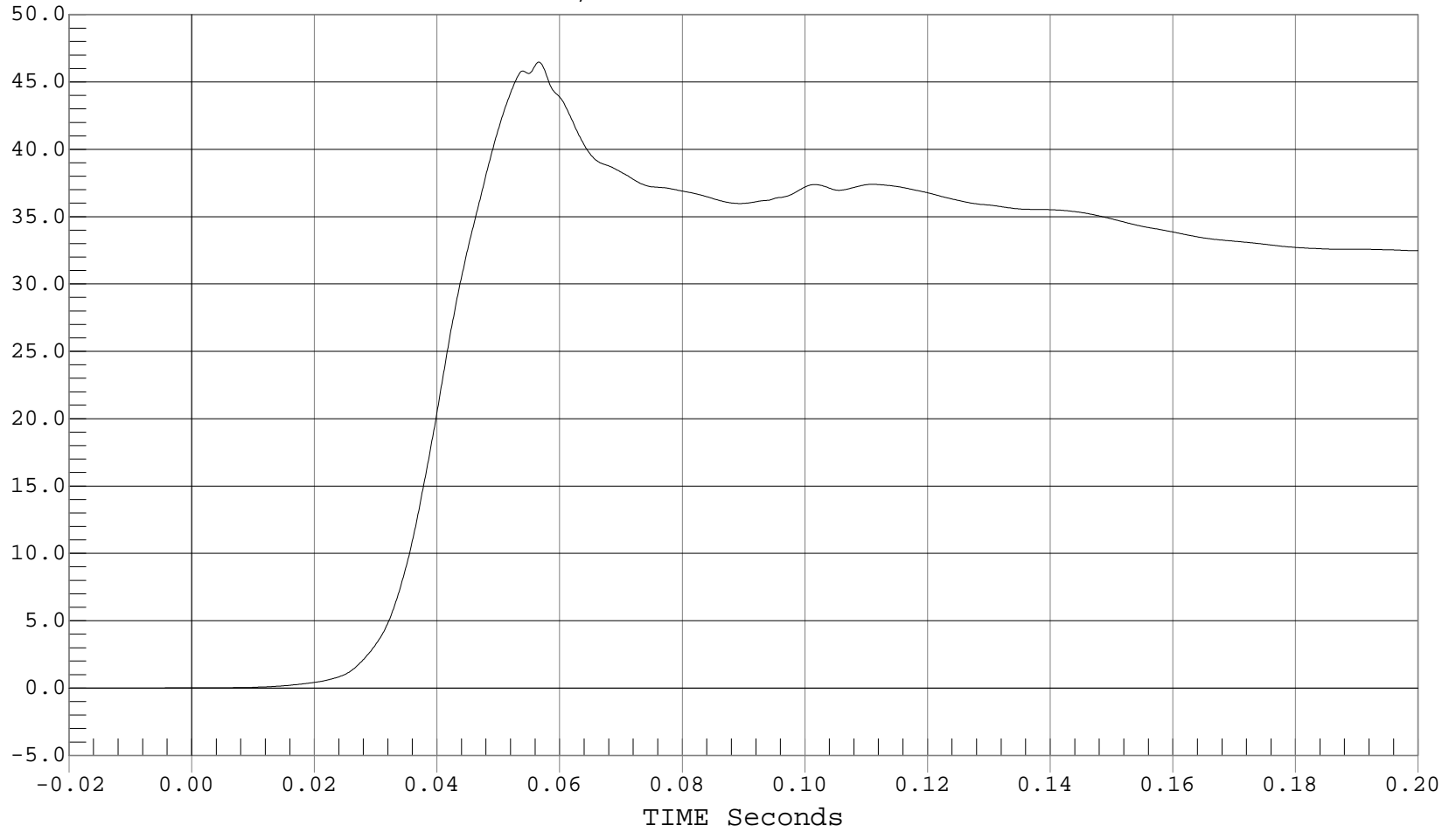
Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 REAR PASSENGER LOWER SPINE Y REDUNDANT VELOCITY, B00090AI.V47

REAR PASSENGER LOWER SPINE Y REDUNDANT VELOCITY KPH

Ymin = 0 KPH @ -0.0198 Seconds, Ymax = 46.48 KPH @ 0.0566 Seconds





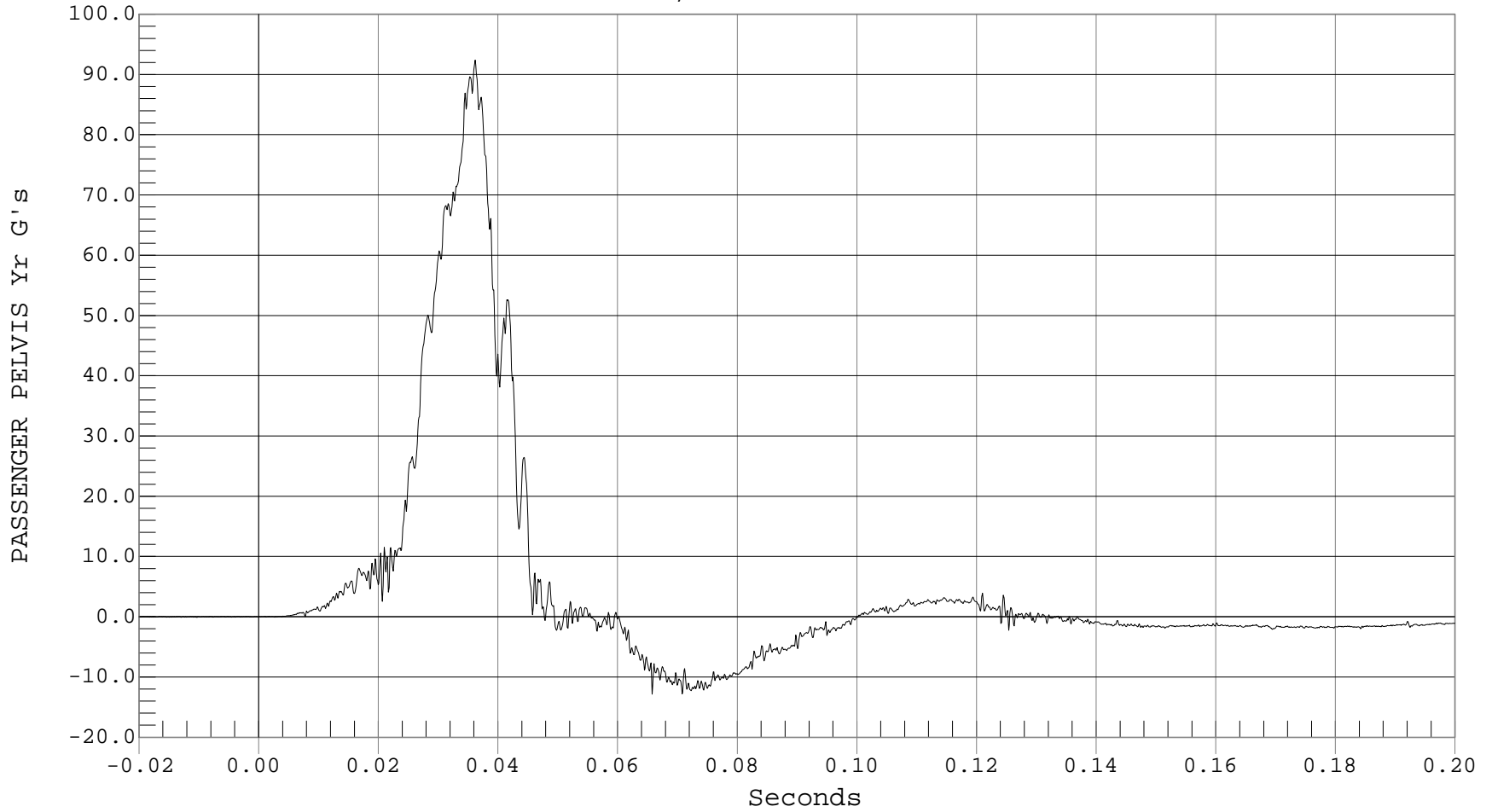
PASSENGER PELVIS REDUNDANT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 1000

— 1 PASSENGER PELVIS Yr, B00090AT.A48

Ymin = -12.88 G's @ 0.0658 Seconds, Ymax = 92.41 G's @ 0.0362 Seconds





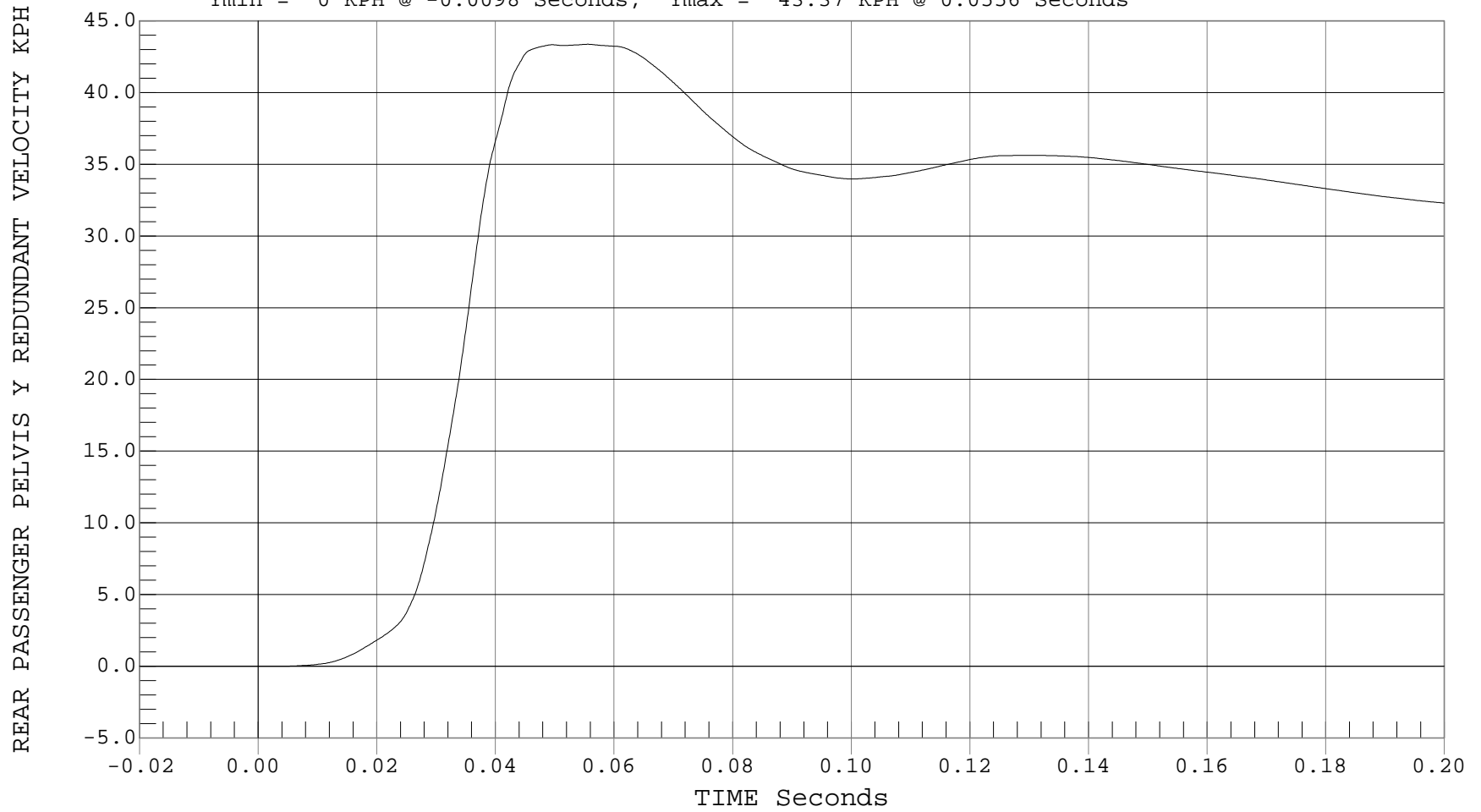
PASSENGER PELVIS REDUNDANT Y VELOCITY

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Filter Class: 180

— 1 REAR PASSENGER PELVIS Y REDUNDANT VELOCITY, B00090AI.V48

Ymin = 0 KPH @ -0.0098 Seconds, Ymax = 43.37 KPH @ 0.0556 Seconds





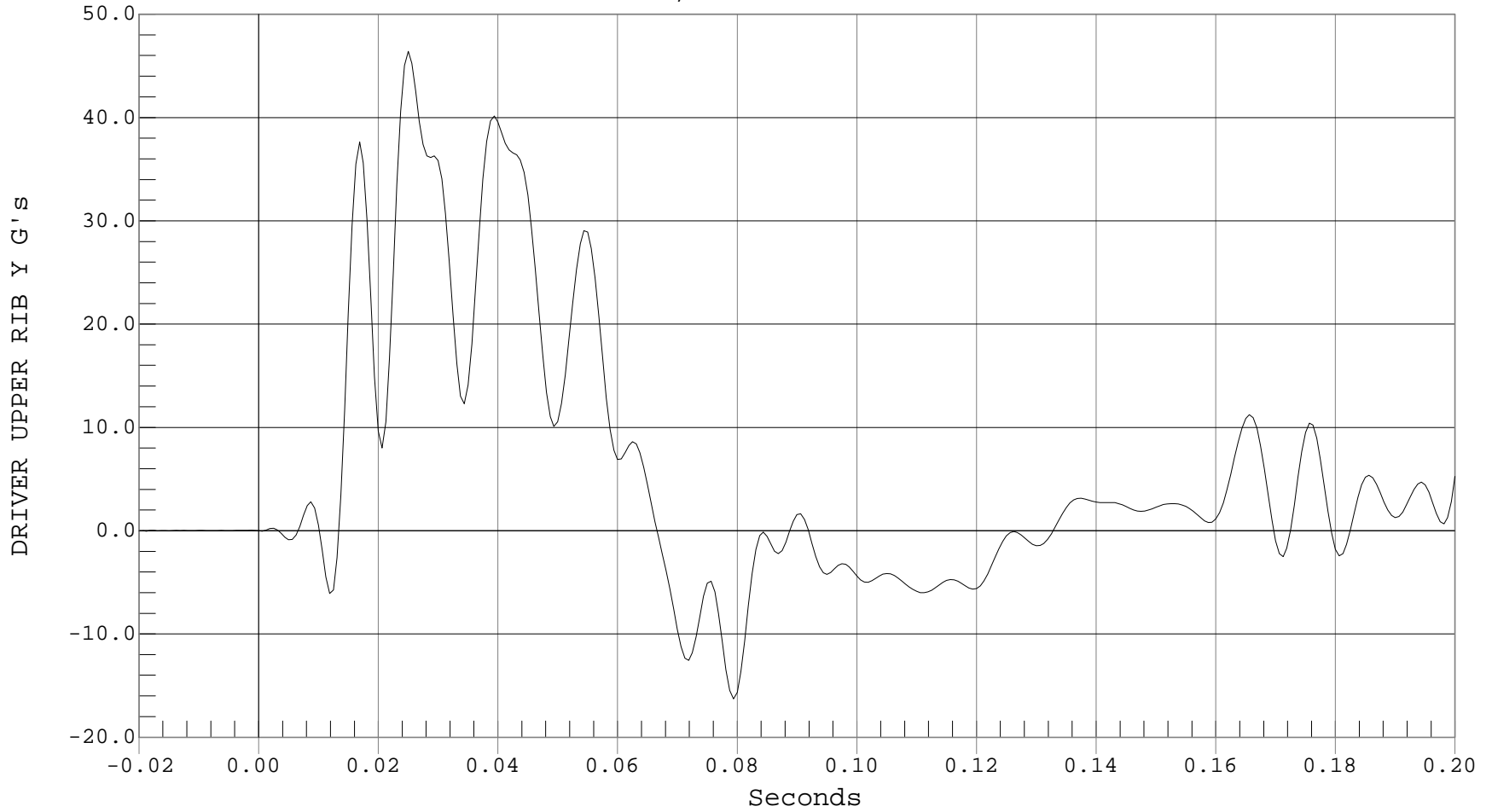
DRIVER UPPER RIB Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Fir Filtered

— 1 DRIVER UPPER RIB Y, B00090FI.R04

Ymin = -16.28 G's @ 0.0794 Seconds, Ymax = 46.42 G's @ 0.0250 Seconds





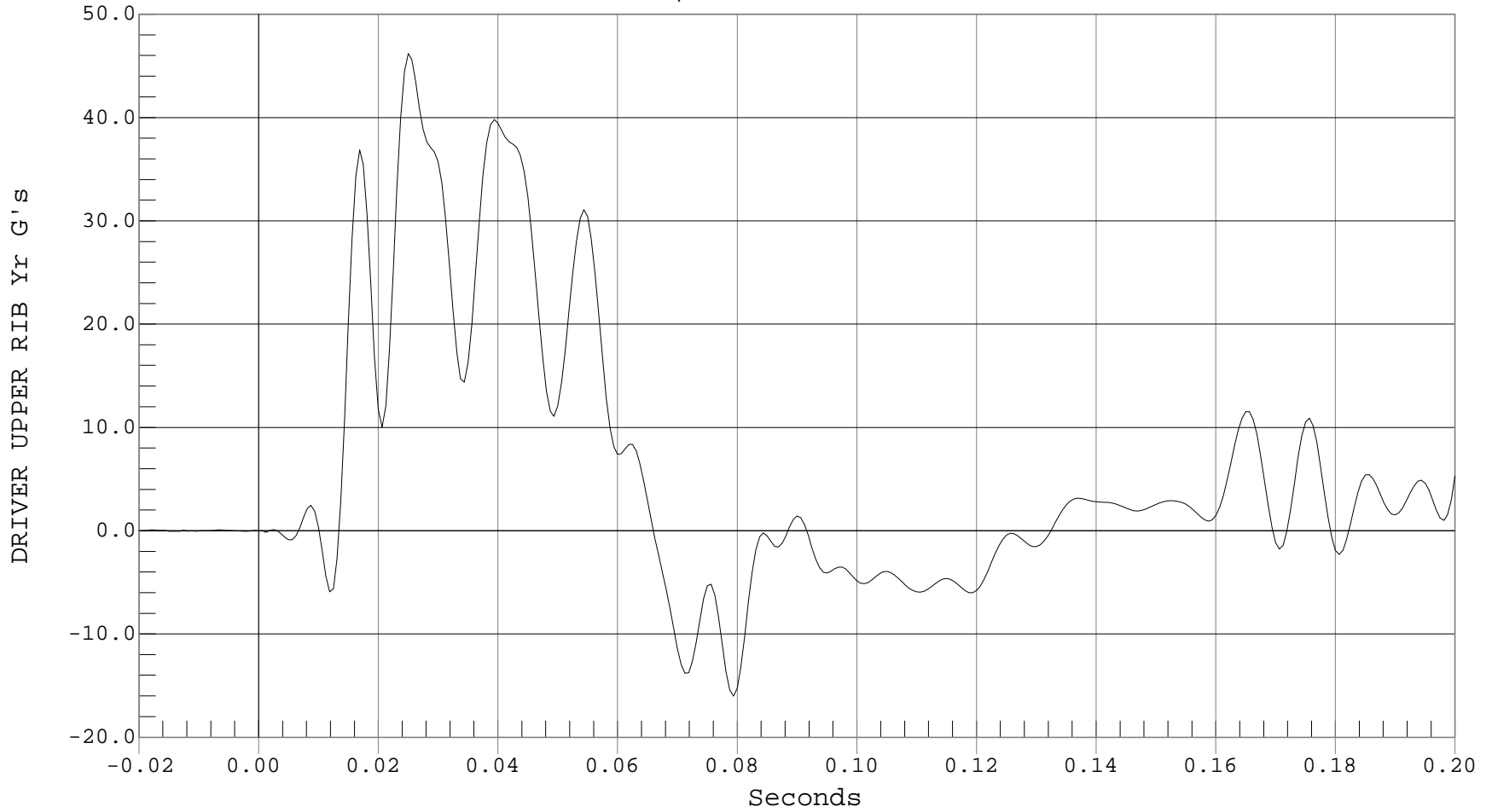
DRIVER UPPER RIB REDUNDANT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Fir Filtered

— 1 DRIVER UPPER RIB Yr, B00090FI.R41

Ymin = -16.02 G's @ 0.0794 Seconds, Ymax = 46.21 G's @ 0.0250 Seconds





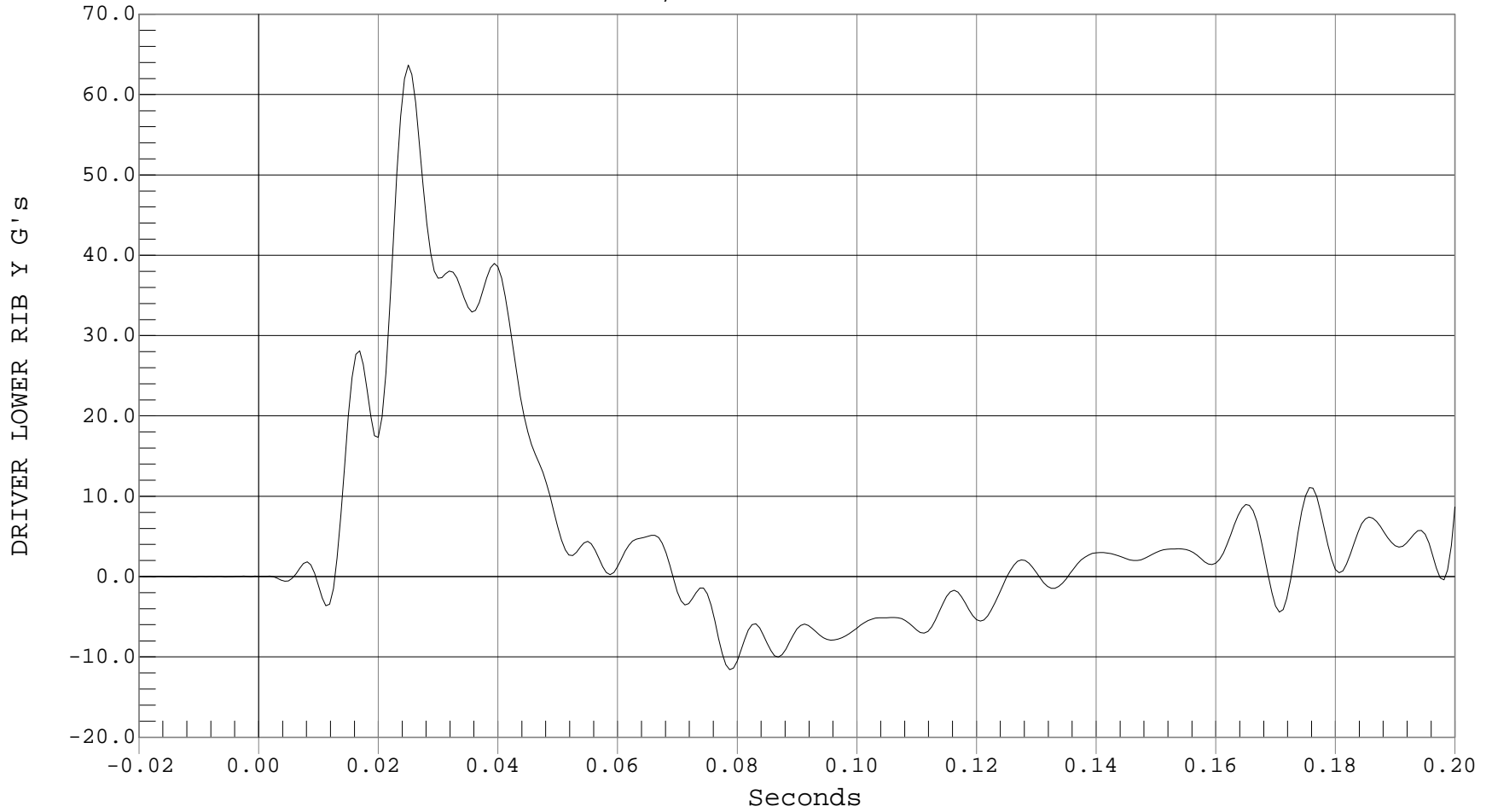
DRIVER LOWER RIB Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Fir Filtered

— 1 DRIVER LOWER RIB Y, B00090FI.R05

Ymin = -11.6 G's @ 0.0788 Seconds, Ymax = 63.67 G's @ 0.0250 Seconds





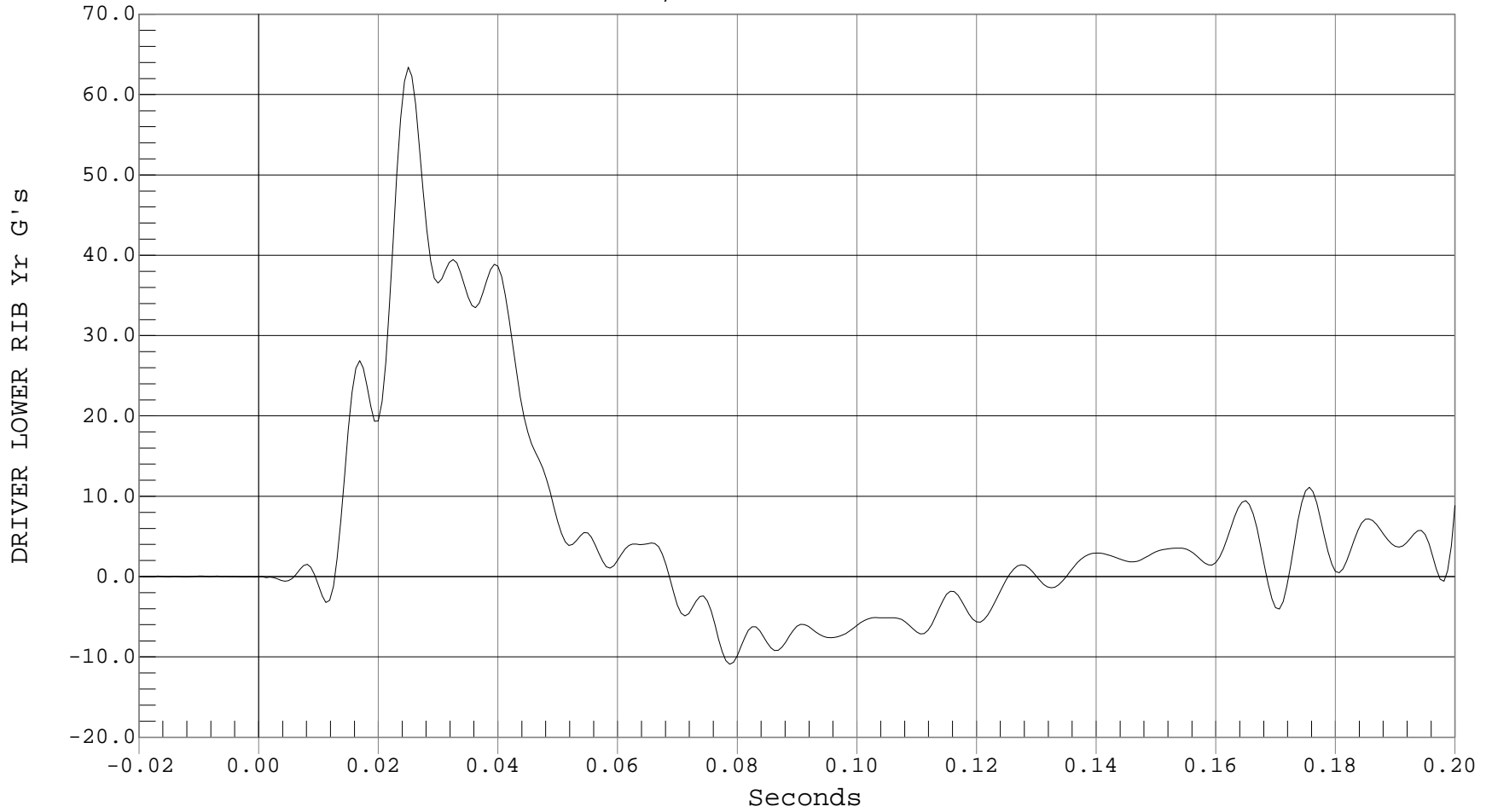
DRIVER LOWER RIB REDUNDANT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Fir Filtered

— 1 DRIVER LOWER RIB Yr, B00090FI.R42

Ymin = -10.9 G's @ 0.0788 Seconds, Ymax = 63.41 G's @ 0.0250 Seconds





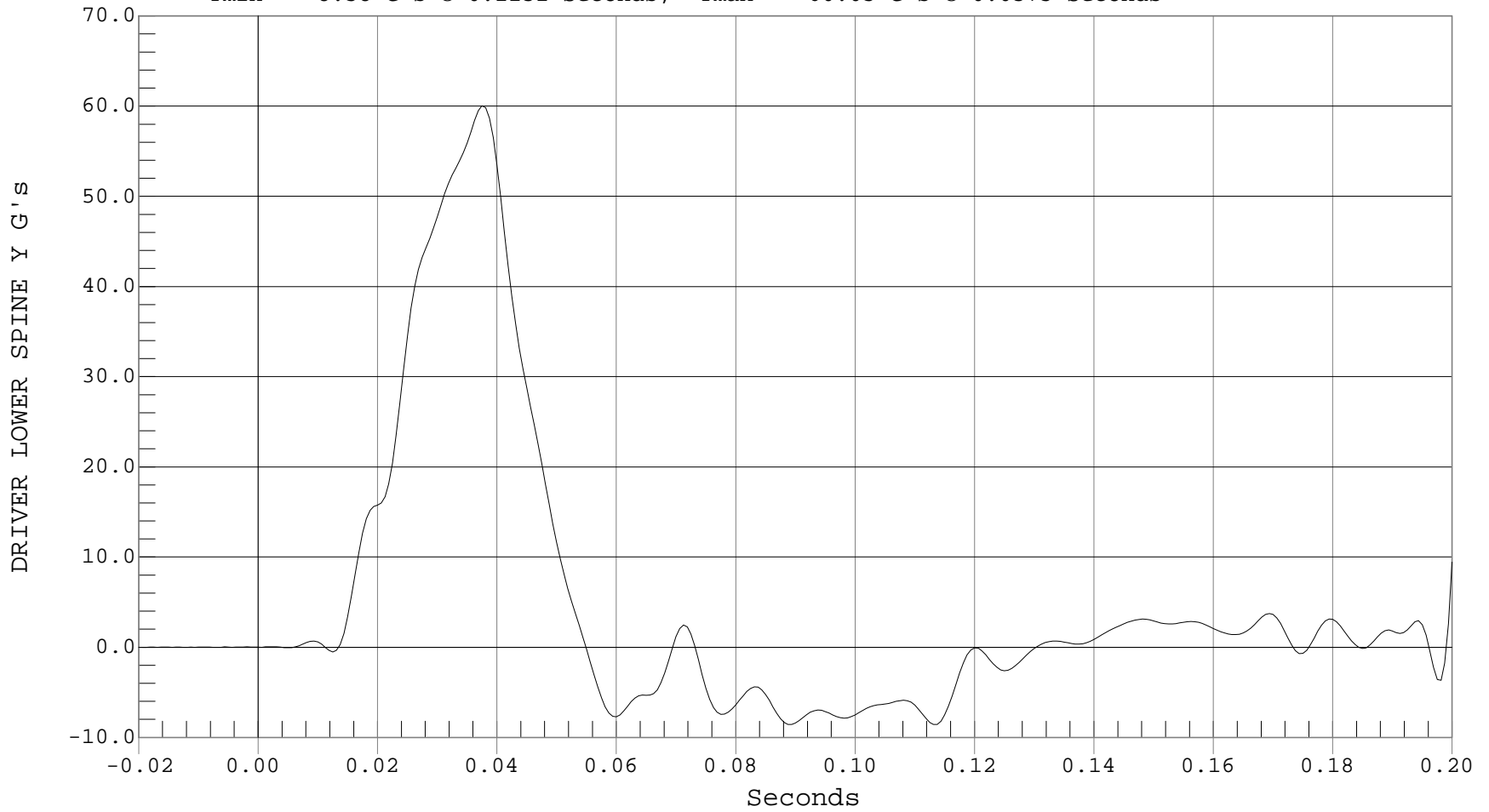
DRIVER LOWER SPINE Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Fir Filtered

— 1 DRIVER LOWER SPINE Y, B00090FI.R06

Ymin = -8.58 G's @ 0.1131 Seconds, Ymax = 60.05 G's @ 0.0375 Seconds





DRIVER LOWER SPINE REDUNDANT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT

Test Date: 10-30-00

Component: 2001 HONDA CIVIC 4 DOOR

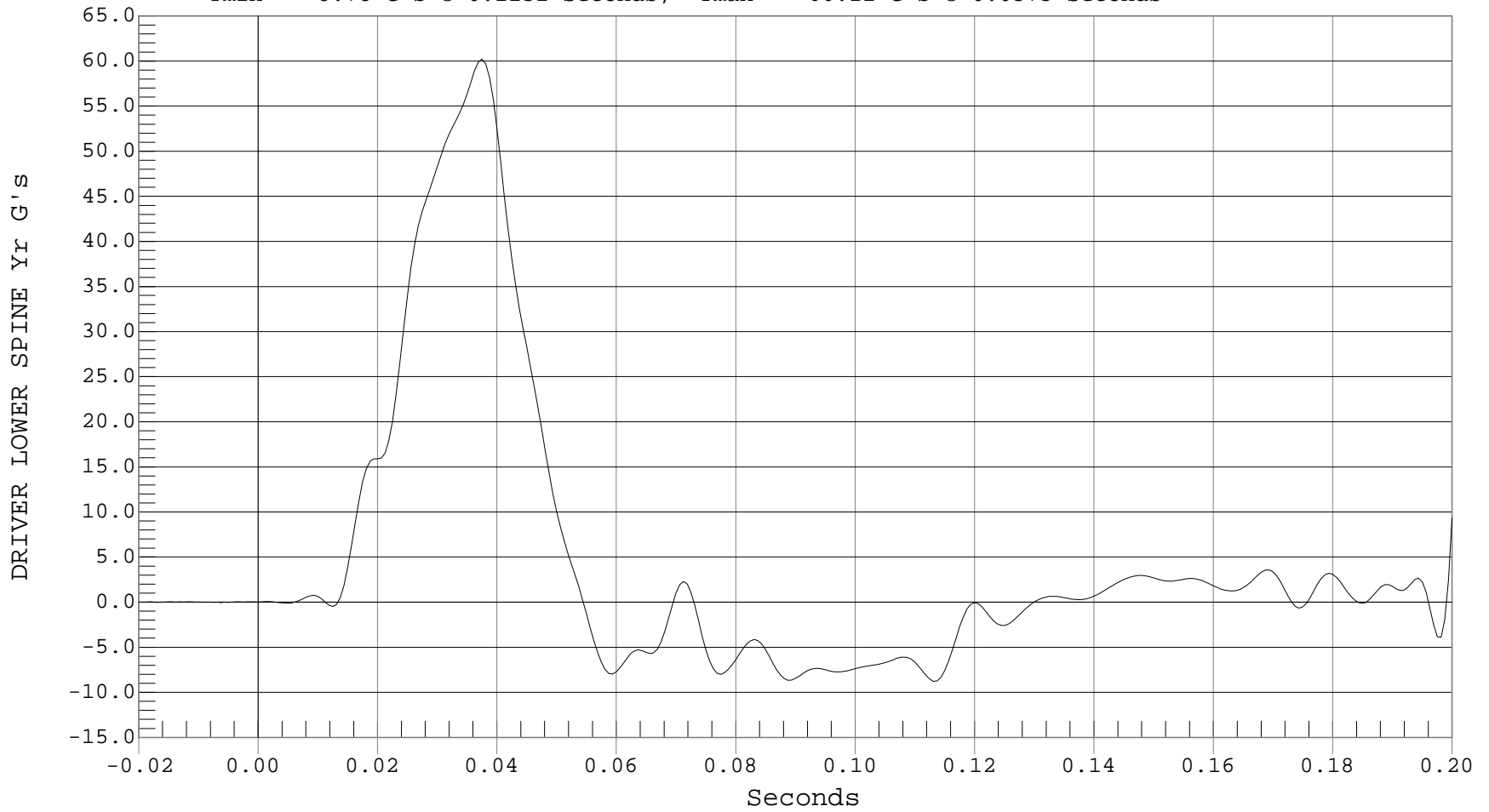
Speed: 38.4 MPH, 61.8 KPH

Other Info:

Fir Filtered

— 1 DRIVER LOWER SPINE Yr, B00090FI.R43

Ymin = -8.78 G's @ 0.1131 Seconds, Ymax = 60.21 G's @ 0.0375 Seconds





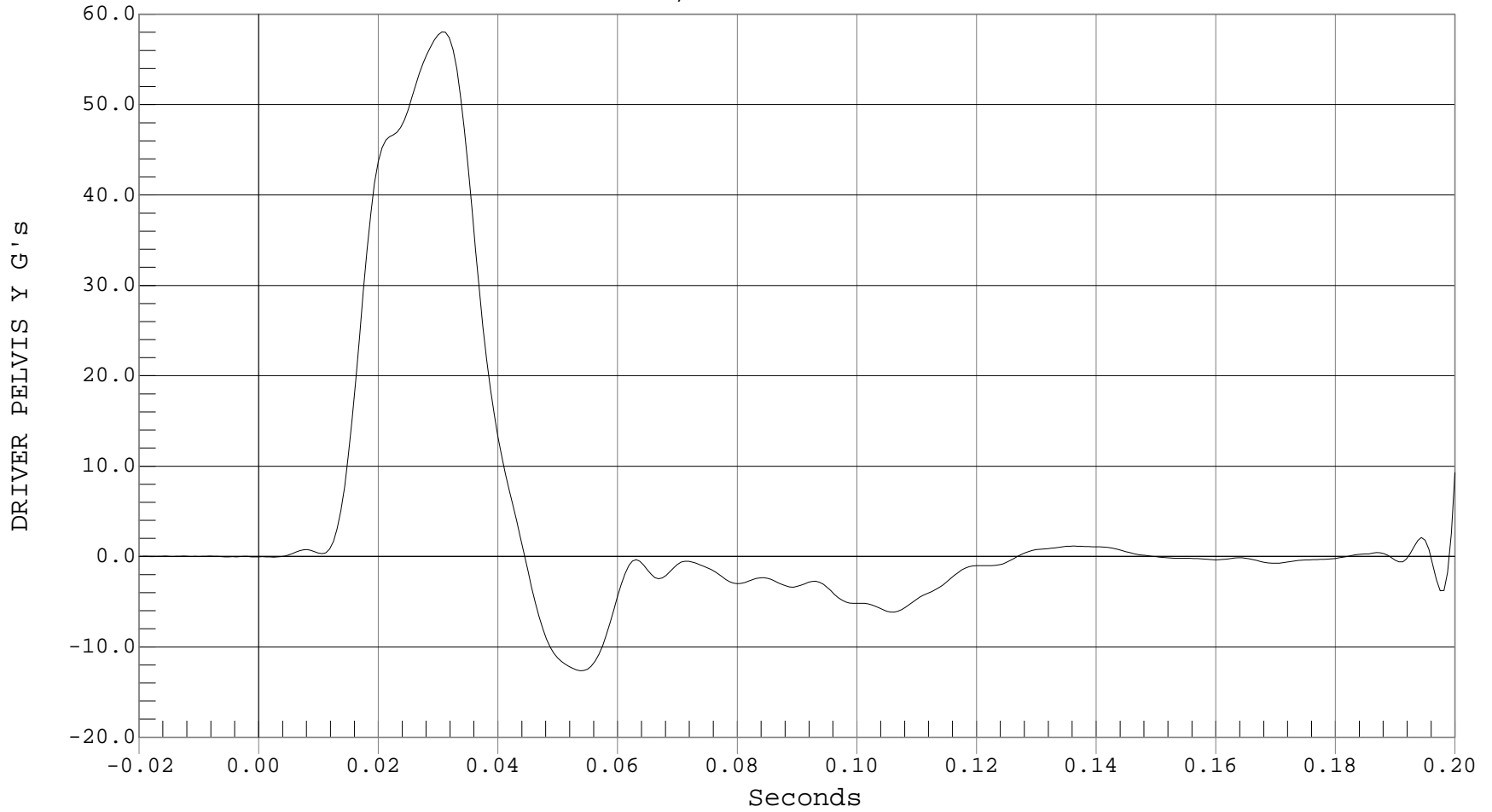
DRIVER PELVIS Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Fir Filtered

— 1 DRIVER PELVIS Y, B00090FI.R07

Ymin = -12.64 G's @ 0.0538 Seconds, Ymax = 58.06 G's @ 0.0306 Seconds





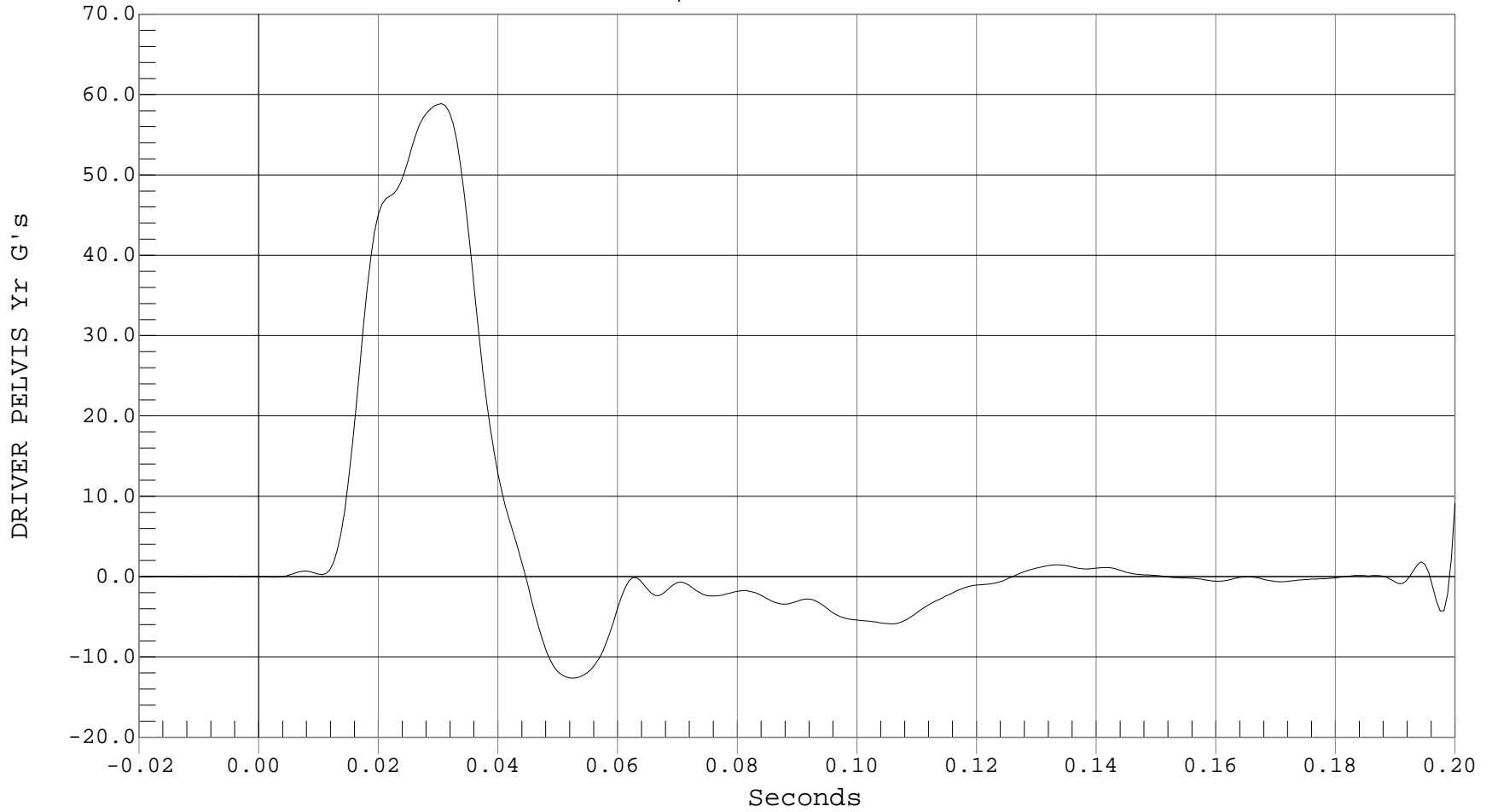
DRIVER PELVIS REDUNDANT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Fir Filtered

— 1 DRIVER PELVIS Yr, B00090FI.R44

Ymin = -12.65 G's @ 0.0525 Seconds, Ymax = 58.86 G's @ 0.0306 Seconds





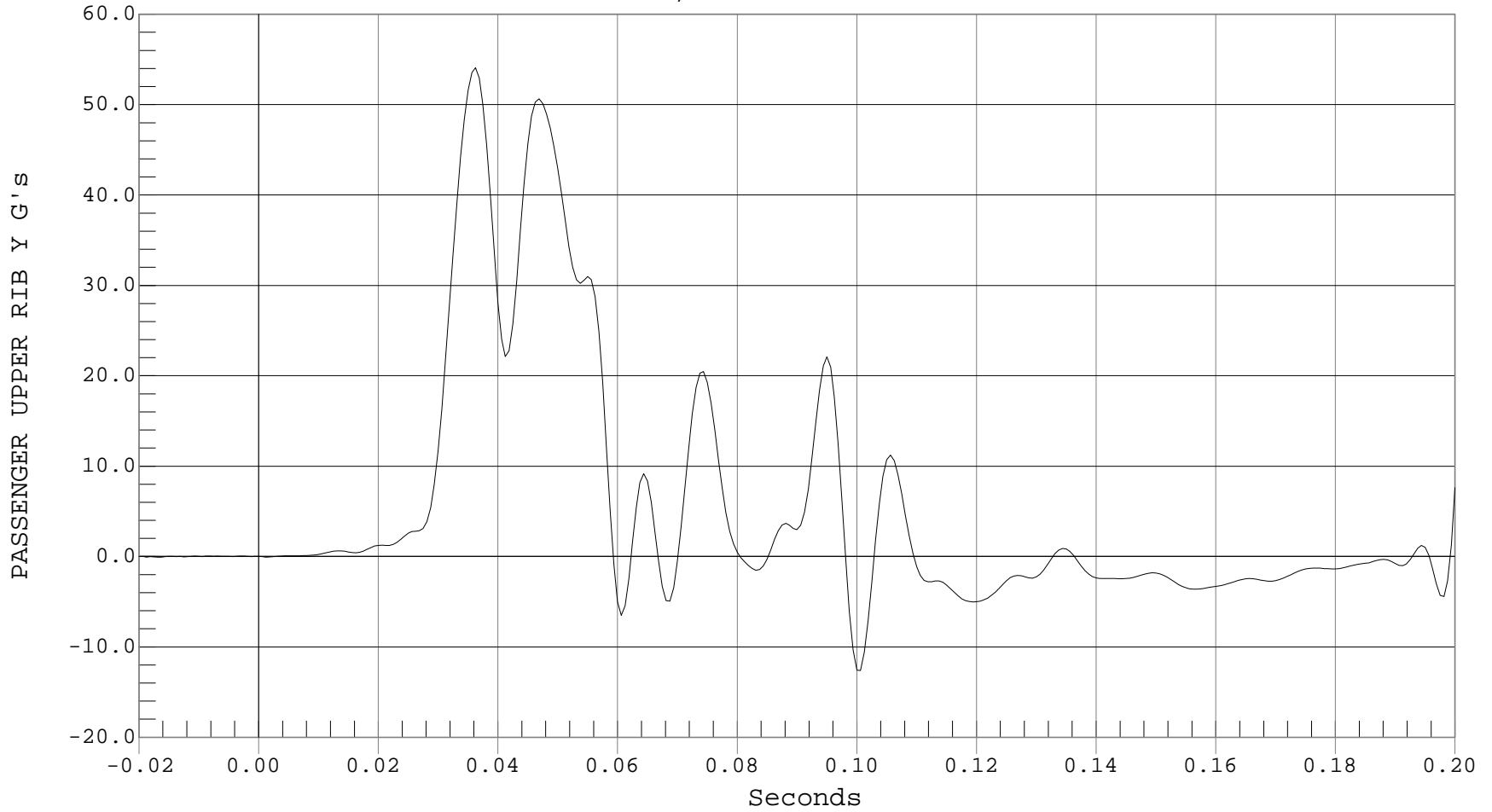
REAR REAR PASSENGER UPPER RIB Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Fir Filtered

— 1 PASSENGER UPPER RIB Y, B00090FI.R11

Ymin = -12.59 G's @ 0.1006 Seconds, Ymax = 54.07 G's @ 0.0363 Seconds





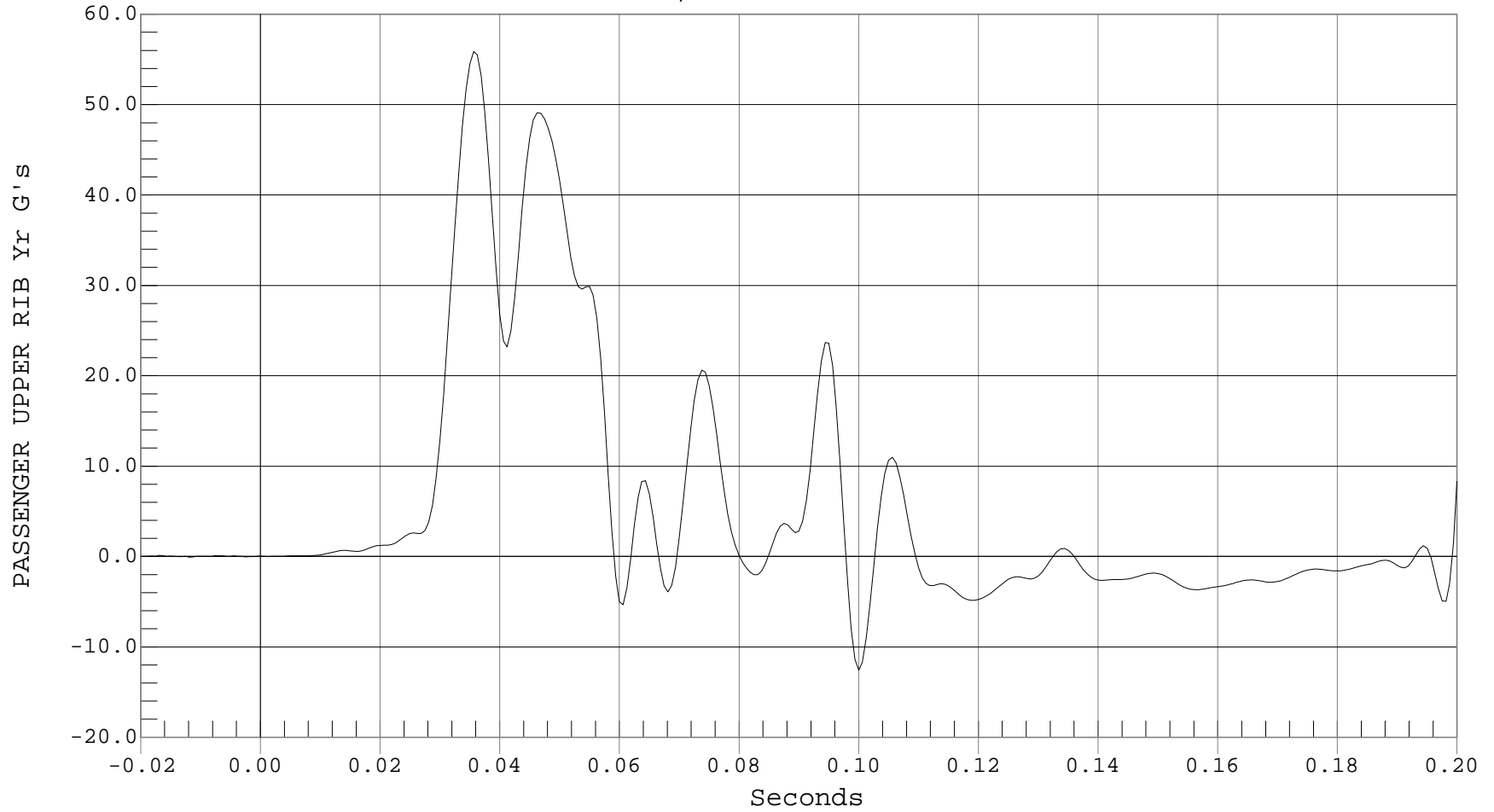
REAR REAR PASSENGER UPPER RIB REDUNDANT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Fir Filtered

— 1 PASSENGER UPPER RIB Yr, B00090FI.R45

Ymin = -12.58 G's @ 0.1000 Seconds, Ymax = 55.88 G's @ 0.0356 Seconds





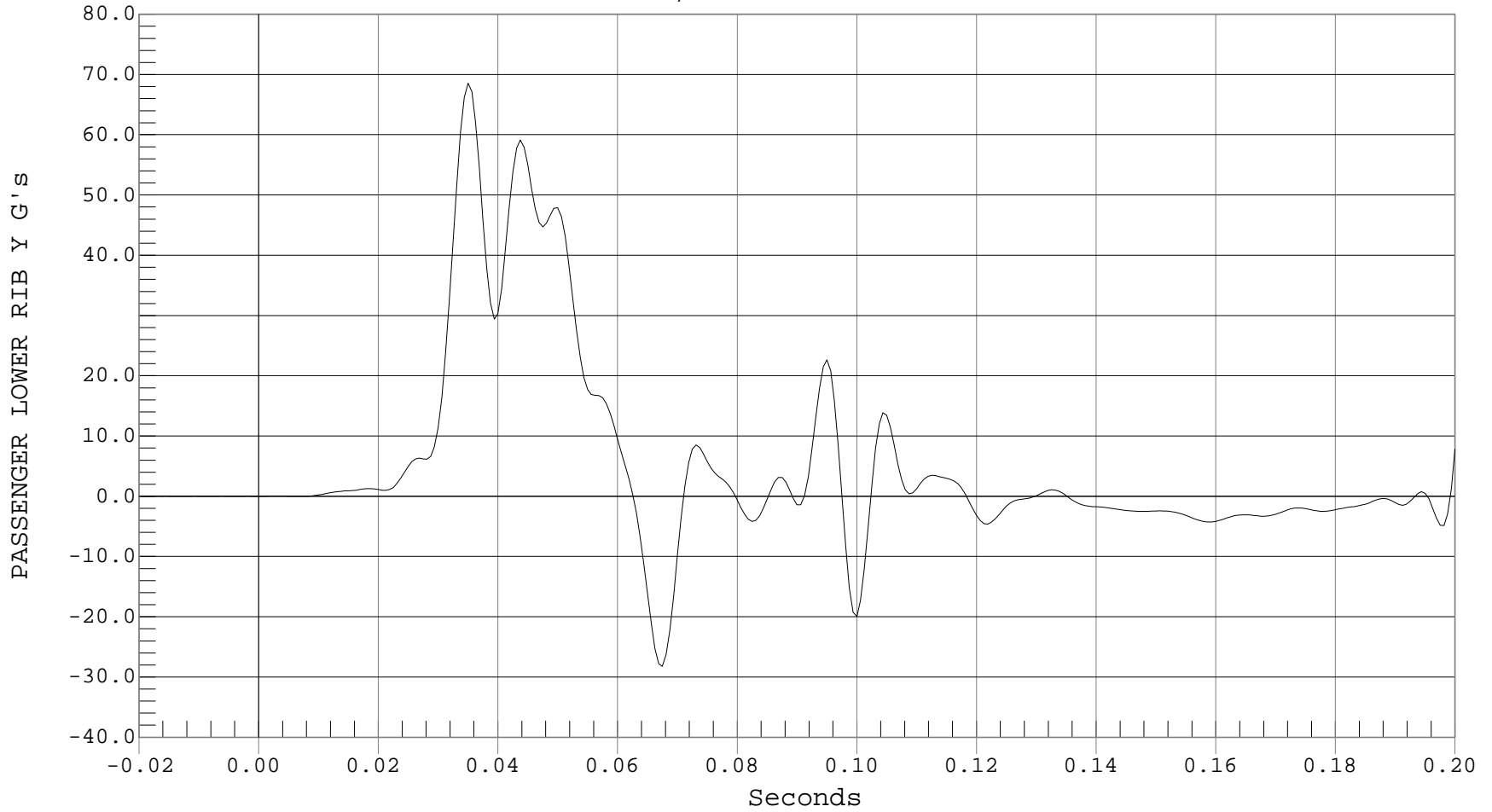
REAR REAR PASSENGER LOWER RIB Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Fir Filtered

— 1 PASSENGER LOWER RIB Y, B00090FI.R12

Ymin = -28.23 G's @ 0.0675 Seconds, Ymax = 68.57 G's @ 0.0350 Seconds





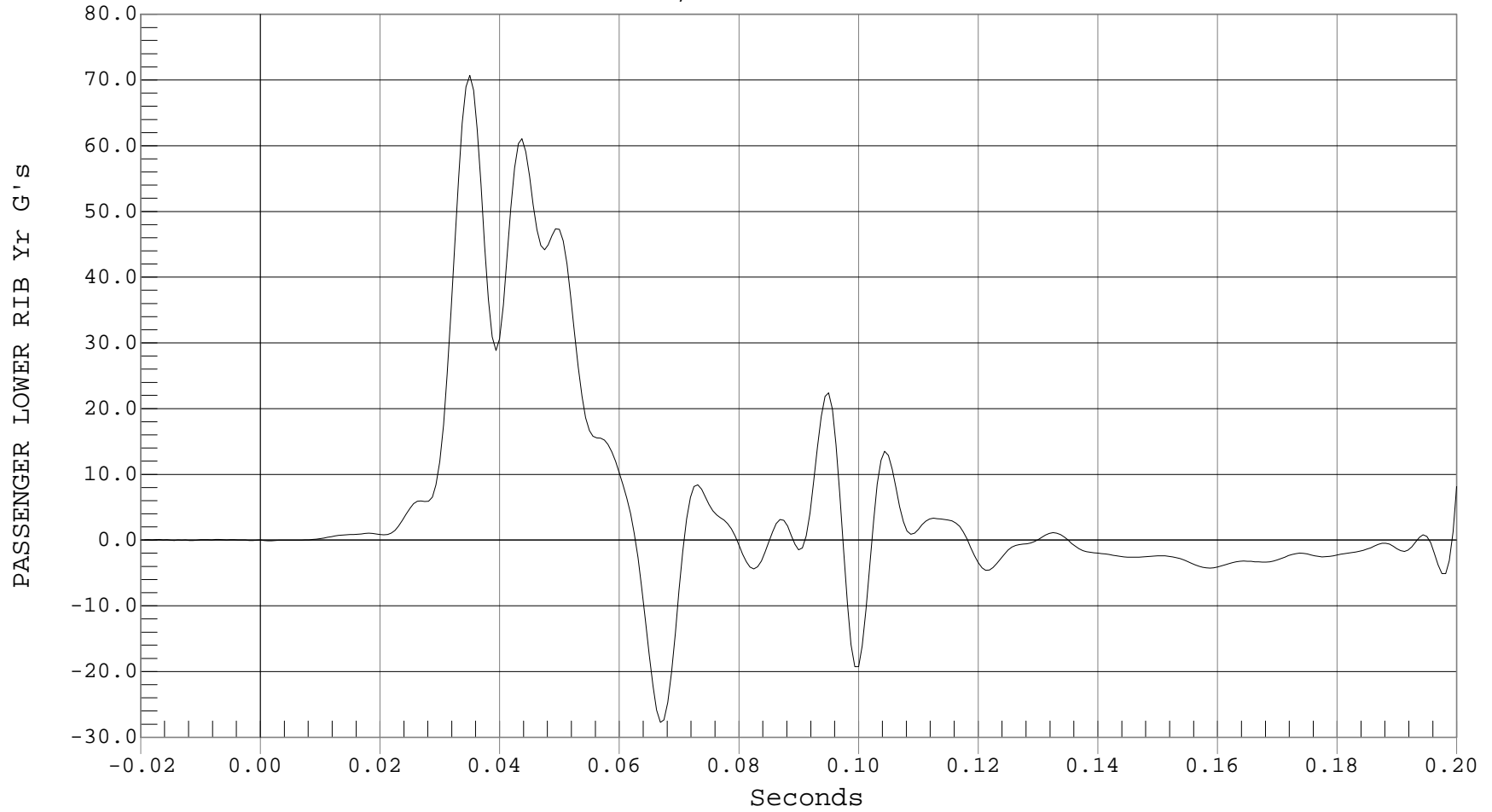
REAR REAR PASSENGER LOWER RIB REDUNDANT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Fir Filtered

— 1 PASSENGER LOWER RIB Yr, B00090FI.R46

Ymin = -27.72 G's @ 0.0669 Seconds, Ymax = 70.73 G's @ 0.0350 Seconds





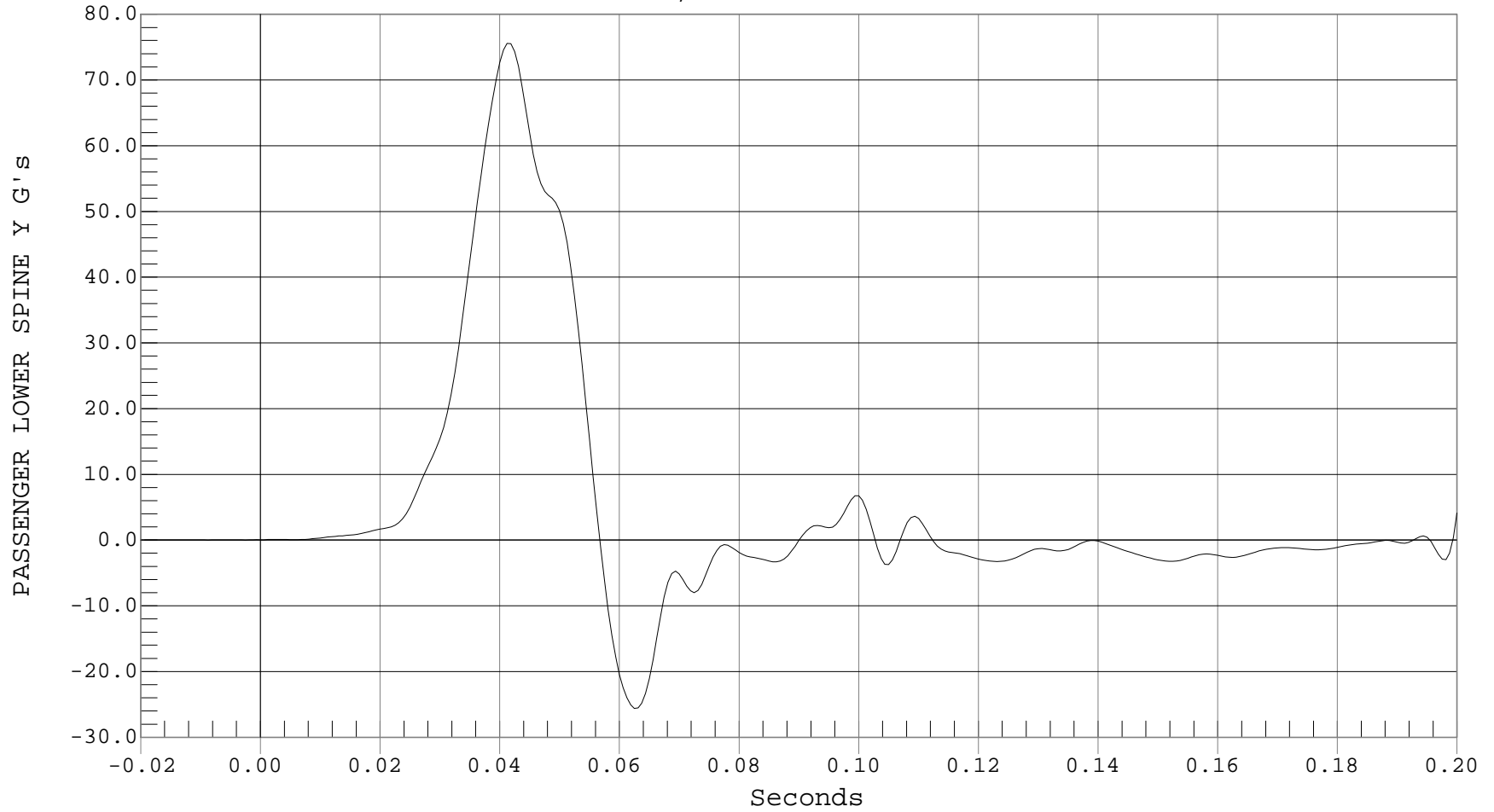
REAR REAR PASSENGER LOWER SPINE Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Fir Filtered

— 1 PASSENGER LOWER SPINE Y, B00090FI.R13

Ymin = -25.61 G's @ 0.0625 Seconds, Ymax = 75.57 G's @ 0.0413 Seconds





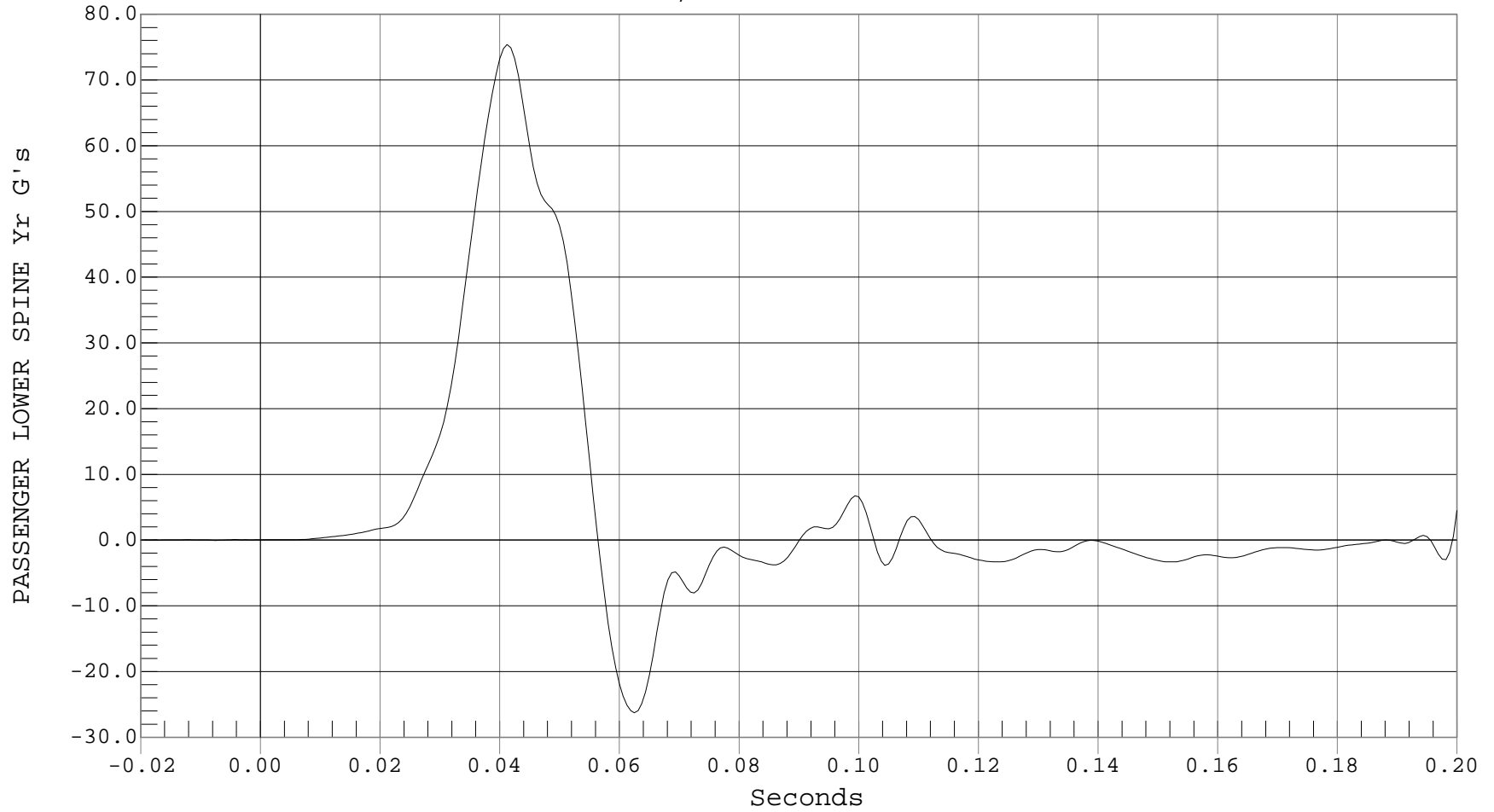
REAR REAR PASSENGER LOWER SPINE REDUNDANT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Fir Filtered

— 1 PASSENGER LOWER SPINE Yr, B00090FI.R47

Ymin = -26.26 G's @ 0.0625 Seconds, Ymax = 75.39 G's @ 0.0413 Seconds





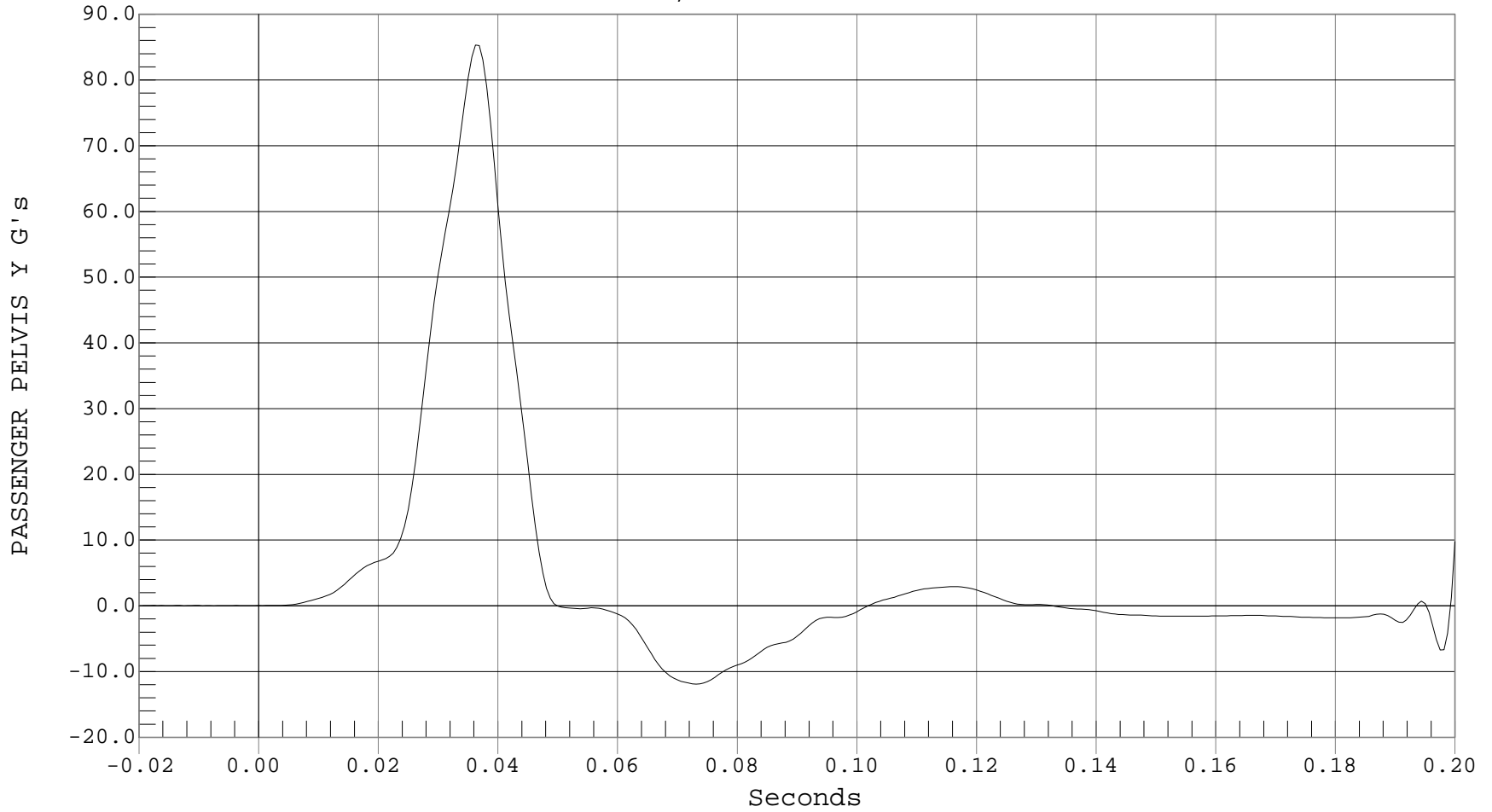
REAR REAR PASSENGER PELVIS Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Fir Filtered

— 1 PASSENGER PELVIS Y, B00090FI.R14

Ymin = -11.89 G's @ 0.0731 Seconds, Ymax = 85.33 G's @ 0.0363 Seconds





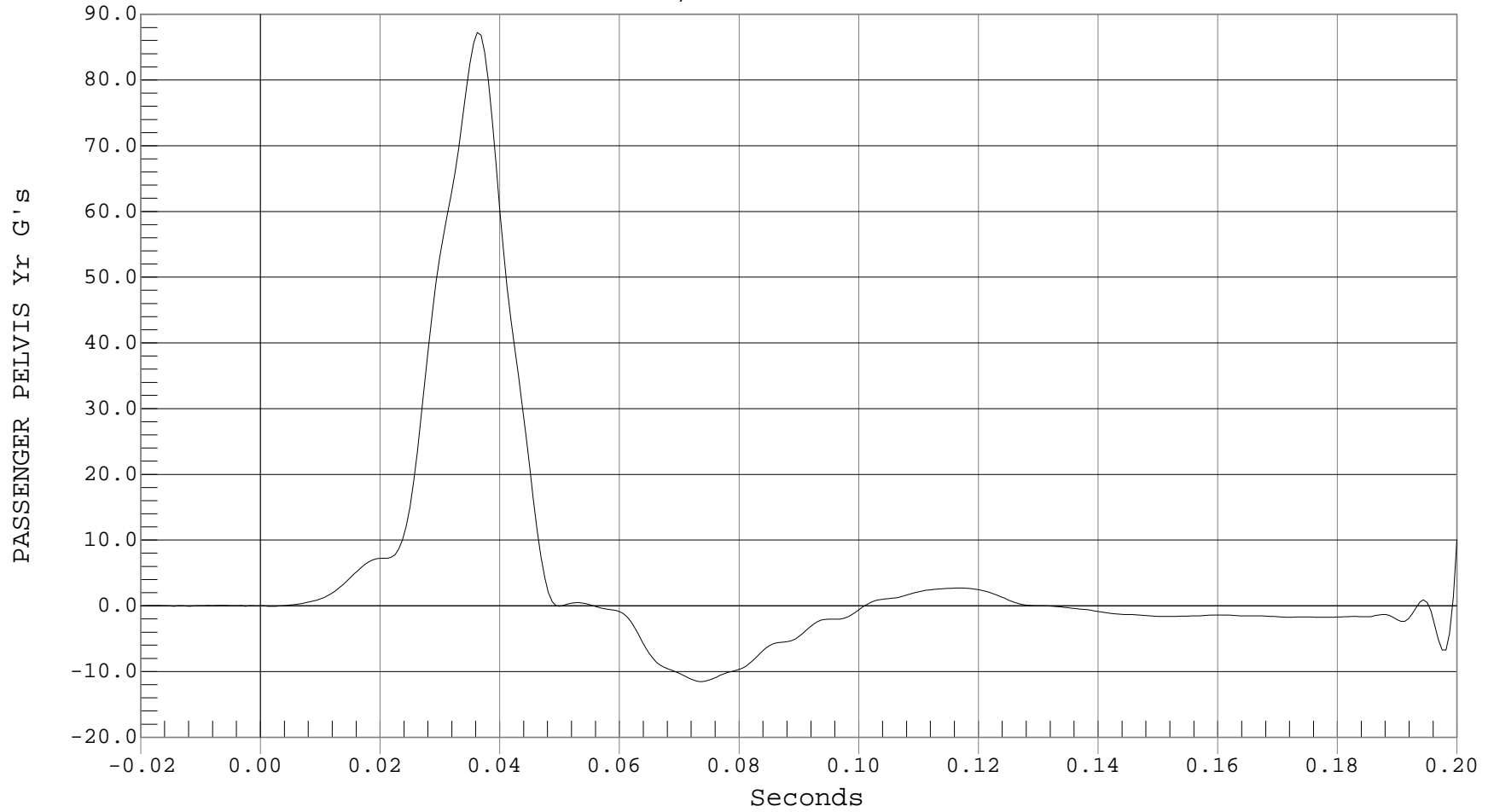
REAR REAR REAR PASSENGER PELVIS REDUNDANT Y ACCELERATION

Test Desc.: 38 MPH SIDE NCAP IMPACT
Component: 2001 HONDA CIVIC 4 DOOR
Other Info:

Test Date: 10-30-00
Speed: 38.4 MPH, 61.8 KPH
Fir Filtered

— 1 PASSENGER PELVIS Yr, B00090FI.R48

Ymin = -11.53 G's @ 0.0738 Seconds, Ymax = 87.23 G's @ 0.0363 Seconds



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APPENDIX C
SID CONFIGURATION AND PERFORMANCE VERIFICATION

CERTIFICATION DATA

Dummy Serial Number: 269

Calibration Test Results Summary

Dummy Serial Number: 269

Pre-Test Calibration

External Dimensions:	The dummy passed all external dimension requirements.
Head Drop Test:	The head passed all drop test requirements.
Thorax Impact Test:	The thorax passed all impact test requirements.
Pelvic Impact Test:	The pelvis passed all impact test requirements.
Abdominal Compression Test:	The abdomen passed all compression test requirements.
Lumbar Flexion Test:	The lumbar passed all flexion test requirements.

SIDE IMPACT DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

Dummy Serial Number: 269
 Date of Verification: 10/25/00
 Test Number: D00128

DESCRIPTION	SPECIFICATION	TEST RESULTS
SH-Seated Height (mm)	889 – 909	900
RH-Rib Height (mm)	501 – 521	517
HP-Hip Pivot Height (mm)	99 ref.	99
RD-Rib From Back Line (mm)	229 - 241	232
KV-Knee Pivot From Back Line (mm)	511 – 526	520
SW-Knee Pivot to Floor (mm)	490 – 505	495
HW – Hip Width (mm)	356 – 391	370

Technician: _____

Approved By: _____

MGA RESEARCH CORPORATION
HEAD DROP TEST
SIDE IMPACT DUMMY (SID)

Date: 10/25/00
Dummy Serial Number: 269
Test Number: D001281

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 - 25.5	21.0°
Relative Humidity (%)	10 - 70	54%
Peak Resultant Acceleration	210 - 260 g's	259
Peak Lateral Acceleration	< 10 g's	-2
Time Above 100 g.	0.9 - 1.5 msec.	1.2

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



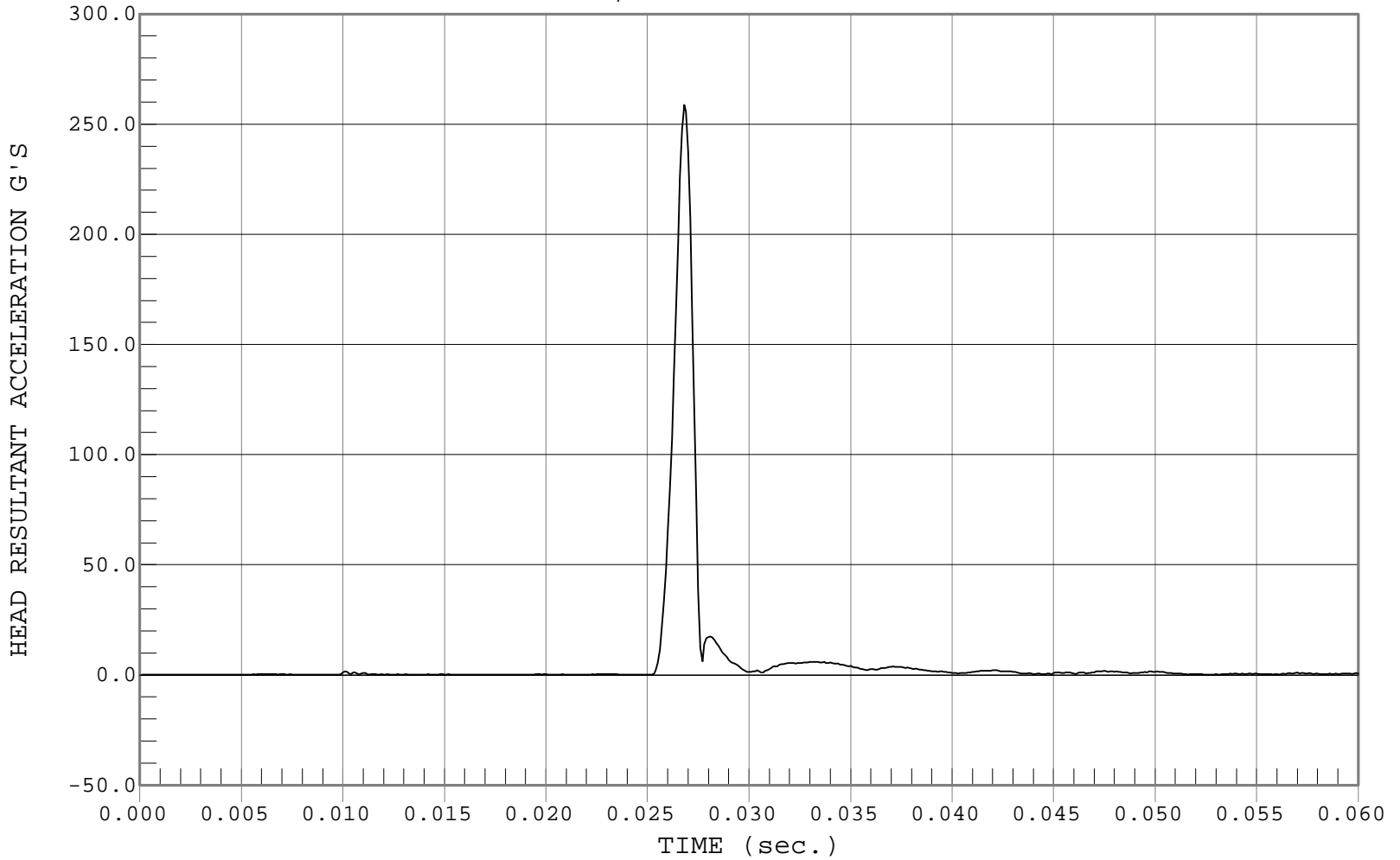
PEAK RESULTANT ACCELERATION

Test Desc.: Dummy Calibration - Head Drop
Component: Dummy # 269

Test Date: 10-25-00
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 HEAD RESULTANT ACCELERATION, D00281av.a01

Ymin = .07 G'S @ 0.0015 sec., Ymax = 258.69 G'S @ 0.0268 sec.





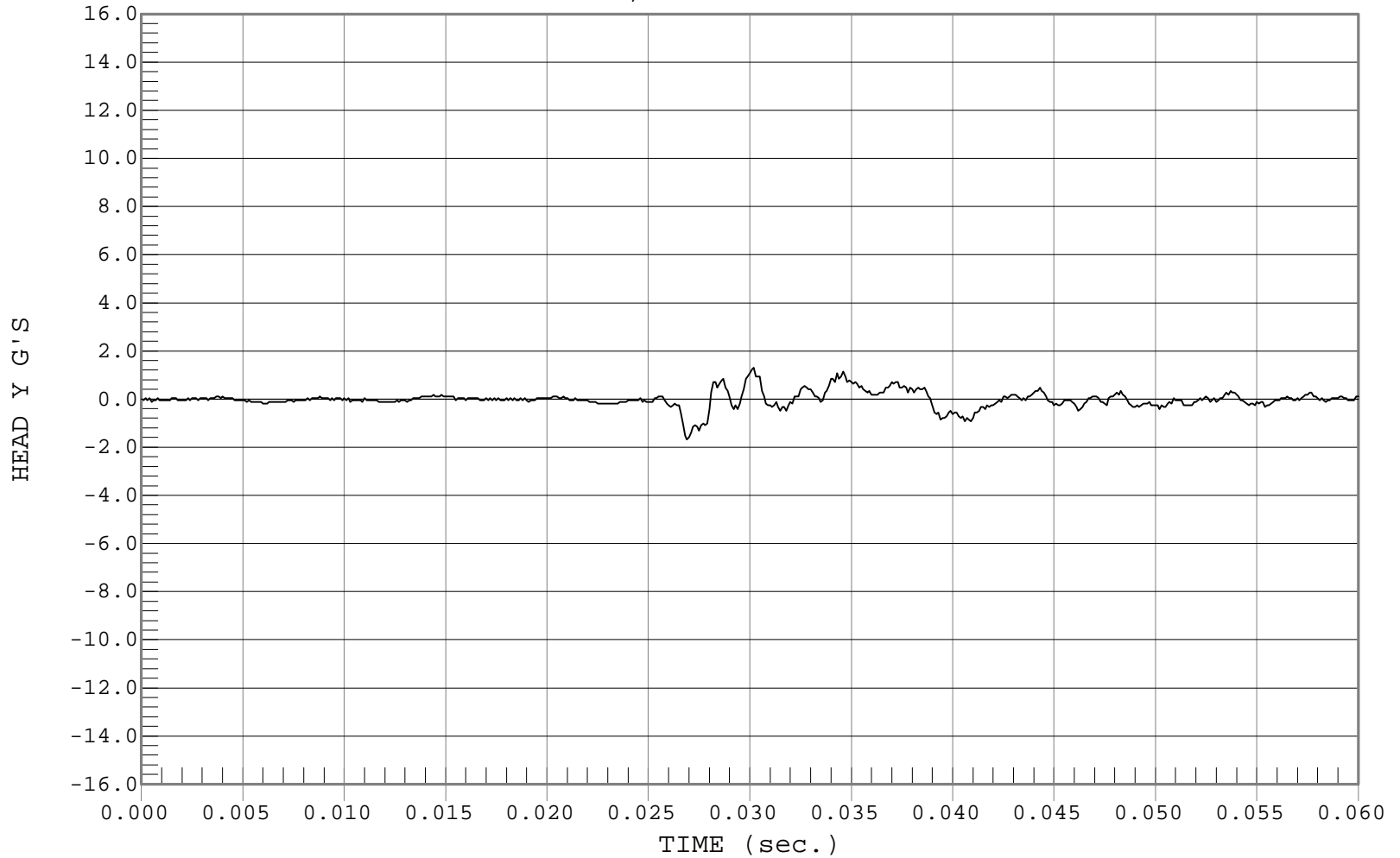
PEAK LATERAL ACCELARATION

Test Desc.: Dummy Calibration - Head Drop
Component: Dummy # 269

Test Date: 10-25-00
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 HEAD Y, D00281AR.A02

Ymin = -1.68 G'S @ 0.0269 sec., Ymax = 1.3 G'S @ 0.0302 sec.



MGA RESEARCH CORPORATION
 THORACIC SHOCK ABSORBER TEST
 SIDE IMPACT DUMMY (SID)

Date: 10/23/00
 Dummy Serial Number: 269
 Test Number: D001286/7/8

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature (°C)		18.9 – 25.5	21.0°
Relative Humidity (%)		10 – 70	49%
Velocity 3.05 m/s	Force (N)	836 – 1125	945
	Displacement (mm)	30 – 35	32
Velocity 4.27 m/s	Force (N)	1730 – 2099	1800
	Displacement (mm)	32 – 37	36
Velocity 6.1 m/s	Force (N)	3741 – 4448	4433
	Displacement (mm)	33 – 40	38

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



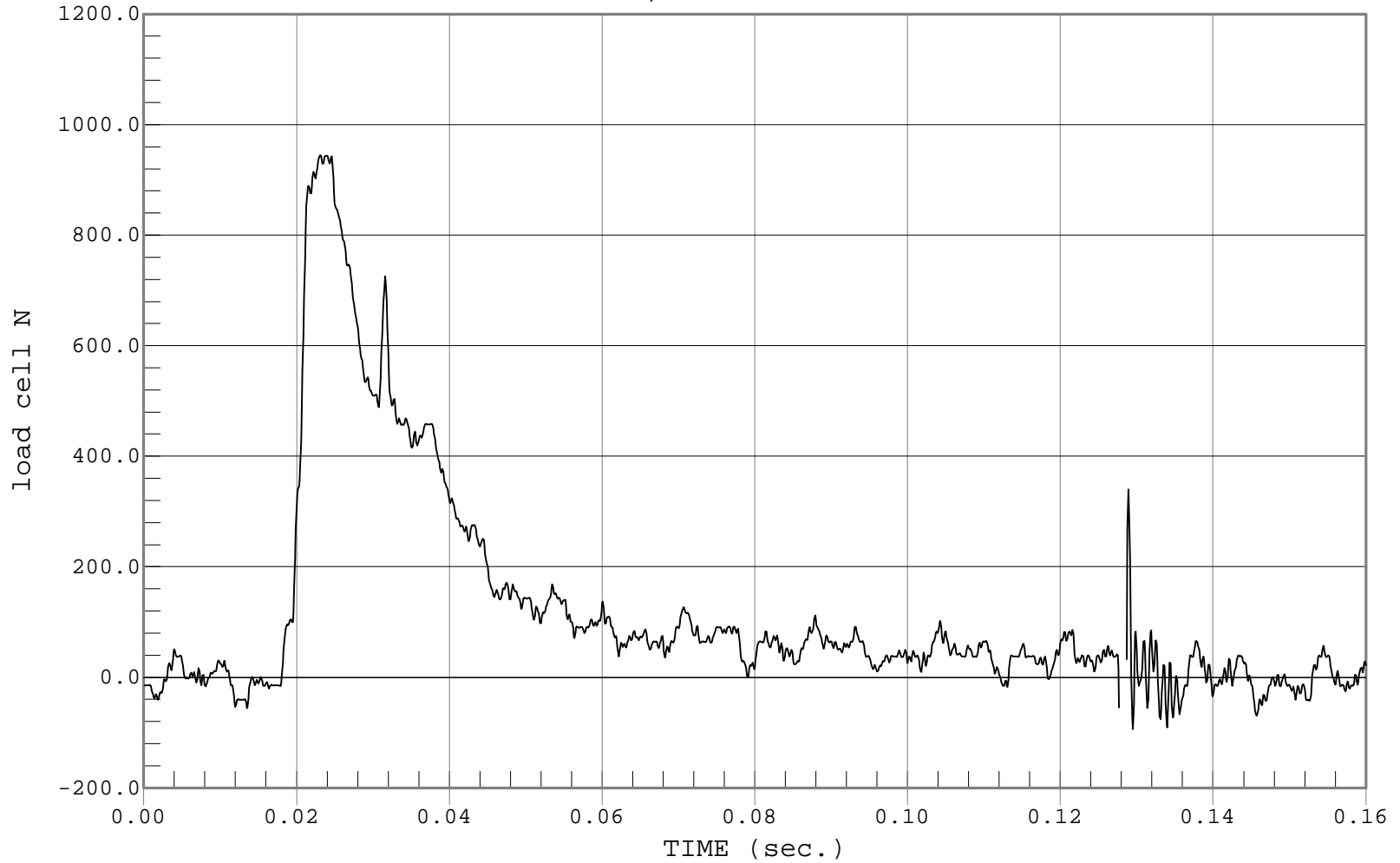
PEAK FORCE

Test Desc.: Dummy Calibration - Dampener Impact
Component: Dummy # 269

Test Date: 10-23-00
Speed: 10.00 FT/SEC, 3.05 M/SEC

1 load cell, D00286ff.f04

Ymin = -1346.49 N @ 0.1283 sec., Ymax = 944.69 N @ 0.0231 sec.





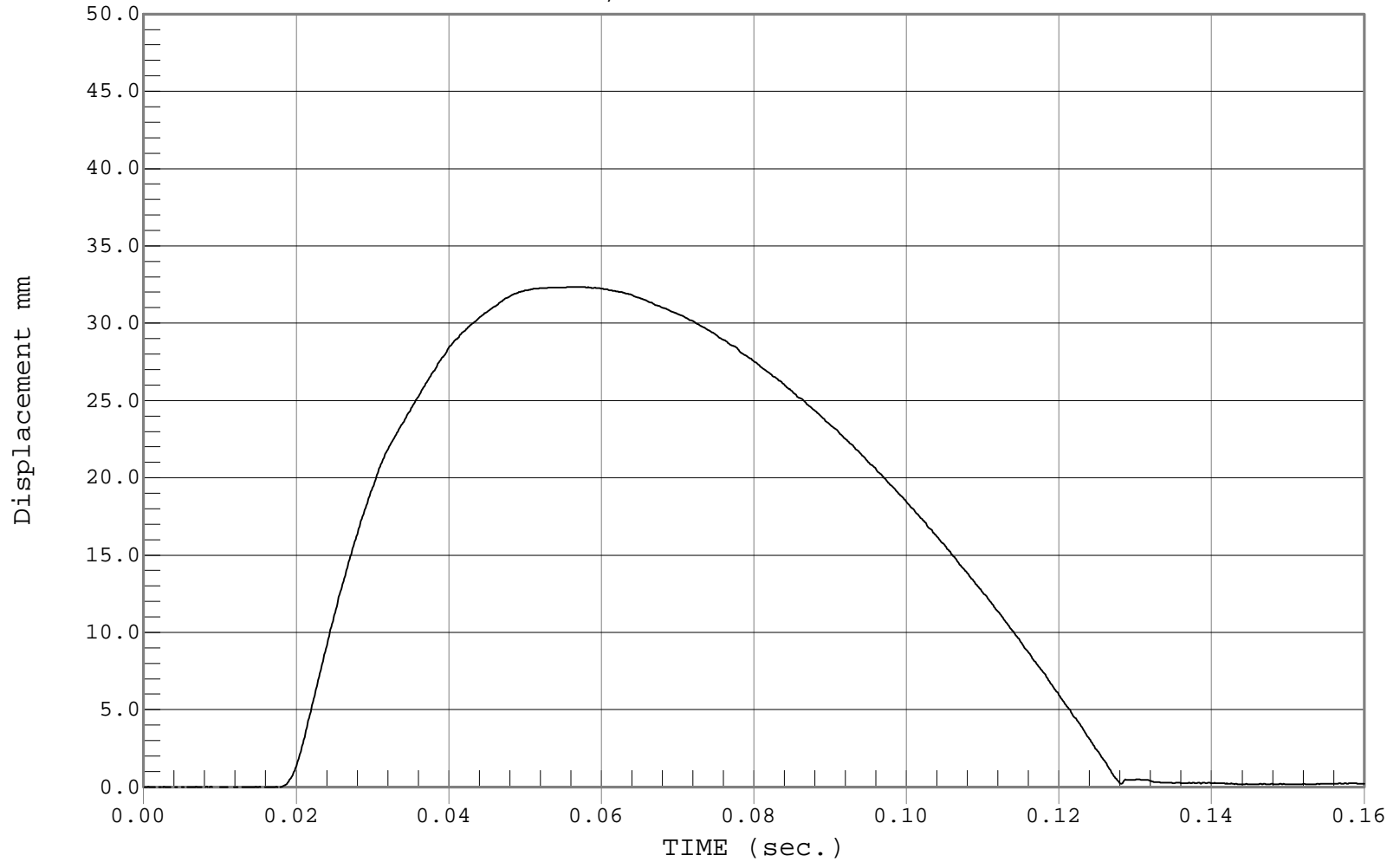
PEAK DISPLACEMENT

Test Desc.: Dummy Calibration - Dampener Impact
Component: Dummy # 269

Test Date: 10-23-00
Speed: 10.00 FT/SEC, 3.05 M/SEC

1 Displacement, D00286DF.D05

Ymin = -.02 mm @ 0.0018 sec., Ymax = 32.34 mm @ 0.0559 sec.





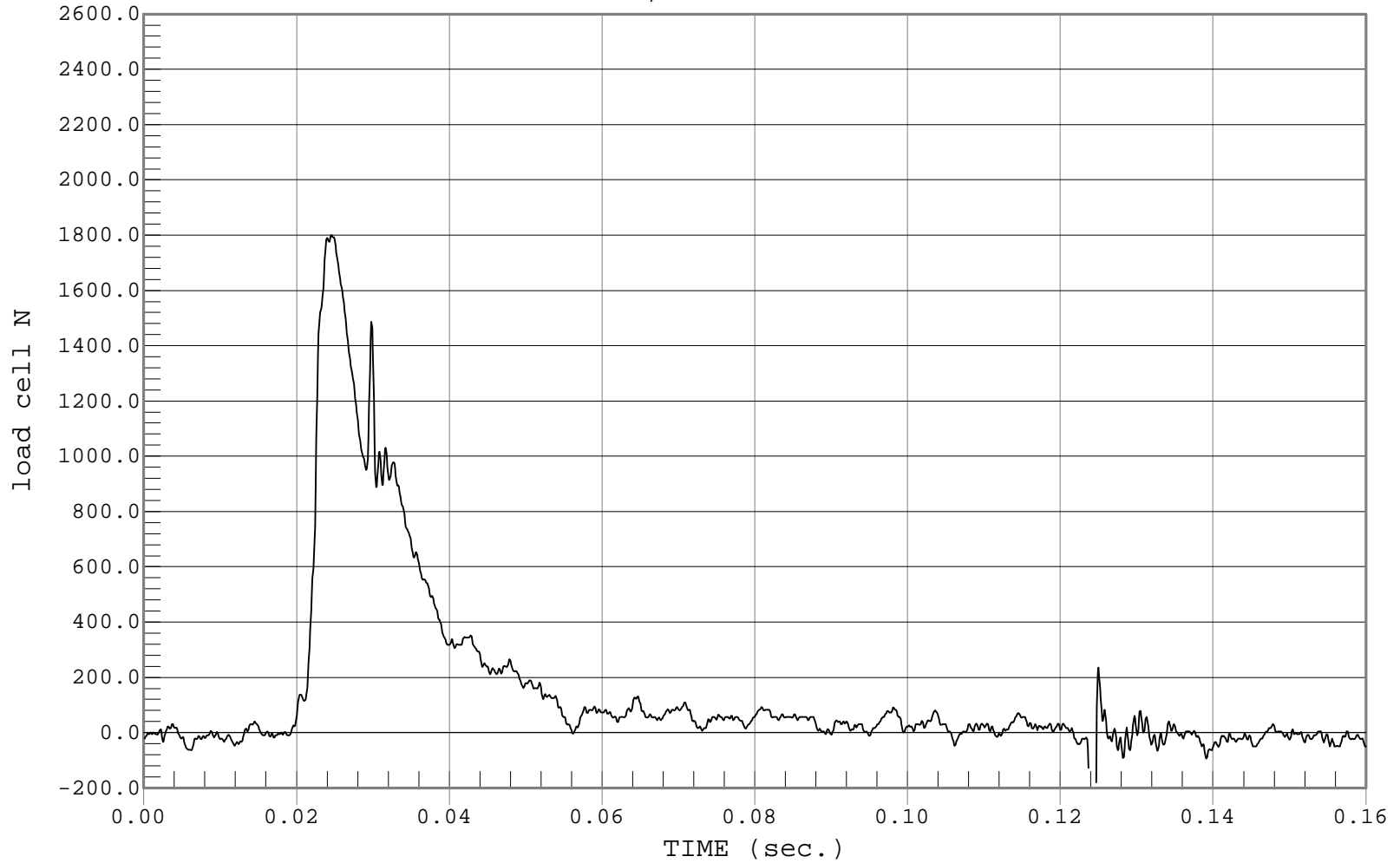
PEAK FORCE

Test Desc.: Dummy Calibration - Dampener Impact
Component: Dummy # 269

Test Date: 10-23-00
Speed: 14.00 FT/SEC, 4.27 M/SEC

1 load cell, D00287ff.f04

Ymin = -1209.23 N @ 0.1244 sec., Ymax = 1799.61 N @ 0.0246 sec.



C-10



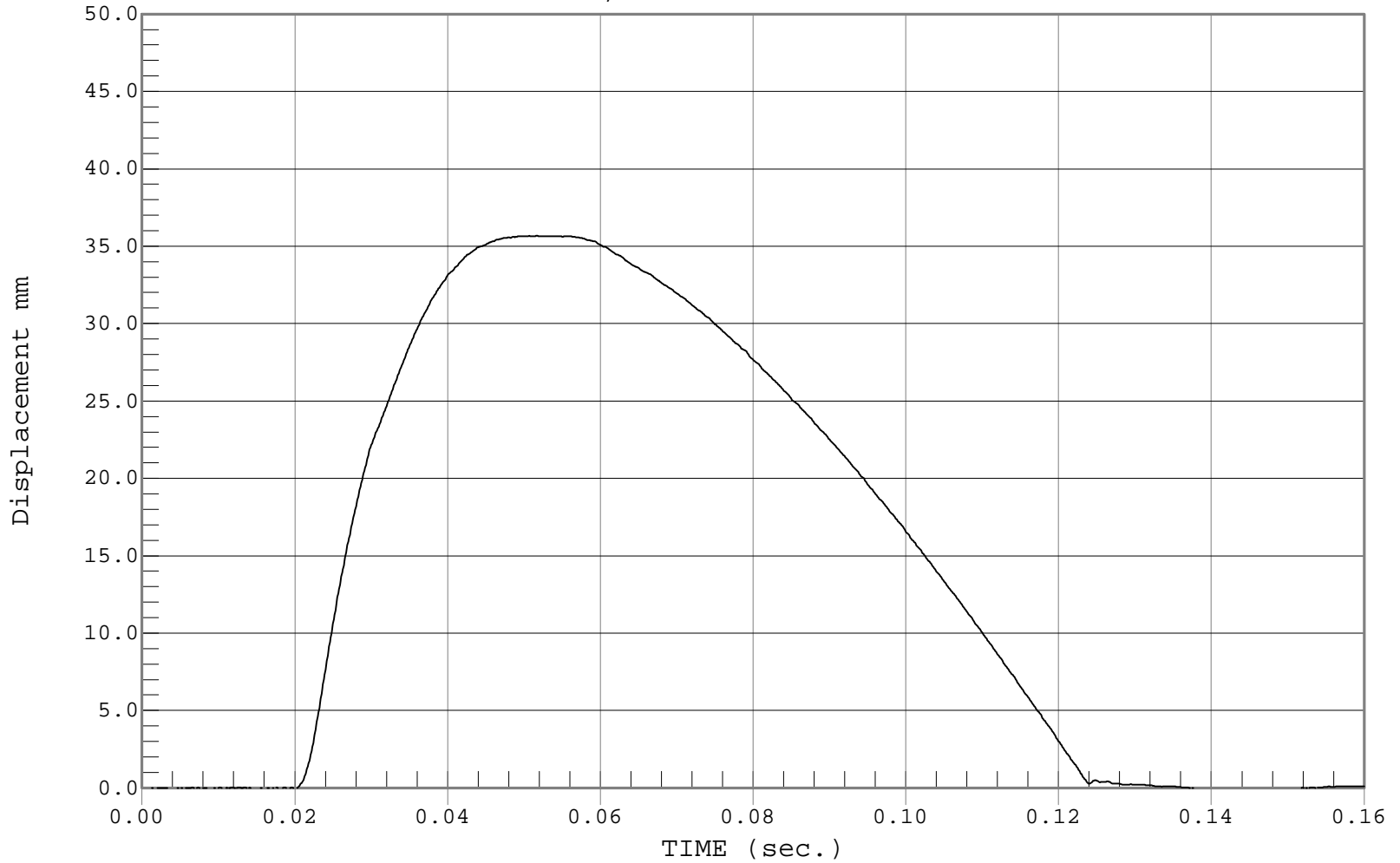
PEAK DISPLACEMENT

Test Desc.: Dummy Calibration - Dampener Impact
Component: Dummy # 269

Test Date: 10-23-00
Speed: 14.00 FT/SEC, 4.27 M/SEC

1 Displacement, D00287DF.D05

Ymin = -.24 mm @ 0.1414 sec., Ymax = 35.66 mm @ 0.0507 sec.





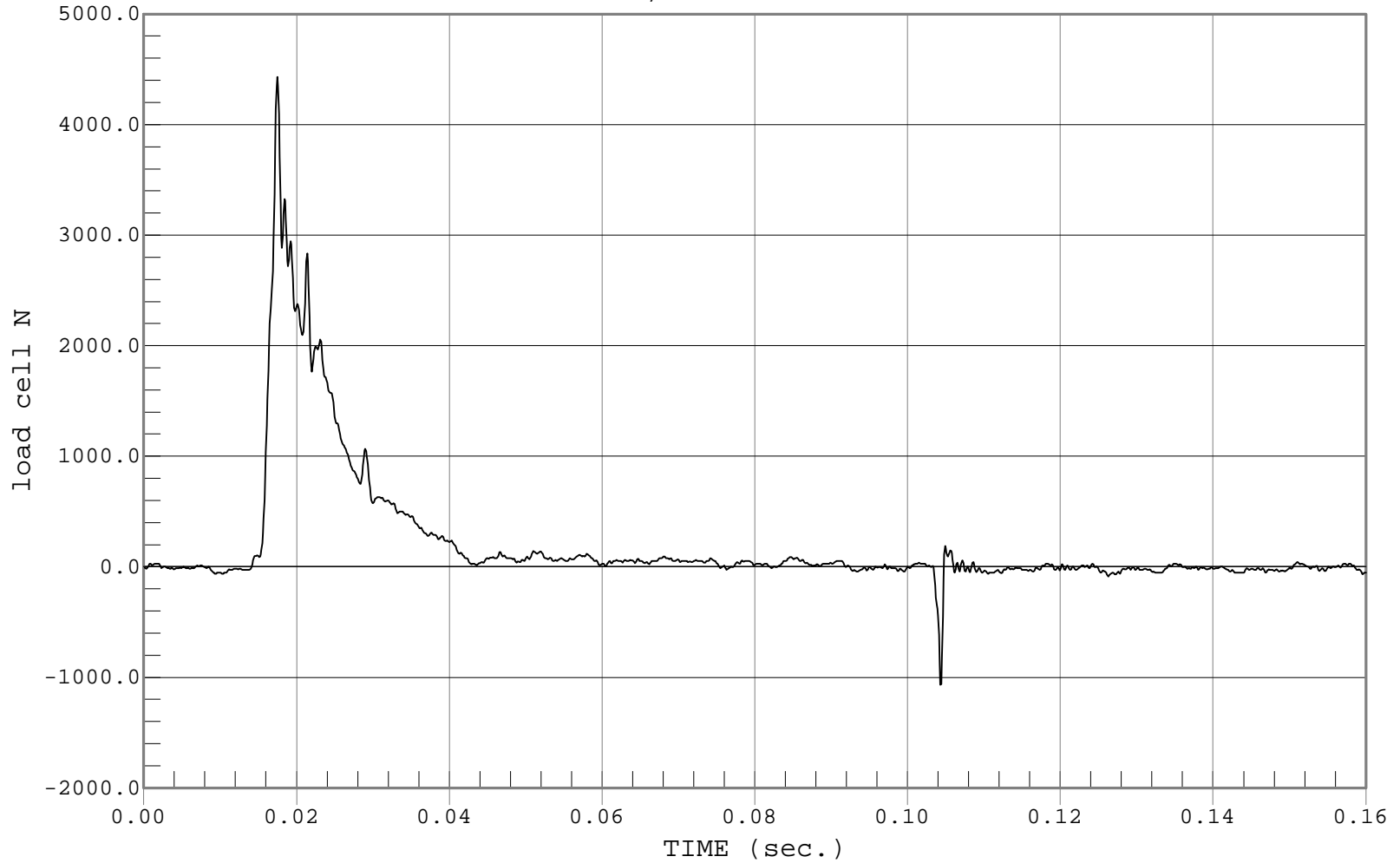
PEAK FORCE

Test Desc.: Dummy Calibration - Dampener Impact
Component: Dummy # 269

Test Date: 10-23-00
Speed: 20.00 FT/SEC, 6.10 M/SEC

1 load cell, D00288ff.f04

Ymin = -1066.92 N @ 0.1043 sec., Ymax = 4432.59 N @ 0.0175 sec.





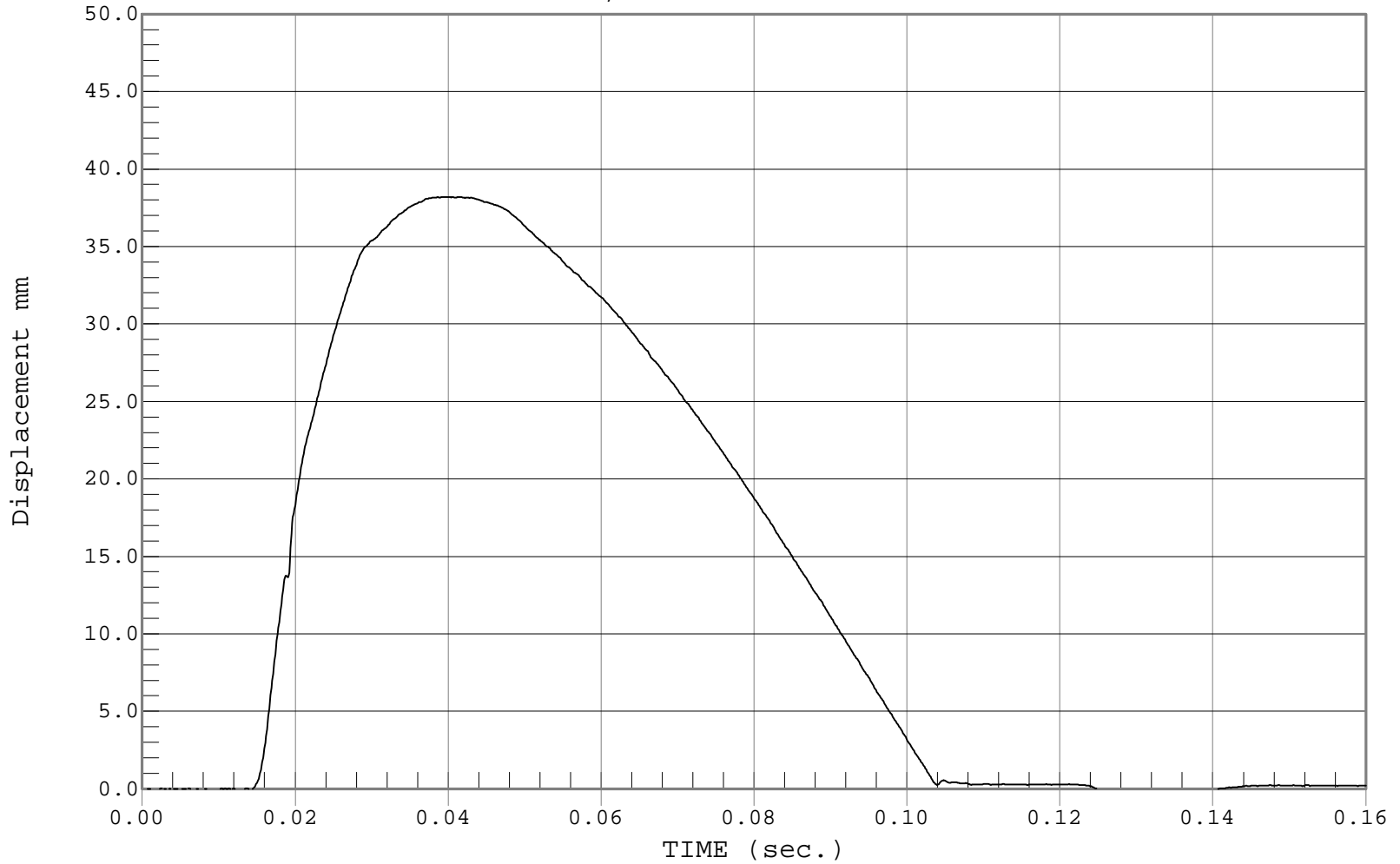
PEAK DISPLACEMENT

Test Desc.: Dummy Calibration - Dampener Impact
Component: Dummy # 269

Test Date: 10-23-00
Speed: 20.00 FT/SEC, 6.10 M/SEC

1 Displacement, D00288DF.D05

Ymin = -.39 mm @ 0.1285 sec., Ymax = 38.2 mm @ 0.0393 sec.



MGA RESEARCH CORPORATION
THORAX IMPACT TEST
SIDE IMPACT DUMMY (SID)

Date: 10/25/00
Dummy Serial Number: 269
Test Number: D001282

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.0°
Relative Humidity (%)	10 – 70	54%
Probe Speed (m/s)	4.27 – 4.33	4.30
Upper Rib (g's)	37 – 46	39
Lower Rib (g's)	37 – 46	38
Lower Spine (g's)	15 - 22	19

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



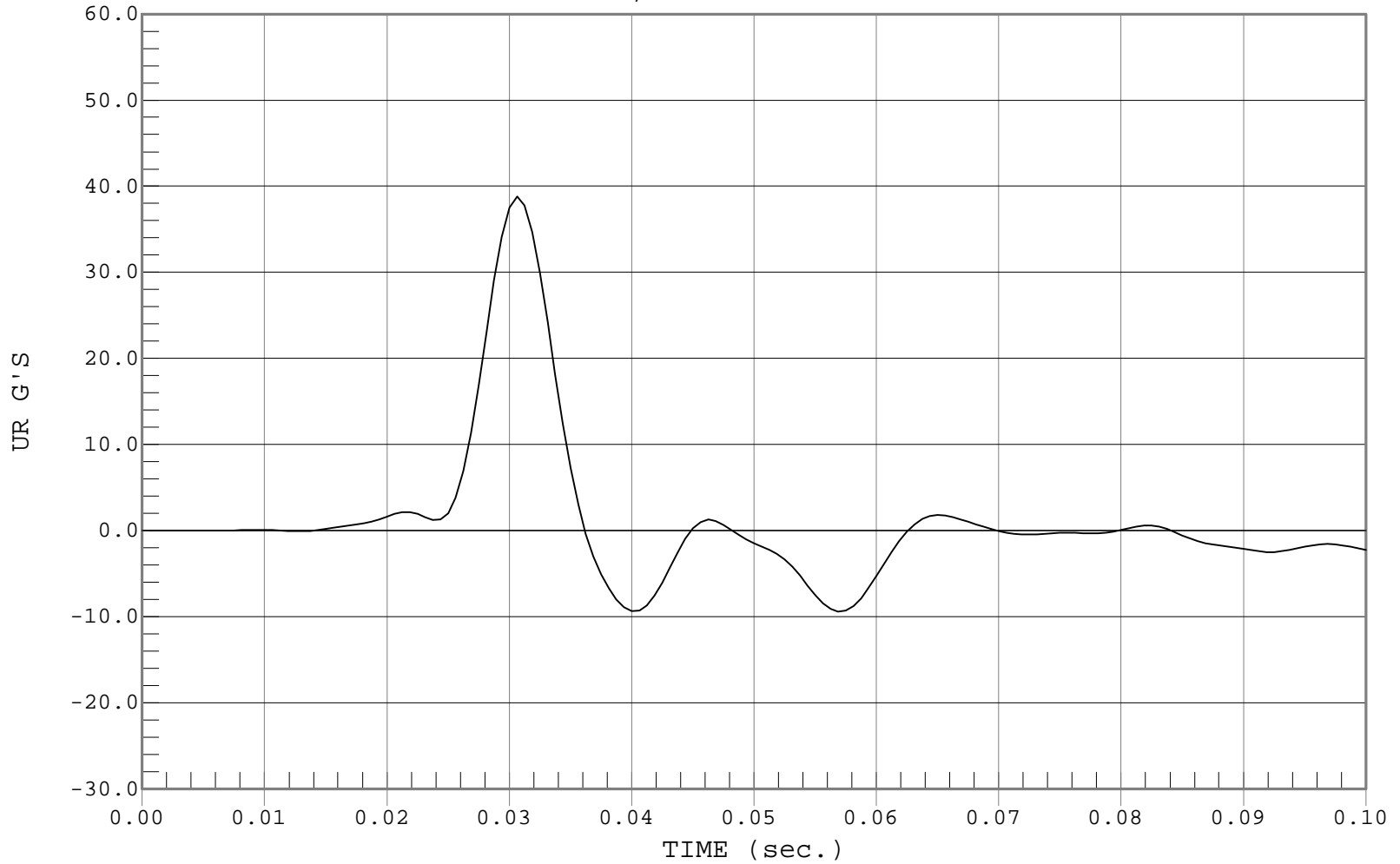
UPPER RIB ACCELERATION

Test Desc.: Dummy Calibration - Thorax Impact
Component: Dummy #269

Test Date: 10-25-00
Speed: 14.12 FT/SEC, 4.30 M/SEC

1 UR, D00282FI.R08

Ymin = -9.41 G'S @ 0.0569 sec., Ymax = 38.78 G'S @ 0.0306 sec.



C-15



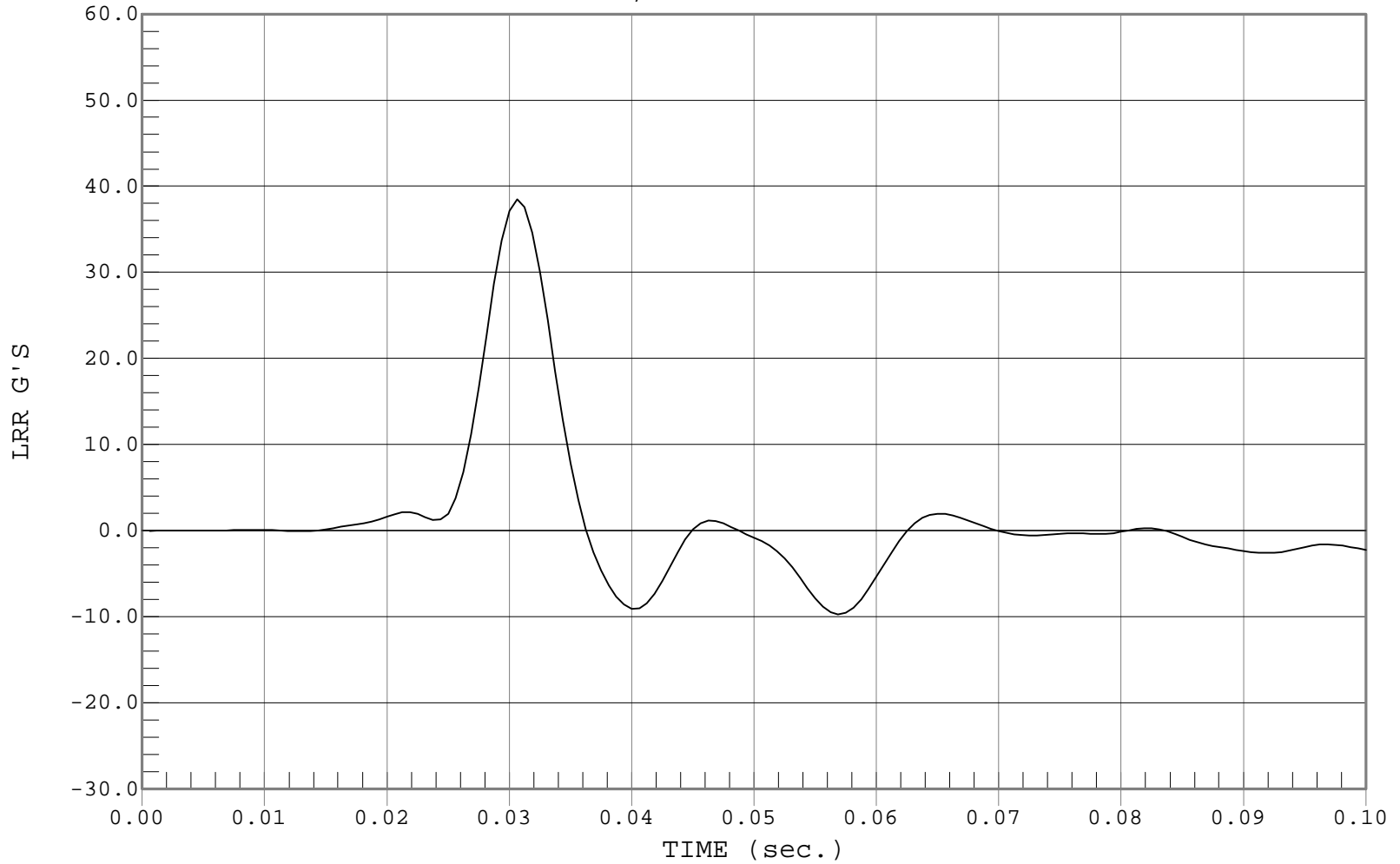
LOWER RIB ACCELERATION

Test Desc.: Dummy Calibration - Thorax Impact
Component: Dummy #269

Test Date: 10-25-00
Speed: 14.12 FT/SEC, 4.30 M/SEC

1 LRR, D00282FI.R09

Ymin = -9.72 G'S @ 0.0569 sec., Ymax = 38.46 G'S @ 0.0306 sec.





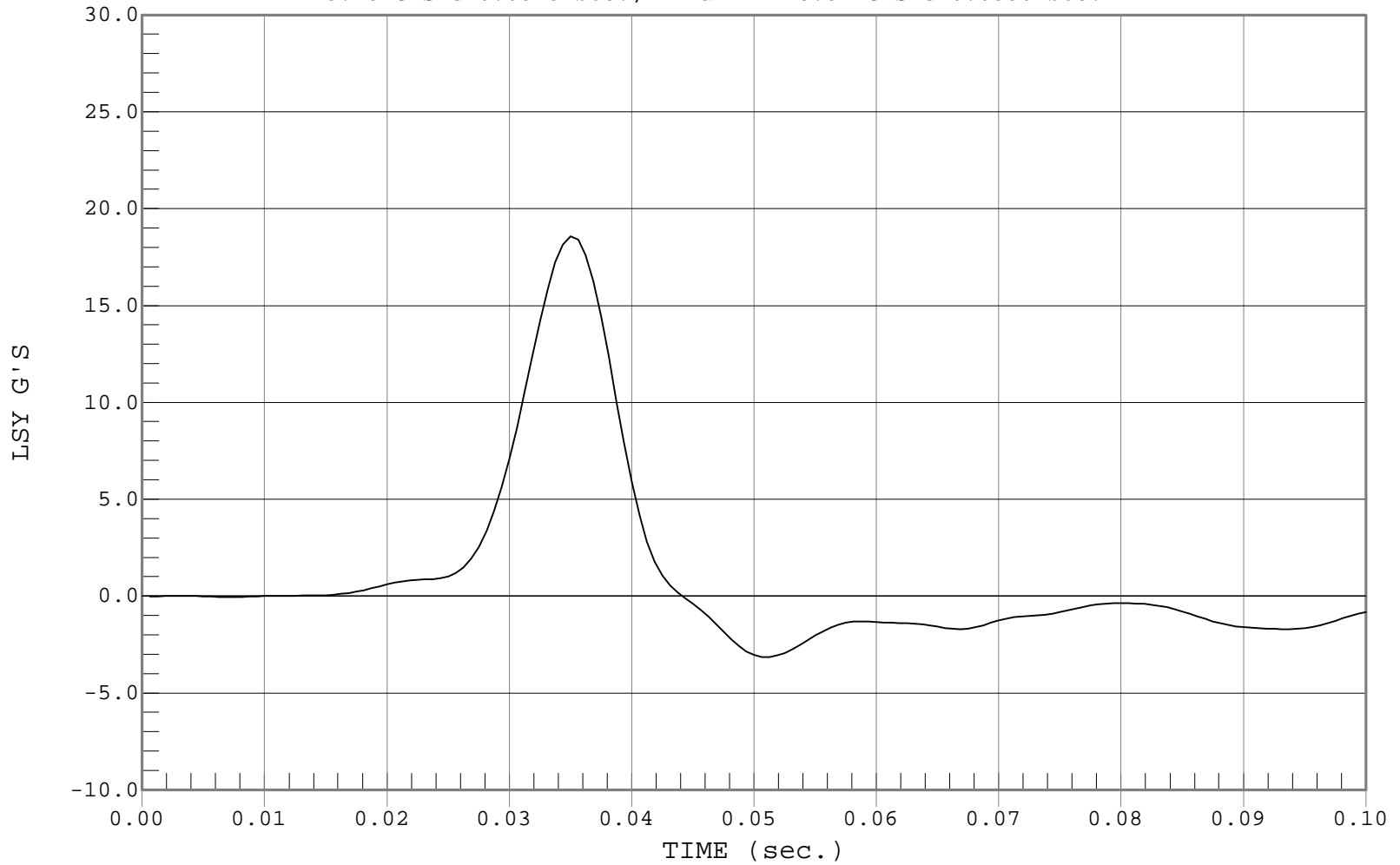
LOWER SPINE ACCELERATION

Test Desc.: Dummy Calibration - Thorax Impact
Component: Dummy #269

Test Date: 10-25-00
Speed: 14.12 FT/SEC, 4.30 M/SEC

— 1 LSY, D00282FI.R10

Ymin = -3.15 G'S @ 0.0513 sec., Ymax = 18.57 G'S @ 0.0350 sec.



MGA RESEARCH CORPORATION
PELVIS IMPACT TEST
SIDE IMPACT DUMMY (SID)

Date: 10/25/00
Dummy Serial Number: 269
Test Number: D001283

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.0°
Relative Humidity (%)	10 – 70	54%
Probe Speed (m/s)	4.27 – 4.33	4.31
Pelvis Acceleration (g's)	40 – 60	42

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



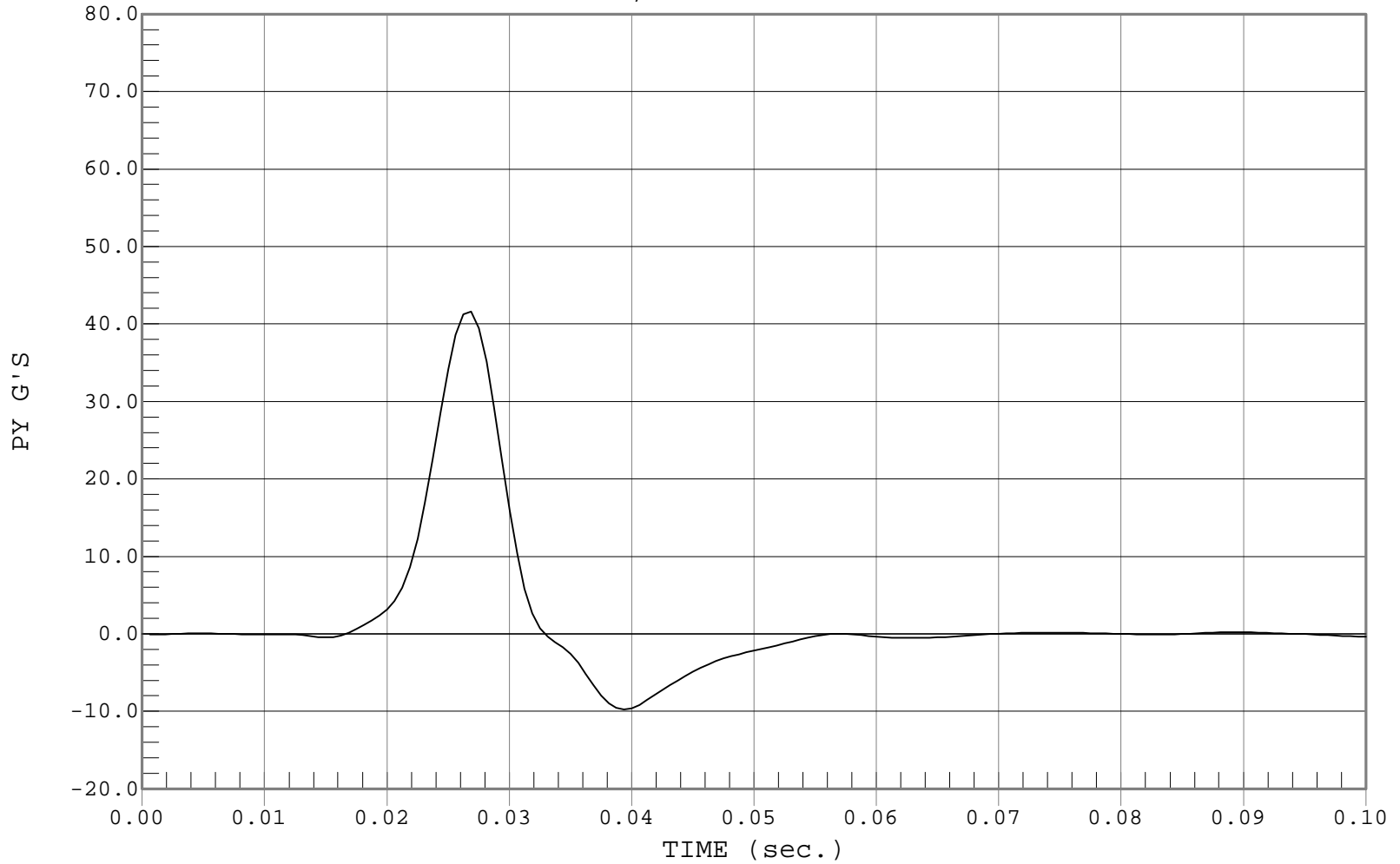
PELVIS ACCELERATION

Test Desc.: Dummy Calibration - Pelvis Impact
Component: Dummy #269

Test Date: 10-25-00
Speed: 14.14 FT/SEC, 4.31 M/SEC

1 PY, D00283FI.R11

Ymin = -9.76 G'S @ 0.0394 sec., Ymax = 41.56 G'S @ 0.0269 sec.



MGA RESEARCH CORPORATION
ABDOMINAL COMPRESSION TEST (PRELOAD = 10 LBS)
SIDE IMPACT DUMMY (SID)

Date: 10/23/00
Dummy Serial Number: 269
Test Number: D001284

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.0°
Relative Humidity (%)	10 – 70	49%
Force @ 12.7 mm	104 – 162	129
Force @ 19 mm	163 – 222	181
Force @ 25.4 mm	222 – 280	244
Force @ 33 mm	325 - 391	331

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



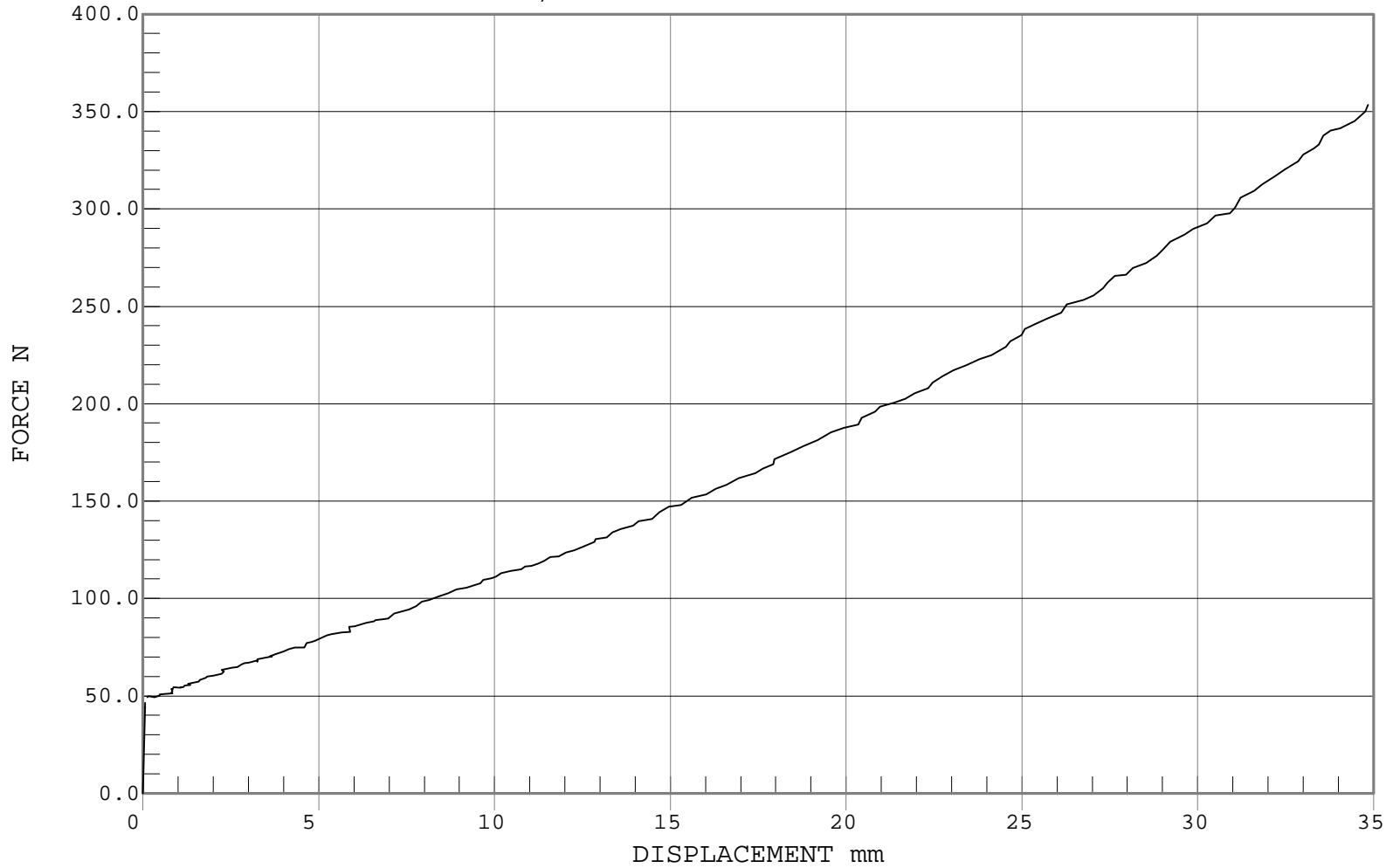
ABDOMEN COMPRESSION

Test Desc.: DUMMY CALIBRATION - ABDOMEN COMPRESSION
Component: DUMMY # 269

Test Date: 10-23-00
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 FORCE, D00284FC.F16

Ymin = 0 N @ 0.0000 mm, Ymax = 407.92 N @ 39.0035 mm



MGA RESEARCH CORPORATION
LUMBAR FLEXION TEST
SIDE IMPACT DUMMY (SID)

Date: 10/23/00
Dummy Serial Number: 269
Test Number: D001285

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.0°
Relative Humidity (%)	10 – 70	49%
Force @ 0°	0 – 26.7	0
Force @ 20°	97.9 – 151.2	103.6
Force @ 30°	151.2 – 204.6	151.8
Force @ 40°	204.6 – 258.0	224.0
Return Angle	12° maximum	4°

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



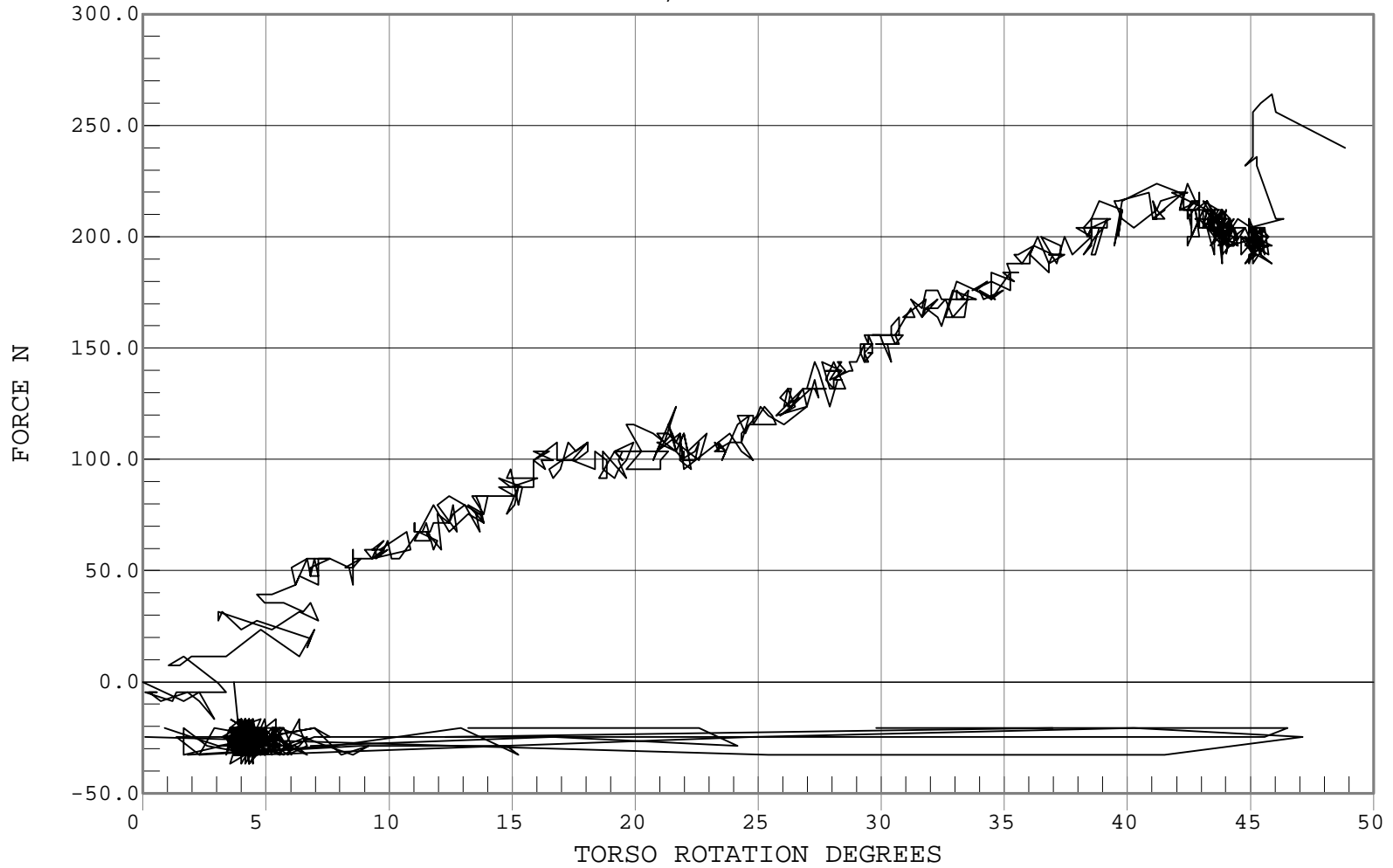
LUMBAR FLEXION

Test Desc.: DUMMY CALIBRATION - LUMBAR FLEXION
Component: DUMMY # 269

Test Date: 10-23-00
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 FORCE, D00285FC.F14

Ymin = -36.75 N @ 4.3127 DEGREES, Ymax = 264.07 N @ 45.8823 DEGREES



DUMMY INSPECTION CHECKLIST

Type: Side Impact Dummy

Dummy Serial Number: 269

Inspected By: Tim Michnay

Date: 10/25/00

<u>Part</u>	<u>Items Checked</u>	<u>Comments</u>
Skin	visual inspection	OK
Head	visual, ballast, accelerometer mount	OK
Neck	visual	OK
Spine box	visual, ballast, weldment, accelerometer mount	OK
Rib cage	visual, measure	OK
Sternum	visual	OK
Lumbar spine	visual	OK
Abdomen	visual	OK
Pelvis	visual, palpate, accelerometer mount	OK
Upper legs	visual	OK
Knees	visual	OK
Lower legs	visual, range of motion	OK
Ankles	visual, range of motion	OK
Feet	visual, range of motion	OK
Joints	1 to 2 g range	OK
Other		

Notes (include component/problem/action/reason):

CERTIFICATION DATA

Dummy Serial Number: 270

Calibration Test Results Summary

Dummy Serial Number: 270

Pre-Test Calibration

External Dimensions:	The dummy passed all external dimension requirements.
Head Drop Test:	The head passed all drop test requirements.
Thorax Impact Test:	The thorax passed all impact test requirements.
Pelvic Impact Test:	The pelvis passed all impact test requirements.
Abdominal Compression Test:	The abdomen passed all compression test requirements.
Lumbar Flexion Test:	The lumbar passed all flexion test requirements.

SIDE IMPACT DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

Dummy Serial Number: 270
 Date of Verification: 10/26/00
 Test Number: D00129

DESCRIPTION	SPECIFICATION	TEST RESULTS
SH-Seated Height (mm)	889 – 909	899
RH-Rib Height (mm)	501 – 521	504
HP-Hip Pivot Height (mm)	99 ref.	99
RD-Rib From Back Line (mm)	229 - 241	232
KV-Knee Pivot From Back Line (mm)	511 – 526	523
SW-Knee Pivot to Floor (mm)	490 – 505	500
HW – Hip Width (mm)	356 – 391	367

Technician: _____

Approved By: _____

MGA RESEARCH CORPORATION
HEAD DROP TEST
SIDE IMPACT DUMMY (SID)

Date: 10/25/00
Dummy Serial Number: 270
Test Number: D001291

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 - 25.5	21.0°
Relative Humidity (%)	10 - 70	54%
Peak Resultant Acceleration	210 - 260 g's	249
Peak Lateral Acceleration	< 10 g's	-3
Time Above 100 g.	0.9 - 1.5 msec.	1.2

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



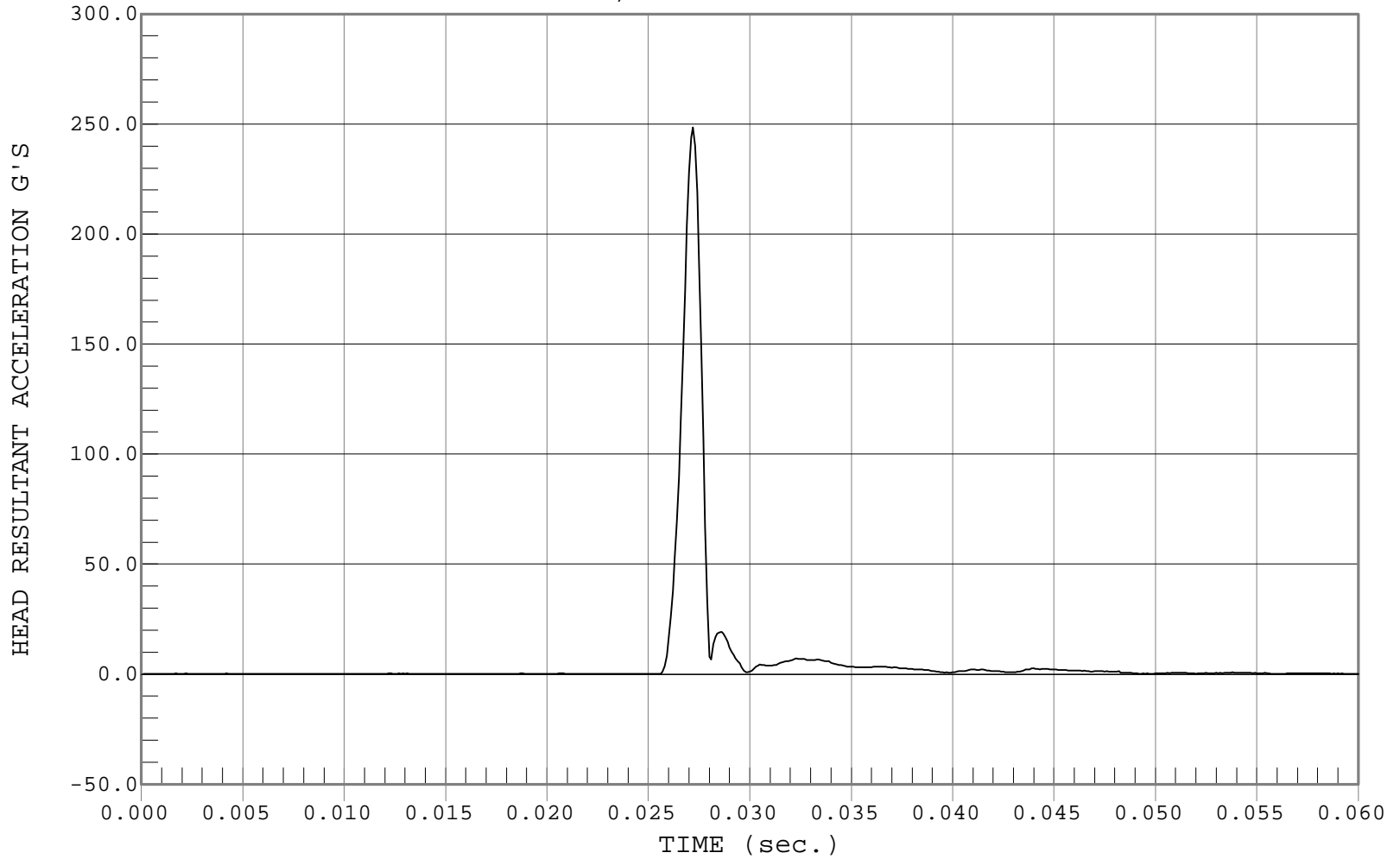
PEAK RESULTANT ACCELERATION

Test Desc.: Dummy Calibration - Head Drop
Component: Dummy # 270

Test Date: 10-25-00
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 HEAD RESULTANT ACCELERATION, D00291av.a01

Ymin = .07 G'S @ 0.0001 sec., Ymax = 248.53 G'S @ 0.0272 sec.





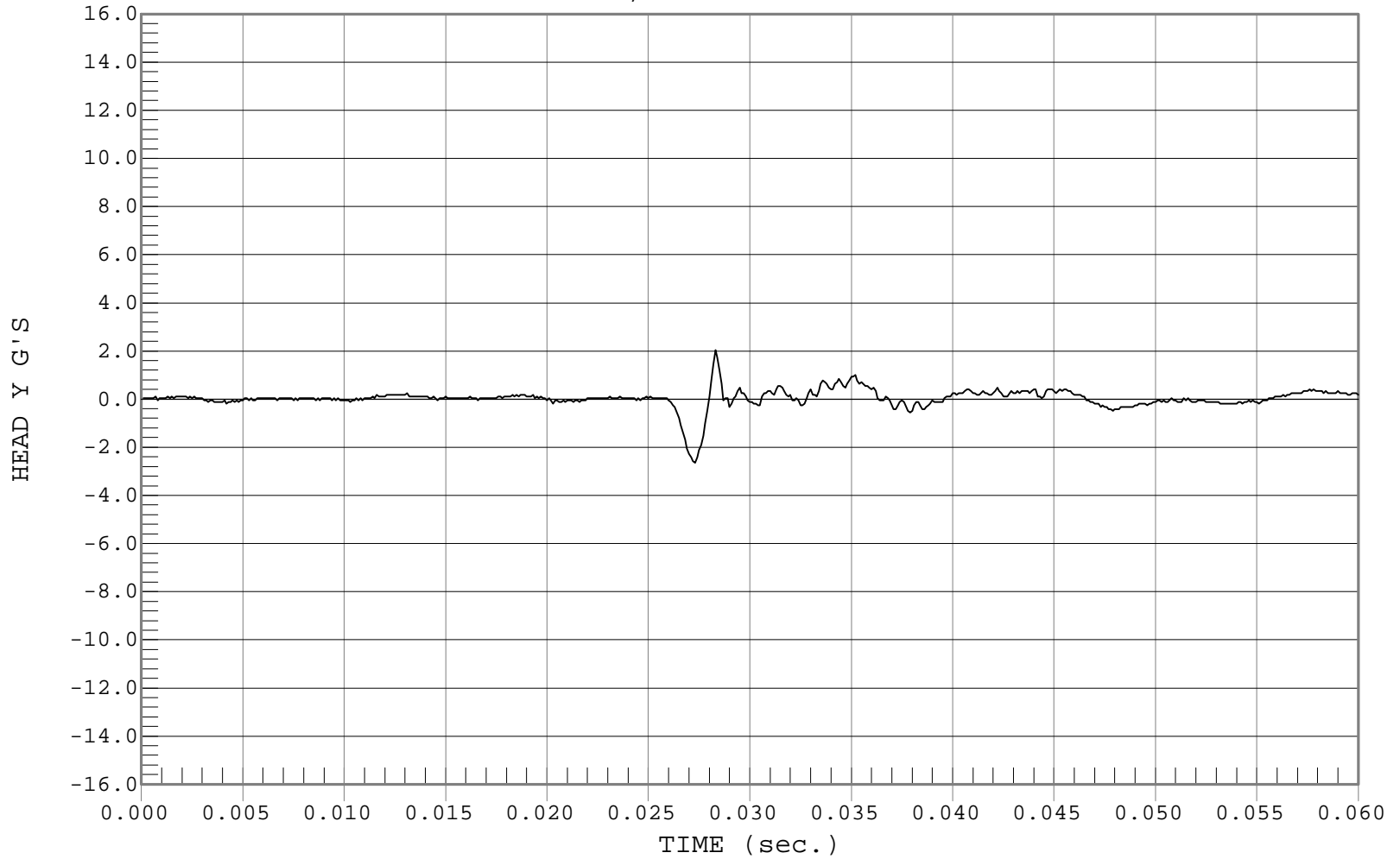
PEAK LATERAL ACCELARATION

Test Desc.: Dummy Calibration - Head Drop
Component: Dummy # 270

Test Date: 10-25-00
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 HEAD Y, D00291AR.A02

Ymin = -2.65 G'S @ 0.0273 sec., Ymax = 2.04 G'S @ 0.0283 sec.



MGA RESEARCH CORPORATION
 THORACIC SHOCK ABSORBER TEST
 SIDE IMPACT DUMMY (SID)

Date: 10/23/00
 Dummy Serial Number: 270
 Test Number: D001296/7/8

TEST PARAMETER		SPECIFICATION	TEST RESULTS
Temperature (°C)		18.9 – 25.5	21.0°
Relative Humidity (%)		10 – 70	49%
Velocity 3.05 m/s	Force (N)	836 – 1125	942
	Displacement (mm)	30 – 35	34
Velocity 4.27 m/s	Force (N)	1730 – 2099	1993
	Displacement (mm)	32 – 37	33
Velocity 6.1 m/s	Force (N)	3741 – 4448	4381
	Displacement (mm)	33 – 40	37

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



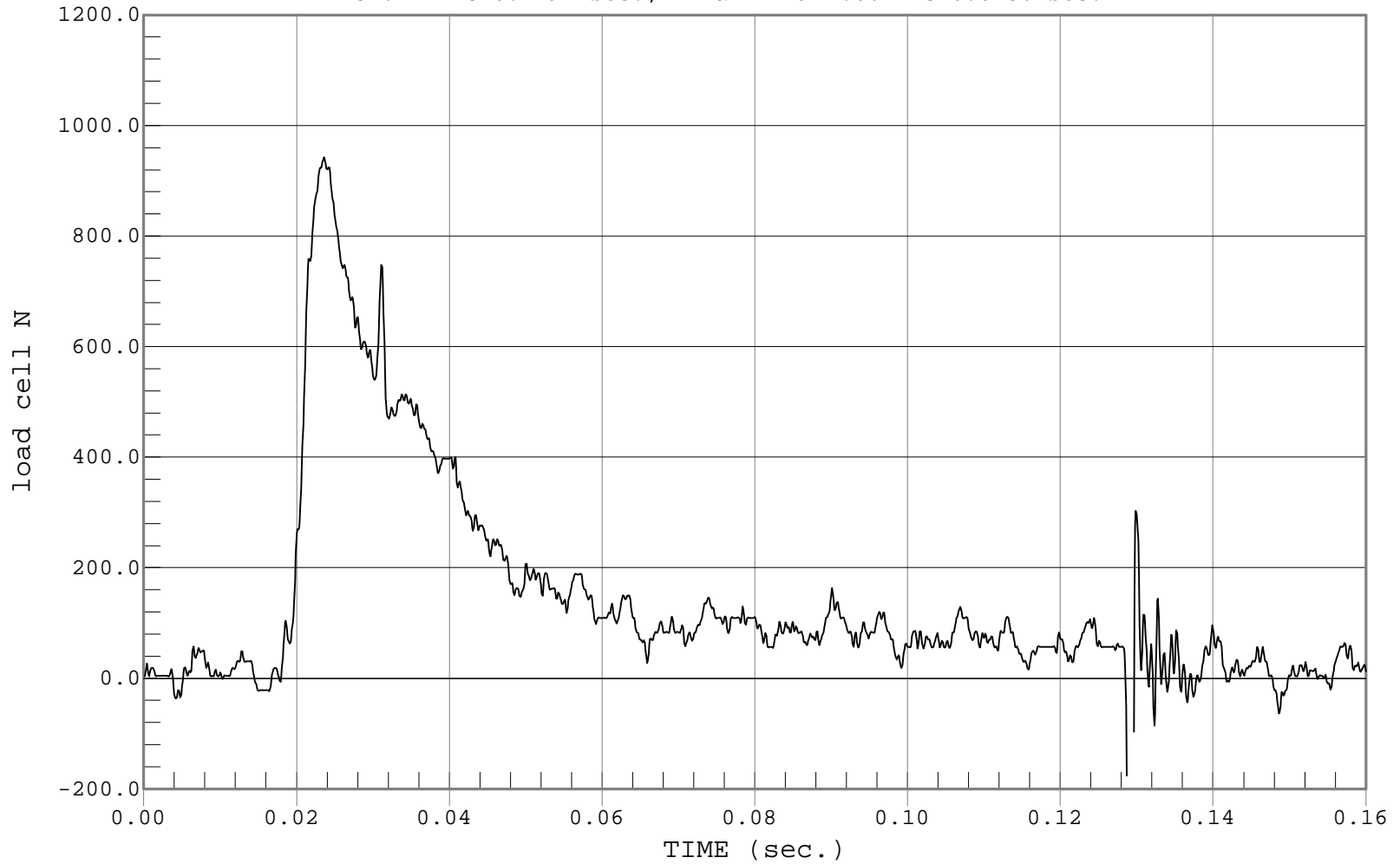
PEAK FORCE

Test Desc.: Dummy Calibration - Dampener Impact
Component: Dummy # 270

Test Date: 10-23-00
Speed: 10.00 FT/SEC, 3.05 M/SEC

1 load cell, D00296ff.f04

Ymin = -1252.72 N @ 0.1292 sec., Ymax = 942.06 N @ 0.0236 sec.





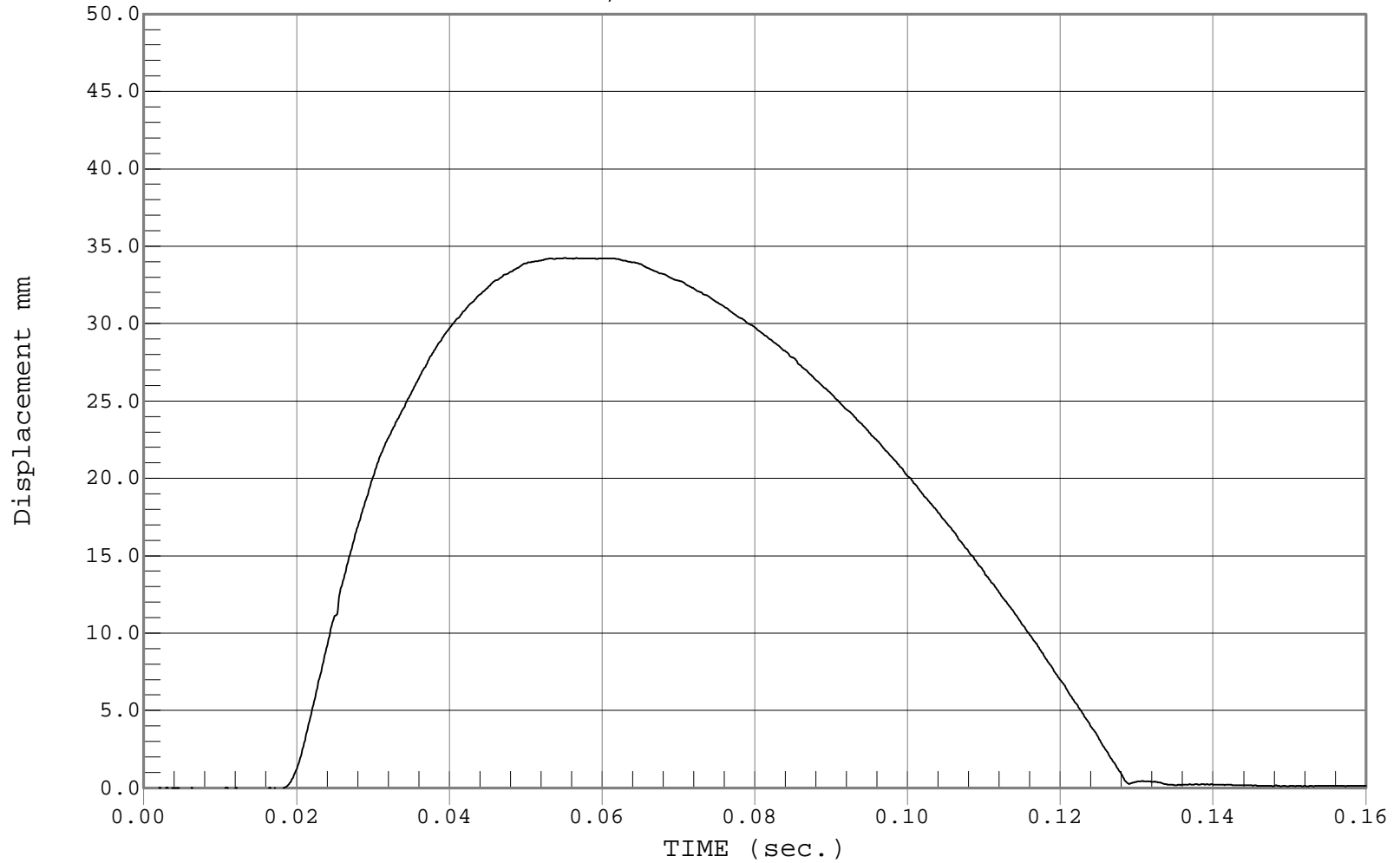
PEAK DISPLACEMENT

Test Desc.: Dummy Calibration - Dampener Impact
Component: Dummy # 270

Test Date: 10-23-00
Speed: 10.00 FT/SEC, 3.05 M/SEC

1 Displacement, D00296DF.D05

Ymin = -.04 mm @ 0.0174 sec., Ymax = 34.23 mm @ 0.0551 sec.





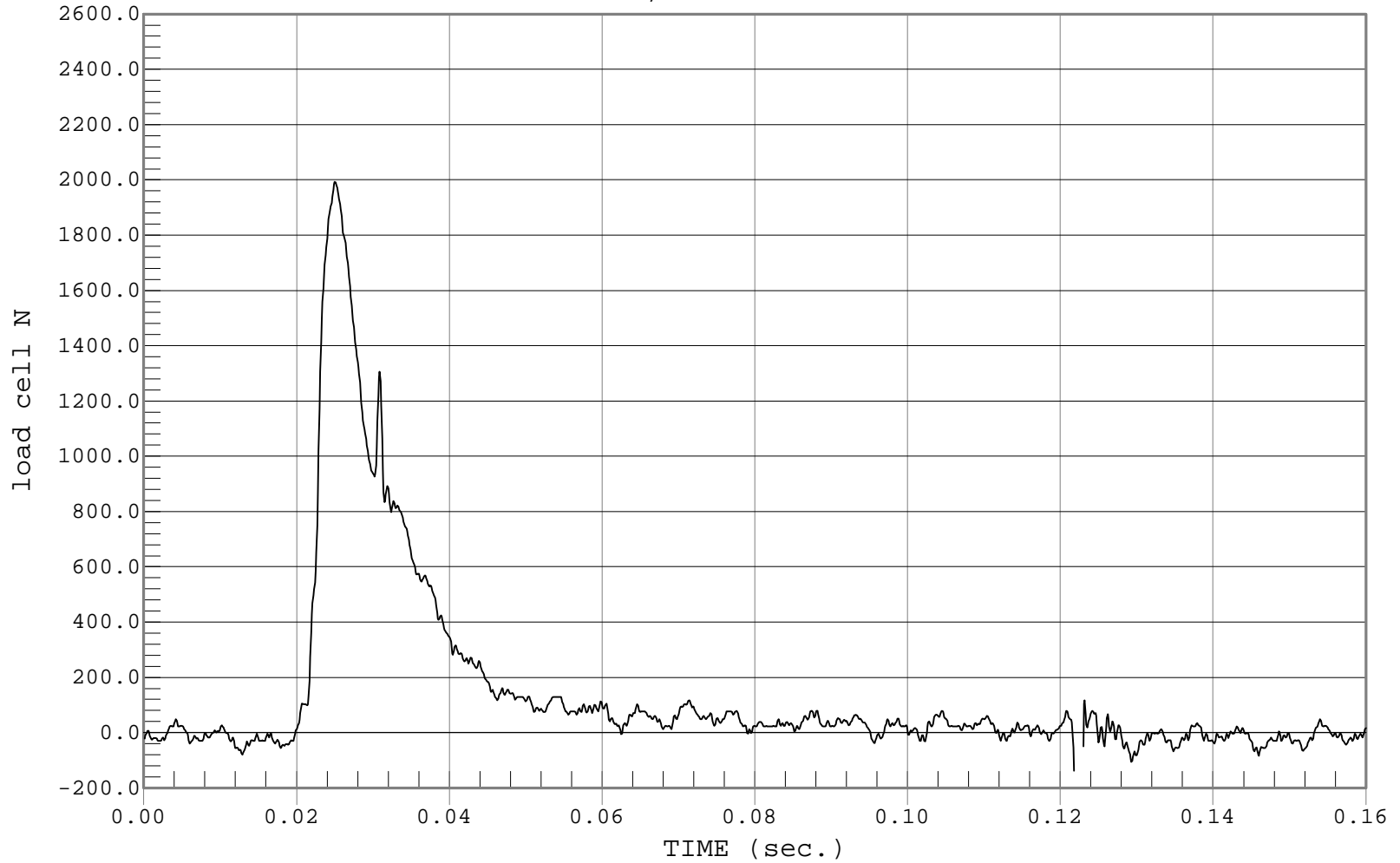
PEAK FORCE

Test Desc.: Dummy Calibration - Dampener Impact
Component: Dummy # 270

Test Date: 10-23-00
Speed: 14.00 FT/SEC, 4.27 M/SEC

1 load cell, D00297ff.f04

Ymin = -1179.39 N @ 0.1226 sec., Ymax = 1992.55 N @ 0.0250 sec.





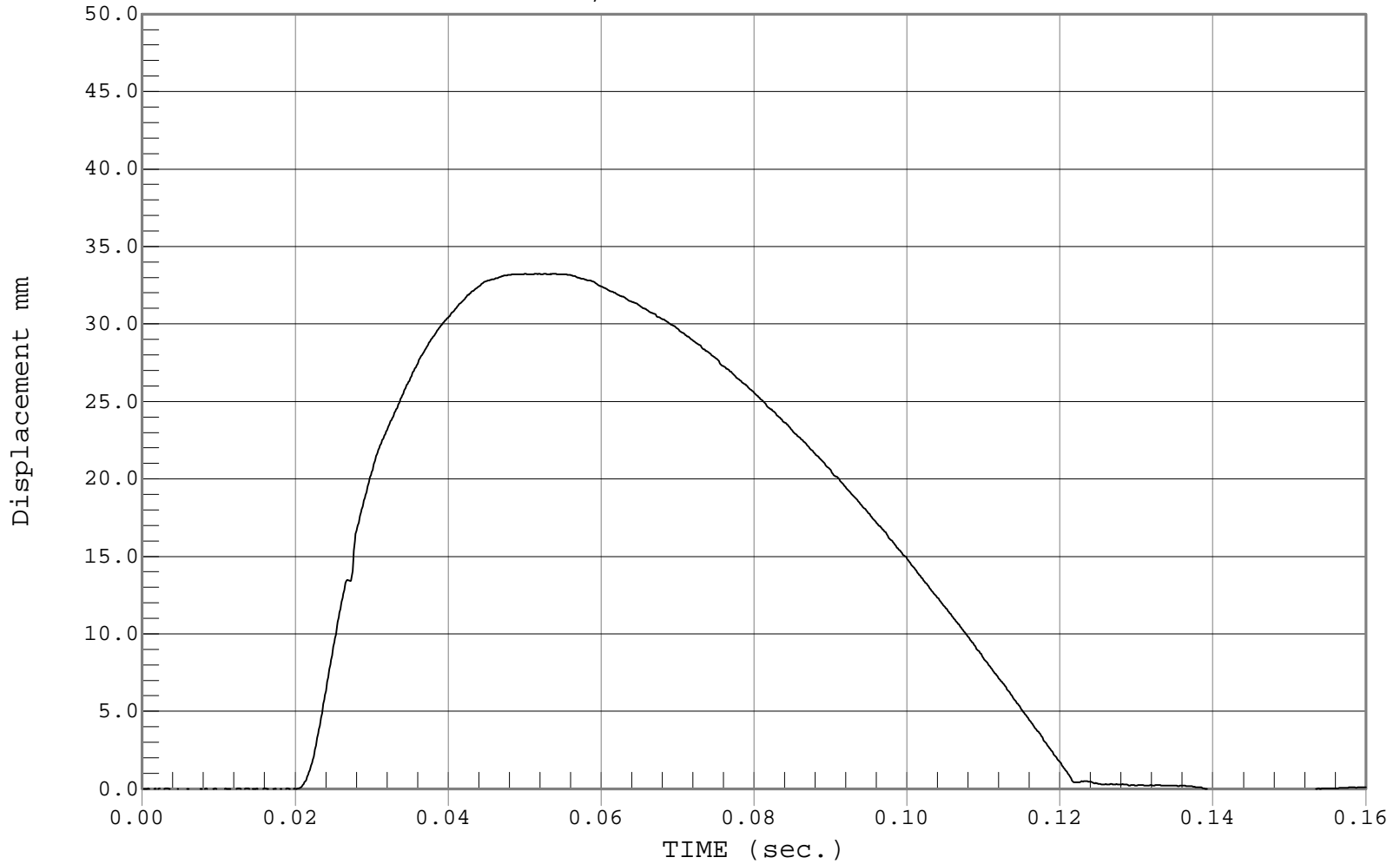
PEAK DISPLACEMENT

Test Desc.: Dummy Calibration - Dampener Impact
Component: Dummy # 270

Test Date: 10-23-00
Speed: 14.00 FT/SEC, 4.27 M/SEC

1 Displacement, D00297DF.D05

Ymin = -.1 mm @ 0.1418 sec., Ymax = 33.25 mm @ 0.0515 sec.





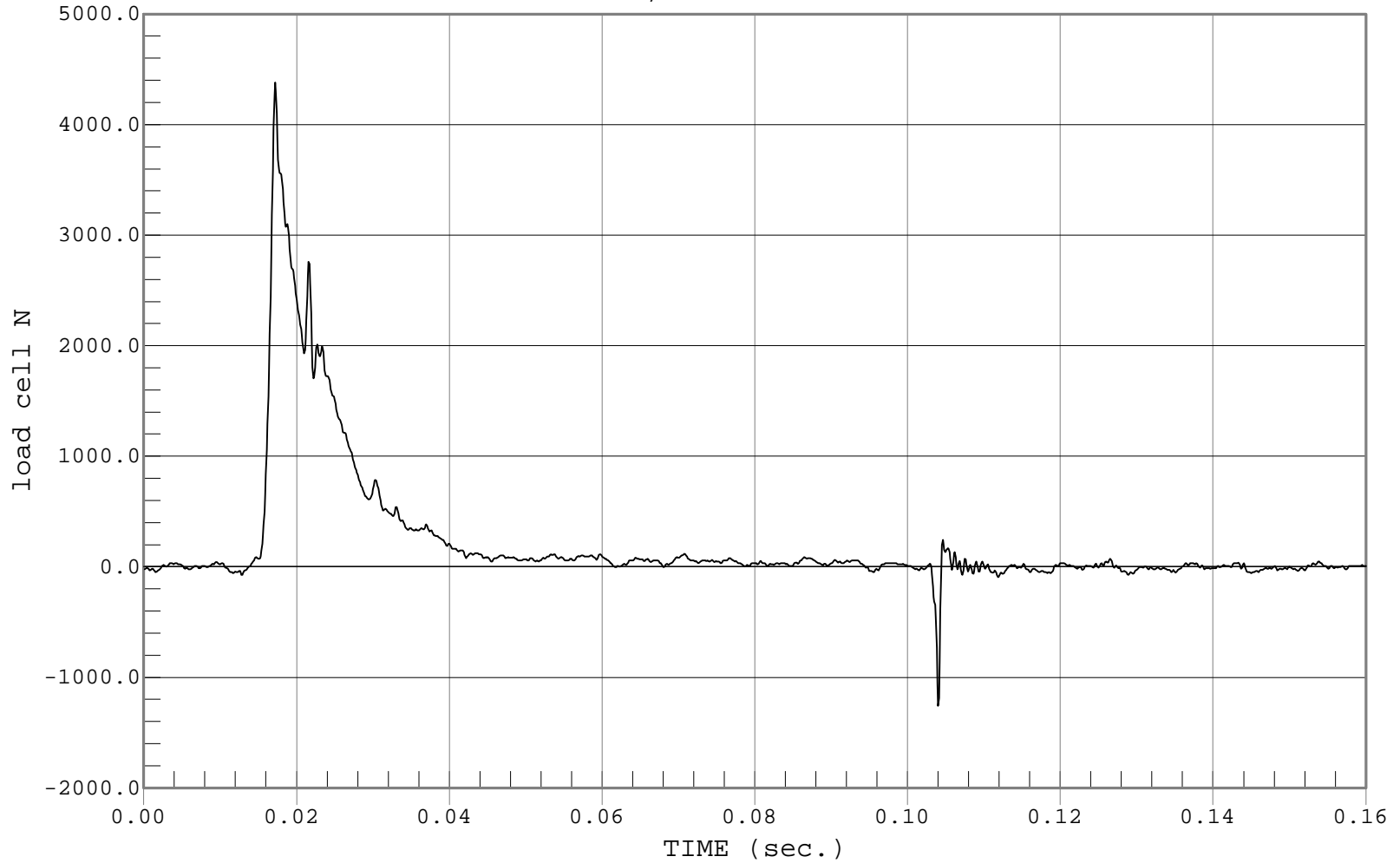
PEAK FORCE

Test Desc.: Dummy Calibration - Dampener Impact
Component: Dummy # 270

Test Date: 10-23-00
Speed: 20.00 FT/SEC, 6.10 M/SEC

1 load cell, D00298ff.f04

Ymin = -1258.16 N @ 0.1040 sec., Ymax = 4380.66 N @ 0.0172 sec.





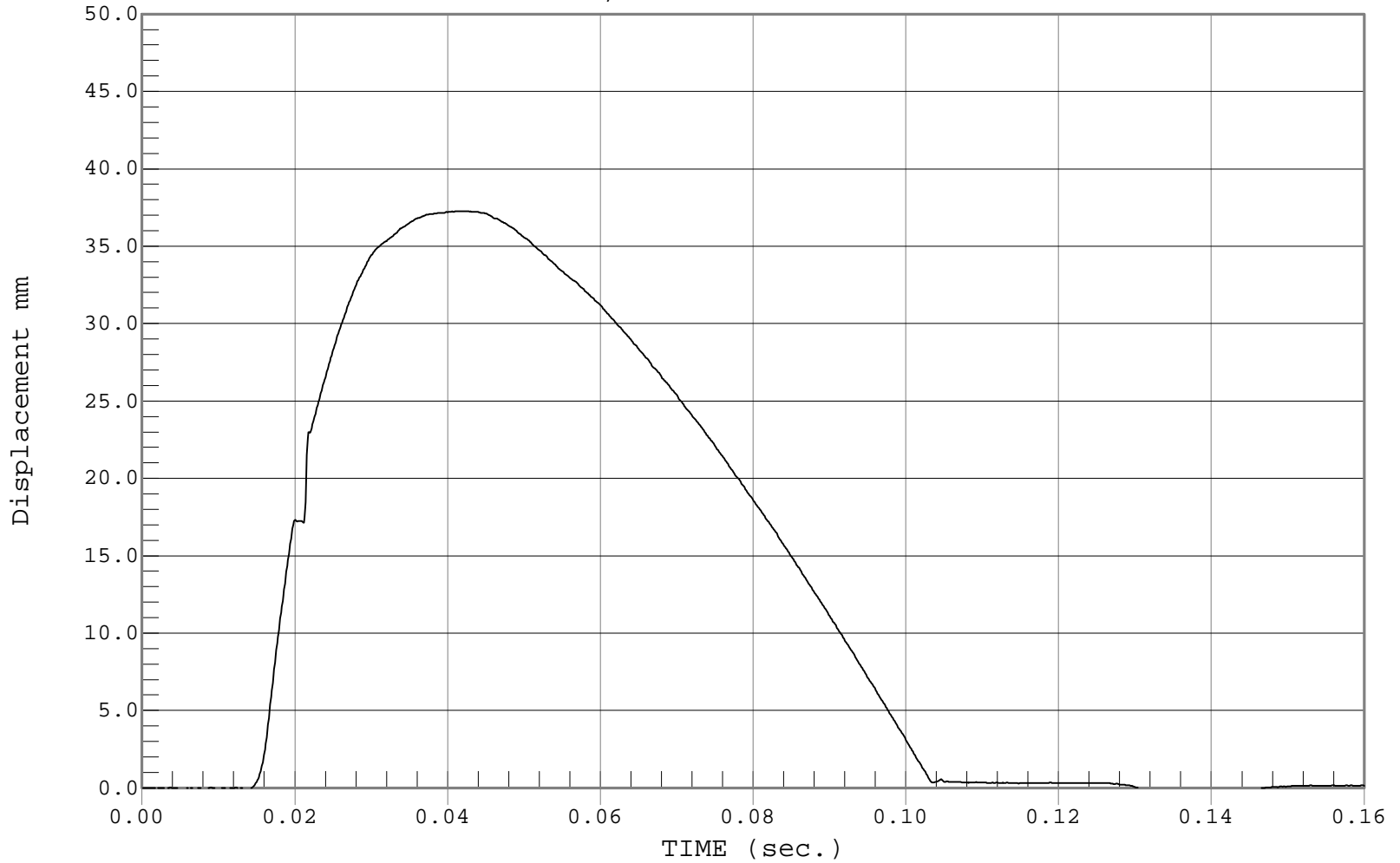
PEAK DISPLACEMENT

Test Desc.: Dummy Calibration - Dampener Impact
Component: Dummy # 270

Test Date: 10-23-00
Speed: 20.00 FT/SEC, 6.10 M/SEC

1 Displacement, D00298DF.D05

Ymin = -.22 mm @ 0.1345 sec., Ymax = 37.25 mm @ 0.0412 sec.



MGA RESEARCH CORPORATION
THORAX IMPACT TEST
SIDE IMPACT DUMMY (SID)

Date: 10/26/00
Dummy Serial Number: 270
Test Number: D001292

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.0°
Relative Humidity (%)	10 – 70	46%
Probe Speed (m/s)	4.27 – 4.33	4.27
Upper Rib (g's)	37 – 46	40
Lower Rib (g's)	37 – 46	40
Lower Spine (g's)	15 - 22	21

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



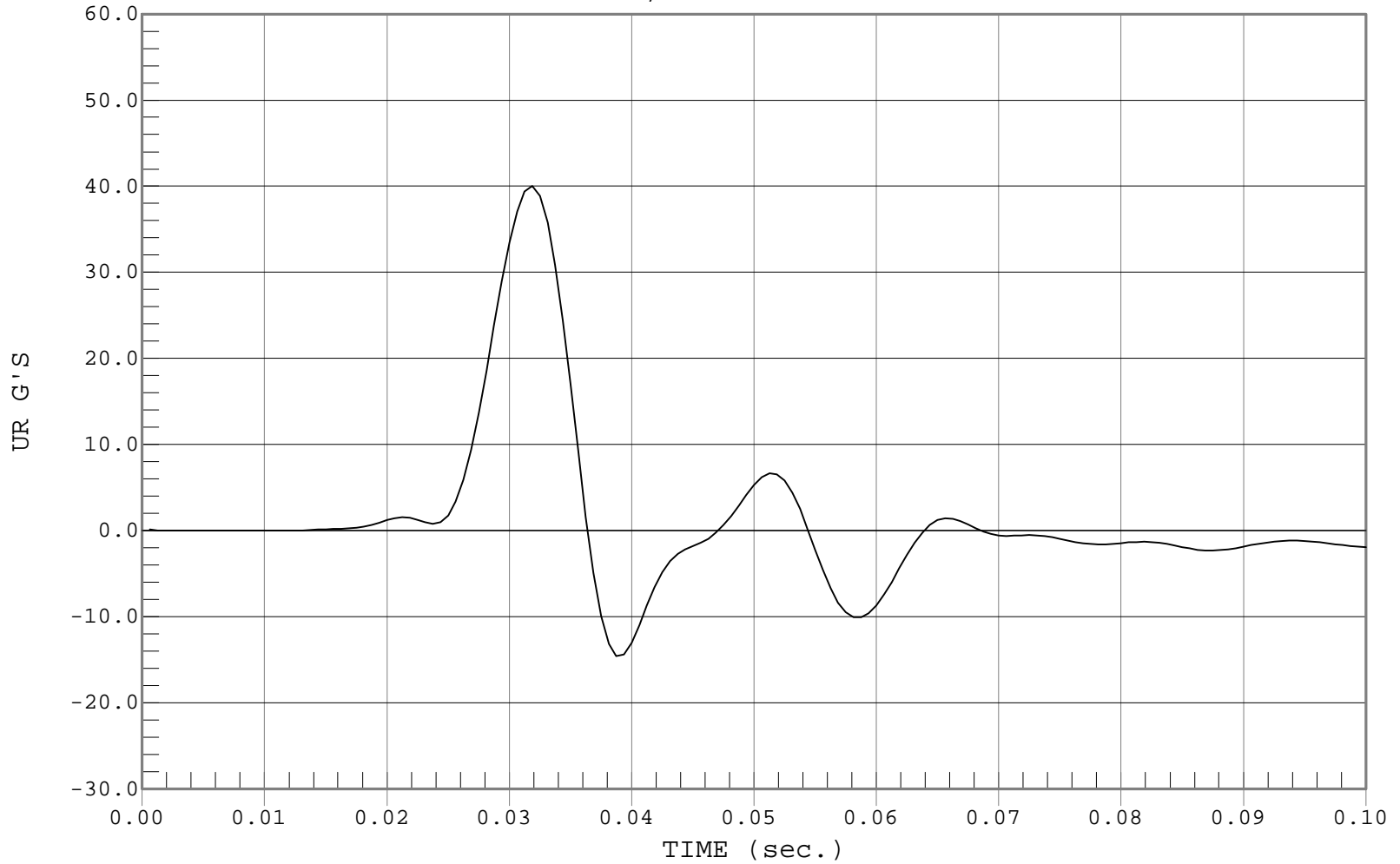
UPPER RIB ACCELERATION

Test Desc.: Dummy Calibration - Thorax Impact
Component: Dummy #270

Test Date: 10-26-00
Speed: 14.01 FT/SEC, 4.27 M/SEC

1 UR, D00292FI.R08

Ymin = -14.55 G'S @ 0.0388 sec., Ymax = 40.04 G'S @ 0.0319 sec.





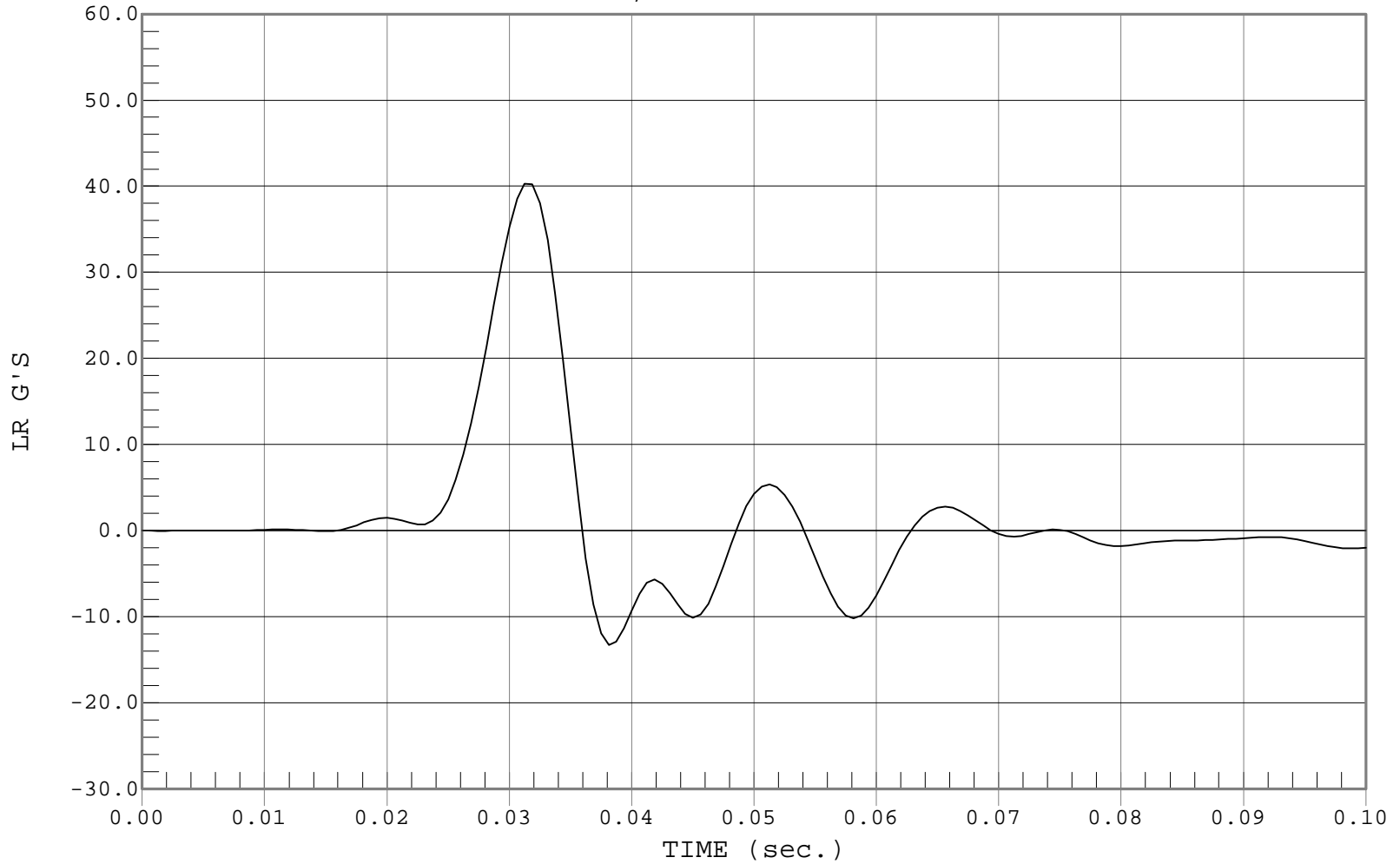
LOWER RIB ACCELERATION

Test Desc.: Dummy Calibration - Thorax Impact
Component: Dummy #270

Test Date: 10-26-00
Speed: 14.01 FT/SEC, 4.27 M/SEC

1 LR, D00292FI.R09

Ymin = -13.3 G'S @ 0.0381 sec., Ymax = 40.3 G'S @ 0.0313 sec.



C-40



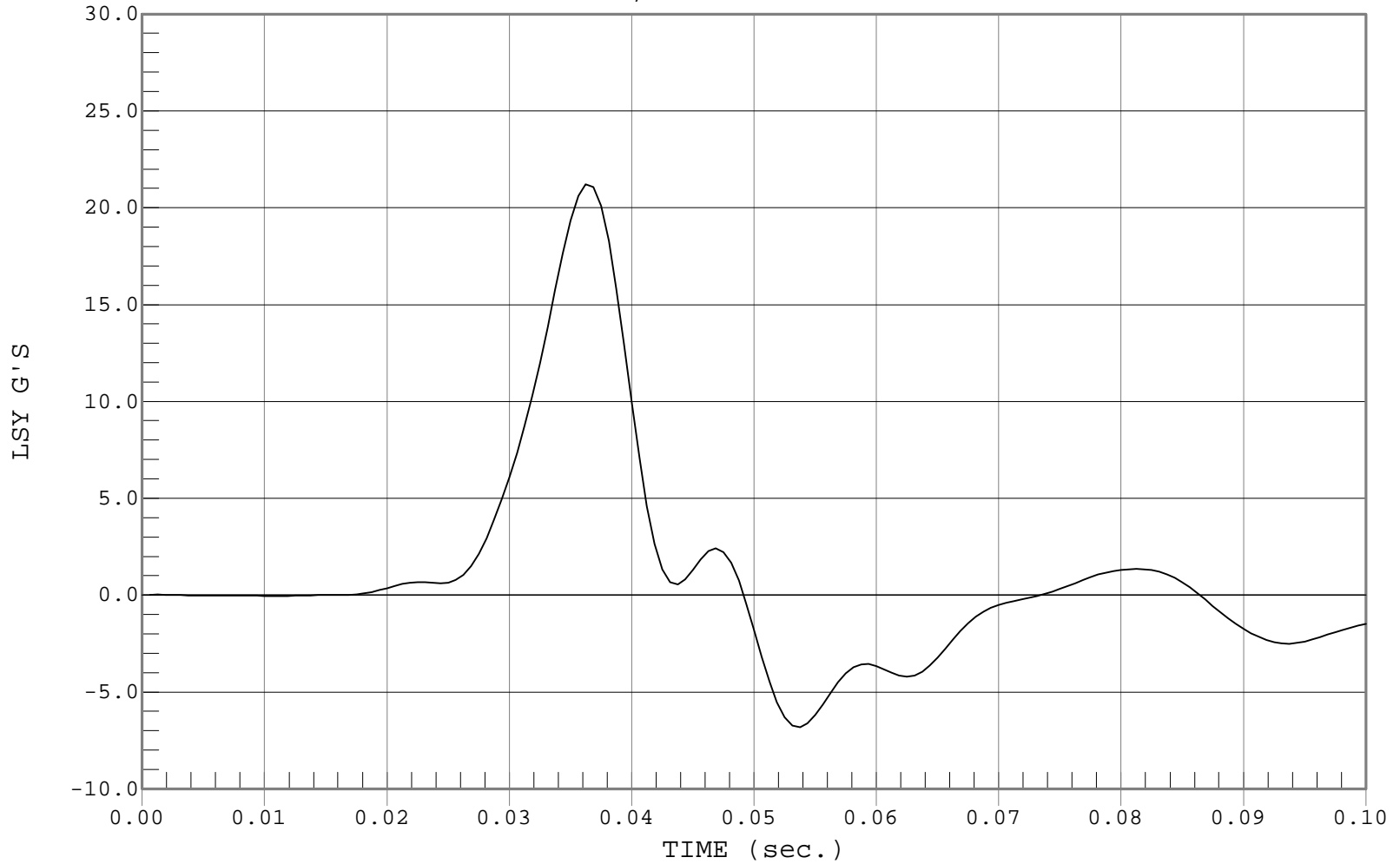
LOWER SPINE ACCELERATION

Test Desc.: Dummy Calibration - Thorax Impact
Component: Dummy #270

Test Date: 10-26-00
Speed: 14.01 FT/SEC, 4.27 M/SEC

1 LSY, D00292FI.R10

Ymin = -6.82 G'S @ 0.0538 sec., Ymax = 21.22 G'S @ 0.0363 sec.



MGA RESEARCH CORPORATION
PELVIS IMPACT TEST
SIDE IMPACT DUMMY (SID)

Date: 10/26/00
Dummy Serial Number: 270
Test Number: D001293

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.0°
Relative Humidity (%)	10 – 70	46%
Probe Speed (m/s)	4.27 – 4.33	4.31
Pelvis Acceleration (g's)	40 – 60	41

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



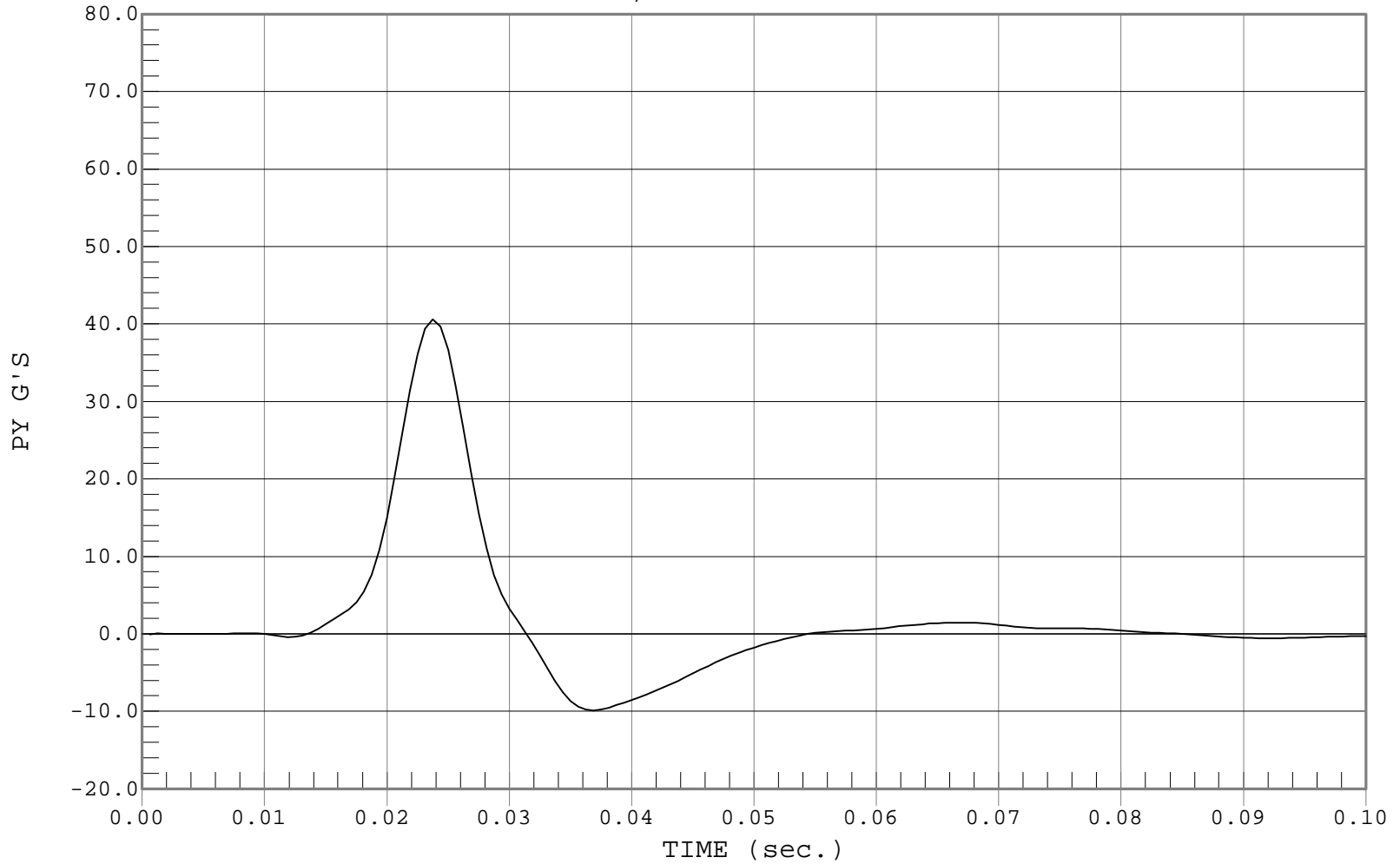
PELVIS ACCELERATION

Test Desc.: Dummy Calibration - Pelvis Impact
Component: Dummy #270

Test Date: 10-26-00
Speed: 14.15 FT/SEC, 4.31 M/SEC

1 PY, D00293FI.R11

Ymin = -9.88 G'S @ 0.0369 sec., Ymax = 40.62 G'S @ 0.0238 sec.



MGA RESEARCH CORPORATION
ABDOMINAL COMPRESSION TEST (PRELOAD = 10 LBS)
SIDE IMPACT DUMMY (SID)

Date: 10/23/00

Dummy Serial Number: 270

Test Number: D001294

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.0°
Relative Humidity (%)	10 – 70	49%
Force @ 12.7 mm	104 – 162	146
Force @ 19 mm	163 – 222	198
Force @ 25.4 mm	222 – 280	268
Force @ 33 mm	325 - 391	359

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



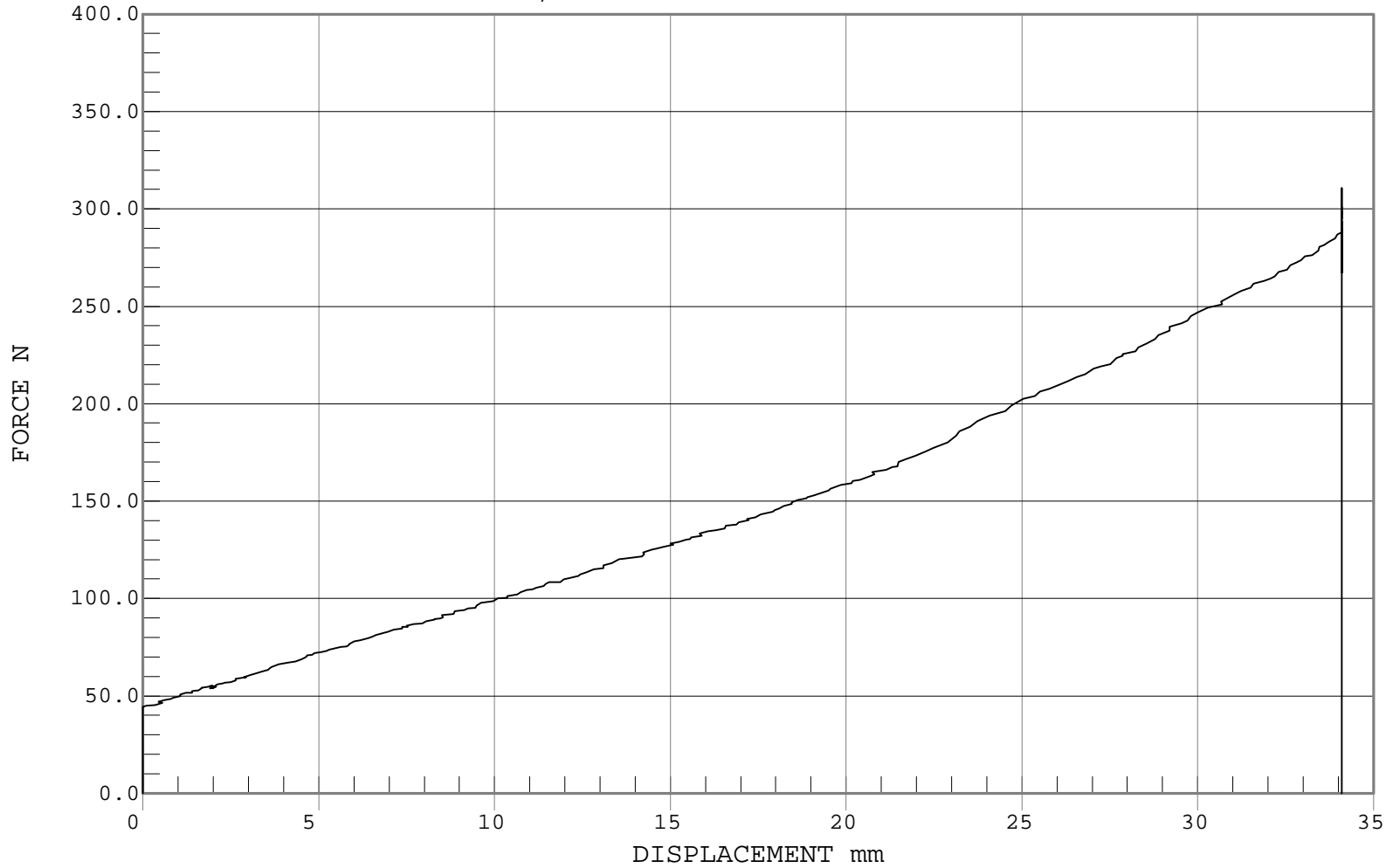
ABDOMEN COMPRESSION

Test Desc.: DUMMY CALIBRATION - ABDOMEN COMPRESSION
Component: DUMMY # 270

Test Date: 10-23-00
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 FORCE, D00294FC.F16

Ymin = 0 N @ 0.0000 mm, Ymax = 310.73 N @ 34.1065 mm



C-45

MGA RESEARCH CORPORATION
LUMBAR FLEXION TEST
SIDE IMPACT DUMMY (SID)

Date: 10/23/00
Dummy Serial Number: 270
Test Number: D001295

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.0°
Relative Humidity (%)	10 – 70	49%
Force @ 0°	0 – 26.7	0
Force @ 20°	97.9 – 151.2	110.2
Force @ 30°	151.2 – 204.6	178.4
Force @ 40°	204.6 – 258.0	250.6
Return Angle	12° maximum	3°

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



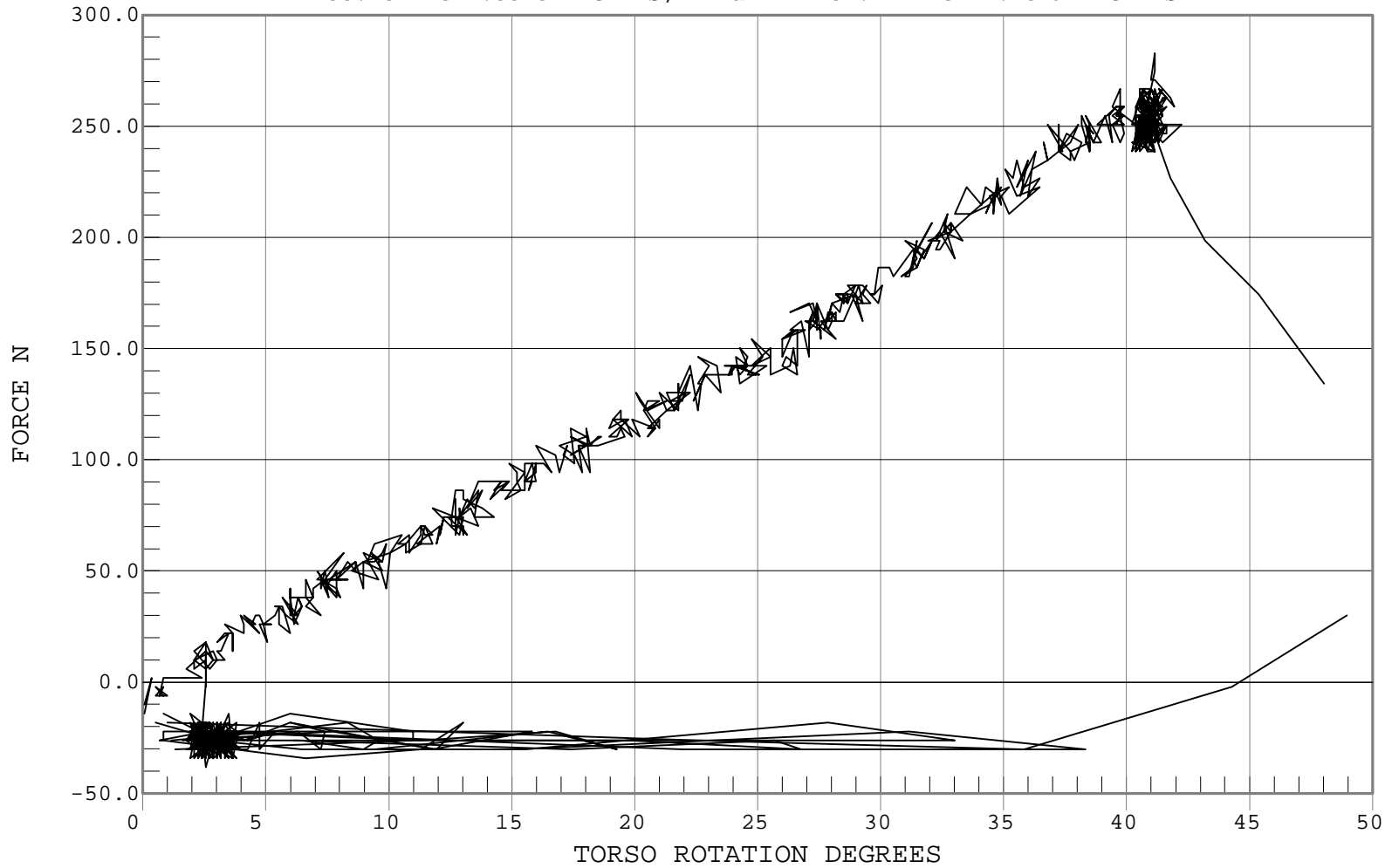
LUMBAR FLEXION

Test Desc.: DUMMY CALIBRATION - LUMBAR FLEXION
Component: DUMMY # 270

Test Date: 10-23-00
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 FORCE, D00295FC.F14

Ymin = -38.18 N @ 2.5525 DEGREES, Ymax = 282.74 N @ 41.1529 DEGREES



DUMMY INSPECTION CHECKLIST

Type: Side Impact Dummy

Dummy Serial Number: 270

Inspected By: Tim Michnay

Date: 10/26/00

<u>Part</u>	<u>Items Checked</u>	<u>Comments</u>
Skin	visual inspection	OK
Head	visual, ballast, accelerometer mount	OK
Neck	visual	OK
Spine box	visual, ballast, weldment, accelerometer mount	OK
Rib cage	visual, measure	OK
Sternum	visual	OK
Lumbar spine	visual	OK
Abdomen	visual	OK
Pelvis	visual, palpate, accelerometer mount	OK
Upper legs	visual	OK
Knees	visual	OK
Lower legs	visual, range of motion	OK
Ankles	visual, range of motion	OK
Feet	visual, range of motion	OK
Joints	1 to 2 g range	OK
Other		

Notes (include component/problem/action/reason):

CERTIFICATION DATA

Dummy Serial Number: 269

Calibration Test Results Summary

Dummy Serial Number: 269

Post-Test Calibration

External Dimensions:	The dummy passed all external dimension requirements.
Head Drop Test:	The head passed all drop test requirements.
Thorax Impact Test:	The thorax passed all impact test requirements.
Pelvic Impact Test:	The pelvis passed all impact test requirements.
Abdominal Compression Test:	The abdomen passed all compression test requirements.
Lumbar Flexion Test:	The lumbar passed all flexion test requirements.

SIDE IMPACT DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

Dummy Serial Number: 269
 Date of Verification: 10/31/00
 Test Number: D00132

DESCRIPTION	SPECIFICATION	TEST RESULTS
SH-Seated Height (mm)	889 – 909	900
RH-Rib Height (mm)	501 – 521	517
HP-Hip Pivot Height (mm)	99 ref.	99
RD-Rib From Back Line (mm)	229 - 241	232
KV-Knee Pivot From Back Line (mm)	511 – 526	520
SW-Knee Pivot to Floor (mm)	490 – 505	495
HW – Hip Width (mm)	356 – 391	370

Technician: _____

Approved By: _____

MGA RESEARCH CORPORATION
HEAD DROP TEST
SIDE IMPACT DUMMY (SID)

Date: 10/31/00
Dummy Serial Number: 269
Test Number: D001321

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 - 25.5	21.0°
Relative Humidity (%)	10 - 70	38%
Peak Resultant Acceleration	210 - 260 g's	249
Peak Lateral Acceleration	< 10 g's	-4
Time Above 100 g.	0.9 - 1.5 msec.	1.2

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



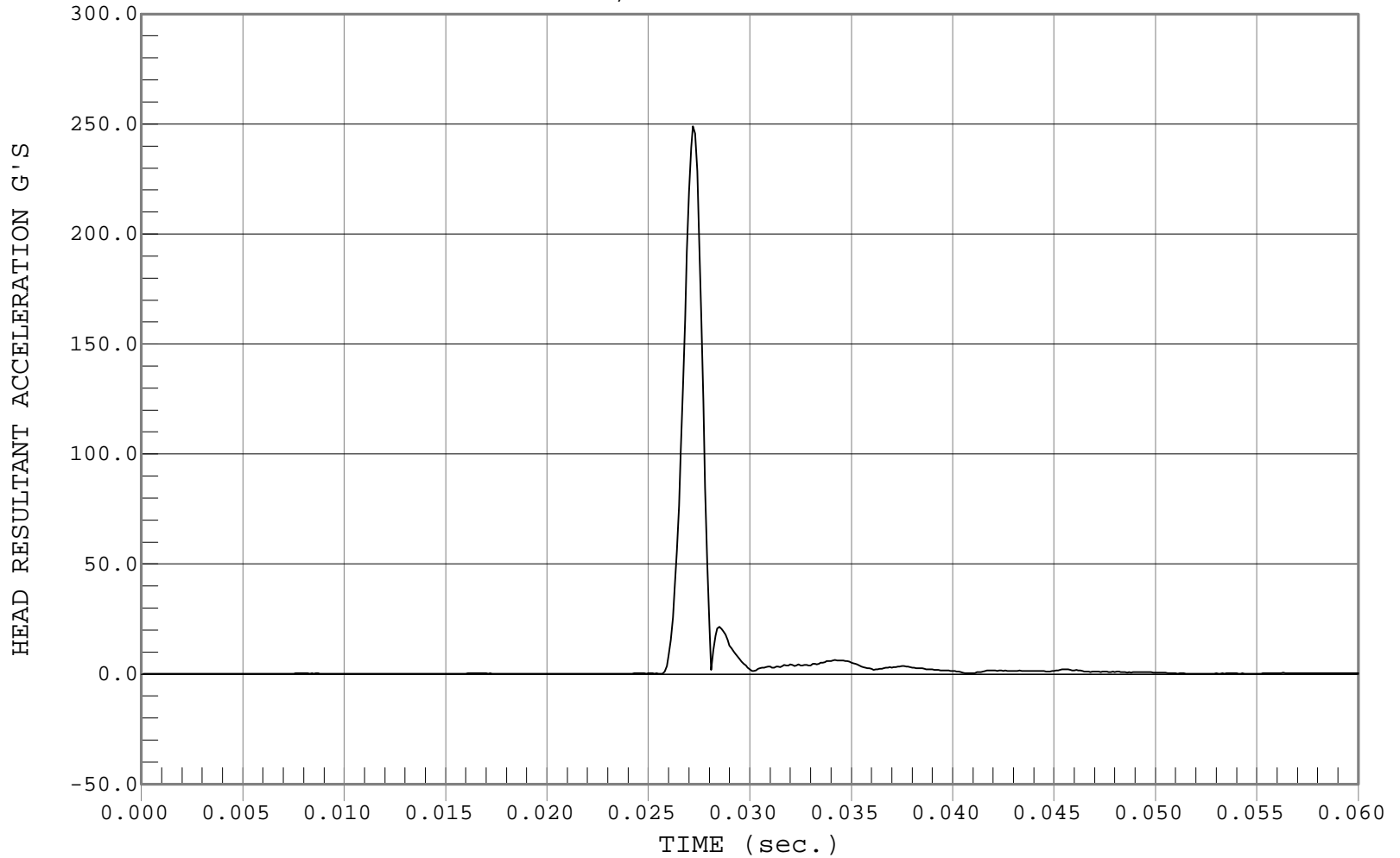
PEAK RESULTANT ACCELERATION

Test Desc.: Dummy Calibration - Head Drop
Component: Dummy #269

Test Date: 10-31-00
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 HEAD RESULTANT ACCELERATION, D00321av.a01

Ymin = .06 G'S @ 0.0014 sec., Ymax = 249.06 G'S @ 0.0272 sec.





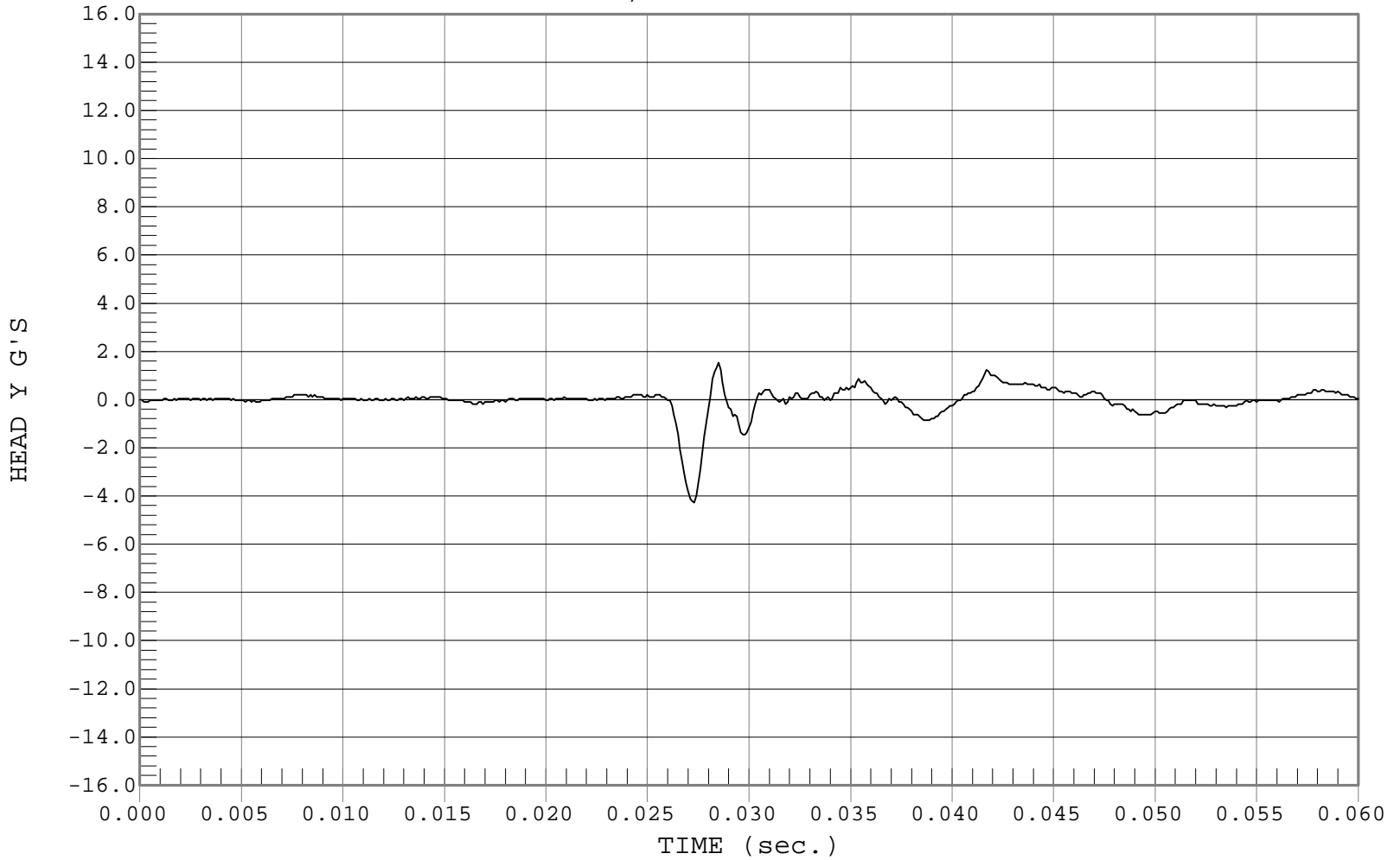
PEAK LATERAL ACCELARATION

Test Desc.: Dummy Calibration - Head Drop
Component: Dummy #269

Test Date: 10-31-00
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 HEAD Y, D00321AR.A02

Ymin = -4.27 G'S @ 0.0273 sec., Ymax = 1.53 G'S @ 0.0285 sec.



MGA RESEARCH CORPORATION
THORAX IMPACT TEST
SIDE IMPACT DUMMY (SID)

Date: 10/31/00
Dummy Serial Number: 269
Test Number: D001322

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.0°
Relative Humidity (%)	10 – 70	38%
Probe Speed (m/s)	4.27 – 4.33	4.32
Upper Rib (g's)	37 – 46	38
Lower Rib (g's)	37 – 46	38
Lower Spine (g's)	15 - 22	18

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



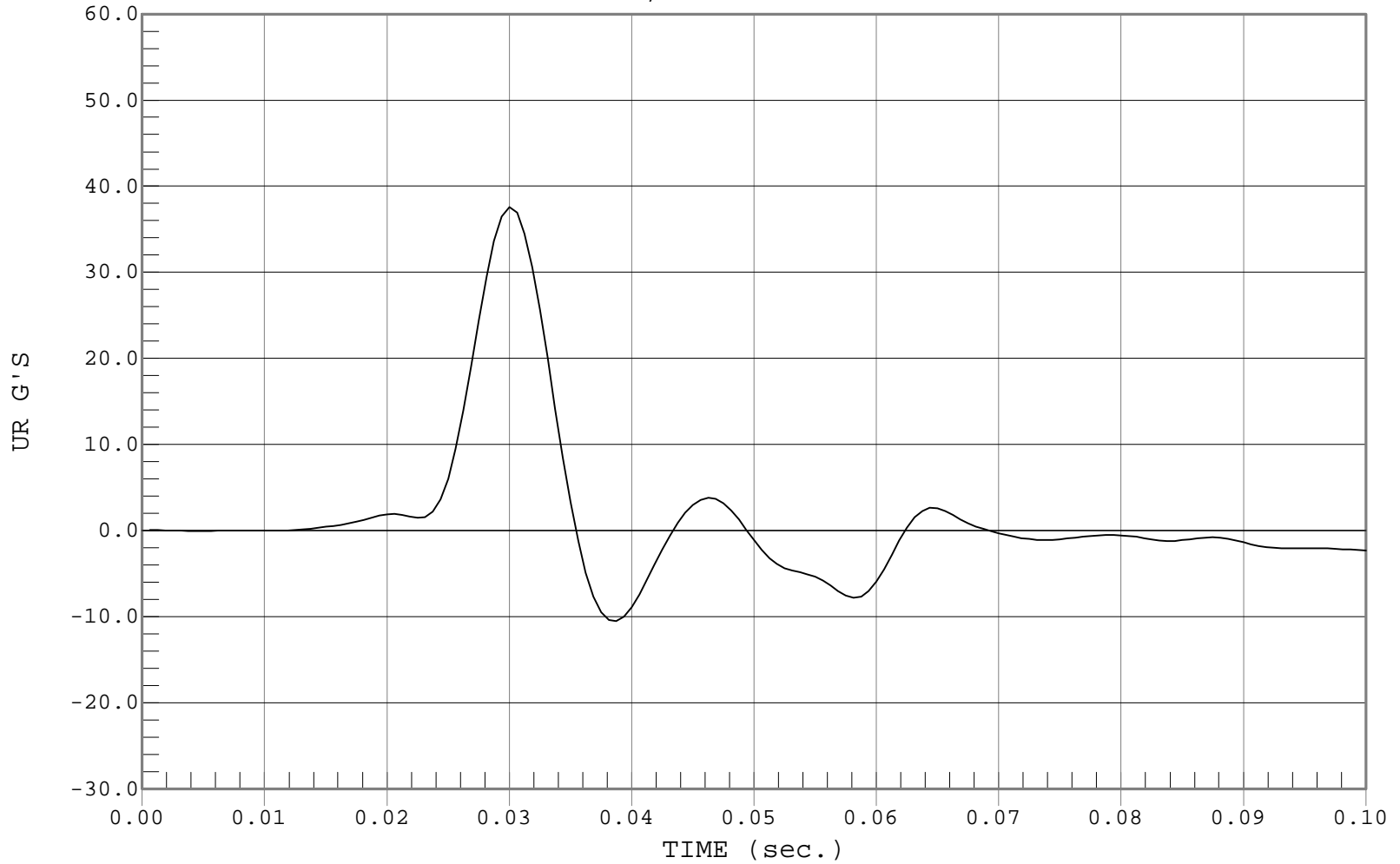
UPPER RIB ACCELERATION

Test Desc.: Dummy Calibration - Thorax Impact
Component: Dummy #269

Test Date: 10-31-00
Speed: 14.17 FT/SEC, 4.32 M/SEC

1 UR, D00322FI.R08

Ymin = -10.53 G'S @ 0.0388 sec., Ymax = 37.6 G'S @ 0.0300 sec.





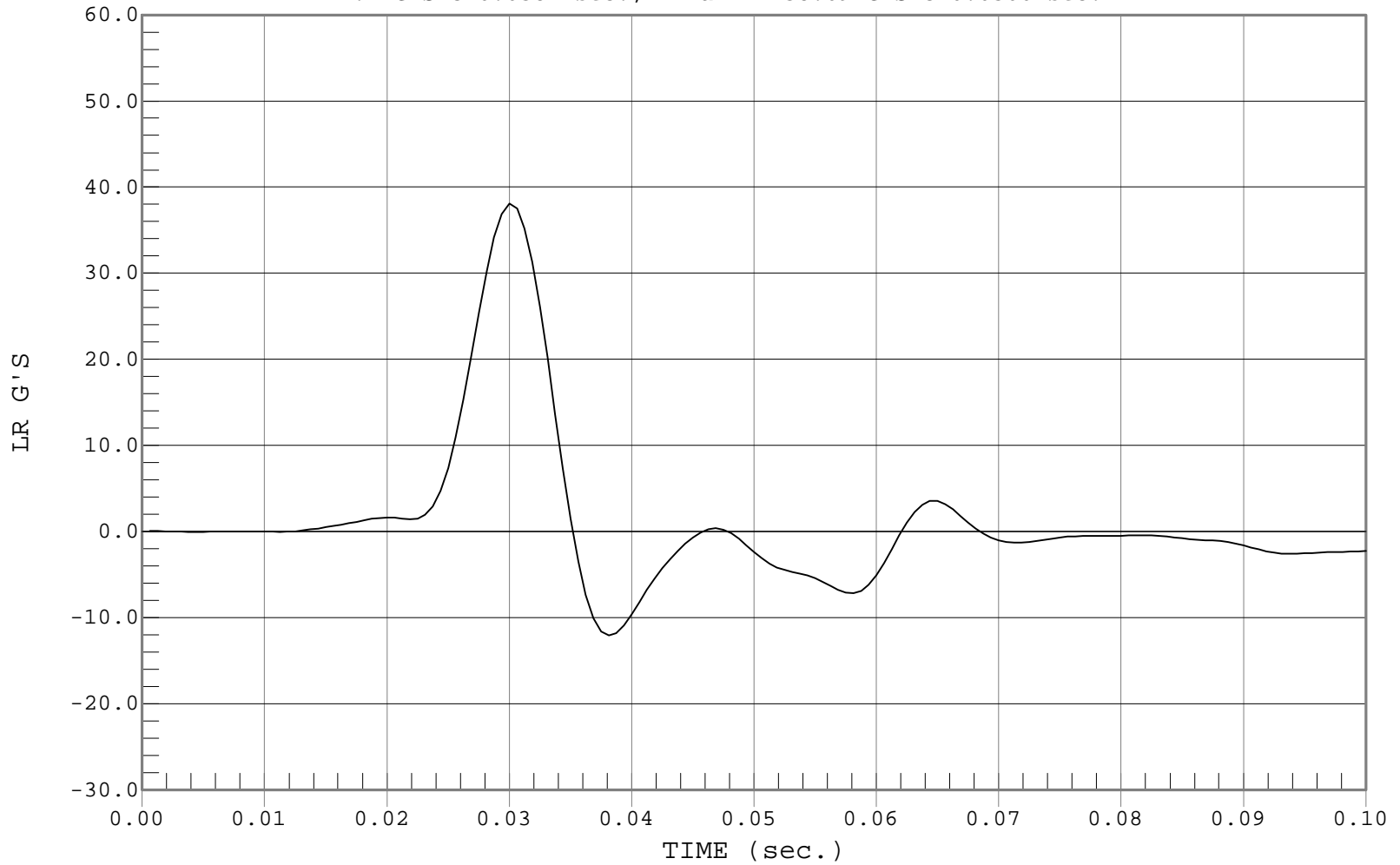
LOWER RIB ACCELERATION

Test Desc.: Dummy Calibration - Thorax Impact
Component: Dummy #269

Test Date: 10-31-00
Speed: 14.17 FT/SEC, 4.32 M/SEC

1 LR, D00322FI.R09

Ymin = -12.1 G'S @ 0.0381 sec., Ymax = 38.09 G'S @ 0.0300 sec.





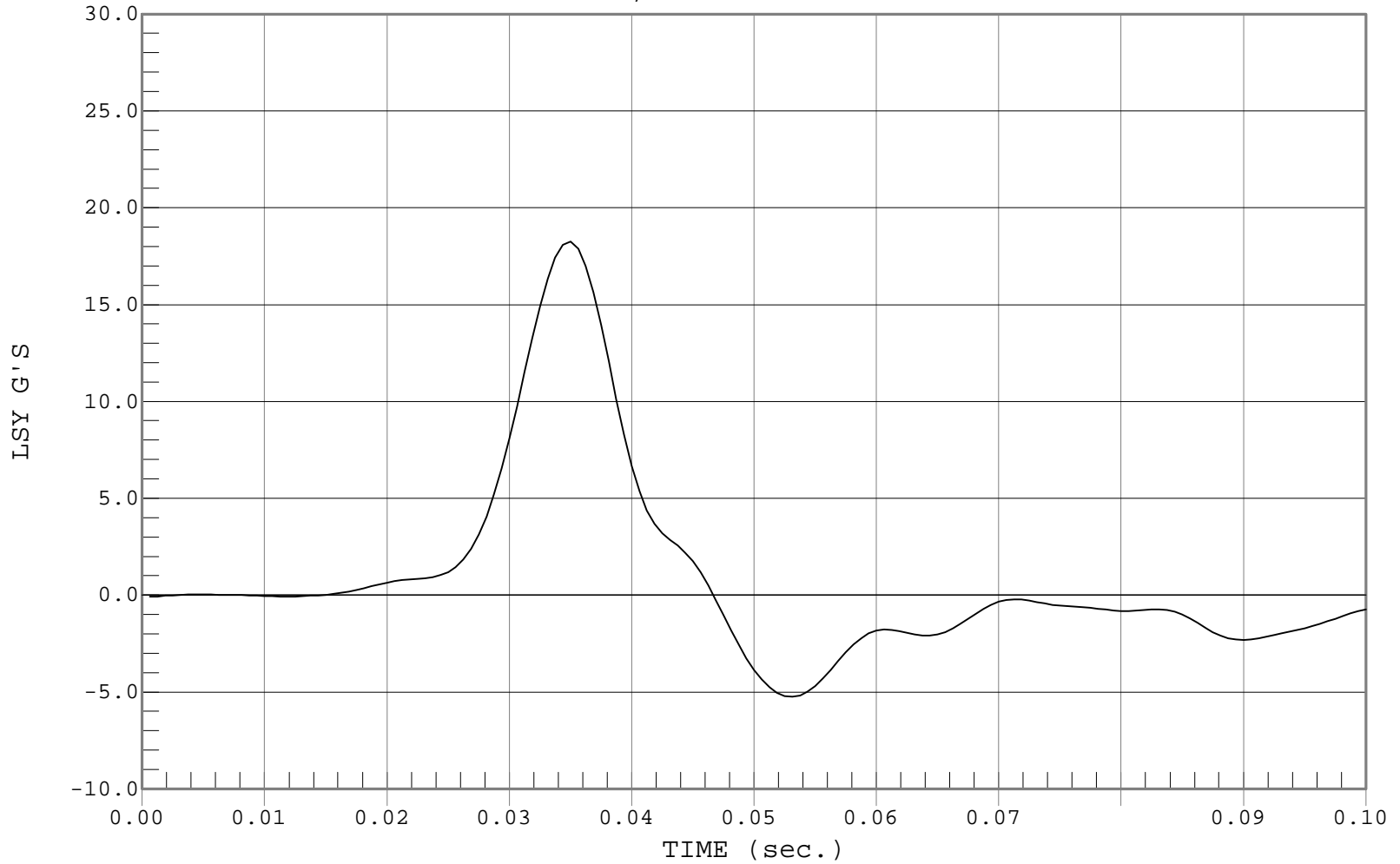
LOWER SPINE ACCELERATION

Test Desc.: Dummy Calibration - Thorax Impact
Component: Dummy #269

Test Date: 10-31-00
Speed: 14.17 FT/SEC, 4.32 M/SEC

— 1 LSY, D00322FI.R10

Ymin = -5.25 G'S @ 0.0531 sec., Ymax = 18.24 G'S @ 0.0350 sec.



MGA RESEARCH CORPORATION
PELVIS IMPACT TEST
SIDE IMPACT DUMMY (SID)

Date: 10/31/00
Dummy Serial Number: 269
Test Number: D001323

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.0°
Relative Humidity (%)	10 – 70	38%
Probe Speed (m/s)	4.27 – 4.33	4.31
Pelvis Acceleration (g's)	40 – 60	40

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



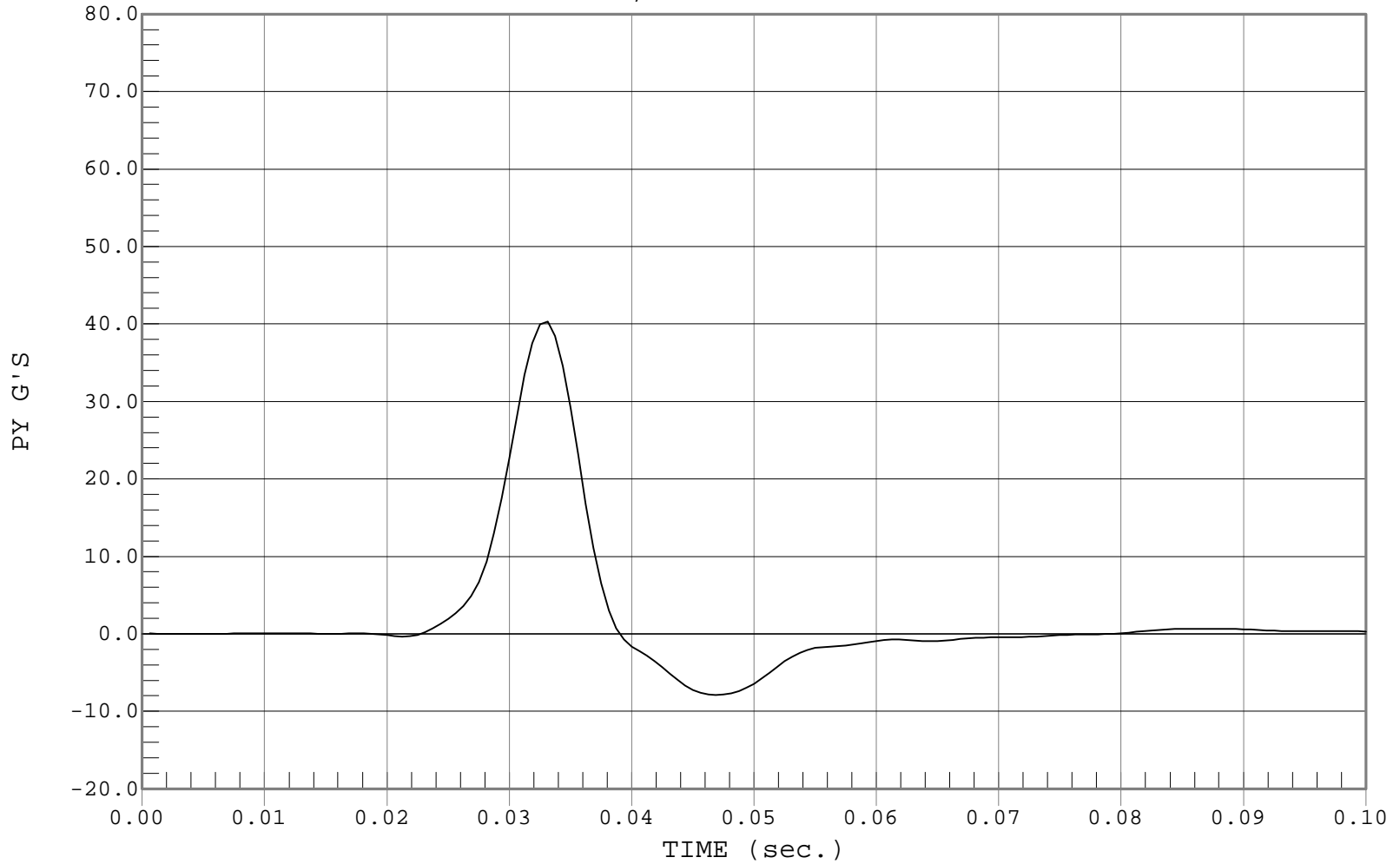
PELVIS ACCELERATION

Test Desc.: Dummy Calibration - Pelvis Impact
Component: Dummy #269

Test Date: 10-31-00
Speed: 14.15 FT/SEC, 4.31 M/SEC

1 PY, D00323FI.R11

Ymin = -7.87 G'S @ 0.0469 sec., Ymax = 40.29 G'S @ 0.0331 sec.



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MGA RESEARCH CORPORATION
ABDOMINAL COMPRESSION TEST (PRELOAD = 10 LBS)
SIDE IMPACT DUMMY (SID)

Date: 10/31/00
Dummy Serial Number: 269
Test Number: D001324

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.0°
Relative Humidity (%)	10 – 70	38%
Force @ 12.7 mm	104 – 162	132
Force @ 19 mm	163 – 222	181
Force @ 25.4 mm	222 – 280	257
Force @ 33 mm	325 - 391	358

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



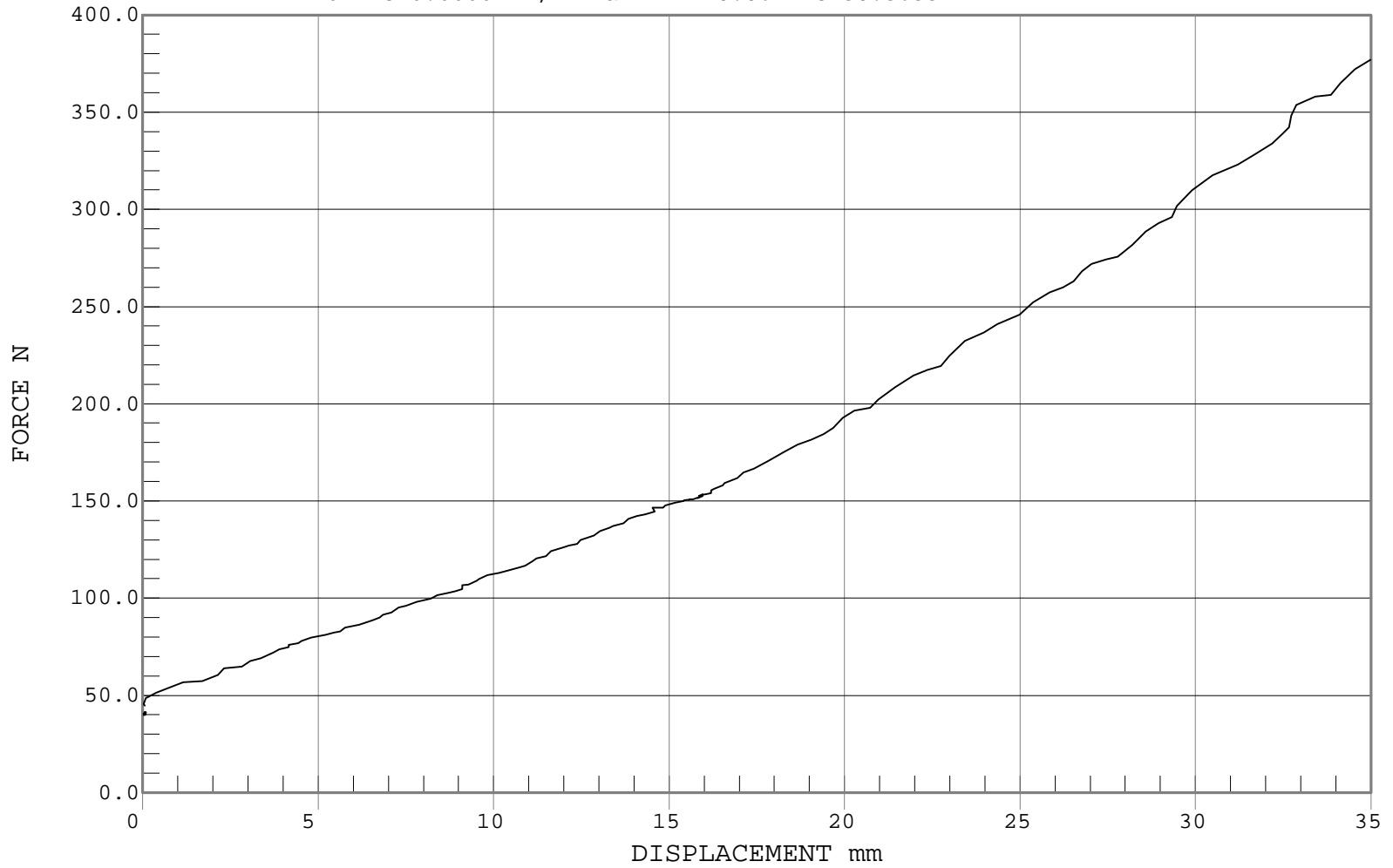
ABDOMEN COMPRESSION

Test Desc.: DUMMY CALIBRATION - ABDOMEN COMPRESSION
Component: DUMMY # 269

Test Date: 10-31-00
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 FORCE, D00324FC.F16

Ymin = 0 N @ 0.0000 mm, Ymax = 428.86 N @ 38.3655 mm



MGA RESEARCH CORPORATION
LUMBAR FLEXION TEST
SIDE IMPACT DUMMY (SID)

Date: 10/31/00
Dummy Serial Number: 269
Test Number: D001325

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.0°
Relative Humidity (%)	10 – 70	38%
Force @ 0°	0 – 26.7	0
Force @ 20°	97.9 – 151.2	101.1
Force @ 30°	151.2 – 204.6	161.3
Force @ 40°	204.6 – 258.0	241.4
Return Angle	12° maximum	3°

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



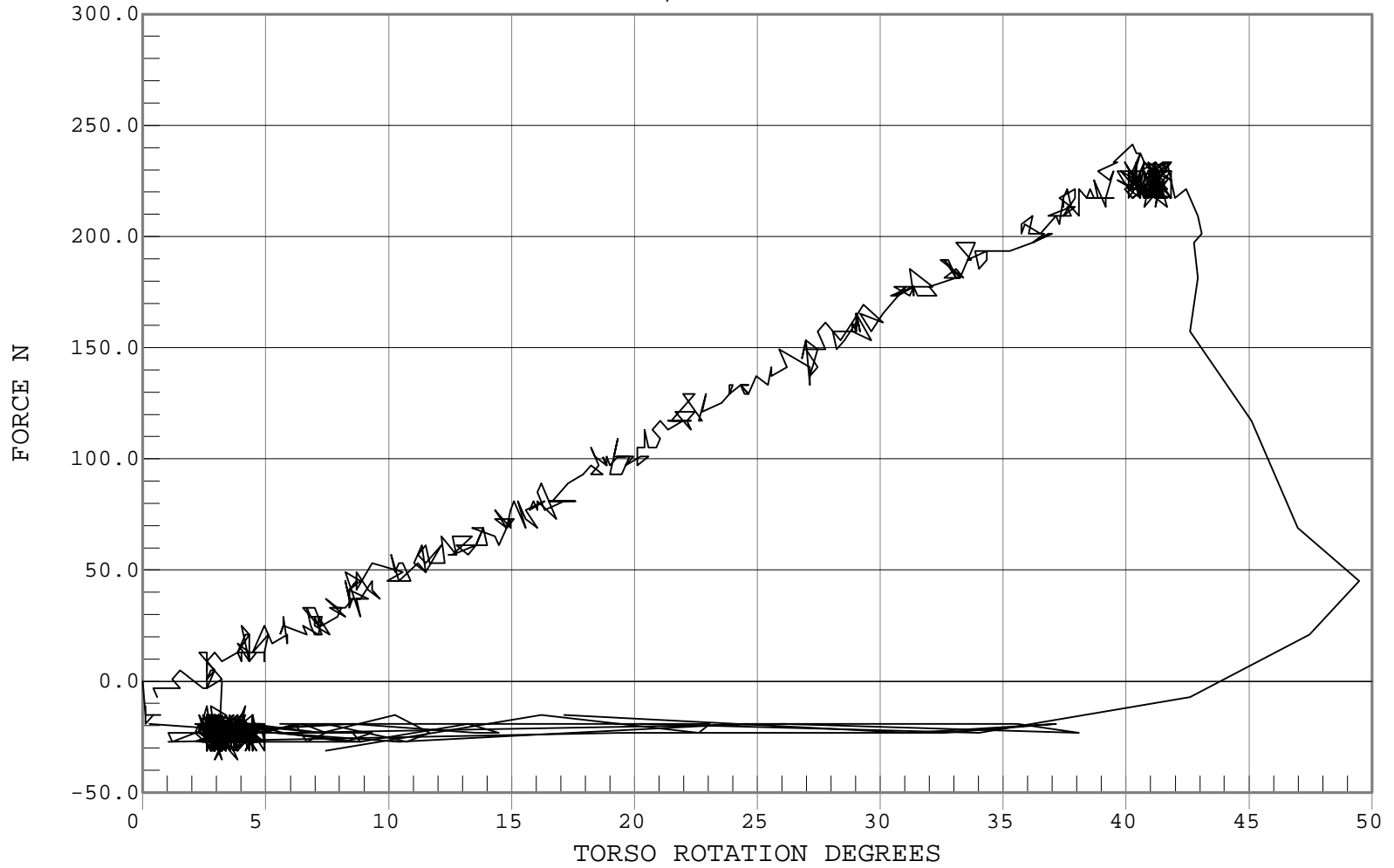
LUMBAR FLEXION

Test Desc.: DUMMY CALIBRATION - LUMBAR FLEXION
Component: DUMMY # 269

Test Date: 10-31-00
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 FORCE, D00325FC.F14

Ymin = -35.18 N @ 2.9154 DEGREES, Ymax = 241.45 N @ 40.2656 DEGREES



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DUMMY INSPECTION CHECKLIST

Type: Side Impact Dummy

Dummy Serial Number: 269

Inspected By: Tim Michnay

Date: 10/31/00

<u>Part</u>	<u>Items Checked</u>	<u>Comments</u>
Skin	visual inspection	OK
Head	visual, ballast, accelerometer mount	OK
Neck	visual	OK
Spine box	visual, ballast, weldment, accelerometer mount	OK
Rib cage	visual, measure	OK
Sternum	visual	OK
Lumbar spine	visual	OK
Abdomen	visual	OK
Pelvis	visual, palpate, accelerometer mount	OK
Upper legs	visual	OK
Knees	visual	OK
Lower legs	visual, range of motion	OK
Ankles	visual, range of motion	OK
Feet	visual, range of motion	OK
Joints	1 to 2 g range	OK
Other		

Notes (include component/problem/action/reason):

CERTIFICATION DATA

Dummy Serial Number: 270

Calibration Test Results Summary

Dummy Serial Number: 270

Post-Test Calibration

External Dimensions:	The dummy passed all external dimension requirements.
Head Drop Test:	The head passed all drop test requirements.
Neck Pendulum Test:	The neck passed all pendulum test requirements.
Thorax Impact Test:	The thorax passed all impact test requirements.
Pelvic Impact Test:	The pelvis passed all impact test requirements.
Abdominal Compression Test:	The abdomen passed all compression test requirements.
Lumbar Flexion Test:	The lumbar passed all flexion test requirements.

SIDE IMPACT DUMMY CONFIGURATION AND PERFORMANCE VERIFICATION DATA

Dummy Serial Number: 270
 Date of Verification: 10/31/00
 Test Number: D00133

DESCRIPTION	SPECIFICATION	TEST RESULTS
SH-Seated Height (mm)	889 – 909	899
RH-Rib Height (mm)	501 – 521	504
HP-Hip Pivot Height (mm)	99 ref.	99
RD-Rib From Back Line (mm)	229 - 241	232
KV-Knee Pivot From Back Line (mm)	511 – 526	523
SW-Knee Pivot to Floor (mm)	490 – 505	500
HW – Hip Width (mm)	356 – 391	367

Technician: _____

Approved By: _____

MGA RESEARCH CORPORATION
HEAD DROP TEST
SIDE IMPACT DUMMY (SID)

Date: 10/31/00
Dummy Serial Number: 270
Test Number: D001331

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 - 25.5	21.0°
Relative Humidity (%)	10 - 70	38%
Peak Resultant Acceleration	210 - 260 g's	253
Peak Lateral Acceleration	< 10 g's	-9
Time Above 100 g.	0.9 - 1.5 msec.	1.2

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



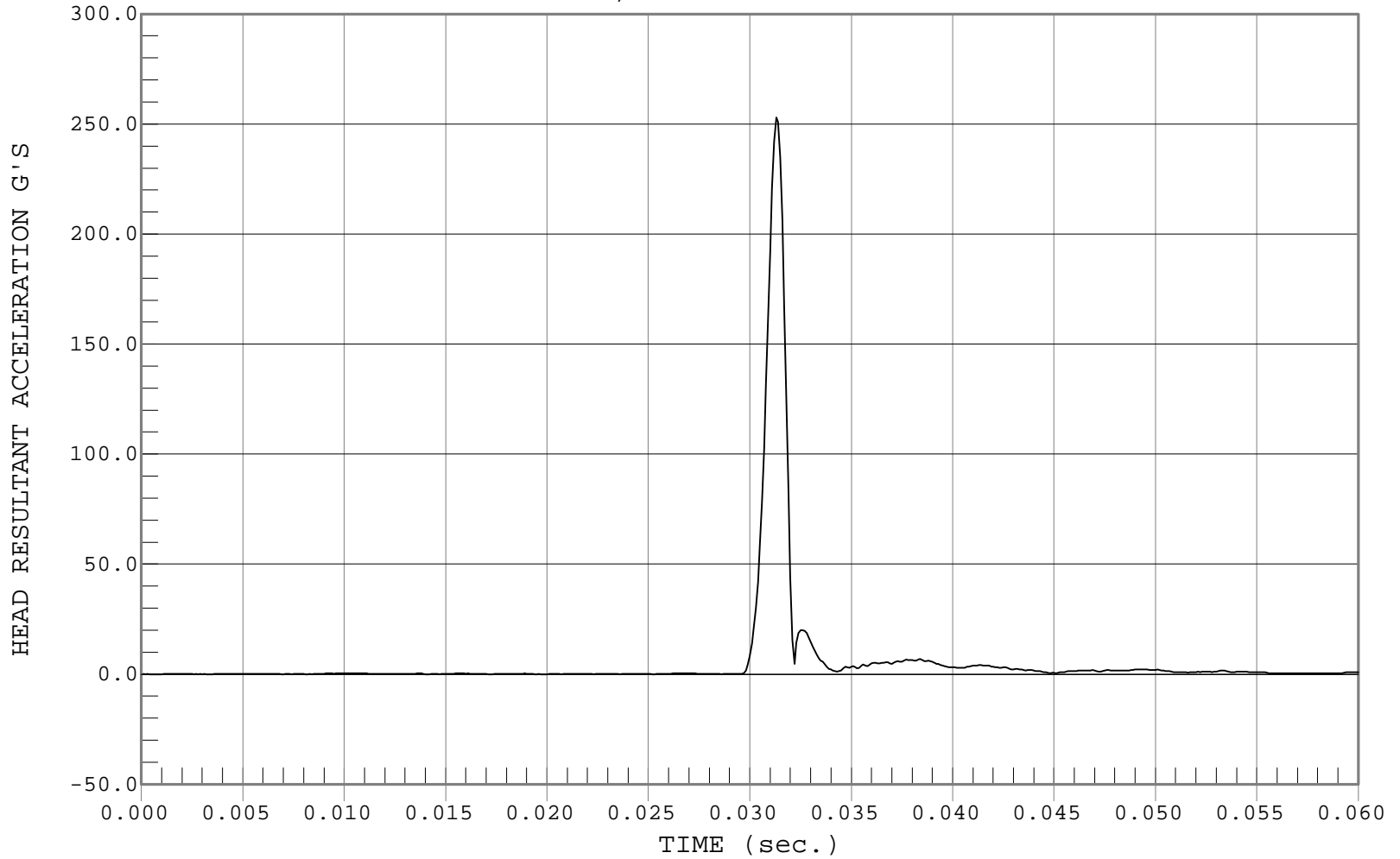
PEAK RESULTANT ACCELERATION

Test Desc.: Dummy Calibration - Head Drop
Component: Dummy #270

Test Date: 10-31-00
Speed: 0.00 FT/SEC, 0.00 M/SEC

— 1 HEAD RESULTANT ACCELERATION, D00331av.a01

Ymin = .02 G'S @ 0.0002 sec., Ymax = 253.01 G'S @ 0.0313 sec.





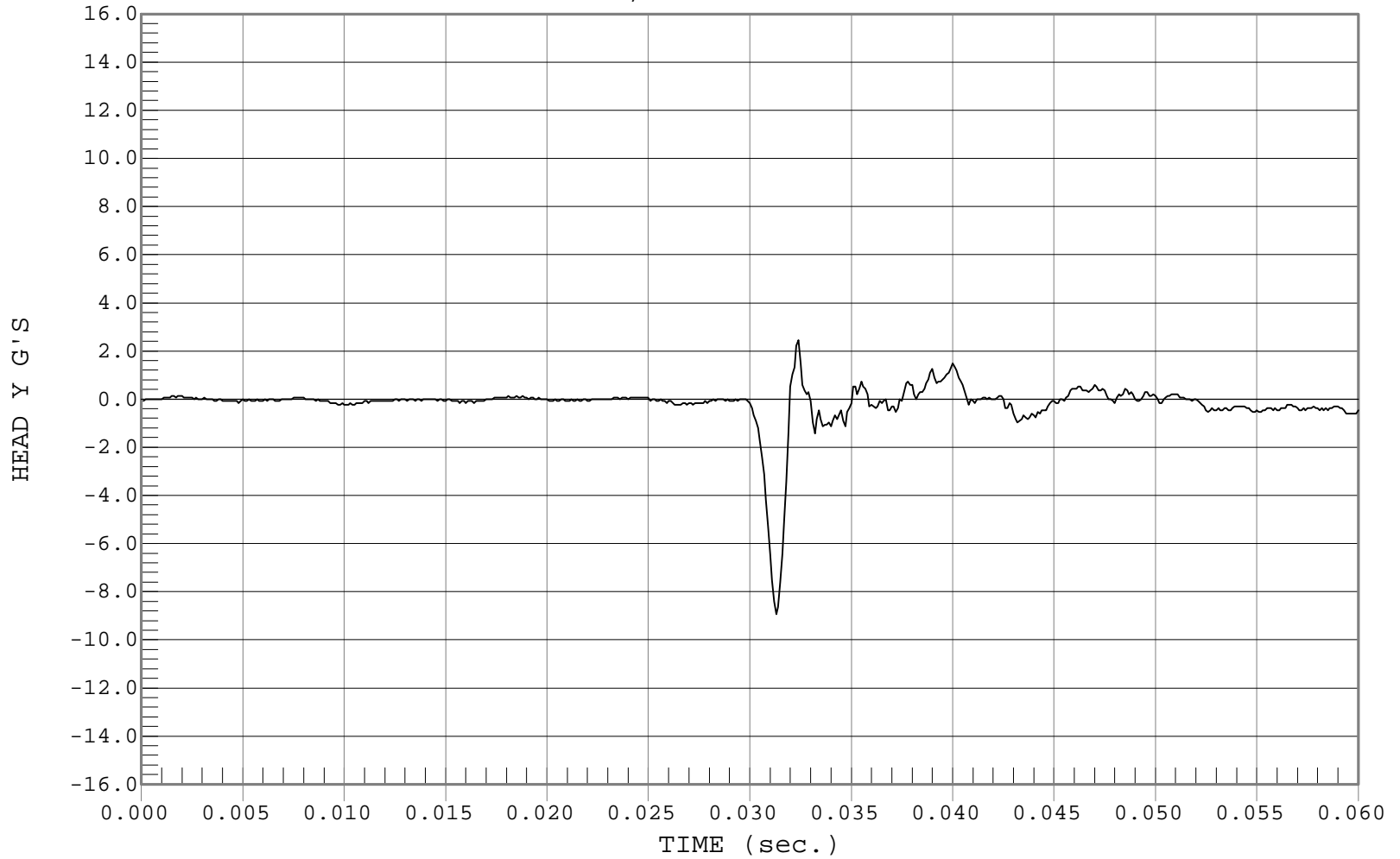
PEAK LATERAL ACCELARATION

Test Desc.: Dummy Calibration - Head Drop
Component: Dummy #270

Test Date: 10-31-00
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 HEAD Y, D00331AR.A02

Ymin = -8.93 G'S @ 0.0313 sec., Ymax = 2.44 G'S @ 0.0324 sec.



MGA RESEARCH CORPORATION
THORAX IMPACT TEST
SIDE IMPACT DUMMY (SID)

Date: 10/31/00
Dummy Serial Number: 270
Test Number: D001332

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.0°
Relative Humidity (%)	10 – 70	38%
Probe Speed (m/s)	4.27 – 4.33	4.31
Upper Rib (g's)	37 – 46	41
Lower Rib (g's)	37 – 46	41
Lower Spine (g's)	15 - 22	22

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



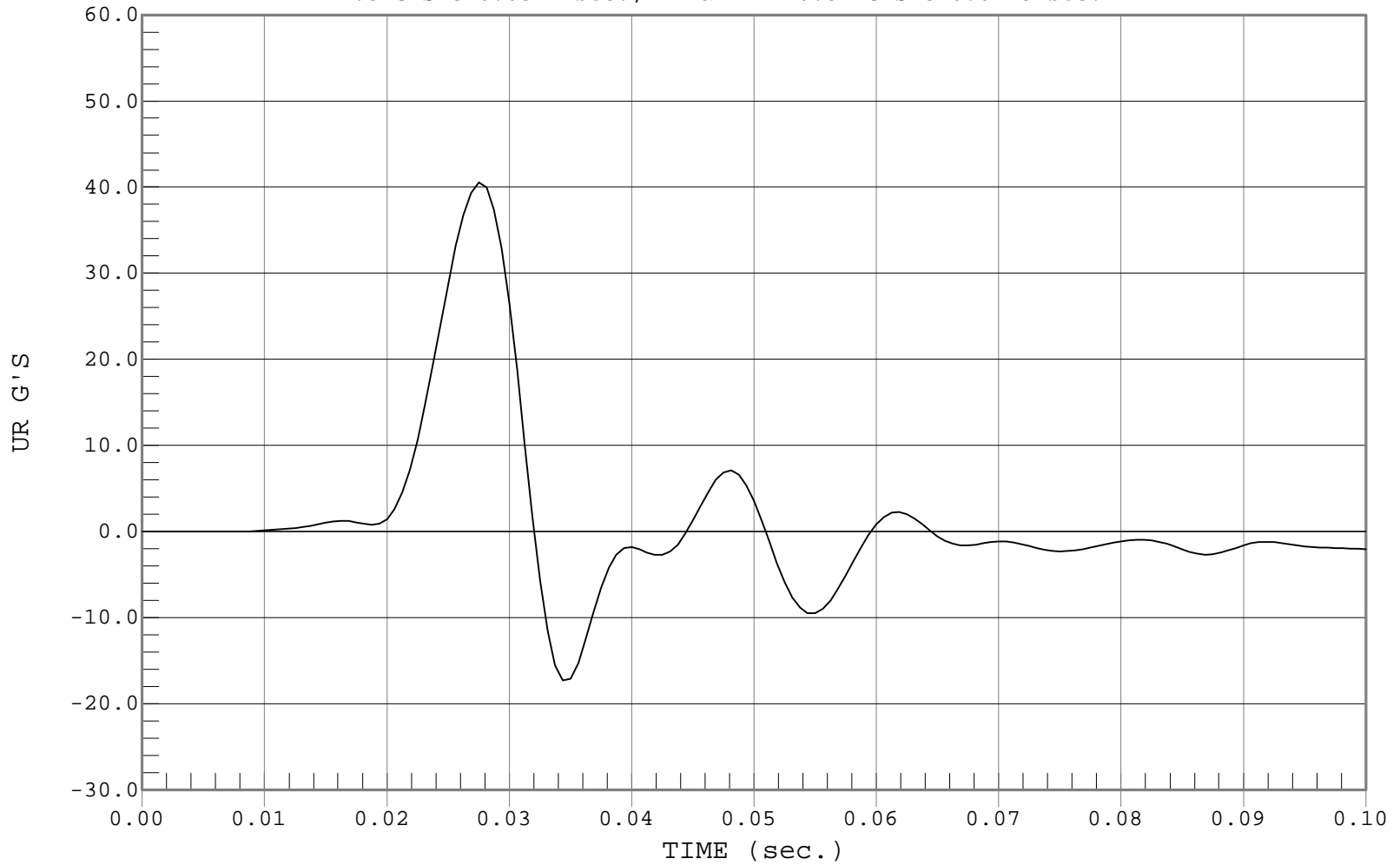
UPPER RIB ACCELERATION

Test Desc.: Dummy Calibration - Thorax Impact
Component: Dummy #270

Test Date: 10-31-00
Speed: 14.13 FT/SEC, 4.31 M/SEC

1 UR, D00332FI.R08

Ymin = -17.3 G'S @ 0.0344 sec., Ymax = 40.51 G'S @ 0.0275 sec.





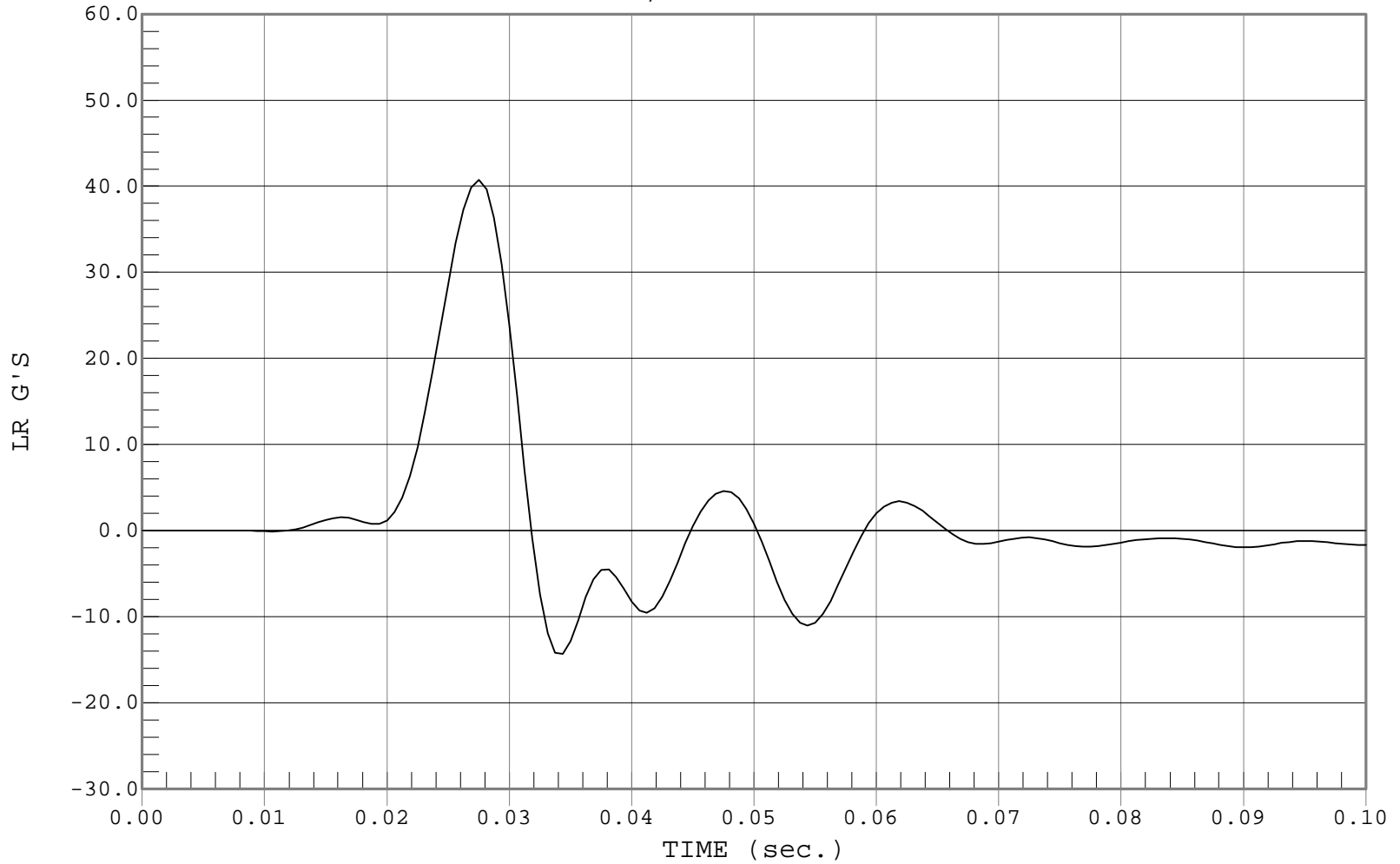
LOWER RIB ACCELERATION

Test Desc.: Dummy Calibration - Thorax Impact
Component: Dummy #270

Test Date: 10-31-00
Speed: 14.13 FT/SEC, 4.31 M/SEC

1 LR, D00332FI.R09

Ymin = -14.33 G'S @ 0.0344 sec., Ymax = 40.75 G'S @ 0.0275 sec.





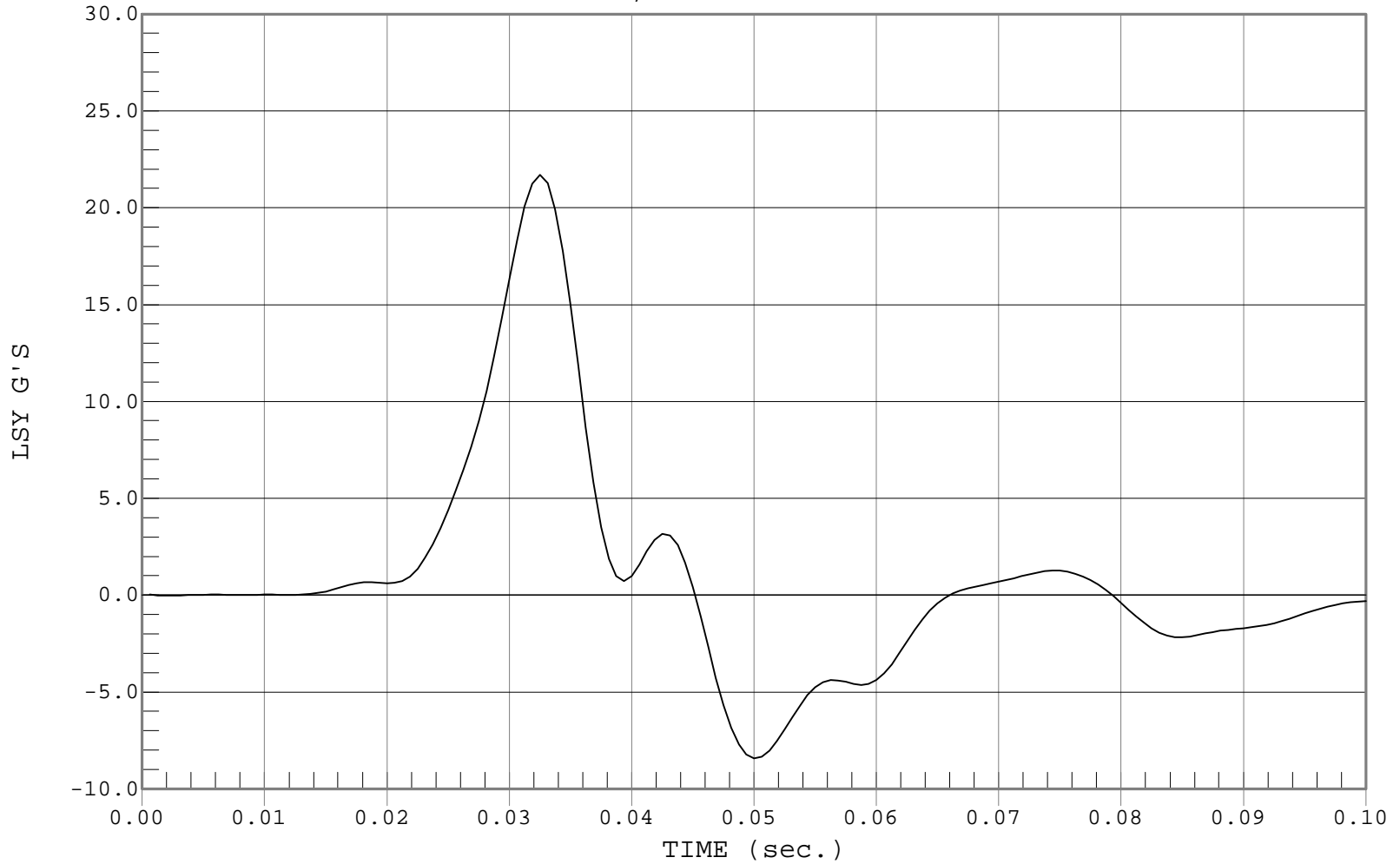
LOWER SPINE ACCELERATION

Test Desc.: Dummy Calibration - Thorax Impact
Component: Dummy #270

Test Date: 10-31-00
Speed: 14.13 FT/SEC, 4.31 M/SEC

— 1 LSY, D00332FI.R10

Ymin = -8.43 G'S @ 0.0500 sec., Ymax = 21.7 G'S @ 0.0325 sec.



MGA RESEARCH CORPORATION
PELVIS IMPACT TEST
SIDE IMPACT DUMMY (SID)

Date: 10/31/00
Dummy Serial Number: 270
Test Number: D001333

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.0°
Relative Humidity (%)	10 – 70	38%
Probe Speed (m/s)	4.27 – 4.33	4.32
Pelvis Acceleration (g's)	40 – 60	43

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



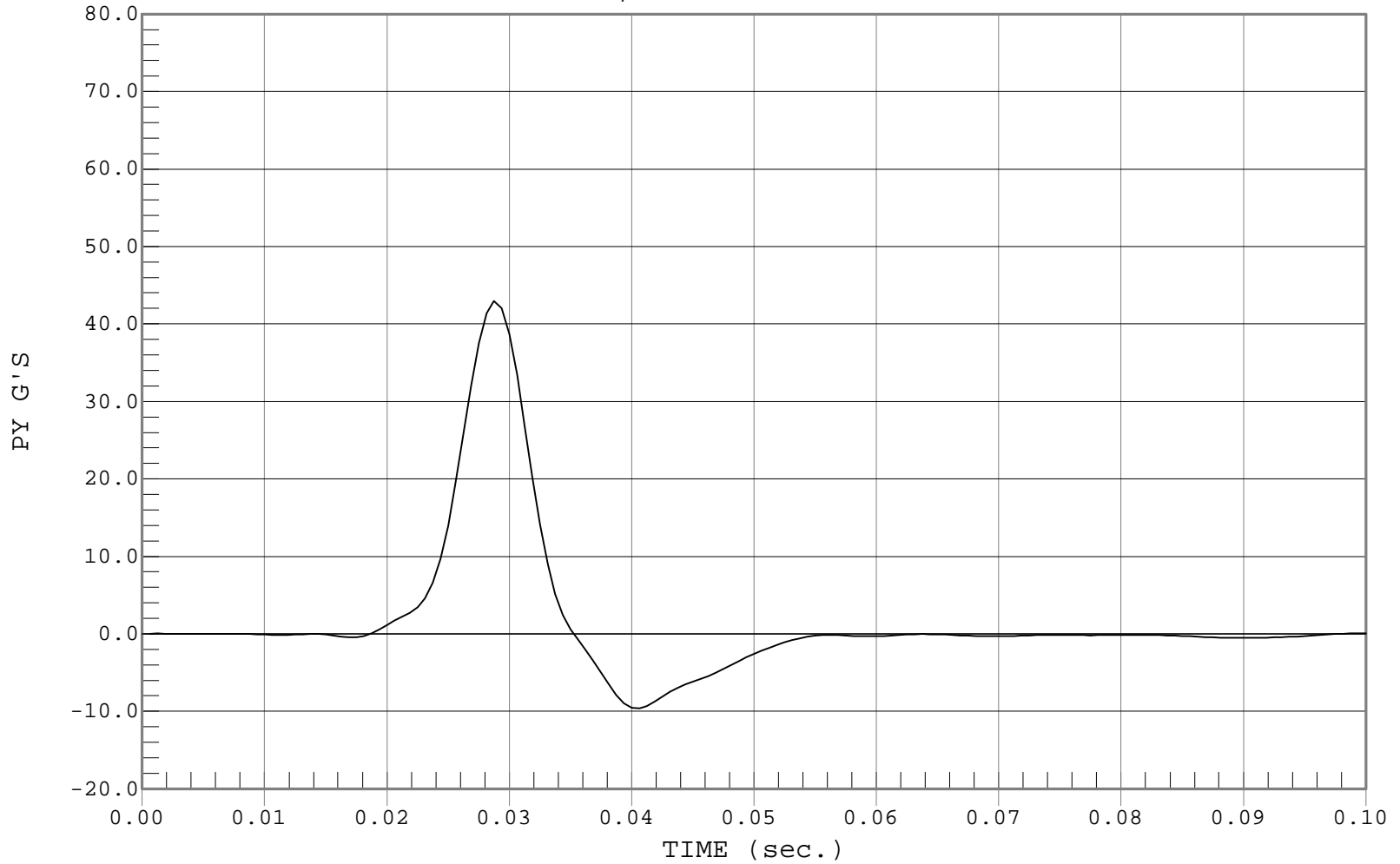
PELVIS ACCELERATION

Test Desc.: Dummy Calibration - Pelvis Impact
Component: Dummy #270

Test Date: 10-31-00
Speed: 14.16 FT/SEC, 4.32 M/SEC

1 PY, D00333FI.R11

Ymin = -9.6 G'S @ 0.0406 sec., Ymax = 42.97 G'S @ 0.0288 sec.



MGA RESEARCH CORPORATION
ABDOMINAL COMPRESSION TEST (PRELOAD = 10 LBS)
SIDE IMPACT DUMMY (SID)

Date: 10/31/00
Dummy Serial Number: 270
Test Number: D001334

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.0°
Relative Humidity (%)	10 – 70	38%
Force @ 12.7 mm	104 – 162	150
Force @ 19 mm	163 – 222	203
Force @ 25.4 mm	222 – 280	260
Force @ 33 mm	325 - 391	353

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



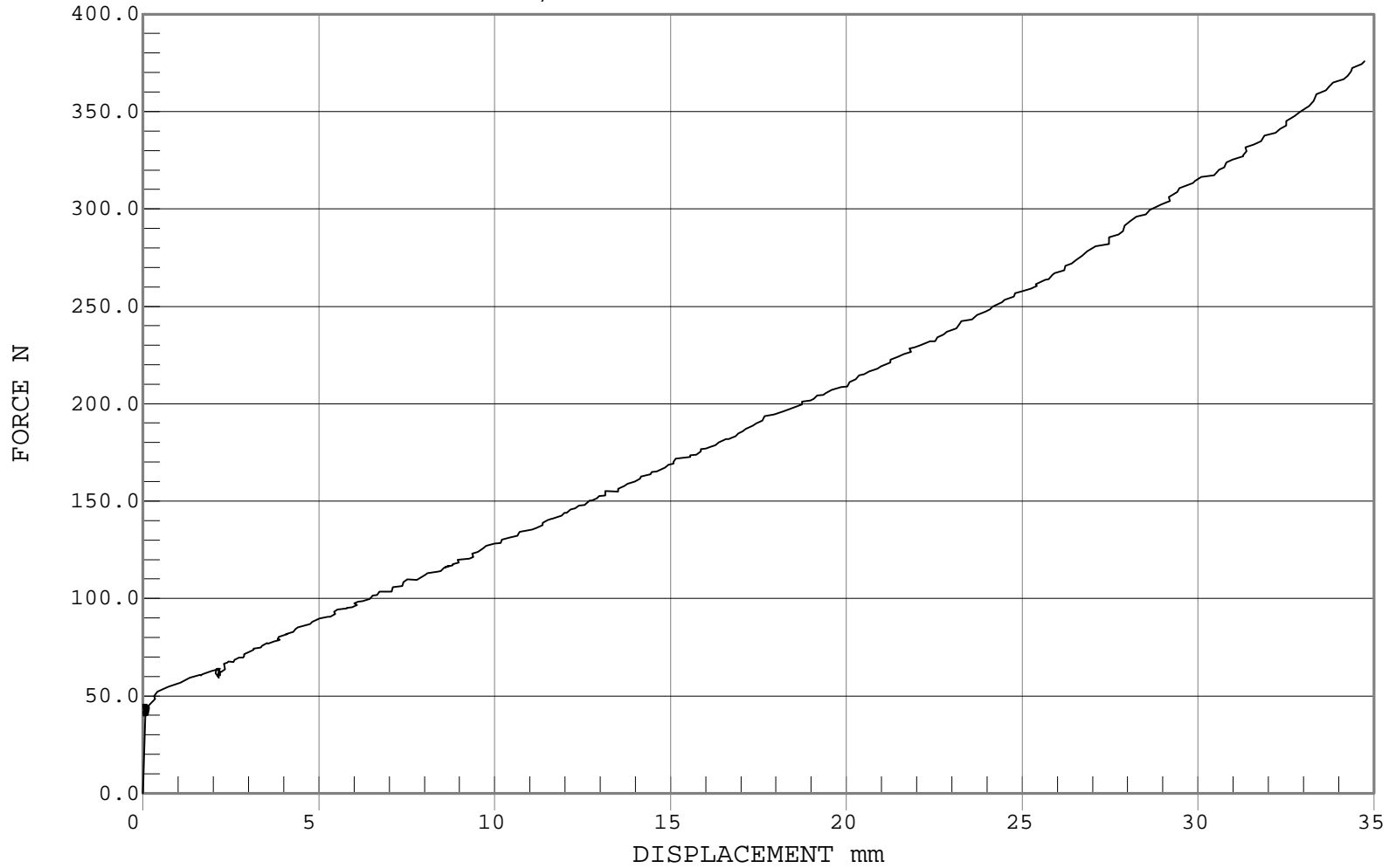
ABDOMEN COMPRESSION

Test Desc.: DUMMY CALIBRATION - ABDOMEN COMPRESSION
Component: DUMMY # 270

Test Date: 10-31-00
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 FORCE, D00334FC.F16

Ymin = 0 N @ 0.0000 mm, Ymax = 451.65 N @ 39.8434 mm



MGA RESEARCH CORPORATION

LUMBAR FLEXION TEST

SIDE IMPACT DUMMY (SID)

Date: 10/31/00

Dummy Serial Number: 270

Test Number: D001335

TEST PARAMETER	SPECIFICATION	TEST RESULTS
Temperature (°C)	18.9 – 25.5	21.0°
Relative Humidity (%)	10 – 70	38%
Force @ 0°	0 – 26.7	0
Force @ 20°	97.9 – 151.2	108.3
Force @ 30°	151.2 – 204.6	181.5
Force @ 40°	204.6 – 258.0	248.6
Return Angle	12° maximum	3°

TEST MEETS SPECIFICATIONS

Technician: _____

Approved By: _____



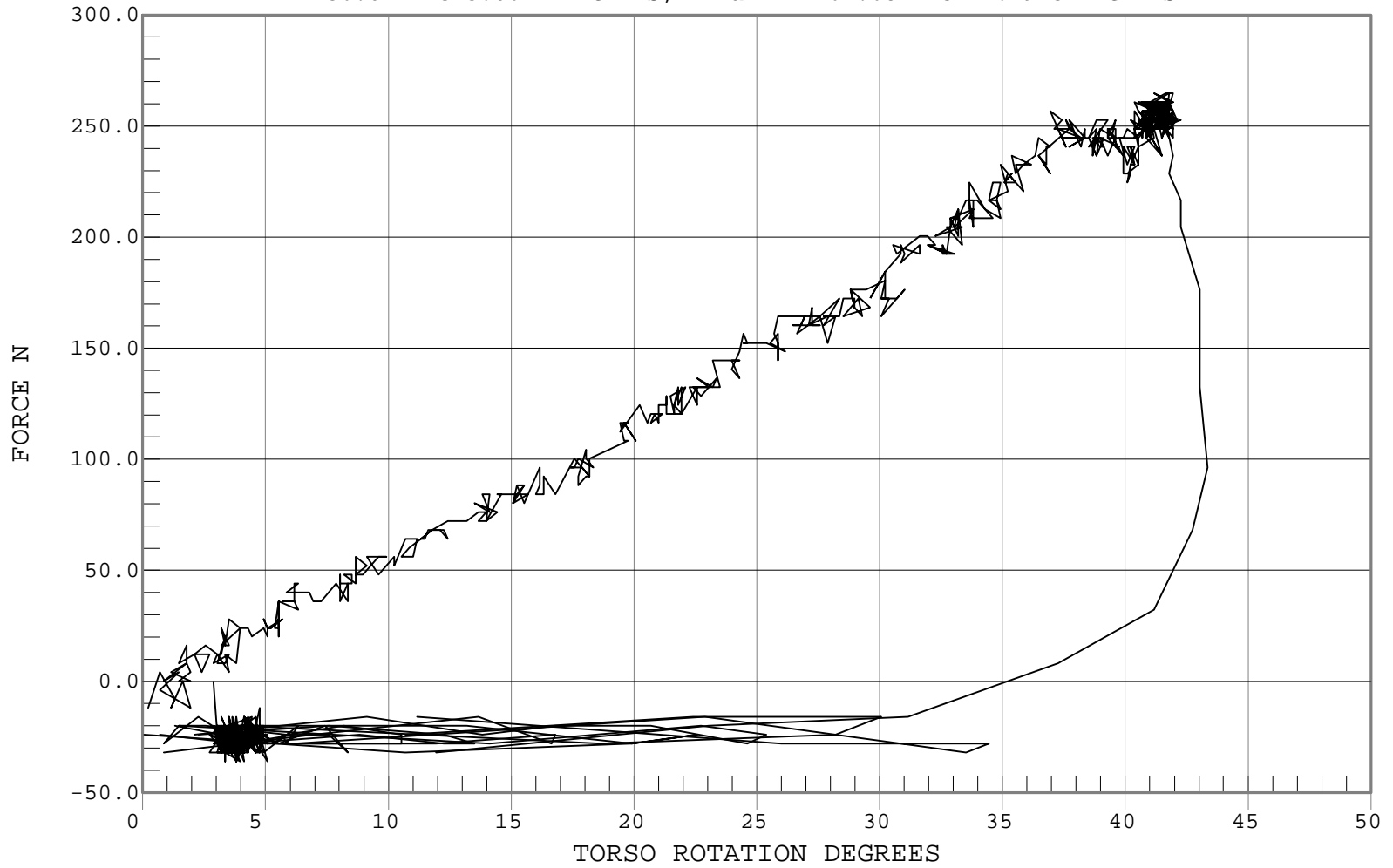
LUMBAR FLEXION

Test Desc.: DUMMY CALIBRATION - LUMBAR FLEXION
Component: DUMMY # 270

Test Date: 10-31-00
Speed: 0.00 FT/SEC, 0.00 M/SEC

1 FORCE, D00335FC.F14

Ymin = -36.01 N @ 5.0674 DEGREES, Ymax = 264.68 N @ 41.7925 DEGREES



DUMMY INSPECTION CHECKLIST

Type: Side Impact Dummy

Dummy Serial Number: 270

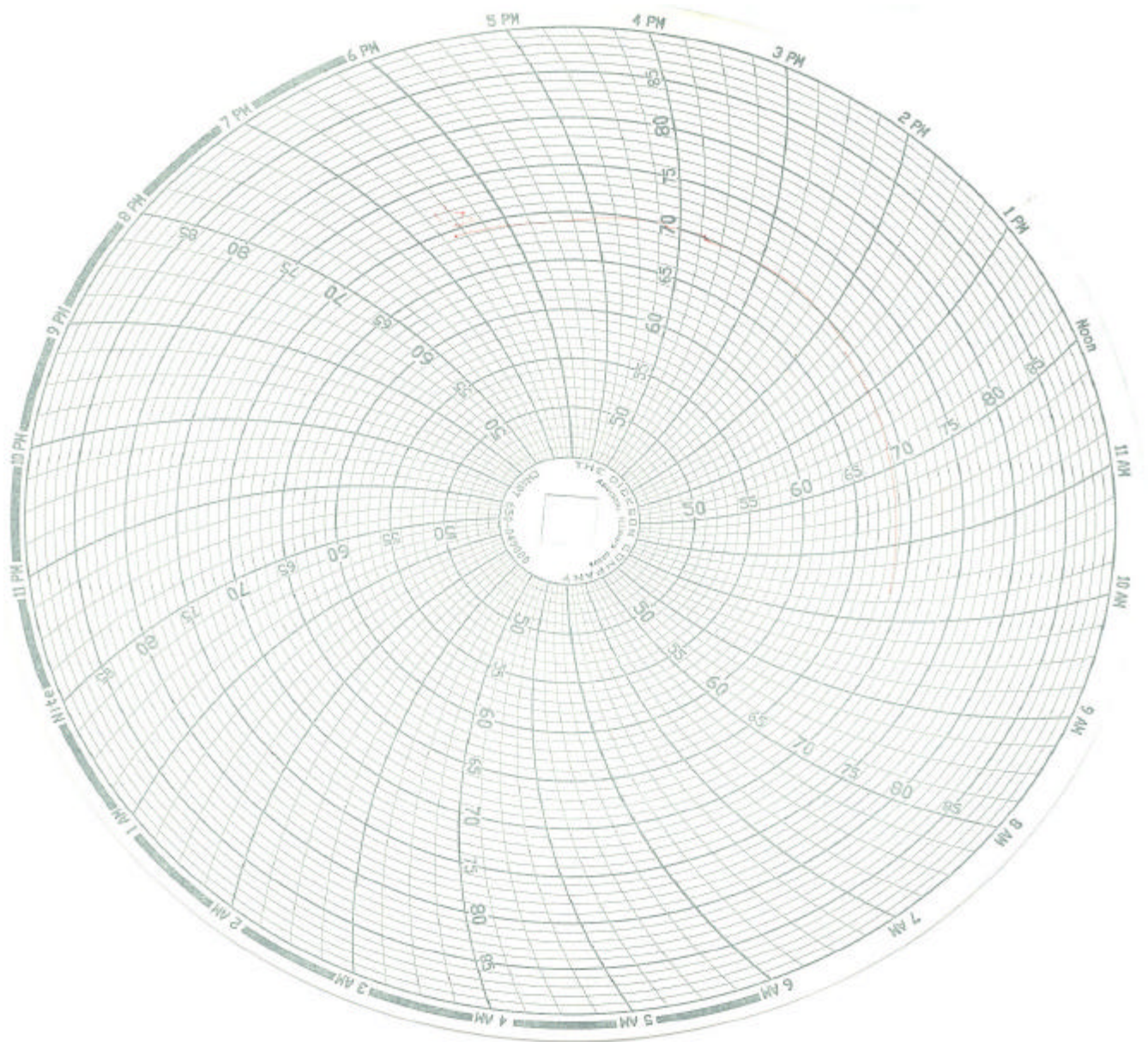
Inspected By: Tim Michnay

Date: 10/31/00

<u>Part</u>	<u>Items Checked</u>	<u>Comments</u>
Skin	visual inspection	OK
Head	visual, ballast, accelerometer mount	OK
Neck	visual	OK
Spine box	visual, ballast, weldment, accelerometer mount	OK
Rib cage	visual, measure	OK
Sternum	visual	OK
Lumbar spine	visual	OK
Abdomen	visual	OK
Pelvis	visual, palpate, accelerometer mount	OK
Upper legs	visual	OK
Knees	visual	OK
Lower legs	visual, range of motion	OK
Ankles	visual, range of motion	OK
Feet	visual, range of motion	OK
Joints	1 to 2 g range	OK
Other		

Notes (include component/problem/action/reason):

VEHICLE AND DUMMY TEMPERATURE



A = dummies installed in vehicle at 10:15 a.m.

B = test conducted at 6:40 p.m.

APPENDIX D
CALIBRATION INFORMATION

DUMMY AND VEHICLE CALIBRATION DATA
 INSTRUMENTS FOR DRIVER DUMMY NO. 269

	DRIVER		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Upper Rib Y	AJ9C2	Endevco	9/19/00
Lower Rib Y	AP170	Endevco	8/29/00
Lower Spine Y	ANAP1	Endevco	8/29/00
Pelvis Y	AJ417	Endevco	8/29/00
Upper Rib Redundant Y	AHTT2	Endevco	9/19/00
Lower Rib Redundant Y	AP2G9	Endevco	8/29/00
Lower Spine Redundant Y	ANAT6	Endevco	8/29/00
Pelvis Redundant Y	AGP20	Endevco	8/29/00
Head Center of Gravity X	AJ436	Endevco	8/31/00
Head Center of Gravity Y	AGT81	Endevco	8/31/00
Head Center of Gravity Z	AMWC8	Endevco	8/31/00

DUMMY AND VEHICLE CALIBRATION DATA
INSTRUMENTS FOR PASSENGER DUMMY NO. 270

	LEFT REAR PASSENGER		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Upper Rib Y	J10195	Endevco	10/3/00
Lower Rib Y	AJ816	Endevco	9/19/00
Lower Spine Y	J12450	Endevco	10/3/00
Pelvis Y	AGM32	Endevco	10/2/00
Upper Rib Redundant Y	J13942	Endevco	10/3/00
Lower Rib Redundant Y	AM749	Endevco	9/19/00
Lower Spine Redundant Y	J12461	Endevco	10/3/00
Pelvis Redundant Y	AKAH3	Endevco	10/2/00
Head Center of Gravity X	AMTB1	Endevco	6/1/00
Head Center of Gravity Y	AMR94	Endevco	6/1/00
Head Center of Gravity Z	AC9B7	Endevco	6/1/00

VEHICLE INSTRUMENT CALIBRATION

	VEHICLE ACCELEROMETERS		
	SERIAL NO.	MANUFACTURER	CALIBRATION DATE
Moving Barrier CG X	E10-F10	Entran	9/12/00
Moving Barrier CG Y	D05-R08	Entran	9/12/00
Moving Barrier CG Z	K16-X06	Entran	9/12/00
Moving Barrier Rear Axle X	K19-A15	Entran	7/11/00
Moving Barrier Rear Axle Y	G13-F10	Entran	8/14/00
Left Mid A-Post Y	K11-G07	Entran	8/8/00
Left Lower A-Post Y	G01-J15	Entran	10/2/00
Left Mid B-Post Y	G13-F06	Entran	8/14/00
Left Lower B-Post Y	I26-D17	Entran	10/2/00
Rear Floorpan Above Axle X	G01-J19	Entran	8/8/00
Rear Floorpan Above Axle Y	K16-X05	Entran	8/8/00
Rear Floorpan Above Axle Z	F18-G08	Entran	8/8/00
Driver Seat Track Y	F20-G06	Entran	7/11/00
Right Side Sill at Front Seat X	I18-E02	Entran	8/10/00
Right Side Sill at Front Seat Y	I18-E05	Entran	4/7/00
Right Side Sill at Front Seat Z	H02-J14	Entran	9/14/00
Right Side Sill at Rear Seat X	I25-J18	Entran	8/18/00
Right Side Sill at Rear Seat Y	I26-D11	Entran	8/18/00
Right Side Sill at Rear Seat Z	F07-A24	Entran	8/18/00

VEHICLE INSTRUMENT CALIBRATION

	VEHICLE ACCELEROMETERS		
	SERIAL NO	MANUFACTURER	CALIBRATION DATE
Left Side Sill at Front Seat Y	MGA095	Entran	8/10/00
Left Side Sill at Rear Seat Y	F07-A14	Entran	8/18/00
Right Rear Occupant Compartment Y	G01-J09	Entran	7/11/00
Vehicle CG X	F12-G01	Entran	7/11/00
Vehicle CG Y	K11-J18	Entran	7/11/00
Vehicle CG Z	B13-Z02	Entran	6/2/00
Left Front Door on Centerline	E13-D07	Entran	7/11/00
Midrear of Left Front Door	D05-R25	Entran	8/8/00
Left Front Door Upper Centerline	E25-G07	Entran	9/14/00
Midrear of Left Rear Door	I25-J10	Entran	9/14/00
Left Rear Door Upper Centerline	F07-A20	Entran	9/14/00

Note: All Endevco accelerometers are Model No. 7264-2000
 All Entran accelerometers are Model No. EGE-72