

637094

REPORT NUMBER: 214-CAL-04-03

**SAFETY COMPLIANCE TESTING FOR FMVSS 214
SIDE IMPACT PROTECTION
INDICANT**

**TOYOTA MOTOR CORPORATION
2004 TOYOTA CAMRY
4-DOOR SEDAN**

NHTSA NUMBER: C45105

ADVANCED INFORMATION ENGINEERING SERVICES TEST NUMBER: 8675-F214-13

**GENERAL DYNAMICS
ADVANCED INFORMATION ENGINEERING SERVICES
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February 12, 2004

FINAL REPORT

**U. S. DEPARTMENT OF TRANSPORTATION
National Highway Traffic Safety Administration
Enforcement
Office of Vehicle Safety Compliance
400 Seventh Street, SW
Room 6111 (NVS-220)
Washington, DC 20590**

This Final Test Report was prepared for the U.S. Department of Transportation, National Highway Traffic Safety Administration, under Contract No. DTNH22-02-D-01114. This publication is distributed by the U.S. Department of Transportation, National Highway Traffic Safety Administration, in the interest of information exchange. The opinions, findings and conclusions expressed in this publication are those of the author(s) and not necessarily those of the Department of Transportation or the National Highway Traffic Safety Administration. The United States Government assumes no liability for its contents or use thereof. If trade or manufacturers' names or products are mentioned, it is only because they are considered essential to the object of the publication and should not be construed as an endorsement. The United States Government does not endorse products or manufacturers.

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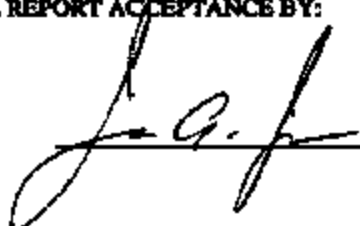

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16. Abstract A 55/28 kph 90° Side Impact (Moving Deformable Barrier) Indicant Test was conducted on the subject Toyota Camry 4-Door Sedan. This test was performed at the New Car Assessment Program (NCAP) target test velocity of 62.0 kph, which is 8 kph faster than the target velocity required by the Office of Vehicle Safety Compliance's Laboratory Test Procedure (TP-214D-06, dated July 26, 2001). This test was conducted at the Advanced Information Engineering Services Crash Test Facility in Buffalo, New York, on February 12, 2004. The impact velocity of the Moving Deformable Barrier (MDB) was 61.80 kph, and the ambient temperature at the struck (driver's) side of the target vehicle at the time of impact was 21.7°C. The target vehicle post-test maximum crush was 326 mm at level 2. The test or target vehicle's performance is given below: <table border="1"> <thead> <tr> <th></th> <th>Front SID H3</th> <th></th> <th>Rear SID H3</th> </tr> </thead> <tbody> <tr> <td>Left Upper Rib Acceleration:</td> <td>45.7 g's</td> <td></td> <td>65.9 g's</td> </tr> <tr> <td>Left Lower Rib Acceleration:</td> <td>61.5 g's</td> <td></td> <td>72.8 g's</td> </tr> <tr> <td>Lower Spine Acceleration:</td> <td>77.9 g's</td> <td></td> <td>75.4 g's</td> </tr> <tr> <td>Thoracic Trauma Index (TTI):</td> <td>70 g's</td> <td></td> <td>74 g's</td> </tr> <tr> <td>Pelvis Acceleration (PEV):</td> <td>82 g's</td> <td></td> <td>101 g's</td> </tr> </tbody> </table> The two 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.					Front SID H3		Rear SID H3	Left Upper Rib Acceleration:	45.7 g's		65.9 g's	Left Lower Rib Acceleration:	61.5 g's		72.8 g's	Lower Spine Acceleration:	77.9 g's		75.4 g's	Thoracic Trauma Index (TTI):	70 g's		74 g's	Pelvis Acceleration (PEV):	82 g's		101 g's
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SECTION 1

PURPOSE AND TEST PROCEDURE

This side impact test is part of the FMVSS 214 Side Impact Protection Compliance Test Program sponsored by the National Highway Traffic Safety Administration (NHTSA) under Contract No. DTNH22-02-D-01114. The purpose of this indicant test was to evaluate side impact protection in a 2004 Toyota Camry 4-Door Sedan when tested at the New Car Assessment Program (NCAP) target test velocity of 62.0 kph, which is 8 kph faster than the target velocity required by the Office of Vehicle Safety Compliance's Laboratory Test Procedure (TP-214D-06, dated July 26, 2001).

SECTION 2

SUMMARY OF SIDE IMPACT TEST

This Side Impact Protection Indicant Test was performed at the New Car Assessment Program (NCAP) target test velocity of 62.0 kph, which is 8 kph faster than the target velocity required by the Office of Vehicle Safety Compliance's Laboratory Test Procedure (TP-214D-06, dated July 26, 2001).

A 2004 Toyota Camry 4-Door Sedan 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 monorail at a velocity of 61.80 kph (38.4 mph). The target vehicle was stationary and was positioned at an angle of 63° to the line of forward motion. The side impact test was conducted by the Advanced Information Engineering Services Transportation Sciences Center in Buffalo, New York on February 12, 2004. Pre- and post-test photographs of the test vehicle, the moving deformable barrier (MDB), and the Side Impact Hybrid III Dummies (SID H3s) are included in Appendix A.

Two restrained Side Impact Hybrid III Dummies (SID H3s) were placed in the driver (Pos. #1) and left rear (Pos. #4) designated seating positions according to the instructions specified in the OCWS Side Impact Laboratory Test Procedure which is dated July, 1997. The side impact test was documented by one real-time camera and 9 high-speed cameras. Camera locations and other pertinent camera information are included in this report.

The SID H3s were instrumented with the following accelerometers:

1. Left Upper Rib (LUR) uniaxial and redundant accelerometer (Y-direction)
2. Left Lower Rib (LLR) uniaxial and redundant accelerometer (Y-direction)
3. Lower Thoracic Spine (T₁₂) uniaxial and redundant accelerometer (Y-direction)
4. Pelvic (PEV) section uniaxial and redundant accelerometer (Y-direction)
5. Head triaxial accelerometers (X-, Y- and Z-direction)
6. Upper neck force and moment (X-, Y and Z-direction) load cells

A summary of the Side Impact Hybrid III Dummy (SID H3) configuration and verification test data can be found in Appendix C. A total of 60 channels of data were recorded. Appendix B contains the vehicle, MDB and dummy response data traces.

The following table summarizes the results of the test.

Injury Criteria	Front SID H3	Rear SID H3
T ₁₁ (g)	70	74
PEV (g)	82	101

AIR BAG DEPLOYMENT STATUS

	DRIVER	FRONT PASSENGER	REAR PASSENGER
Front Air Bag	No	No	-
Knee Bolster Bag	-	-	-
Side Air Bag	-	-	-
Side Curtain Bag	-	-	-

AUTOMATIC DOOR LOCK SUMMARY

ADL Equipped Test Vehicle:	Yes
ADL Activation Status:	No
Struck Side Door Lock Condition:	Unlocked

SECTION 3

SUMMARY OF TEST RESULTS

DATA SHEET 1

GENERAL TEST AND VEHICLE PARAMETER DATA

TEST VEHICLE INFORMATION:

Year/Make/Model/Body Style: 2004 Toyota Camry 4-Door Sedan

Vehicle Body Color: White VIN: JTDDBR32K740253431

Vehicle NHTSA No.: C45105 Month & Year of Manufacture: 08/03

Engine Data: 4 Cylinders; - CID; 2.4 Liters; - cc

Engine Placement: - Longitudinal; or X Lateral

Transmission: 5 Speed; X Manual; - Automatic; - Overdrive

Final Drive: - Rear Wheel Drive; X Front Wheel Drive; - Four Wheel Drive

Odometer Reading km

Supplemental Airbag Restraints:

Front Occupant: X Frontal; - Knee; - Side; - Curtain

Rear Occupant: - Frontal; - Knee; - Side; - Curtain

Options: X ADLs; X A/C; X Power Steering; X Power Brakes; X Power Windows

DATA FROM TIRE PLACARD

Recommended Tire Size: P205/65R15

*Recommended Cold Tire Pressure: 200 kPa FRONT; 200 kPa REAR

DATA FROM TIRE SIDEWALL:

Size of Tires on Test Vehicle: P205/65R15; Manufacturer: Continental TouringContact A5

Tire Pressure with Maximum Capacity Vehicle Load: Front: 303 kPa; Rear: 303 kPa

Treadwear: 520; Traction: A; Temperature: B

VEHICLE CAPACITY DATA:

Number of Occupants: 2 Front; 3 Rear; 0 3rd Seat; 5 Total

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

Type of Rear Seats: - Bucket; - Bench; - Split Bench; X Contoured

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

Type of Rear Seat Back: X Fixed; - Adjustable with - Lever or - Knob

Vehicle Max Capacity Loading = 410 kg (A)

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

Vehicle Cargo Capacity = 69.8 kg (A-B)

TEST VEHICLE DELIVERED WEIGHT WITH MAXIMUM FLUIDS:

Left Front =	<u>419.0</u> kg	Left Rear =	<u>294.0</u> kg
Right Front =	<u>414.0</u> kg	Right Rear =	<u>293.0</u> kg
TOTAL FRONT =	<u>833.0</u> kg	TOTAL REAR =	<u>587.0</u> kg
% of Total Weight =	<u>58.7</u> %	% of Total Weight =	<u>41.3</u> %
TOTAL WEIGHT =	<u>1420.0</u> kg		

* Tire pressure used in test.

DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2004 Toyota Camry 4-Door Sedan

NHTSA No. C45105

CALCULATION OF VEHICLE'S TARGET TEST WEIGHT:

Total Test Vehicle Delivered Weight with Max. Fluids	=	<u>1420.0</u>	kg (A)
Maximum Cargo Carrying Capacity of Test Vehicle	=	<u>69.8</u>	kg (B)
Weight of instrumented SID H3 Dummies (2 X 81.2 kg)	=	<u>162.4</u>	kg (C)
TEST VEHICLE TARGET WEIGHT:	=	<u>1652.2</u>	kg (A+B+C)

FULLY LOADED TEST VEHICLE (UDVW + 1 or 2 SID H3(s) + CARGO):

Left Front	=	<u>467.0</u>	kg	Left Rear	=	<u>408.5</u>	kg
Right Front	=	<u>415.5</u>	kg	Right Rear	=	<u>365.5</u>	kg
TOTAL FRONT	=	<u>882.5</u>	kg	TOTAL REAR	=	<u>774.0</u>	kg
% of Total Weight	=	<u>53.3</u>	%	% of Total Weight	=	<u>46.7</u>	%
TOTAL TEST WEIGHT=		<u>1656.5</u>	kg				

AS TESTED WEIGHT OF TEST VEHICLE (1 OR 2 SID H3(s) + CARGO + EQUIPMENT & INSTRUMENTATION):

Left Front	=	<u>464.5</u>	kg	Left Rear	=	<u>405.0</u>	kg
Right Front	=	<u>415.0</u>	kg	Right Rear	=	<u>360.0</u>	kg
TOTAL FRONT	=	<u>879.5</u>	kg	TOTAL REAR	=	<u>765.0</u>	kg
% of Total Weight	=	<u>53.5%</u>	%	% of Total Weight	=	<u>46.5%</u>	%
TOTAL TEST WEIGHT=		<u>1644.5</u>	kg				

TEST VEHICLE ATTITUDE (all dimensions in millimeters):

AS DELIVERED:

Left Front	<u>712</u>	Right Front	<u>712</u>	Left Rear	<u>709</u>	Right Rear	<u>714</u>
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FULLY LOADED:

Left Front	<u>693</u>	Right Front	<u>702</u>	Left Rear	<u>659</u>	Right Rear	<u>675</u>
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READY FOR TEST:

Left Front	<u>693</u>	Right Front	<u>704</u>	Left Rear	<u>662</u>	Right Rear	<u>675</u>
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Test Vehicle Wheelbase: 2716 millimeters

C.G. = 1263.45 millimeters rearward of front wheel centerline

TOTAL VEHICLE LENGTH:

Right Side =	<u>4718</u>	millimeters
Left Side =	<u>4711</u>	millimeters
Centerline =	<u>4810</u>	millimeters

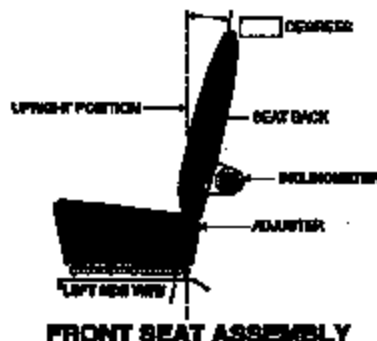
DATA SHEET 1 (continued)

GENERAL TEST VEHICLE PARAMETER DATA

Vehicle: 2004 Toyota Camry 4-Door Sedan

NHTSA No. C45105

Nominal Design Riding Position for adjustable driver and passenger seat backs. Please describe how to position the inclinometer to measure the seat back angle. Include description of the location of the adjustment latch detent, if applicable.



FRONT SEAT CUSHION PLACEMENT: Mid-position (detent 8, where the forward most detent is defined as 0)

Total Length of Adjustment Travel: 240 millimeters

Total Number of Adjustment Positions or Detents: 17

FRONT SEAT BACK ADJUSTMENT POSITION: Detent 4, where the most upright detent is defined as 0.

Seat Back Torso Angle: 22.5 degrees (as measured on the H-point machine back pan)

SECOND POSITION SEAT:

Total Length of Fore/Aft Adjustment Travel: 0 millimeters

Seat Back Adjustment Position: Fixed

ADJUSTABLE STEERING COLUMN POSITION: Mid-position

WINDOW POSITIONS: Left Front: Closed Left Rear: Closed

Right Front: Open Right Rear: Open

Note: Windows will be in closed position on struck side of test vehicle and in open position on opposite side.

AUTOMATIC DOOR LOCKS: Is test vehicle equipped with ADLs? X Yes; - No; -

Does vehicle owner's manual describe how to deactivate ADLs? X Yes; - No; - N/A

Comments: If ADLs are activated, the doors will lock only if the transmission is moved from the "P" position with the ignition switch in the "ON" position and all the doors are closed. There are various unlocking modes available.

AMOUNT OF STODDARD SOLVENT IN FUEL TANK:

70.0 liters (Fuel Tank Usable Capacity)

64.7 liters used for test (92%-94% of Fuel Tank Usable Capacity)

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

Wheelbase = 2716 millimeters

Impact Point is 418 millimeters rearward of front axle centerline
(which is 940 millimeters forward of the wheelbase midpoint)

Actual Impact Point is 413 millimeters rearward of front axle centerline

DATA SHEET 2

TEST VEHICLE SUMMARY OF RESULTS

VEHICLE IDENTIFICATION:

Vehicle Year/Make/Model: 2004 Toyota Camry

Body Style: 4-Door Sedan

VIN: JTDBE32K740253431

NHTSA No.: C45105

Test Date: February 12, 2004

Overall Length = 4810 millimeters; Overall Width = 1805 millimeters

VEHICLE TEST WEIGHT (Pre-Test):

Left Front = 464.5 kg Left Rear = 405.0 kg

Right Front = 415.0 kg Right Rear = 360.0 kg

TOTAL FRONT = 879.5 kg TOTAL REAR = 765.0 kg

TOTAL VEHICLE WEIGHT 1644.5 kg

Wheelbase = 2716 millimeters

Longitudinal C.G. from Center of Front Axle = 1263.45 millimeters

Impact Angle with Respect to Impactor = 90 degrees

ACTUAL IMPACT POINT

Actual Impact Point is 5 mm forward of nominal impact ref. line (Lateral)

Actual Impact Point is 1 mm below nominal impact point (Vertical)

MAXIMUM EXTERIOR STATIC CRUSH:

1. LEVEL 1 (234 mm above ground) = 111 millimeters

2. LEVEL 2 (512 mm above ground) = 326 millimeters

3. LEVEL 3 (612 mm above ground) = 287 millimeters

4. LEVEL 4 (866 mm above ground) = 261 millimeters

5. LEVEL 5 (1402 mm above ground) = 69 millimeters

Maximum Post-Test Intrusion = 326 millimeters

OCCUPANTS:

Front Passenger:

Rear Passenger:

Dummy Identification SID H3/015

SID H3/013

Restraints Used 3-point seat belt

3-point seat belt

INSTRUMENTATION:

Number of Vehicle Data Channels: = 21

Number of Cameras: Onboard = 3

Offboard = 7

TOTAL = 10

DATA SHEET 3**MOVING DEFORMABLE BARRIER (MDB) SUMMARY**Vehicle: 2004 Toyota Camry 4-Door SedanNHTSA No. C45105**MDB FACE MANUFACTURER AND SERIAL NUMBER:**Plascore: 035A0703-2; 003B0703**POSITION OF IMPACT (MDB) ON MONORAIL:**Crabbed 27° to left**MDB DETAILS:**

Overall Width of Framework Carriage	=	<u>1250</u>	millimeters
Overall Length of MDB (incl. honeycomb impact face)	=	<u>4120</u>	millimeters
Wheelbase of Framework Carriage	=	<u>2590</u>	millimeters
Tread of Framework Carriage (Front & Rear)	=	<u>1875</u>	millimeters
C.G. Location Rearward of Front Axle	=	<u>1104</u>	millimeters

MDB WEIGHT:

Left Front	=	<u>409.5</u>	kg	Left Rear	=	<u>281.5</u>	kg
Right Front	=	<u>372.5</u>	kg	Right Rear	=	<u>299.0</u>	kg
TOTAL FRONT =		<u>782.0</u>	kg	TOTAL REAR =		<u>580.5</u>	kg
TOTAL MDB WEIGHT =		<u>1362.5</u>	kg				
Impact Angle (MDB C/L to Target Vehicle C/L)	=	<u>90</u>	degrees				
Impact Speed	=	<u>61.80</u>	kph				

MAXIMUM STATIC CRUSH OF HONEYCOMB IMPACT FACE:

1. Row A at Center of Bumper Level	=	<u>126</u>	millimeters
2. Row B at Top of Bumper Level	=	<u>62</u>	millimeters
3. Row C at Mid Level	=	<u>74</u>	millimeters
4. Row D at Top of Stack Level	=	<u>126</u>	millimeters

INSTRUMENTATION:

Number of MDB Data Channels	=	<u>5</u>
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DATA SHEET 4

POST-TEST OBSERVATIONS

Vehicle: 2004 Toyota Camry 4-Door Sedan

NHTSA No. C45105

TEST DUMMY INFORMATION AND CONTACT POINTS:

DESCRIPTION	FRONT SEAT	REAR SEAT
ATD Type/Serial No.	SID H3/015	SID H3/013
Head Contact:	Head to head restraint	Head to C-pillar trim
Upper Torso Contact:	Arm to door trim above arm rest	Left arm to door trim above arm rest
Lower Torso Contact:	Pelvis to door trim below arm rest	Pelvis to door trim below arm rest
Left Knee Contact:	Left knee to door trim	Left knee to door trim
Right Knee Contact:	Right knee to left knee	Right knee to left knee

POST TEST DOOR OPENING AND SEAT TRACK INFORMATION

DESCRIPTION	FRONT	REAR
Left Side Doors	Closed / Latched / Inoperable	Closed / Latched / Inoperable
Right Side Doors	Closed / Latched / Operable	Closed / Latched / Operable
Hatch/Other Door	-	-
Seat Movement (mm)	0	-
Seat Back Failure	None	None

POST TEST STRUCTURAL OBSERVATIONS

CRITICAL AREAS OF PERFORMANCE	
Pillar Performance	No visible tears or separations
Sill Separation	None
Windshield Damage	None
Window Damage	Left side door windows shattered during the impact.
Other Notable Effects	None

AIR BAG DEPLOYMENT STATUS:

	DRIVER	FRONT PASSENGER	REAR PASSENGER
Front Air Bag	No	No	-
Knee Bolster Bag	-	-	-
Side Air Bag	-	-	-
Side Curtain Bag	-	-	-

MDB LEFT EDGE IMPACT DATA

Measured Parameter	Units	Requirement	Value
Horizontal Offset	mm	± 50 mm	5 forward of target
Vertical Offset	mm	± 20 mm	1 below target

SECTION 4

OCCUPANT AND VEHICLE INFORMATION

DATA SHEET 5

SID H3 INSTRUMENTATION DATA

Vehicle: 2004 Toyota Camry 4-Door Sedan

NHTSA No. C45105

		Front Dummy ID# 015				Rear Dummy ID# 013			
		Pos. Direction		Neg. Direction		Pos. Direction		Neg. Direction	
		Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)
Longitudinal	X	9.9	179.0	-23.2	56.0	8.4	62.5	-16.6	54.9
Lateral	Y	28.6	84.3	-7.7	32.9	130.9	55.2	-12.9	182.1
Vertical	Z	63.0	52.5	-0.1	9.4	19.8	44.1	-49.7	60.2
Resultant	R	68.0	52.2	-	-	133.1	55.2	-	-
HIC		399.1				999.2			
Longitudinal	X	16.5	18.3	-764.9	78.0	110.0	52.5	-414.8	62.1
Lateral	Y	800.8	76.2	-268.6	32.9	1090.5	62.4	-212.7	142.2
Vertical	Z	2616.8	52.6	-23.8	20.2	1634.1	62.2	-866.4	44.0
Resultant	R	2785.2	52.6	-	-	2006.5	62.2	-	-
X		71.0	66.4	-79.1	43.2	123.2	57.7	-32.0	182.7
Y		36.0	83.0	-29.0	48.6	11.5	52.8	-19.2	64.0
Z		28.1	75.6	-17.2	196.6	25.3	59.4	-9.1	184.7
Resultant	R	82.6	43.3	-	-	125.5	57.7	-	-
Upper Rib Lateral	Y	45.7	35.0	-19.2	70.0	65.9	43.8	-7.0	156.7
Upper Rib Lateral	Y(R)	47.2	26.2	-18.7	70.0	64.2	43.8	-6.9	158.7
Lower Rib Lateral	Y	61.5	35.0	-13.5	90.0	72.8	43.8	-9.7	70.0
Lower Rib Lateral	Y(R)	60.5	35.0	-13.2	90.0	74.2	43.8	-9.8	70.0
Lower Lateral	Y	77.9	31.3	-11.5	82.5	75.4	43.8	-6.7	98.7
Lower Lateral	Y(R)	77.7	31.3	-11.0	82.5	74.1	43.8	-6.7	98.7
Lateral	Y	82.0	29.3	-10.9	51.9	100.8	39.4	-13.0	75.6
Lateral	Y(R)	82.4	29.3	-10.9	51.9	101.8	39.4	-12.4	75.6

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

Note: Rib, Spine and Pelvis data has been FIR filtered, Y(R) denotes redundant Y direction accelerometer.

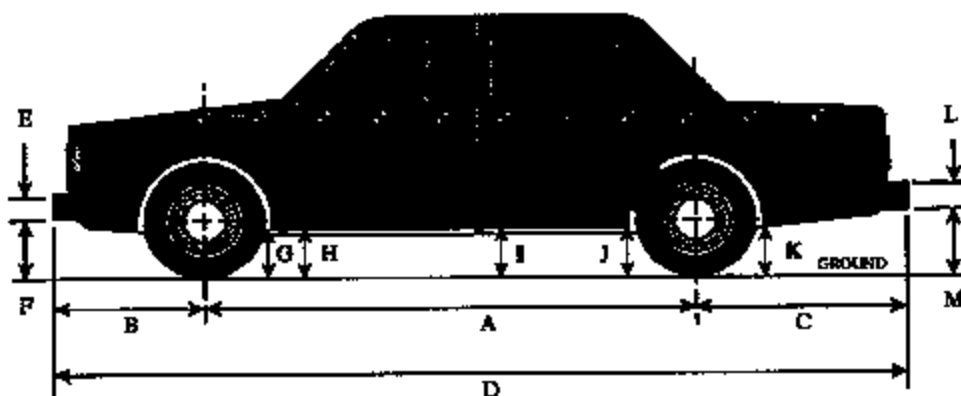
Head Accelerations and Neck Forces are filtered at SAE Class 1000, Neck Moments are filtered at SAE Class 600.

DATA SHEET 6

VEHICLE SIDE MEASUREMENTS

Vehicle: 2004 Toyota Camry 4-Door Sedan

NHTSA No. C45105



LEFT SIDE VIEW

NOTE: all dimensions are in millimeters with tolerance of ± 3 mm

	PRE-TEST (as delivered)	PRE-TEST (as tested)	POST-TEST (as tested)	Δ CHANGE
A	2712	2716	2700	-16
B	951	949	959	10
C	1147	1145	1131	-14
D	4810	-	4790	-20
E	343	-	344	1
F	245	240	268	28
G	192	168	183	15
H	200	173	207	34
I	215	179	257	78
J1	202	156	184	28
J2	212	167	159	-8
K	286	233	249	16
L	329	-	330	1
M	355	298	309	11
N	693	-	643	-50
O	830	-	754	-76
P	1199	-	1170	-29
Q	469	-	448	-21
R	4718	-	4716	-2
S	4711	-	4693	-18
T	1805	-	1662	-143

D = Length at Centerline

E&L = Bumper Thickness

R = Right Side Length

S = Left Side Length

T = Width at B-Pillar

J1 = To Pinch Weld

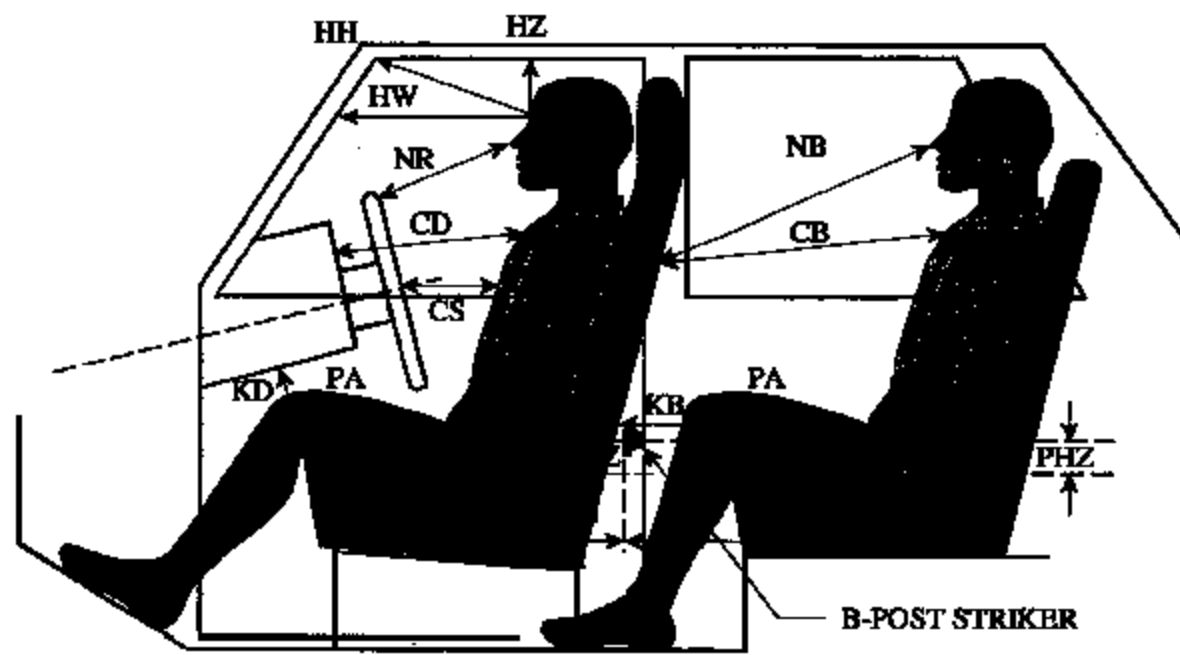
J2 = To Sill

DATA SHEET 7

SID H3 LONGITUDINAL CLEARANCE DIMENSIONS

Vehicle: 2004 Toyota Camry 4-Door Sedan

NHTSA No. C45105



LEFT SIDE VIEW

NOTE: 2-DOOR VEHICLE SHOWN.
REAR DUMMY PHX & PHZ
MEASUREMENTS FOR A 4-DOOR
VEHICLE WOULD USE THE C-POST
STRIKER AS A REFERENCE POINT

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

	DRIVER ID# 015	LEFT REAR PASS. ID# 013
HH	381	N/A
HW	663	N/A
HZ	168	170
NR/NB	461	875
CD/CB	556	605
CS	302	N/A
KDL(KDA°)/KBL(KDA°)	164 / (40 °)	252 / (27 °)
KDR(KBA°)/KBR(KBA°)	143 / (36 °)	252 / (27 °)
PA°	24.8°	23.2°
PHX	208	373
PHZ	215	327

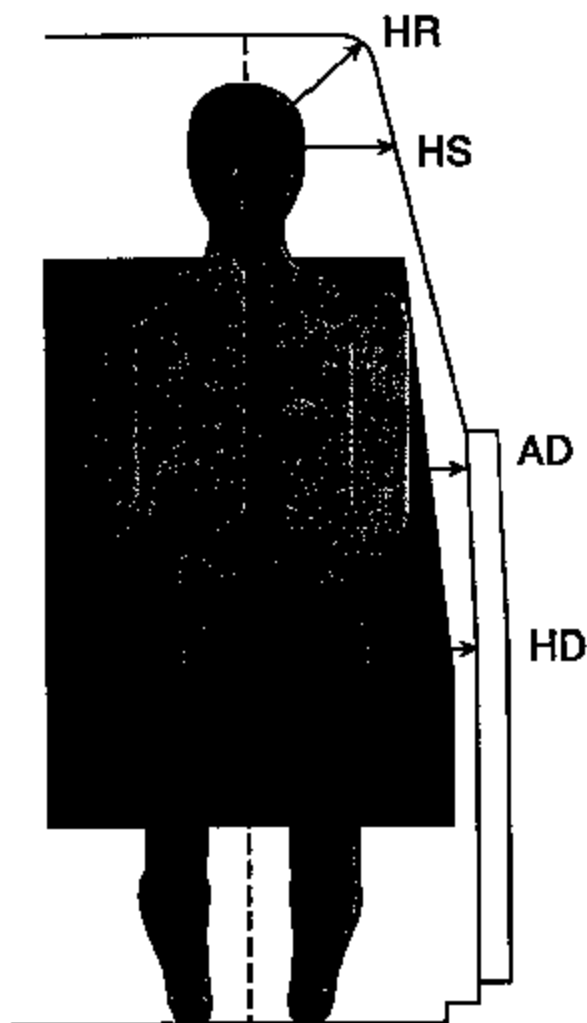
Note: 2-door vehicle shown. Rear dummy PHX & PHZ measurements for 4-door vehicle would use the C-post striker as a reference point.

DATA SHEET 8

SID H3 LATERAL CLEARANCE DIMENSIONS

Vehicle: 2004 Toyota Camry 4-Door Sedan

NETSA No. C45105



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

	DRIVER ID # 015		LEFT REAR PASS. ID # 013	
HR	197		226	
HS	324		289	
AD*	LOWER: 128	UPPER: 105	LOWER: 144	UPPER: 223
HD	148		180	

* Lower measurement is taken laterally at the center of the lower rib accelerometer height from the SID H3 arm form to the closest part of the vehicle side.

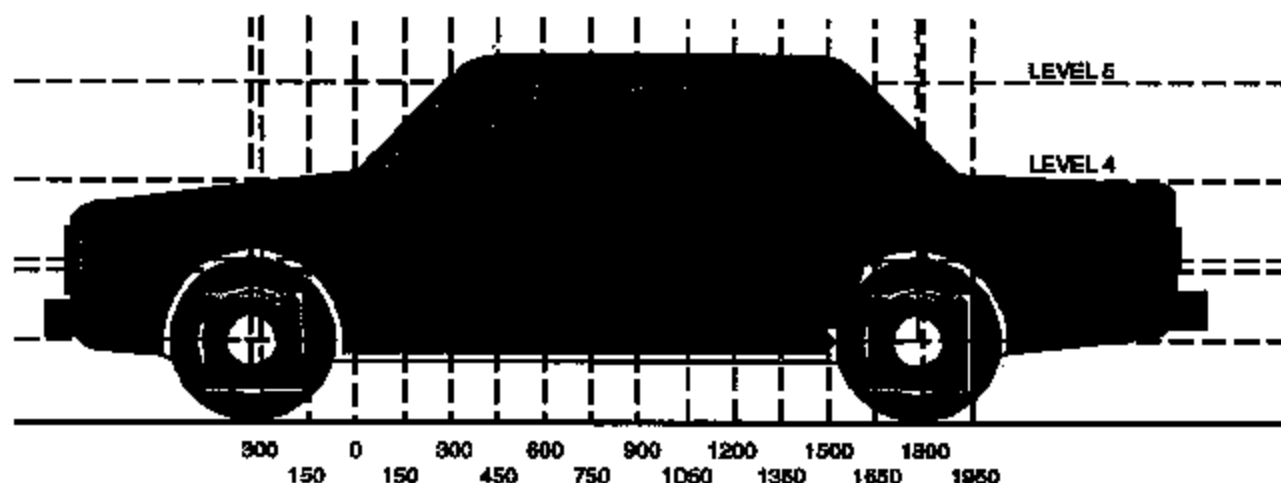
Upper measurement is taken laterally at the center of the upper rib accelerometer height from the SID H3 arm form to the closest part of the vehicle side.

DATA SHEET 9

VEHICLE SIDE MEASUREMENTS

Vehicle: 2004 Toyota Camry 4-Door Sedan

NHTSA No. C45105



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

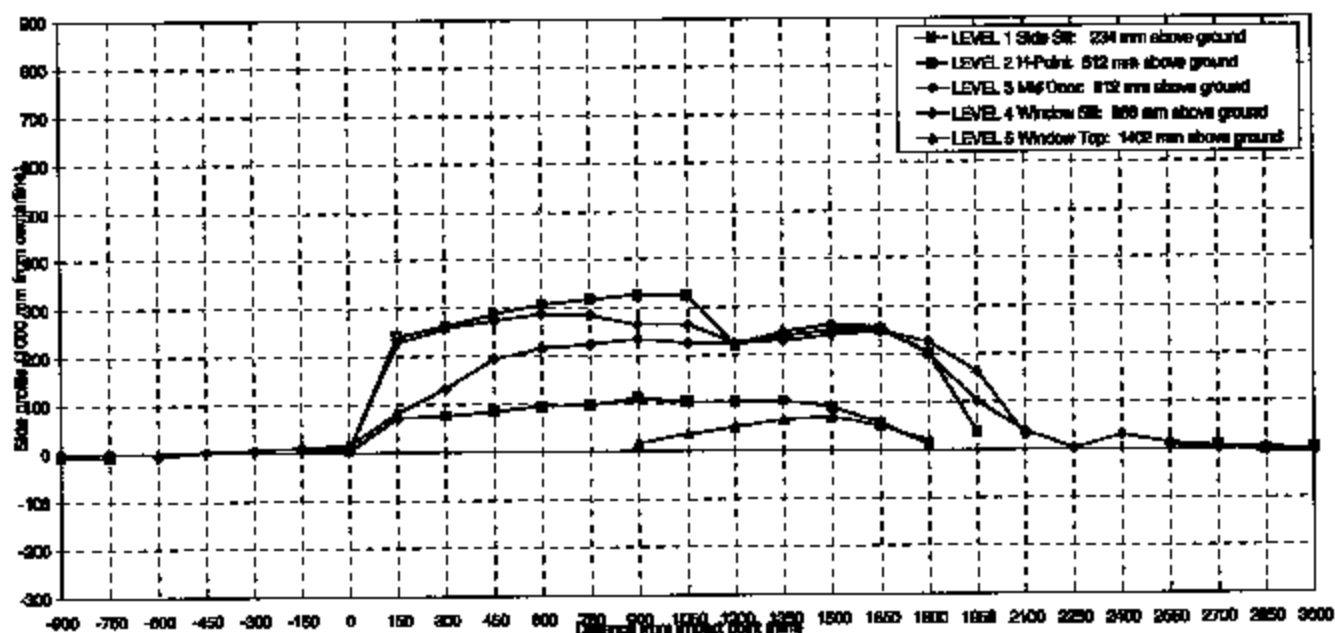
MEASUREMENTS ARE TAKEN WHEN THE VEHICLE IS IN THE "AS TESTED" CONFIGURATION.

Measurements Along the Vertical 750 mm Line Shown Above:

Level 5 @ Window Top	=	<u>1402</u>	millimeters
Level 4 @ Window Sill	=	<u>866</u>	millimeters
Level 3 @ Mid Door	=	<u>612</u>	millimeters
Level 2 @ Occupant H-Point	=	<u>512</u>	millimeters
Level 1 @ Axle Centerline Height (or Sill Top Height)	=	<u>234</u>	millimeters

VEHICLE EXTERIOR CRUSH PROFILES - ALL LEVELS

NHTSA No. C45105



NOTE: All dimensions are in millimeters with a tolerance of ± 0.1 mm.

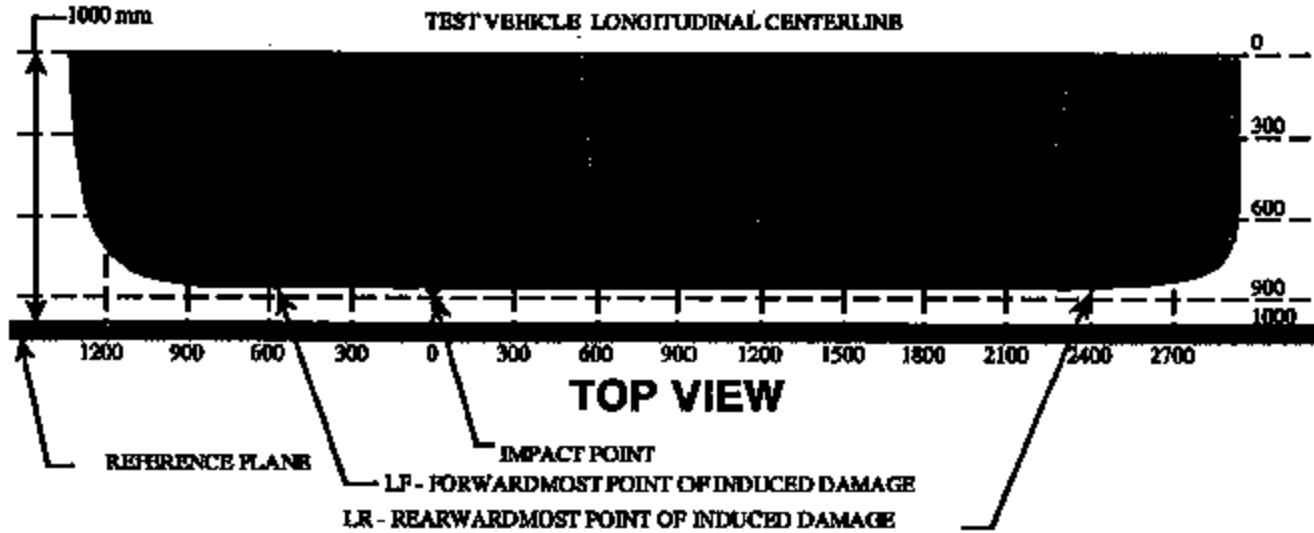
[illegible]

DATA SHEET 11

VEHICLE DAMAGE PROFILE DISTANCES

Vehicle: 2004 Toyota Camry 4-Door Sedan

NHTSA No. C45105



MEASUREMENT CONVENTIONS:

Forward of the impact point (towards front of vehicle) is considered negative (—).
Rearward of the impact point (toward rear of vehicle) is considered positive (+).

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

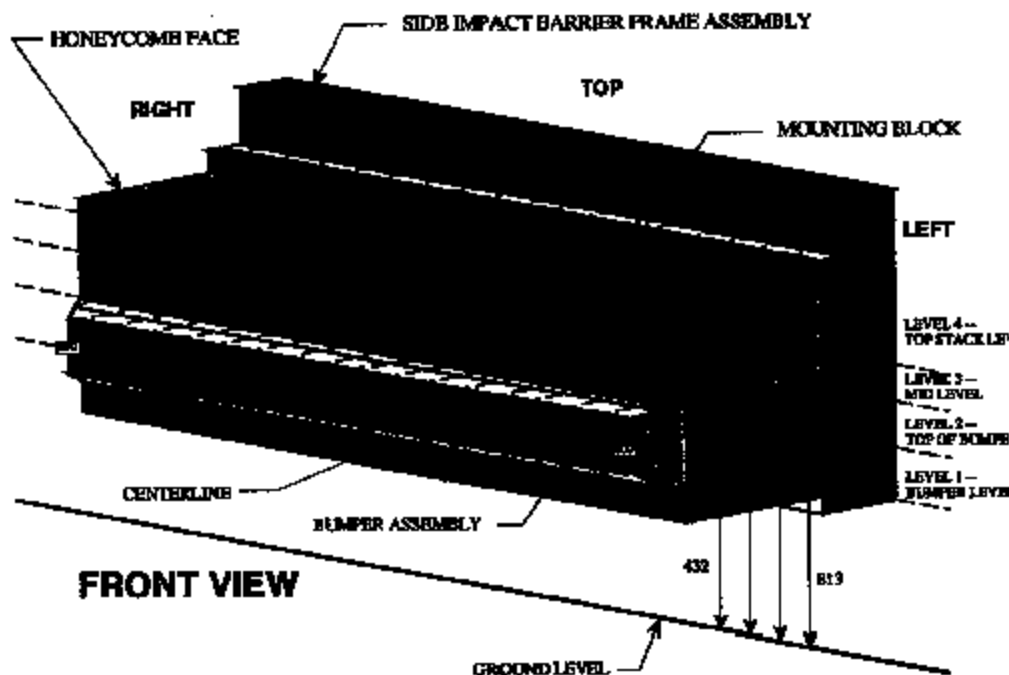
DPD MEASUREMENTS		POST TEST (mm)	PRETEST (mm)	STATIC CRUSH (mm)
1	(LR = 2800 mm)	141	138	3
2	2160	154	130	24
3	1520	392	132	260
4	880	431	106	325
5	240	362	109	253
6	(LF = -400 mm)	183	180	3

DATA SHEET 12

EXTERIOR STATIC CRUSH FOR IMPACTOR FACE

Vehicle: 2004 Toyota Camry 4-Door Sedan

NHTSA No. C45105



NOTE: Dimensions are shown in millimeters, mm

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

LEVEL	HEIGHT AT CL (mm)*		DISTANCE RIGHT OF CENTER (mm)								DISTANCE LEFT OF CENTER (mm)							
			800	700	600	500	400	300	200	100	100	200	300	400	500	600	700	800
LEVEL 4 TOP STACK	813	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
		POST	667	616	602	605	616	630	661	699	622	623	624	627	632	666	708	745
		CRUSH	48	-3	-17	-14	-3	11	42	40	3	4	5	8	13	47	89	126
LEVEL 3 MID LEVEL	686	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
		POST	676	627	615	611	612	619	640	631	613	616	618	621	626	632	646	693
		CRUSH	57	8	-4	-8	-7	0	21	12	-6	-3	-1	2	7	13	27	74
LEVEL 2 TOP BUMPER	533	PRE	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619	619
		POST	675	639	629	630	631	630	638	640	635	639	641	645	646	650	663	681
		CRUSH	56	20	10	11	12	11	19	21	16	20	22	26	27	37	46	62
LEVEL 1 MID BUMPER	432	PRE	535	519	518	518	518	518	518	518	518	518	518	518	518	518	519	535
		POST	661	613	599	592	593	597	594	595	592	593	594	595	597	605	617	645
		CRUSH	126	94	81	74	75	79	76	77	74	75	76	77	79	87	90	110

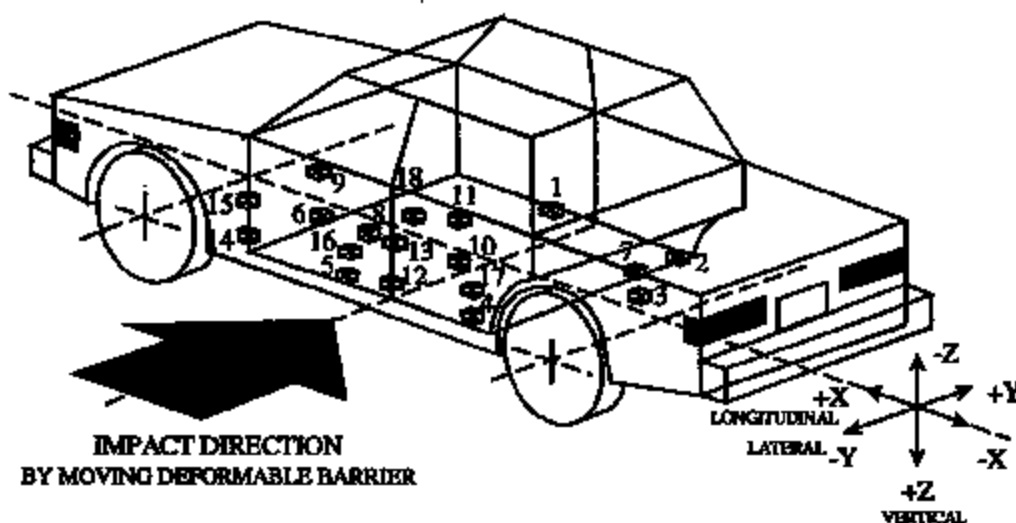
*Heights measured above ground level.

DATA SHEET 13

TEST VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2004 Toyota Camry 4-Door Sedan

NHTSA No. C45105



- 1-Right Side Sill @ Front Seat
- 2-Right Side Sill @ Rear Seat
- 3-Rear Floorpan Above Axle
- 4-Left Side Sill @ Rear Seat
- 5-Left Side Sill @ Front Seat
- 6-Left Front Door on Centerline
- 7-Right Rear Occupant Compartment
- 8-Midrear of Left Front Door
- 9-Left Front Door Upper Centerline

- 10-Midrear of Left Rear Door
- 11-Left Rear Door Upper Centerline
- 12-Left Lower B-Pillar
- 13-Left Middle B-Pillar
- 14-Left Lower A-Pillar
- 15-Left Middle A-Pillar
- 16-Front Seat Track
- 17-Rear Seat Track
- 18-Vehicle CG

DATA SHEET 13 (continued)

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

NHTSA No. C45105

Vehicle: 2004 Toyota Camry 4-Door Sedan

Accel. No.	Location	Coordinates (mm)±3			Long. (x)		Lat. (y)		Vert. (z)		Resultant	
		X*	Y*	Z*	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)
1	Right Side Sill at Front Seat	2955	706	-226	pos. 4.0	58.0	24.6	5.7	3.4	56.1	25.8	5.7
					neg. -4.7	9.9	-2.9	129.9	-8.1	8.8	-	-
2	Right Side Sill at Rear Seat	2050	712	-248	pos. 4.2	58.7	27.0	6.1	4.0	36.6	27.7	6.1
					neg. -4.5	10.1	-2.6	126.8	-10.0	15.0	-	-
3	Rear Floorpan Above Axle	1107	-15	-441	pos. 3.6	5.6	23.1	6.7	19.9	15.5	26.0	15.7
					neg. -6.4	20.2	-2.9	97.6	-11.5	10.8	-	-
4	Left Side Sill at Rear Seat	2048	-702	-215	pos. -	-	59.9	9.6	-	-	-	-
					neg. -	-	-23.8	17.4	-	-	-	-
5	Left Side Sill at Front Seat	3025	-716	-237	pos. -	-	62.4	3.8	-	-	-	-
					neg. -	-	-44.5	17.5	-	-	-	-
6**	Left Front Door on Centerline	-	-	-	pos. -	-	-	-	-	-	-	-
					neg. -	-	-	-	-	-	-	-
7	Right Rear Occupant Compartment	1992	375	-167	pos. -	-	26.9	6.0	-	-	-	-
					neg. -	-	-3.3	127.8	-	-	-	-
8**	Midrear of Left Front Door	-	-	-	pos. -	-	-	-	-	-	-	-
					neg. -	-	-	-	-	-	-	-
9**	Left Front Door Upper Centerline	-	-	-	pos. -	-	-	-	-	-	-	-
					neg. -	-	-	-	-	-	-	-
10**	Midrear of Left Rear Door	-	-	-	pos. -	-	-	-	-	-	-	-
					neg. -	-	-	-	-	-	-	-
11**	Left Rear Door Upper Centerline	-	-	-	pos. -	-	-	-	-	-	-	-
					neg. -	-	-	-	-	-	-	-

Y - Vehicle Centerline (+ To Right) Z - Ground Level (+ Down)

*Reference: X - Rear Bumper (+ Forward)

**Accelerometer was not requested by COTR.

DATA SHEET 13 (continued)

VEHICLE ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2004 Toyota Camry 4-Door Sedan

NHTSA No. C45105

Accel. No.	Location	Coordinates (mm) ±3 mm			Long. (x)		Lat. (y)		Vert. (z)		Resultant	
		X*	Y*	Z*	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)	Max (g)	Time (msec)
12	Left Lower B-Pillar	2274	-700	-395	-	-	211.4	4.5	-	-	-	-
					-	-	-260.2	20.7	-	-	-	-
13	Left Middle B-Pillar	2239	-704	-919	-	-	†	-	-	-	-	-
					-	-	†	-	-	-	-	-
14	Left Lower A-Pillar	3372	-662	-473	-	-	61.4	4.7	-	-	-	-
					-	-	††	-	-	-	-	-
15	Left Middle A-Pillar	3280	-695	-960	-	-	40.8	38.2	-	-	-	-
					-	-	-3.5	33.6	-	-	-	-
16	Front Seat Track	2409	-565	-250	-	-	75.4	17.4	-	-	-	-
					-	-	-35.2	23.1	-	-	-	-
17	Rear Seat Track	1221	-483	-537	-	-	64.5	36.5	-	-	-	-
					-	-	-42.6	32.6	-	-	-	-
18	Vehicle CG	2723	66	-443	40.6	25.7	66.3	24.4	23.1	31.1	75.7	25.4
					-46.4	31.5	-61.1	33.2	-33.7	36.1	-	-

Y - Vehicle Centerline (+ To Right) Z - Ground Level (+ Down)

*Reference: X - Rear Bumper (+ Forward)

† Questionable Data

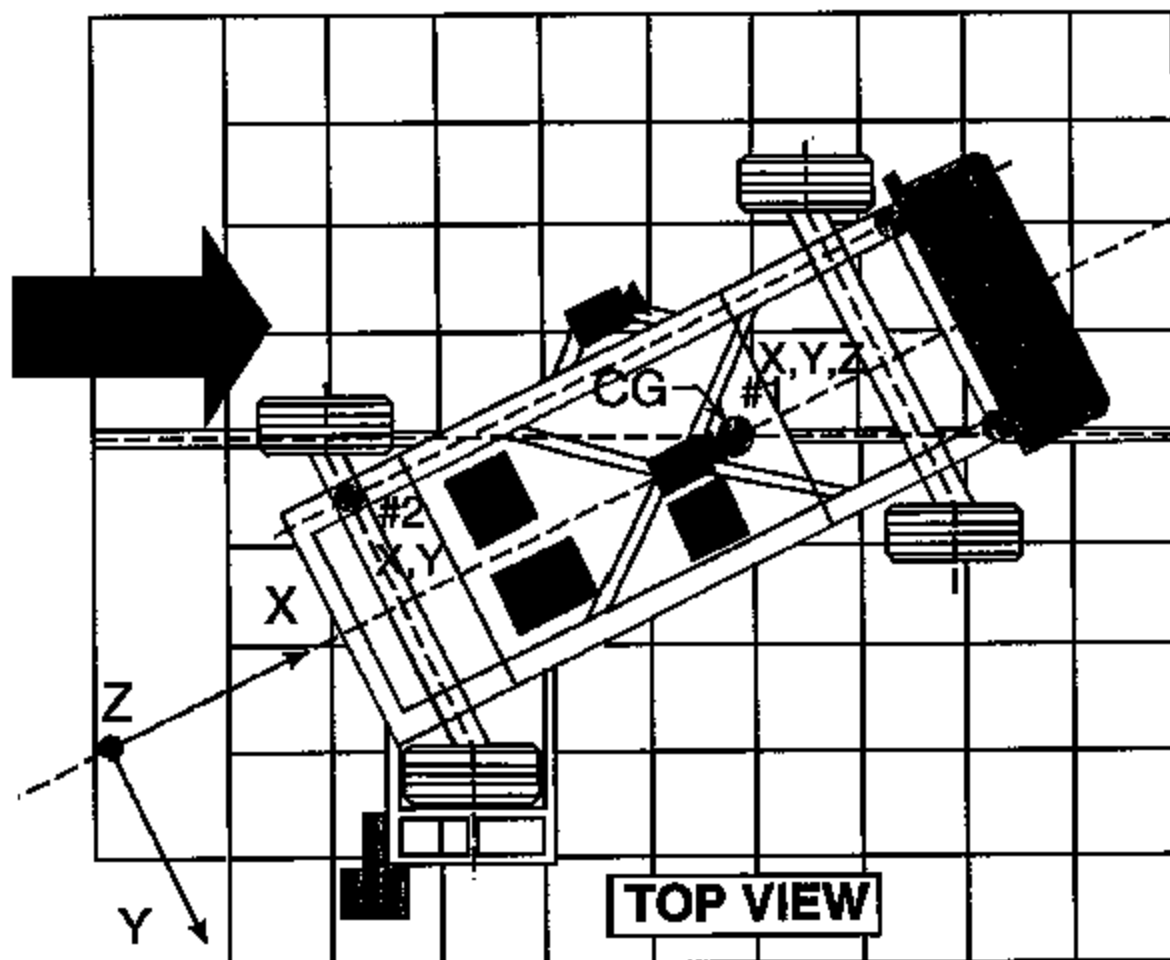
†† Questionable Data After 20 ms

DATA SHEET 14

MDB ACCELEROMETER LOCATIONS AND DATA SUMMARY

Vehicle: 2004 Toyota Camry 4-Door Sedan

NHTSA No. C45105



Accel. No.	Location	Coordinates (millimeters)			Pos. Direct.		Neg. Direct.	
		X*	Y*	Z*	Max (g)	Time (msec)	Max (g)	Time (msec)
1	Longitudinal... X	1859	0	-330	1.4	109.2	-21.0	41.0
	Lateral..... Y				1.6	56.1	-7.1	38.9
	Vertical..... Z				15.4	56.4	-15.3	61.7
	Resultant..... R				22.8	40.9	-	-
2	Longitudinal... X	386	-660	-660	1.9	116.5	-22.8	33.2
	Lateral..... Y				2.7	29.4	-2.2	65.6

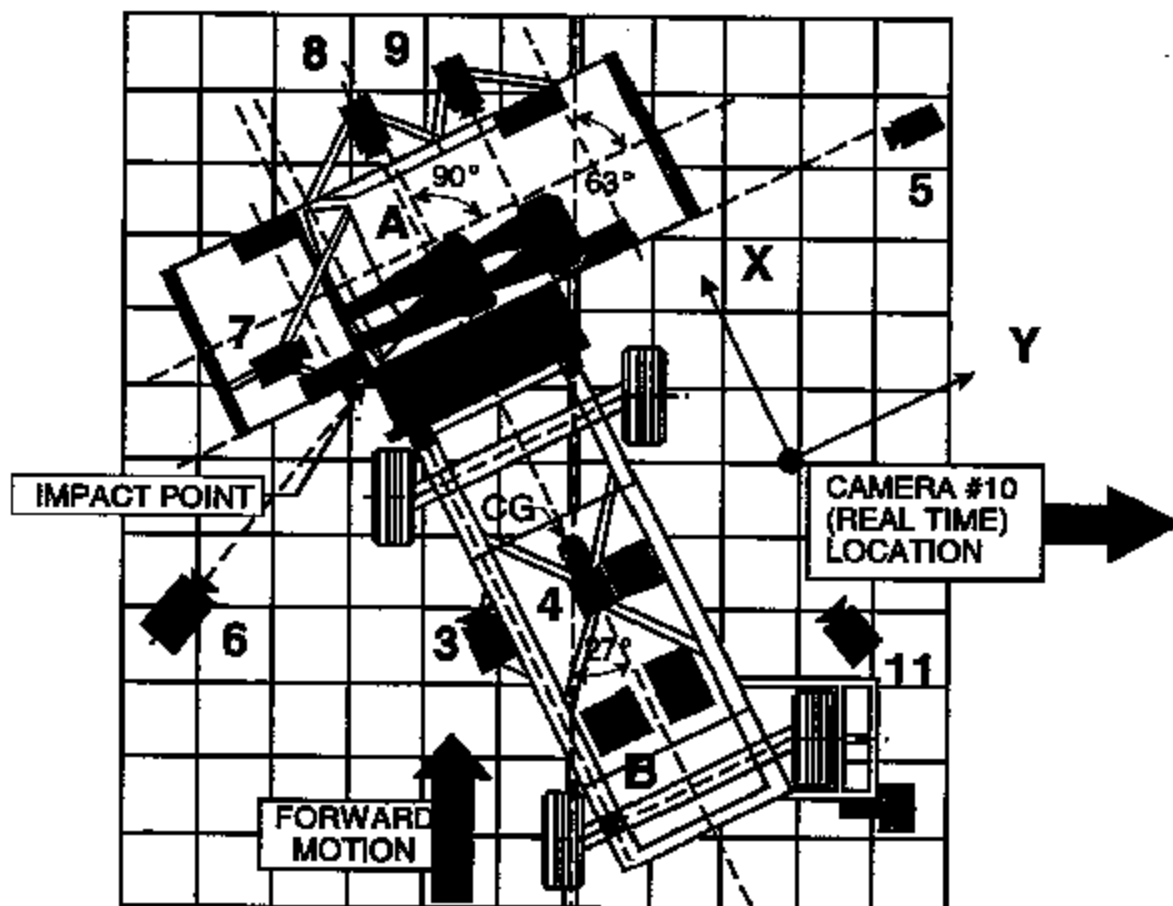
*Reference:
 X = Rear Bumper (+ Forward)
 Y = Vehicle Centerline (+ To Right)
 Z = Ground Level (+ Down)
 All measurements accurate to within ± 3 mm.

DATA SHEET 15

HIGH SPEED CAMERA LOCATIONS AND DATA SUMMARY

Vehicle: 2004 Toyota Camry 4-Door Sedan

NHTSA No. C45105



Camera No.	View	Coordinates (millimeters)			Angle (deg.)	Lens (mm)	Film Speed (fps)
		X*	Y*	Z*			
1	Overhead view of test vehicle	105	830	-4880	-90	8	1045
2	Overhead closeup view of impact plane	230	875	-4880	-90	12.5	1025
3	MDB onboard closeup view of impact point	-1470	0	-847	0	13	1030
4	MDB onboard view of driver dummy	-1140	838	-1586	-17	7.5	†
5	Right side ground level overall view	318	9140	-1105	-3	25	1025
6	Left side ground level overall view	-1620	-1650	-1088	-8	13	1025
7	Test vehicle onboard driver front view	510	-471	-1265	-12	13	1035
8	Test vehicle onboard driver side view	1842	770	-1036	-9	8	1020
9	Test vehicle onboard passenger side view	1824	1660	-1068	-10	8	1005
10	Real time film coverage of test	-	-	-	-	-	24

* Reference (from point of impact); all measurements accurate to within ± 6 mm.

X = (Impact Point) + Forward

Y = (Impact Point) + To Right

Z = (Ground Level) + Down

† Camera timing not available.

SECTION 5

FUEL SYSTEM INTEGRITY

DATA SHEET 16

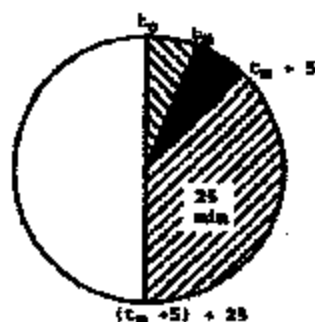
FMVSS 301 FUEL SYSTEM INTEGRITY DATA

NHTSA No.: C45105 TEST DATE: February 12, 2004
 Vehicle Mfr./Make/Model: Toyota Motor Corporation 2004 Toyota Camry 4-Door Sedan

TEST VEHICLE IMPACT TYPE:

- Frontal (48.28 kph)
- Oblique (48.28 kph) with - barrier face first
 contacting the - side
 (driver/passenger)
- Rear Moving Barrier (48.28 kph)
- Lateral Moving Barrier (32.19 kph)
- X Side Impact Moving Deformable Barrier (62.0 kph)
 contacting the driver side side
 (driver/passenger)

FUEL SPILLAGE MEASUREMENT:



1. From impact until vehicle motion ceases
2. For five minute period after vehicle motion ceases
3. For next 25 minutes

ACTUAL	MAX ALLOWED
0 g	28 g
0 g	142 g
0 g	28 g/1 min.

SOLVENT SPILLAGE DETAILS:

None

DATA SHEET 17
ROLLOVER DATA

Vehicle: 2004 Toyota Camry 4-Door Sedan

NHTSA No.: C45105



I. DETERMINATION OF SOLVENT COLLECTION TIME PERIOD:

Rollover Stage	Rotation Time (spec. 1 -3 min)				FMVSS 301 Hold Time		Total Time				Next Whole Minute Interval	
0° - 90°	1	minutes	16	seconds	5	minutes	6	minutes	16	seconds	7	minutes
90° - 180°	1	minutes	25	seconds	5	minutes	6	minutes	25	seconds	7	minutes
180°-270°	1	minutes	02	seconds	5	minutes	6	minutes	2	seconds	7	minutes
270°-360°	1	minutes	20	seconds	5	minutes	6	minutes	20	seconds	7	minutes

II. FMVSS 301 REQUIREMENTS: (Maximum allowable solvent spillage):

First 5 minutes from onset of rotation	6th min.	7th min.	8th min. (if required)
142 g	28 g	28 g	28 g

III. ACTUAL TEST VEHICLE SOLVENT SPILLAGE:

Rollover Stage	First 5 minutes from onset of rotation (g)	6th min. (g)	7th min. (g)	8th min. (if required) (g)
0° - 90°	0	0	0	-
90° - 180°	0	0	0	-
180°-270°	0	0	0	-
270°-360°	0	0	0	-

Note: Record spillage for whole minute intervals only as determined above.

IV. SOLVENT SPILLAGE LOCATION(S):

Rollover Stage	Spillage Location
0° - 90°	None
90° - 180°	None
180°-270°	None
270°-360°	None

APPENDIX A
PHOTOGRAPHS

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Figure A-1 PRE-TEST FRONTAL VIEW OF TEST VEHICLE

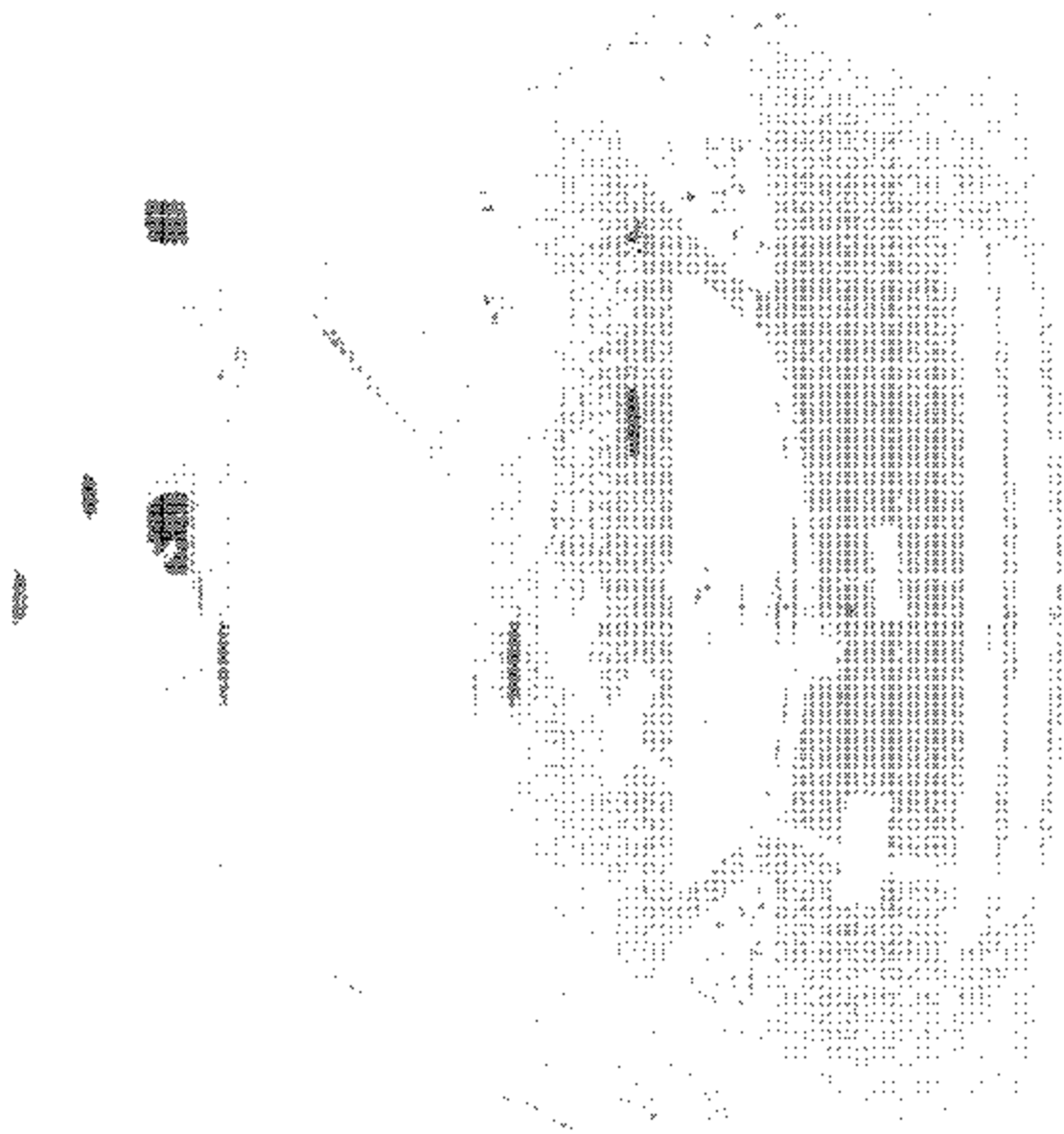


Figure 2. POST-TEST FRONTAL VIEW OF TEST VEHICLE

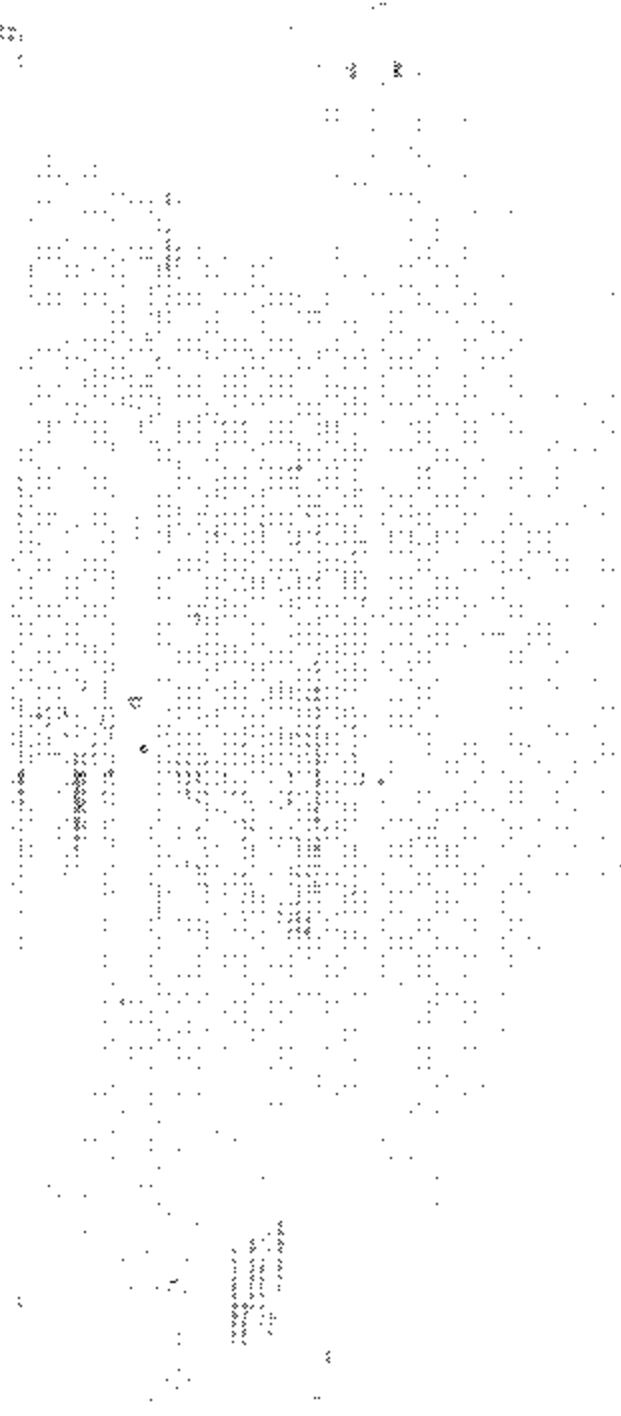


Figure A-1 PRE-TEST REAR VIEW OF TEST VEHICLE



Figure 1-A POST-CRASH VIEW OF TEST VEHICLE

Figure A-5 PRE-TEST IMPACTED SIDE VIEW OF TEST VEHICLE



Figure A-6 POST-TEST IMPACTED SIDE VIEW OF TEST VEHICLE



Figure A-9 PRE TEST LEFT FRONT VIEW OF TEST VEHICLE



Figure A-1 POST-TEST LEFT FRONT VIEW OF TEST VEHICLE



Figure A-9 1985 TEST LEFT REAR VIEW OF TEST VEHICLE



Figure A-10 POST-TEST LEFT REAR VIEW OF TEST VEHICLE



Figure A-11 PRG TEST NIGHT FRONT VIEW OF TEST VEHICLE



Figure A-12 POST-TEST RIGHT FRONT VIEW OF TEST VEHICLE

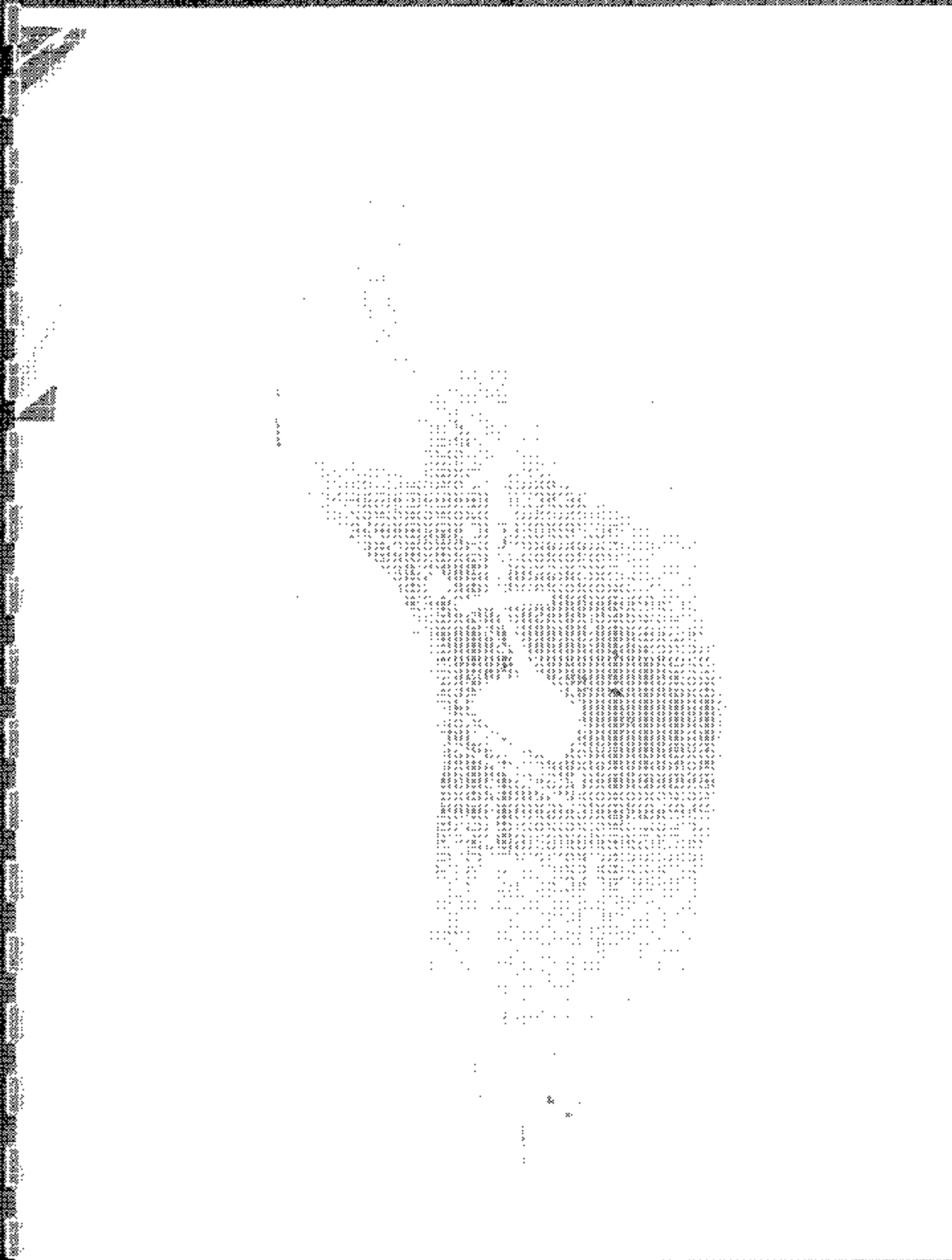


Figure A-13 PRE-TEST RIGHT REAR VIEW OF TEST VEHICLE



Figure A-14 POST-TEST RIGHT GEAR VIEW OF TEST VEHICLE

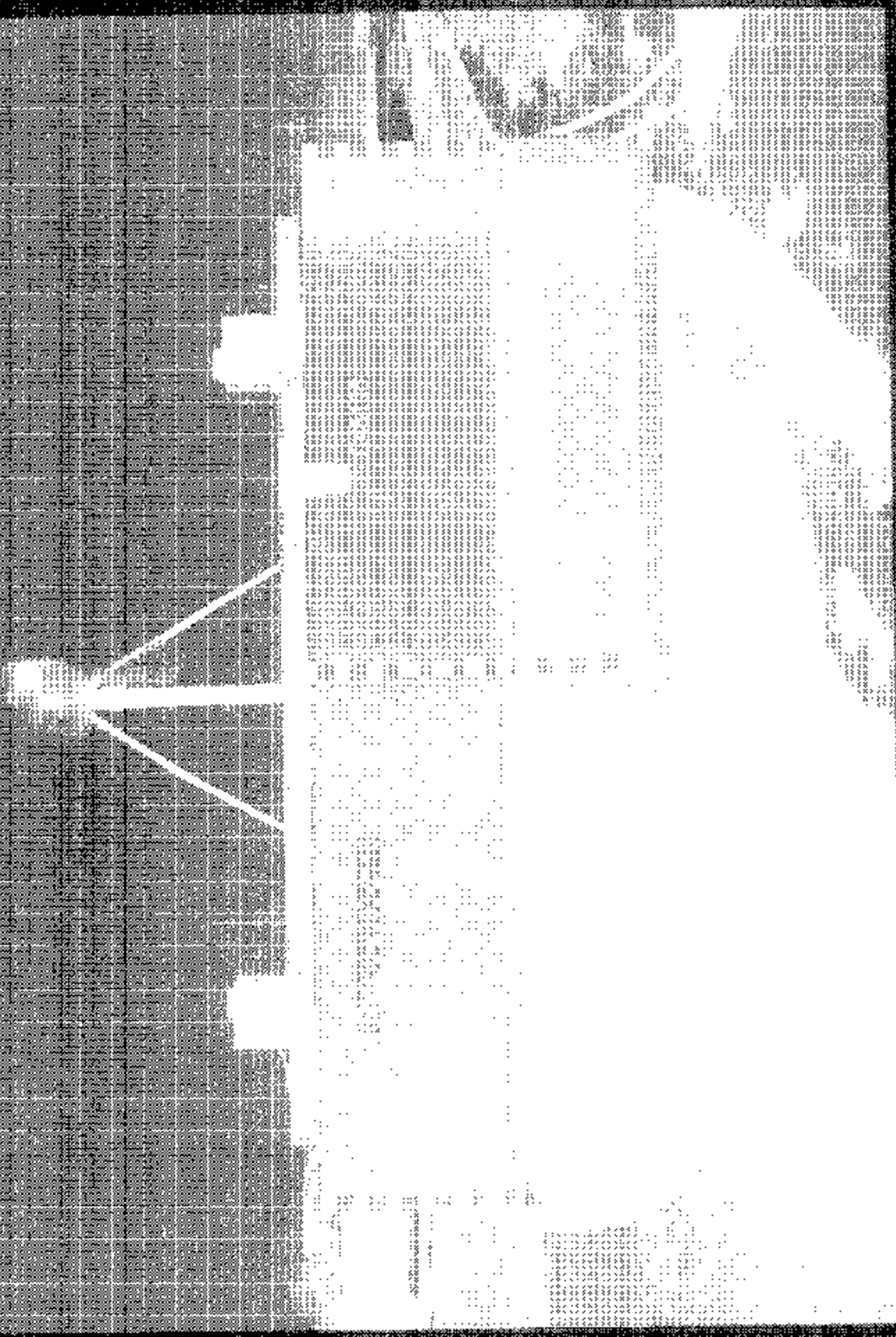


FIGURE 1-10 PRE-TEST FRONTAL VIEW OF IMPACTOR FACE



FIG. A-16 POST-TEST FRONTAL VIEW OF IMPLANT FACE

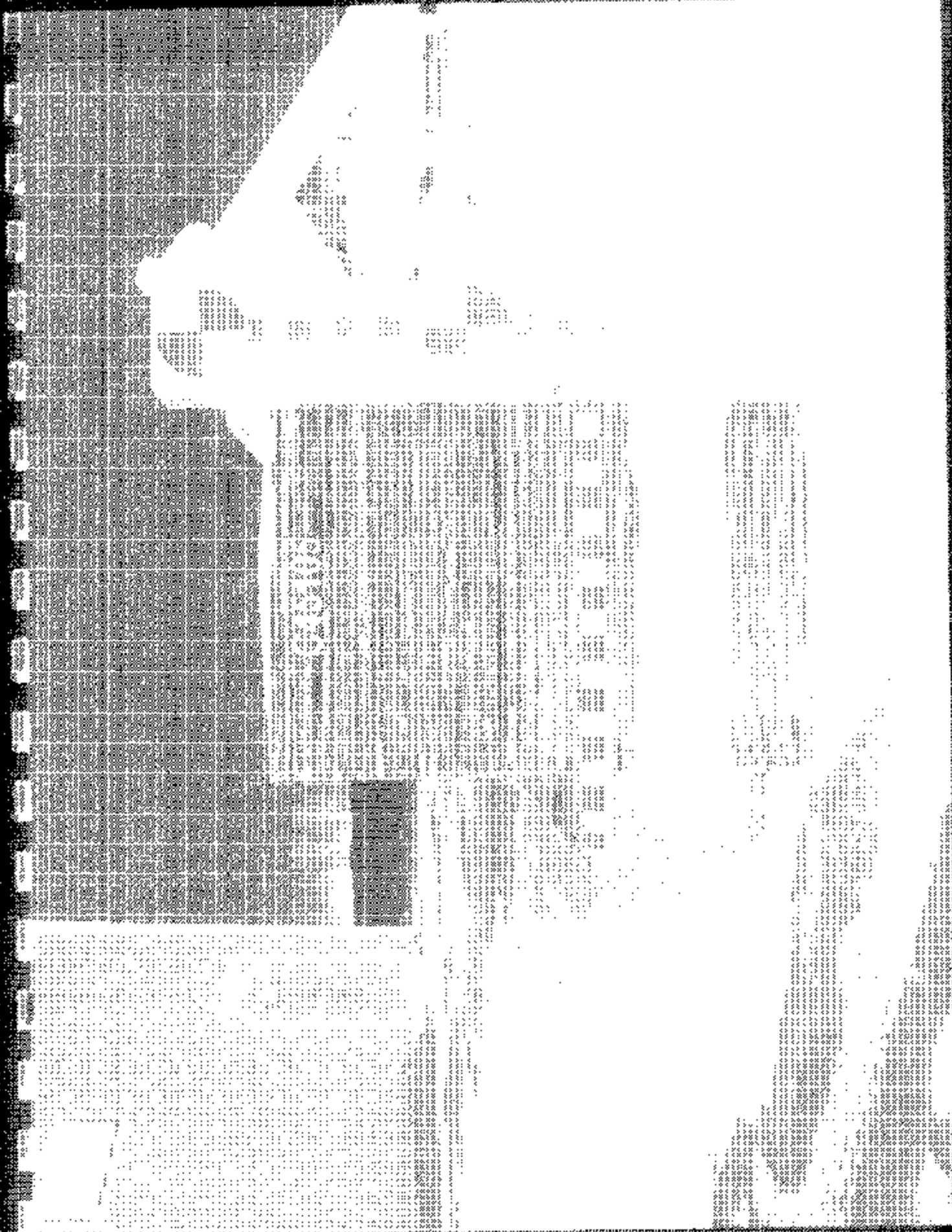


Figure A-17 PRE-TEST LEFT SIDE VIEW OF IMPACTOR FACE

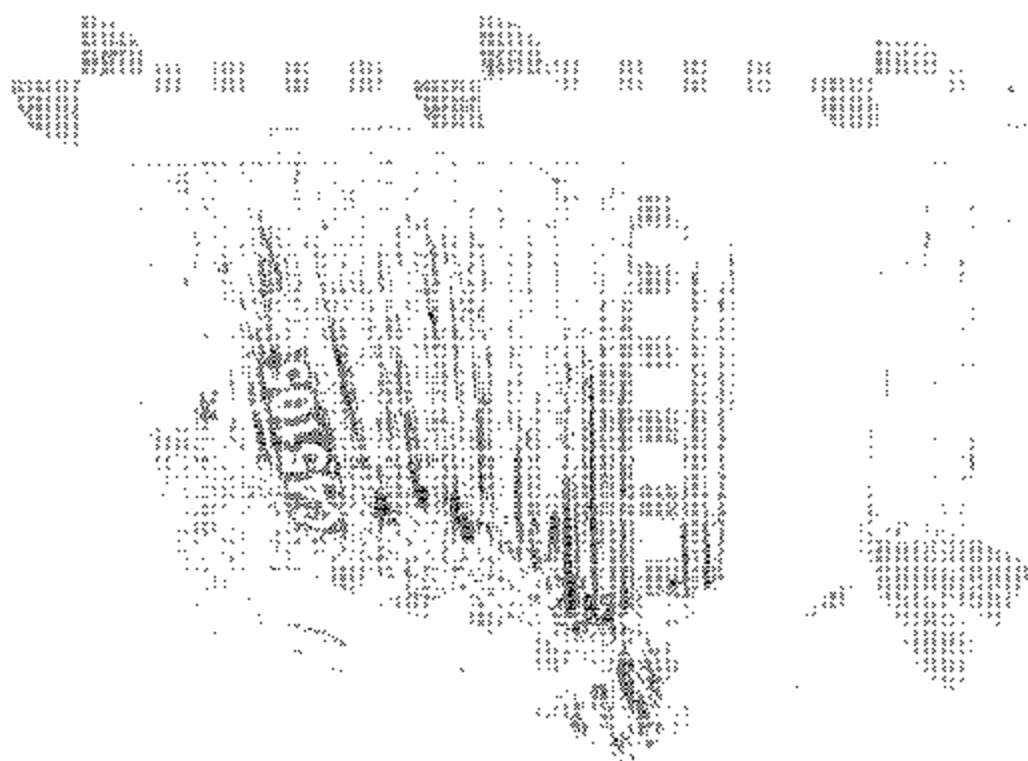


Figure A-16 POST TEST LEFT SIDE VIEW OF IMPACTOR FACE

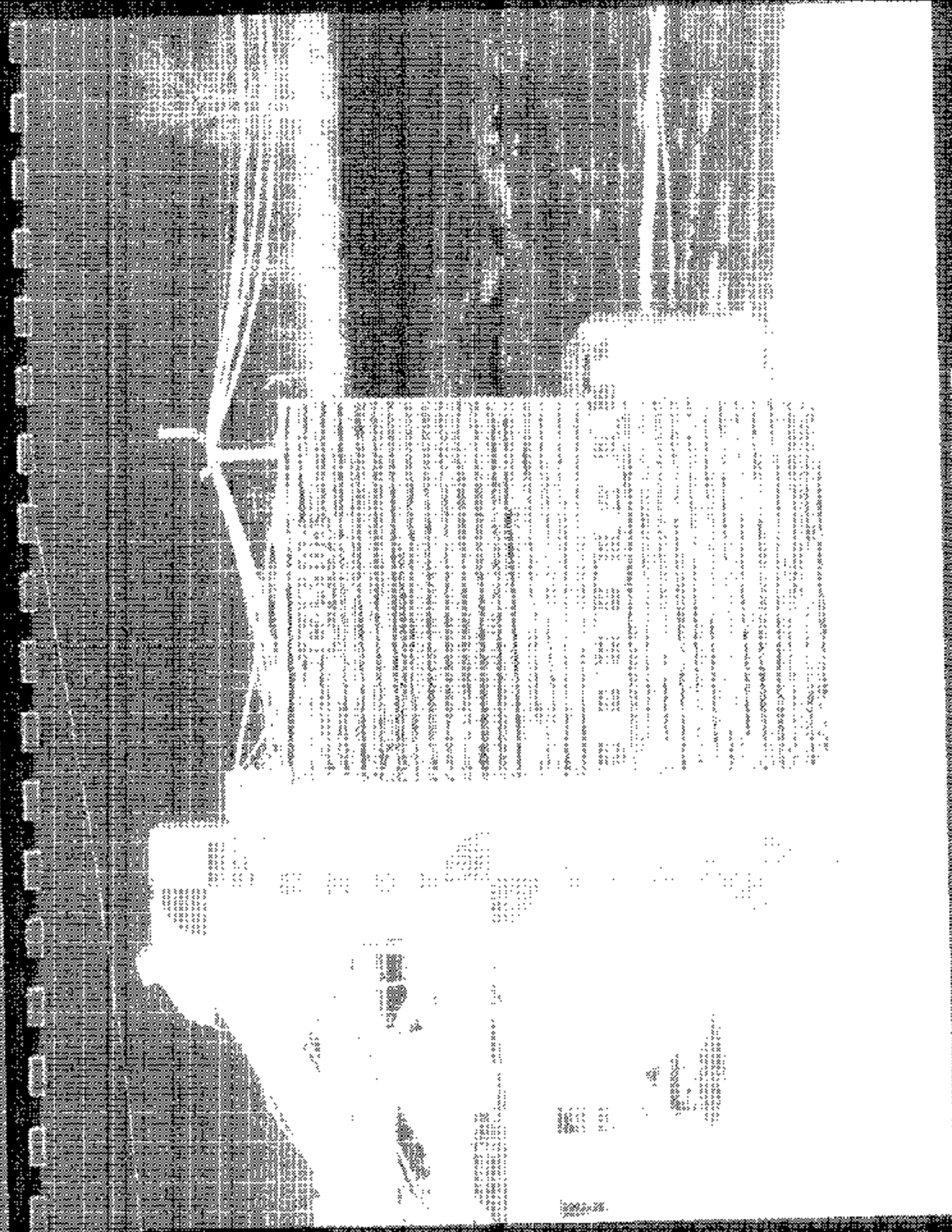


Figure A-9 PRE-TEST RIGHT SIDE VIEW OF IMPACTOR FACE

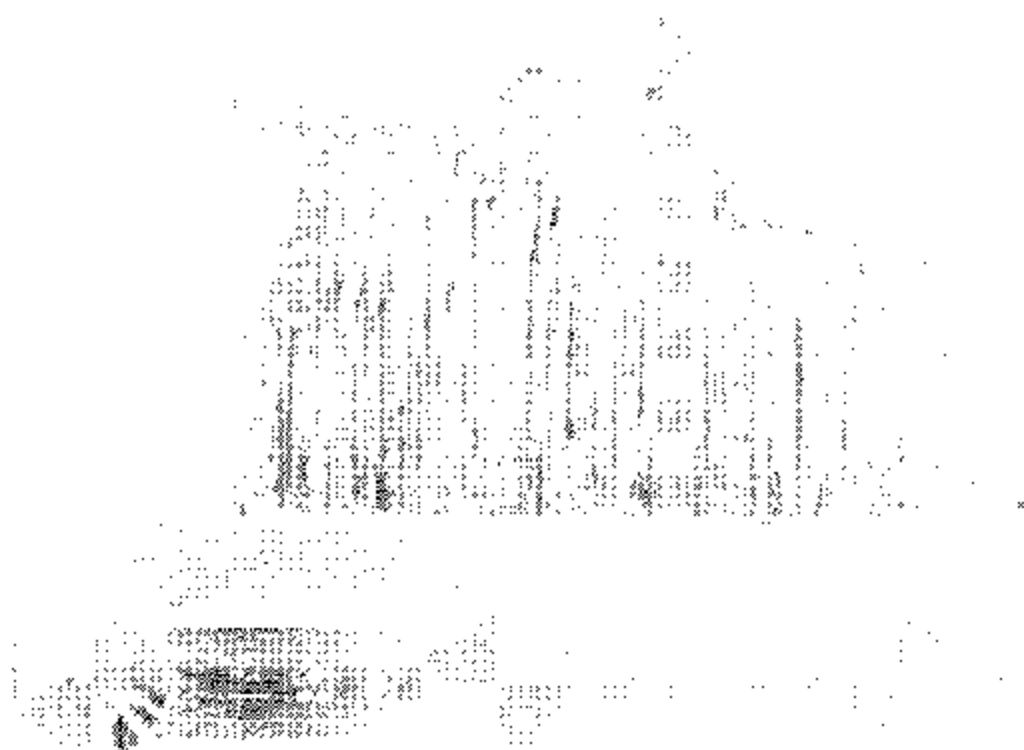


Figure A-20 POST-TEST RIGHT SIDE VIEW OF IMPACTOR FACE

Figure A-31 PRE-TEST TOP VIEW OF IMPACTOR FACE



Figure A-22 POST-TEST TOP VIEW OF IMPACTOR PACE

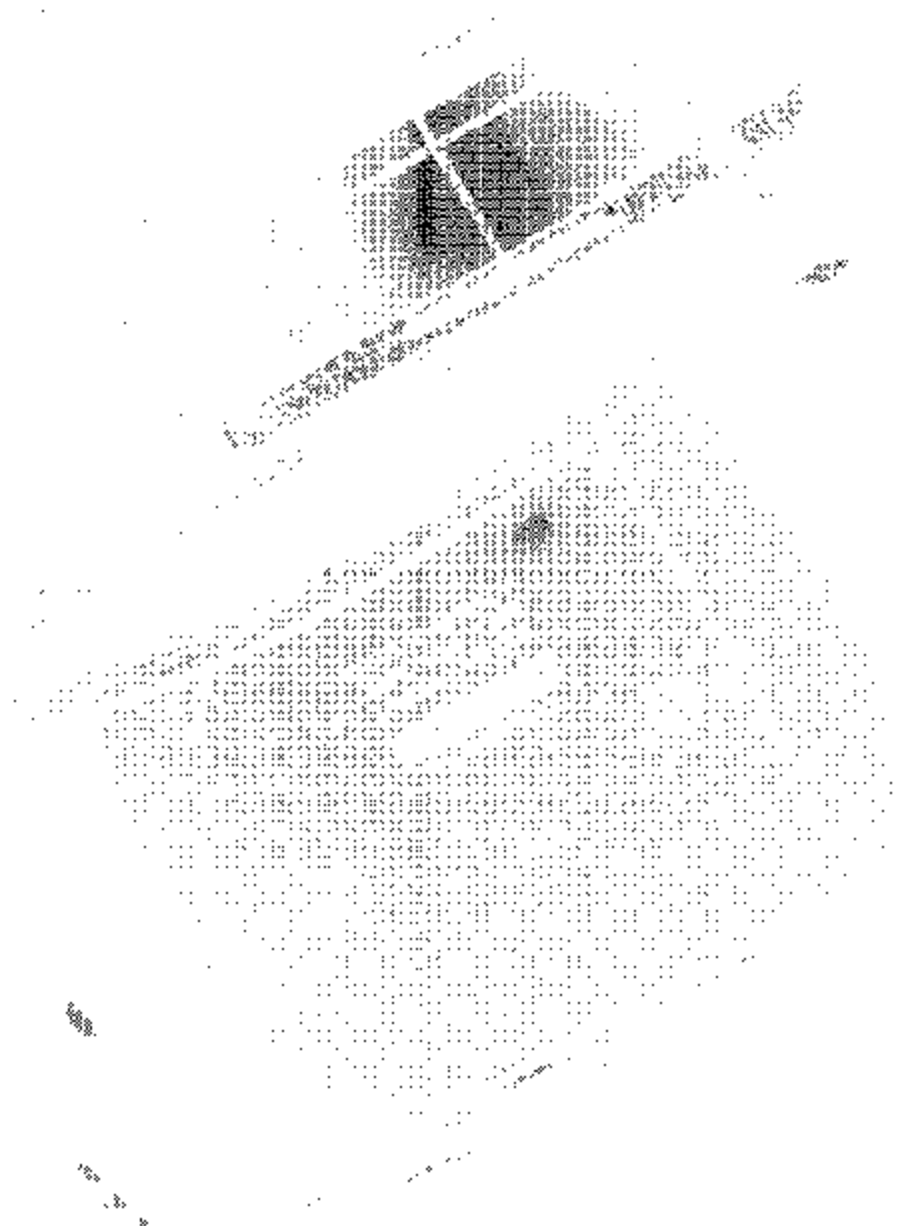


Figure A-2: Aerial Test Overhead View of Aligned MBR and Vehicle

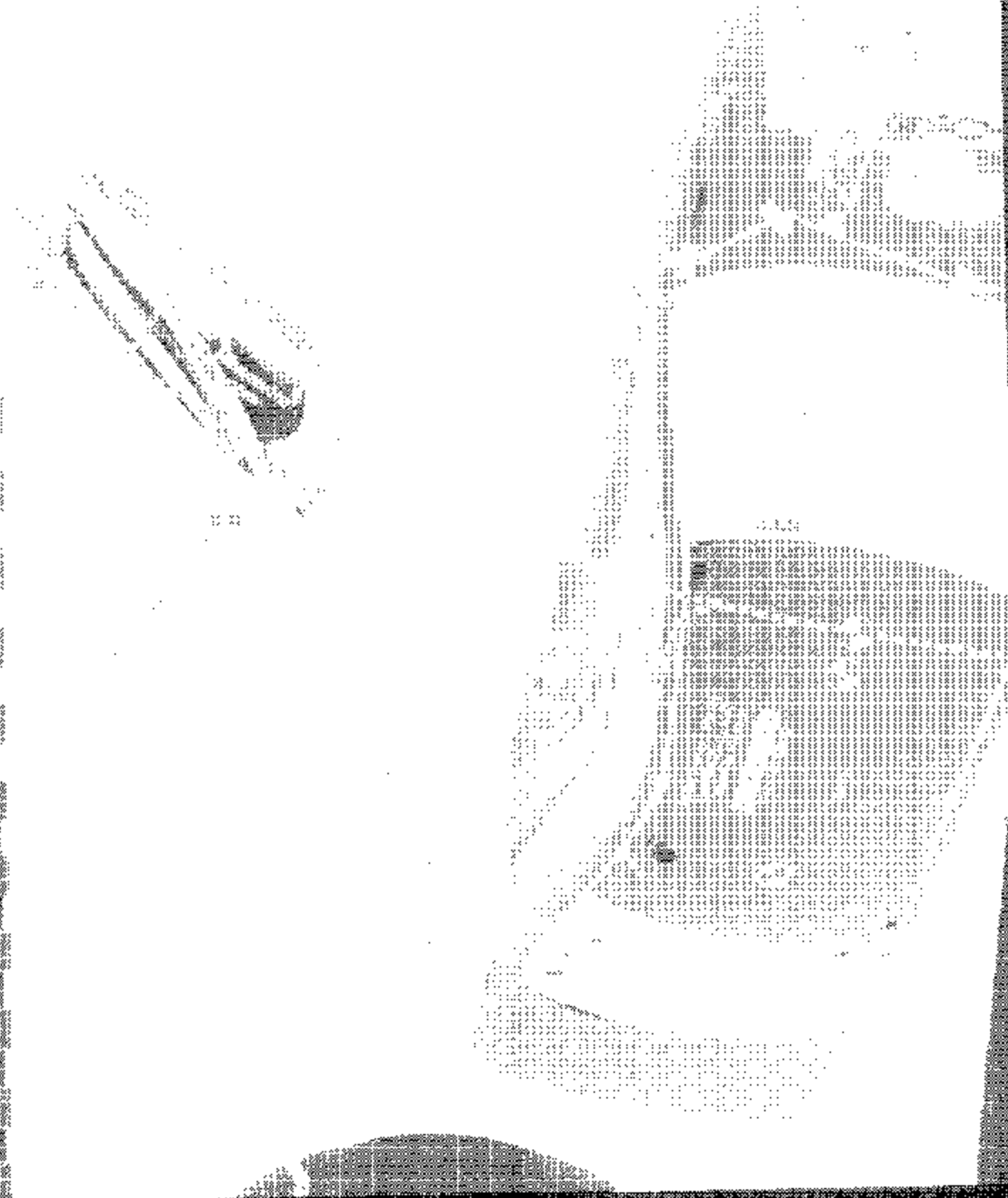


Figure A-24 POST-TEST OVERHEAD VIEW OF MDB AND VEHICLE



Figure A-25 PRE-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF FRONT SID II

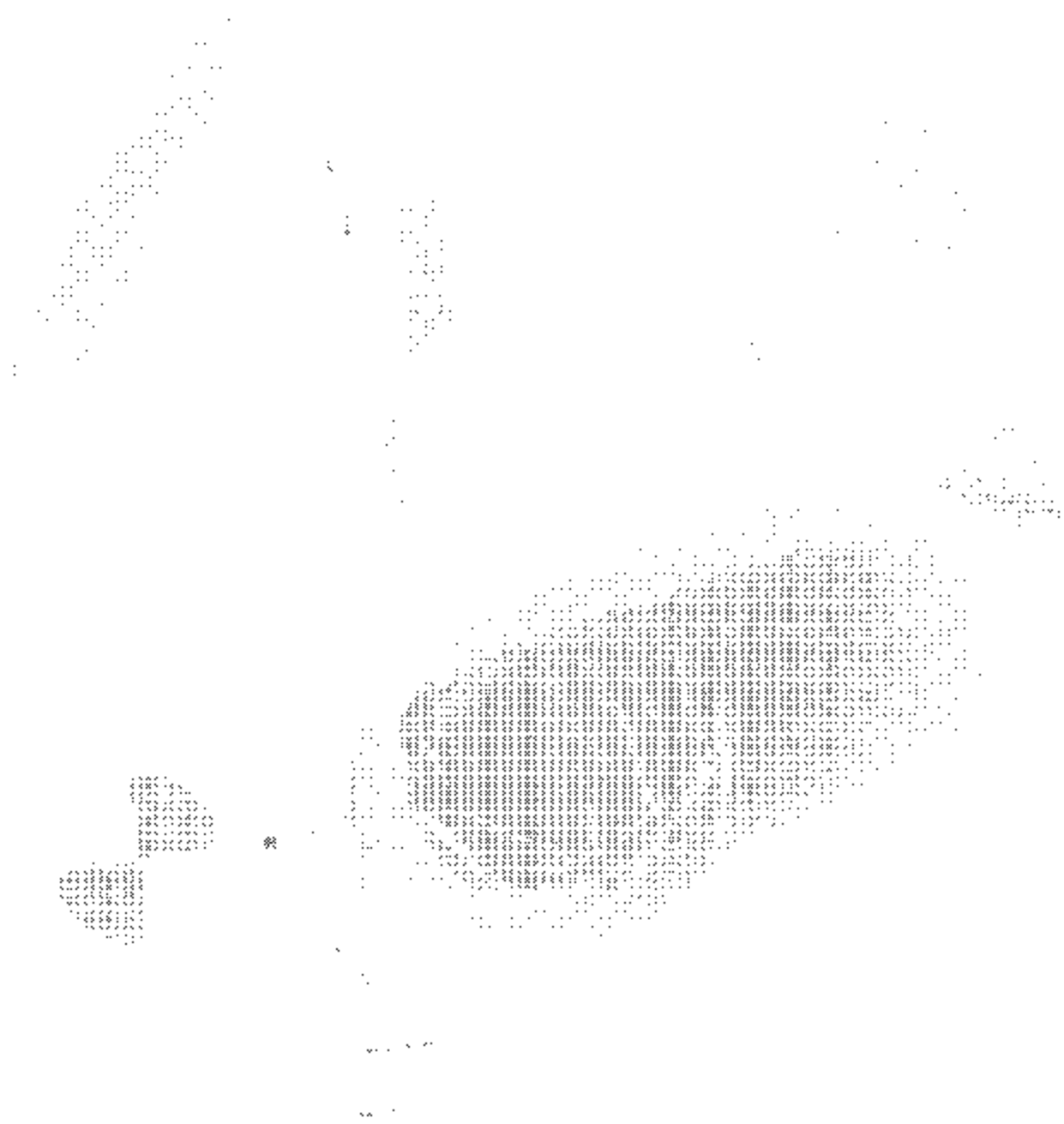


Figure A-26 POST-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF FRONT SEAT 113



Figure A-27 PRE-TEST RIGHT OCCUPANT COMPARTMENT VIEW OF REAR SID (13)



Figure A-3: POST-FIRE RIGHT OCCUPANT COMPARTMENT VIEW OF REAR SEAT



Figure A-20 PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SEAT



Figure A-30 POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF FRONT SEAT ID

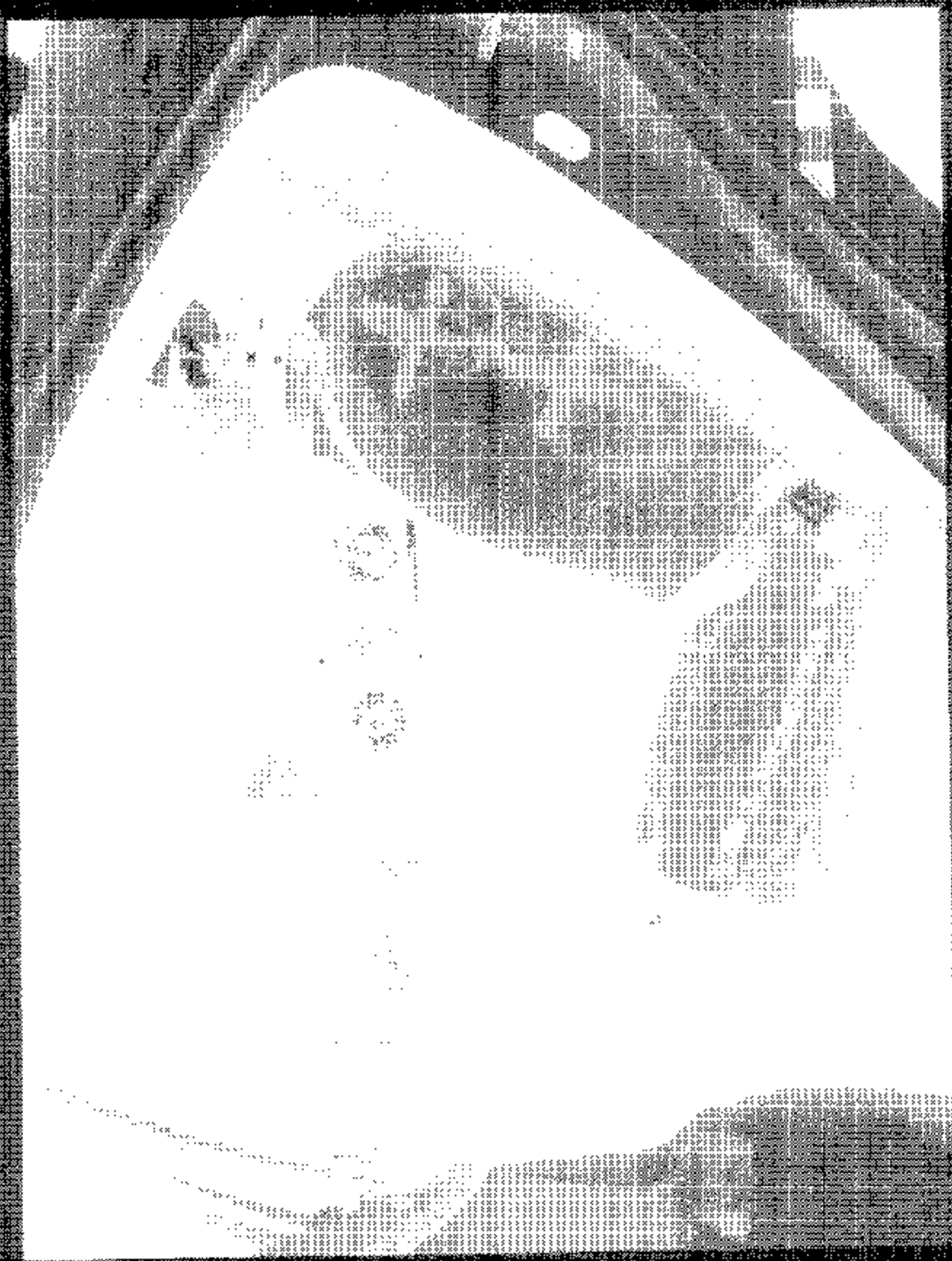


FIGURE A-31 PRE-TEST LEFT OCCUPANT COMPARTMENT VIEW OF REAR SIDE RE

C45105

Figure A-11 POST-TEST LEFT OCCUPANT COMPARTMENT VIEW OF REAR SID II

Figure A-3: PRE-TEST INTERIOR OF FRONT DOOR

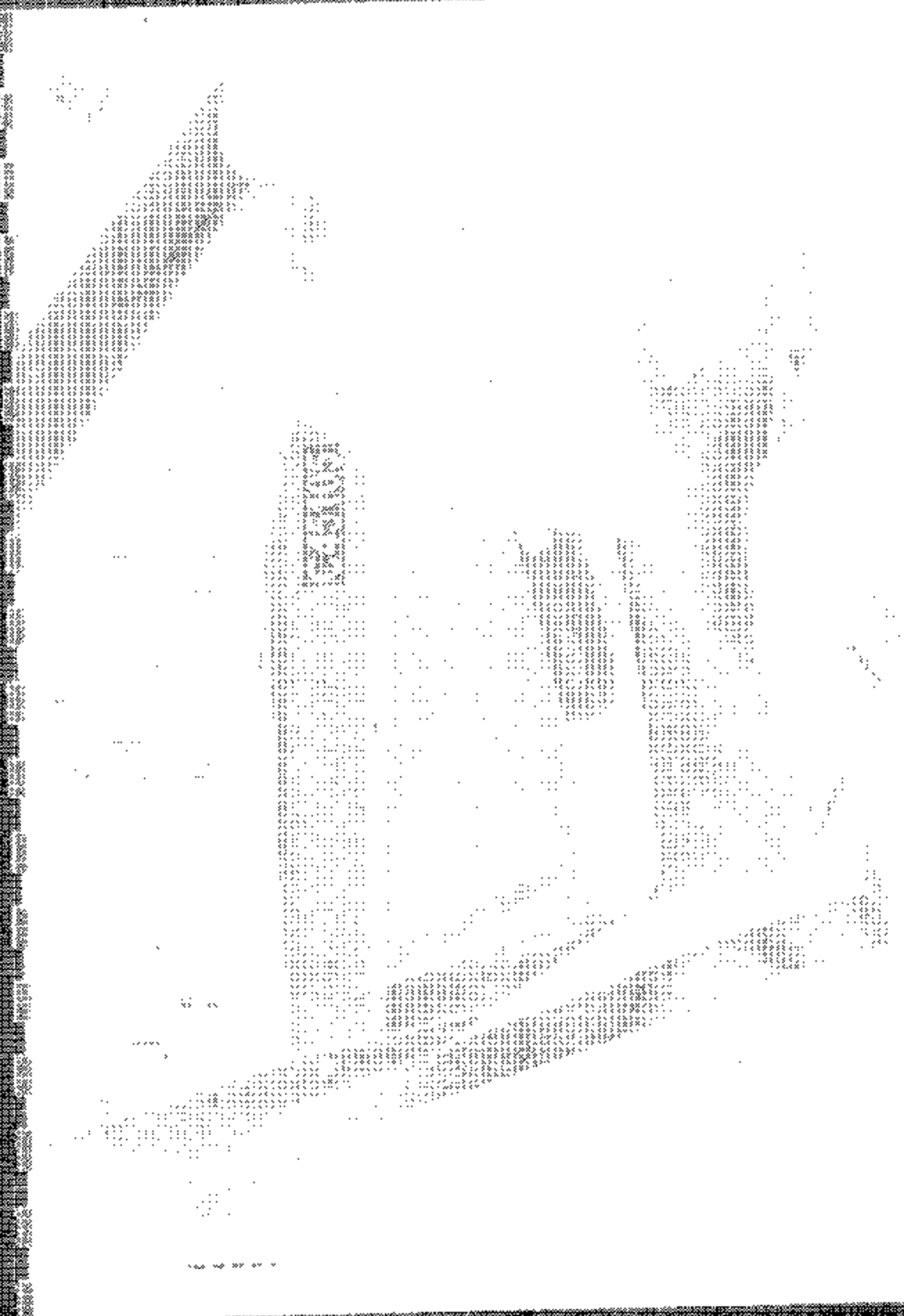


Figure A-34 POST-TEST INTERIOR OF FRONT DOOR SHOWING BULLETS IMPACT LOCATIONS



Figure A-15 PRE-TEST INTERIOR OF REAR DOOR



Figure A-38 POST TEST INTERIOR OF REAR DOOR SHOWING SITE OF IMPACT LOCATIONS



Figure A-37 PRE TEST LEFT SIDE VIEW OF MDR WITH IMPACTOR FACE IN POSITION



Figure A-38 PRE-TEST RIGHT SIDE VIEW OF MDP WITH IMPACTOR FACE IN POSITION

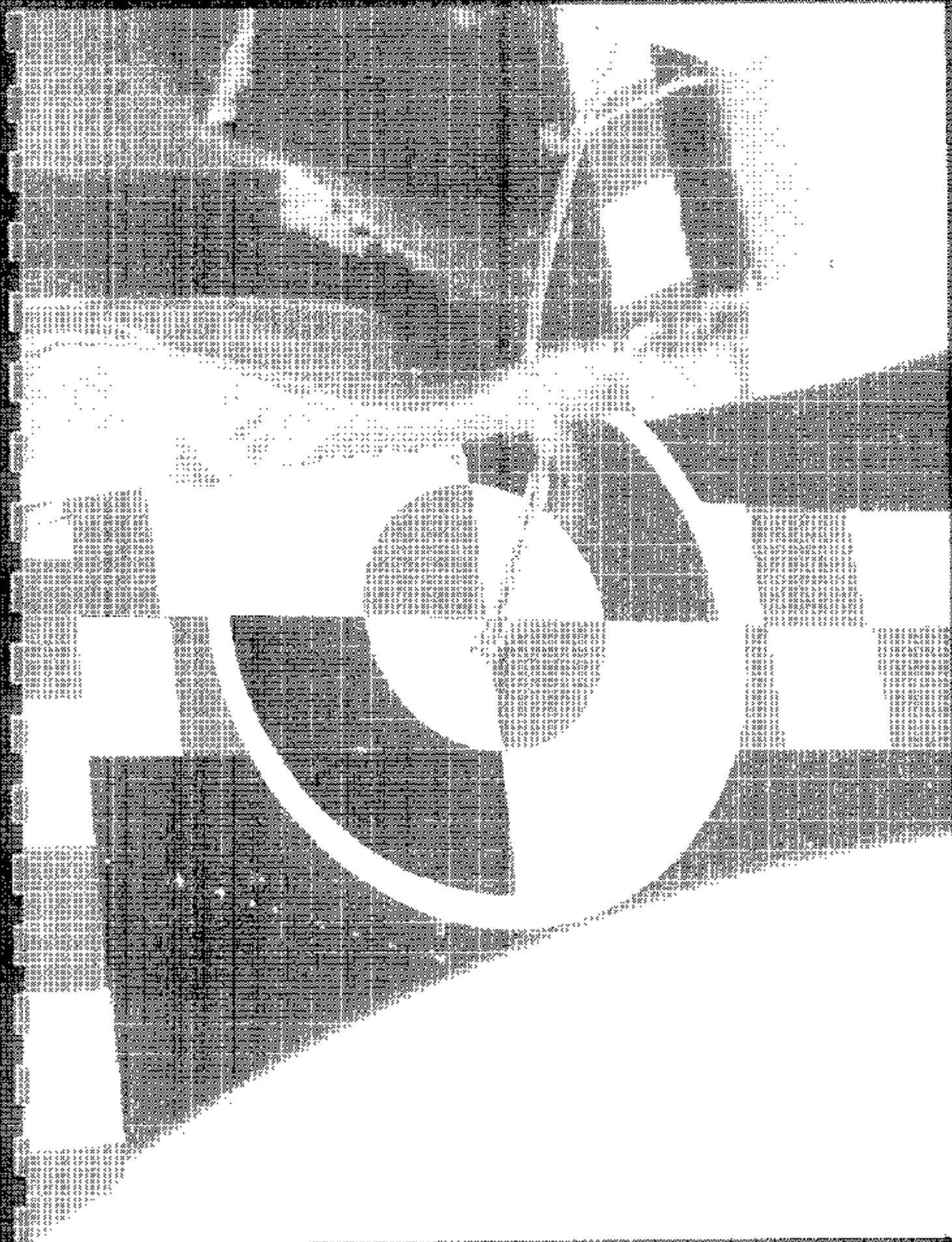


Figure A-39 POST-TEST CLOSE-UP VIEW OF IMPACT POINT TARGET

Figure A-40 CLOSE-UP VIEW OF VEHICLE'S CERTIFICATION LABEL

Figure A-11 CLOSE-UP VIEW OF VEHICLE'S IDENTIFICATION LABEL



Figure A-12 IMPACT PHOTO

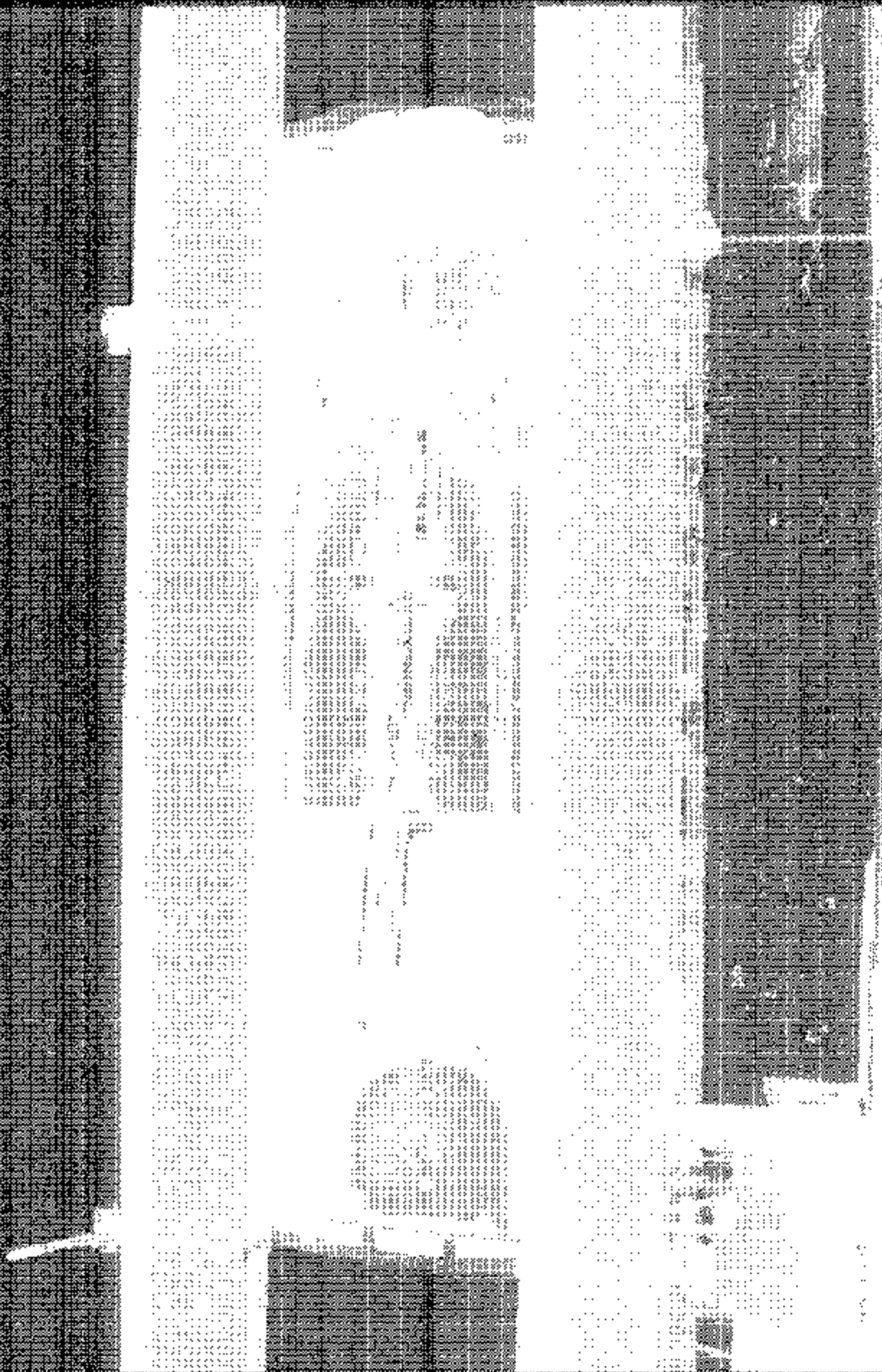


Figure A-43 FOLLOWER 90 DEGREES

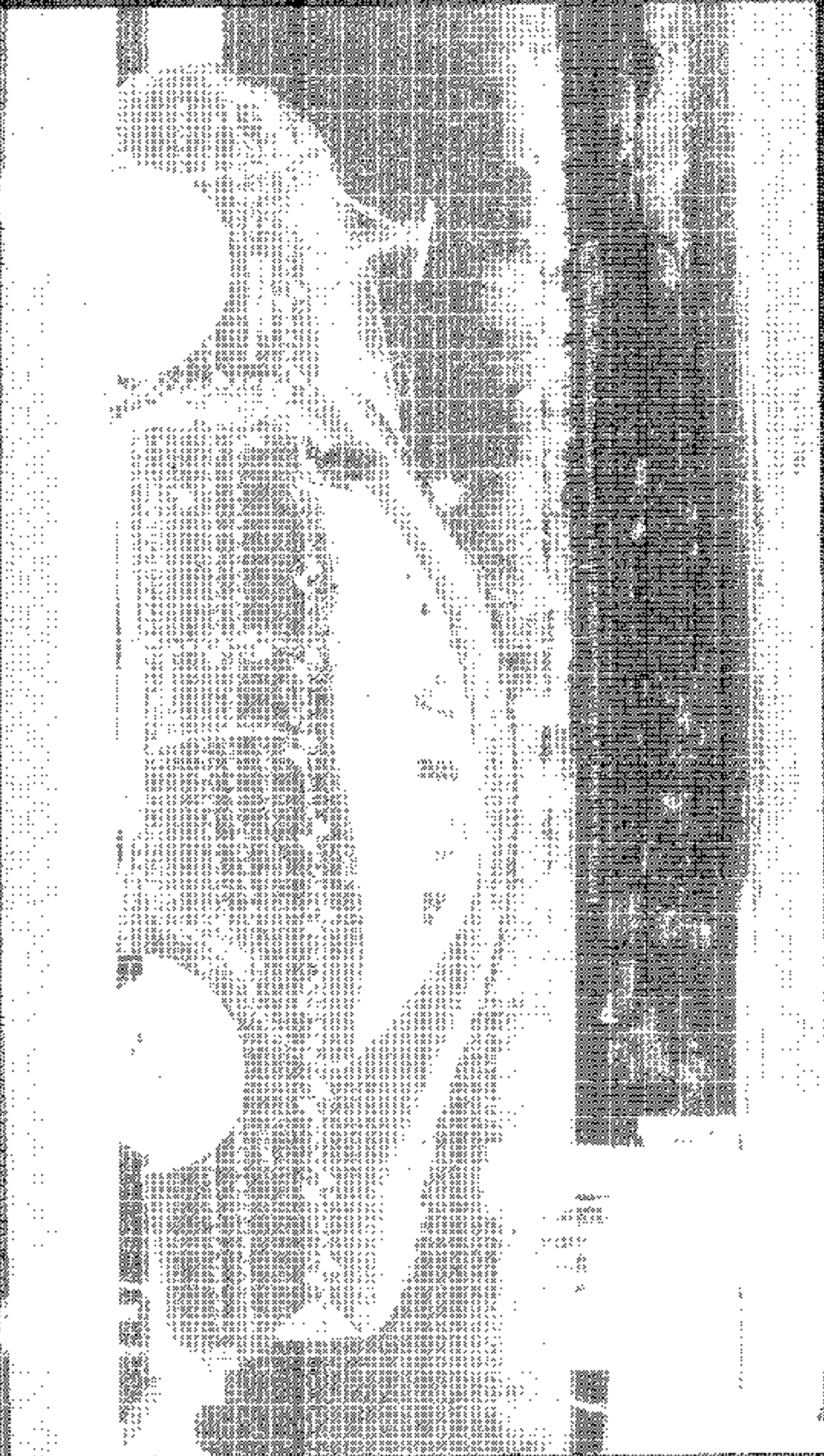


Figure A-M BOLLOVER 180 DEGREES

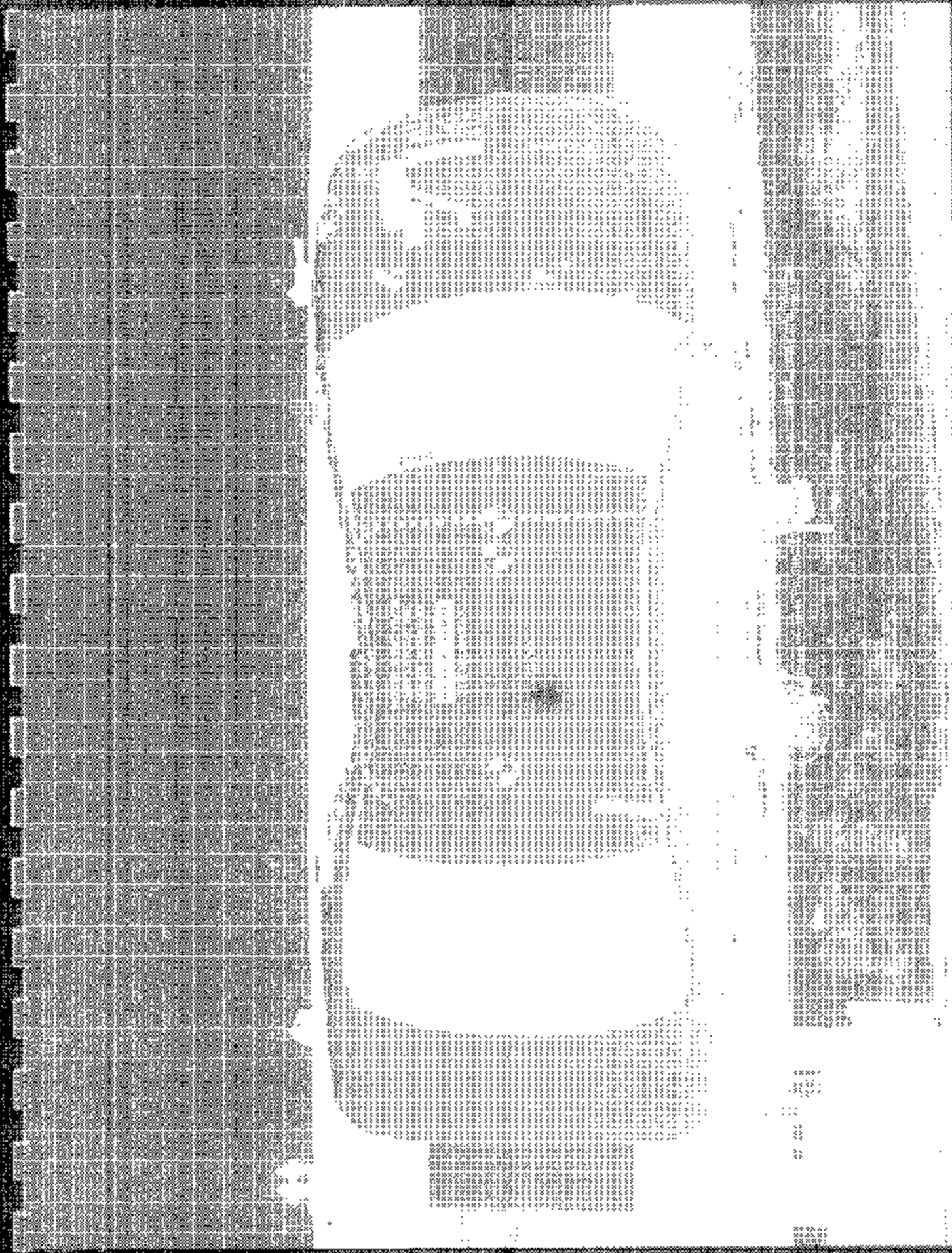


Figure A-4: ROLL OVER 270 DEGREES

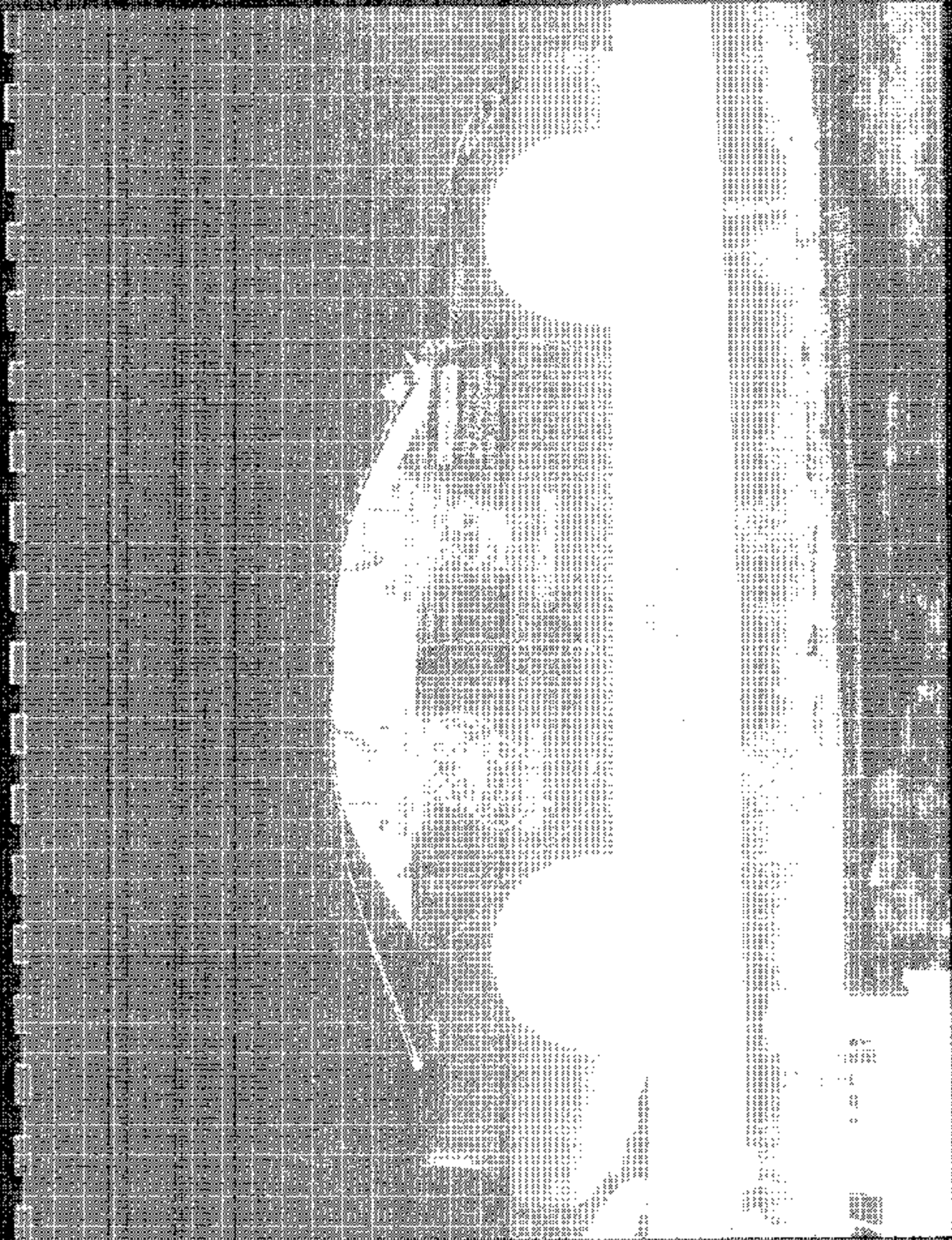


Figure A-6 NOT LOWER CODES

APPENDIX B

VEHICLE, MDB AND SID HYBRID III RESPONSE DATA

TABLE OF DATA PLOTS

DRIVER AND PASSENGER DUMMY INSTRUMENTATION PLOTS ACCELERATION, FORCE AND MOMENT DATA - FILTER CLASS 1000, LOWER SPINE - FILTER CLASS 180 INTEGRATION DATA - FILTER CLASS 180

Plot No.	Data Plot Title	Page
1	DRIVER HEAD (X) ACCELERATION VS TIME	B- 6
2	DRIVER HEAD (X) VELOCITY VS TIME	B- 7
3	DRIVER HEAD (Y) ACCELERATION VS TIME	B- 8
4	DRIVER HEAD (Y) VELOCITY VS TIME	B- 9
5	DRIVER HEAD (Z) ACCELERATION VS TIME	B- 10
6	DRIVER HEAD (Z) VELOCITY VS TIME	B- 11
7	DRIVER HEAD RESULTANT ACCELERATION VS TIME	B- 12
8	DRIVER UPPER NECK (X) FORCE VS TIME	B- 13
9	DRIVER UPPER NECK (Y) FORCE VS TIME	B- 14
10	DRIVER UPPER NECK (Z) FORCE VS TIME	B- 15
11	DRIVER UPPER NECK RESULTANT FORCE VS TIME	B- 16
12	DRIVER UPPER NECK (X) MOMENT VS TIME	B- 17
13	DRIVER UPPER NECK (Y) MOMENT VS TIME	B- 18
14	DRIVER UPPER NECK (Z) MOMENT VS TIME	B- 19
15	DRIVER UPPER NECK RESULTANT MOMENT VS TIME	B- 20
16	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 21
17	DRIVER UPPER RIB (Y) VELOCITY VS TIME	B- 22
18	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 23
19	DRIVER LOWER RIB (Y) VELOCITY VS TIME	B- 24
20	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 25
21	DRIVER LOWER SPINE (Y) VELOCITY VS TIME	B- 26
22	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 27
23	DRIVER PELVIC (Y) VELOCITY VS TIME	B- 28
24	PASSENGER HEAD (X) ACCELERATION VS TIME	B- 29
25	PASSENGER HEAD (X) VELOCITY VS TIME	B- 30
26	PASSENGER HEAD (Y) ACCELERATION VS TIME	B- 31
27	PASSENGER HEAD (Y) VELOCITY VS TIME	B- 32
28	PASSENGER HEAD (Z) ACCELERATION VS TIME	B- 33
29	PASSENGER HEAD (Z) VELOCITY VS TIME	B- 34
30	PASSENGER HEAD RESULTANT ACCELERATION VS TIME	B- 35
31	PASSENGER UPPER NECK (X) FORCE VS TIME	B- 36
32	PASSENGER UPPER NECK (Y) FORCE VS TIME	B- 37
33	PASSENGER UPPER NECK (Z) FORCE VS TIME	B- 38
34	PASSENGER UPPER NECK RESULTANT FORCE VS TIME	B- 39
35	PASSENGER UPPER NECK (X) MOMENT VS TIME	B- 40
36	PASSENGER UPPER NECK (Y) MOMENT VS TIME	B- 41
37	PASSENGER UPPER NECK (Z) MOMENT VS TIME	B- 42
38	PASSENGER UPPER NECK RESULTANT MOMENT VS TIME	B- 43
39	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 44
40	PASSENGER UPPER RIB (Y) VELOCITY VS TIME	B- 45
41	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 46
42	PASSENGER LOWER RIB (Y) VELOCITY VS TIME	B- 47
43	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 48
44	PASSENGER LOWER SPINE (Y) VELOCITY VS TIME	B- 49
45	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 50
46	PASSENGER PELVIC (Y) VELOCITY VS TIME	B- 51

DRIVER & PASSENGER DUMMY INSTRUMENTATION PLOTS ACCELERATION DATA - FIR FILTERED

Plot No.	Data Plot Title	Page
47	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 52
48	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 53
49	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 54
50	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 55
51	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 56
52	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 57
53	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 58
54	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 59

TEST VEHICLE INSTRUMENTATION PLOTS
ACCELERATION DATA - FILTER CLASS 60
INTEGRATION DATA - FILTER CLASS 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
55	RIGHT SIDE SILL AT FRONT SEAT (X) ACCELERATION VS TIME	B- 60
56	RIGHT SIDE SILL AT FRONT SEAT (X) VELOCITY VS TIME	B- 61
57	RIGHT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME	B- 62
58	RIGHT SIDE SILL AT FRONT SEAT (Y) VELOCITY VS TIME	B- 63
59	RIGHT SIDE SILL AT FRONT SEAT (Z) ACCELERATION VS TIME	B- 64
60	RIGHT SIDE SILL AT FRONT SEAT (Z) VELOCITY VS TIME	B- 65
61	RIGHT SIDE SILL AT FRONT SEAT RESULTANT ACCELERATION VS TIME	B- 66
62	RIGHT SIDE SILL AT REAR SEAT (X) ACCELERATION VS TIME	B- 67
63	RIGHT SIDE SILL AT REAR SEAT (X) VELOCITY VS TIME	B- 68
64	RIGHT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME	B- 69
65	RIGHT SIDE SILL AT REAR SEAT (Y) VELOCITY VS TIME	B- 70
66	RIGHT SIDE SILL AT REAR SEAT (Z) ACCELERATION VS TIME	B- 71
67	RIGHT SIDE SILL AT REAR SEAT (Z) VELOCITY VS TIME	B- 72
68	RIGHT SIDE SILL AT REAR SEAT RESULTANT ACCELERATION VS TIME	B- 73
69	REAR FLOORPAN ABOVE AXLE (X) ACCELERATION VS TIME	B- 74
70	REAR FLOORPAN ABOVE AXLE (X) VELOCITY VS TIME	B- 75
71	REAR FLOORPAN ABOVE AXLE (Y) ACCELERATION VS TIME	B- 76
72	REAR FLOORPAN ABOVE AXLE (Y) VELOCITY VS TIME	B- 77
73	REAR FLOORPAN ABOVE AXLE (Z) ACCELERATION VS TIME	B- 78
74	REAR FLOORPAN ABOVE AXLE (Z) VELOCITY VS TIME	B- 79
75	REAR FLOORPAN ABOVE AXLE RESULTANT ACCELERATION VS TIME	B- 80
76	LEFT SIDE SILL AT REAR SEAT (Y) ACCELERATION VS TIME	B- 81
77	LEFT SIDE SILL AT REAR SEAT (Y) VELOCITY VS TIME	B- 82
78	LEFT SIDE SILL AT FRONT SEAT (Y) ACCELERATION VS TIME	B- 83
79	LEFT SIDE SILL AT FRONT SEAT (Y) VELOCITY VS TIME	B- 84
80	RIGHT REAR OCCUPANT COMPARTMENT (Y) ACCELERATION VS TIME	B- 85
81	RIGHT REAR OCCUPANT COMPARTMENT (Y) VELOCITY VS TIME	B- 86
82	LOWER B-POST (Y) ACCELERATION VS TIME	B- 87
83	LOWER B-POST (Y) VELOCITY VS TIME	B- 88
84	UPPER B-POST (Y) ACCELERATION VS TIME	B- 89
85	UPPER B-POST (Y) VELOCITY VS TIME	B- 90
86	LOWER A-POST (Y) ACCELERATION VS TIME	B- 91
87	LOWER A-POST (Y) VELOCITY VS TIME	B- 92
88	UPPER A-POST (Y) ACCELERATION VS TIME	B- 93
89	UPPER A-POST (Y) VELOCITY VS TIME	B- 94
90	FRONT SEAT TRACK (Y) ACCELERATION VS TIME	B- 95
91	FRONT SEAT TRACK (Y) VELOCITY VS TIME	B- 96
92	REAR SEAT TRACK (Y) ACCELERATION VS TIME	B- 97
93	REAR SEAT TRACK (Y) VELOCITY VS TIME	B- 98

TEST VEHICLE INSTRUMENTATION PLOTS
ACCELERATION DATA - FILTER CLASS 60
INTEGRATION DATA - FILTER CLASS 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
94	VEHICLE CENTER OF GRAVITY (X) ACCELERATION VS TIME	B- 99
95	VEHICLE CENTER OF GRAVITY (X) VELOCITY VS TIME	B- 100
96	VEHICLE CENTER OF GRAVITY (Y) ACCELERATION VS TIME	B- 101
97	VEHICLE CENTER OF GRAVITY (Y) VELOCITY ACCELERATION VS TIME	B- 102
98	VEHICLE CENTER OF GRAVITY (Z) ACCELERATION VS TIME	B- 103
99	VEHICLE CENTER OF GRAVITY (Z) VELOCITY VS TIME	B- 104
100	VEHICLE CENTER OF GRAVITY RESULTANT ACCELERATION VS TIME	B- 105

MDB INSTRUMENTATION PLOTS
ACCELERATION DATA - FILTER CLASS 60
INTEGRATION DATA - FILTER CLASS 180

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
101	MDB CENTER OF GRAVITY (X) ACCELERATION VS TIME	B- 106
102	MDB CENTER OF GRAVITY (X) VELOCITY VS TIME	B- 107
103	MDB CENTER OF GRAVITY (Y) ACCELERATION VS TIME	B- 108
104	MDB CENTER OF GRAVITY (Y) VELOCITY VS TIME	B- 109
105	MDB CENTER OF GRAVITY (Z) ACCELERATION VS TIME	B- 110
106	MDB CENTER OF GRAVITY (Z) VELOCITY VS TIME	B- 111
107	MDB CENTER OF GRAVITY RESULTANT ACCELERATION VS TIME	B- 112
108	MDB REAR (X) ACCELERATION VS TIME	B- 113
109	MDB REAR (X) VELOCITY VS TIME	B- 114
110	MDB REAR (Y) ACCELERATION VS TIME	B- 115
111	MDB REAR (Y) VELOCITY VS TIME	B- 116

**DRIVER & PASSENGER DUMMY INSTRUMENTATION PLOTS (REDUNDANT)
ACCELERATION DATA - FILTER CLASS 1000, LOWER SPINE - FILTER CLASS 180
INTEGRATION DATA - FILTER CLASS 180**

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
112	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 117
113	DRIVER UPPER RIB (Y) VELOCITY VS TIME	B- 118
114	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 119
115	DRIVER LOWER RIB (Y) VELOCITY VS TIME	B- 120
116	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 121
117	DRIVER LOWER SPINE (Y) VELOCITY VS TIME	B- 122
118	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 123
119	DRIVER PELVIC (Y) VELOCITY VS TIME	B- 124
120	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 125
121	PASSENGER UPPER RIB (Y) VELOCITY VS TIME	B- 126
122	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 127
123	PASSENGER LOWER RIB (Y) VELOCITY VS TIME	B- 128
124	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 129
125	PASSENGER LOWER SPINE (Y) VELOCITY VS TIME	B- 130
126	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 131
127	PASSENGER PELVIC (Y) VELOCITY VS TIME	B- 132

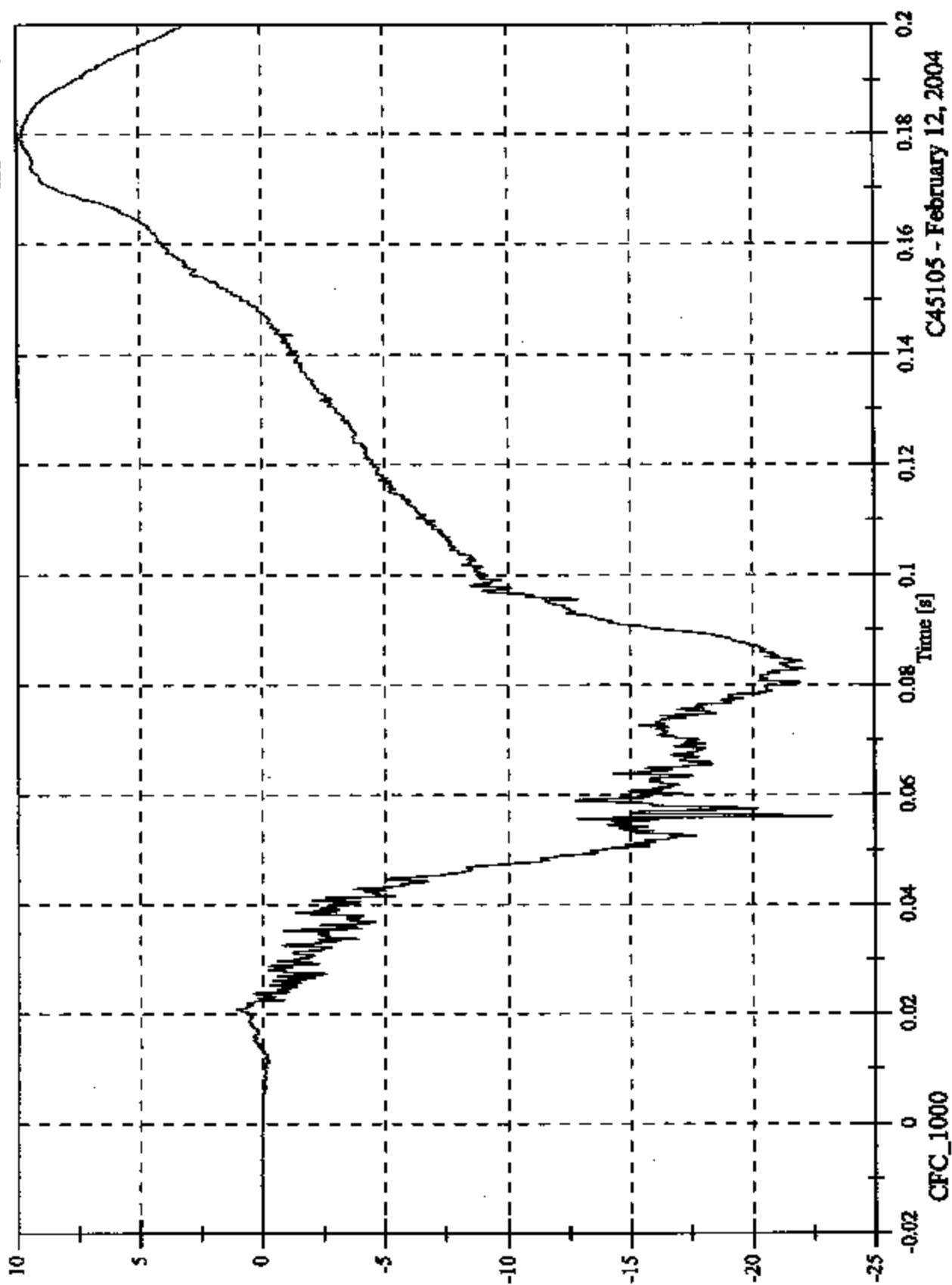
**DRIVER & PASSENGER DUMMY INSTRUMENTATION PLOTS (REDUNDANT)
ACCELERATION DATA - FIR FILTERED**

<u>Plot No.</u>	<u>Data Plot Title</u>	<u>Page</u>
128	DRIVER UPPER RIB (Y) ACCELERATION VS TIME	B- 133
129	DRIVER LOWER RIB (Y) ACCELERATION VS TIME	B- 134
130	DRIVER LOWER SPINE (Y) ACCELERATION VS TIME	B- 135
131	DRIVER PELVIC (Y) ACCELERATION VS TIME	B- 136
132	PASSENGER UPPER RIB (Y) ACCELERATION VS TIME	B- 137
133	PASSENGER LOWER RIB (Y) ACCELERATION VS TIME	B- 138
134	PASSENGER LOWER SPINE (Y) ACCELERATION VS TIME	B- 139
135	PASSENGER PELVIC (Y) ACCELERATION VS TIME	B- 140

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 9.9 [g] at 0.179 [s]
Min: -23.2 [g] at 0.056 [s]

V2P1 Head x



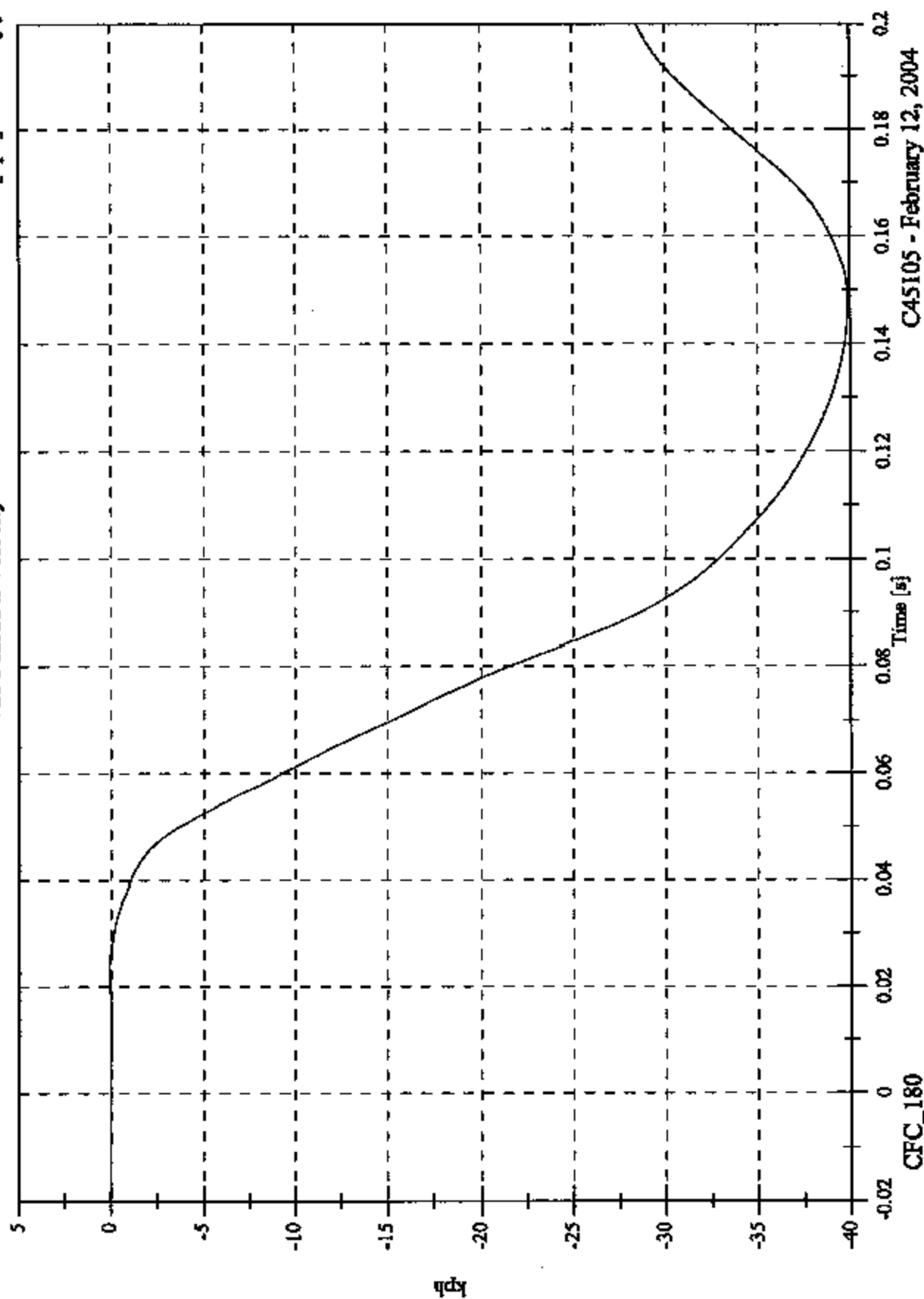
CFC_1000

C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Carry

Max: 0.1 [kph] at 0.023 [s]
Min: -39.9 [kph] at 0.148 [s]

V2P1 Head x Velocity

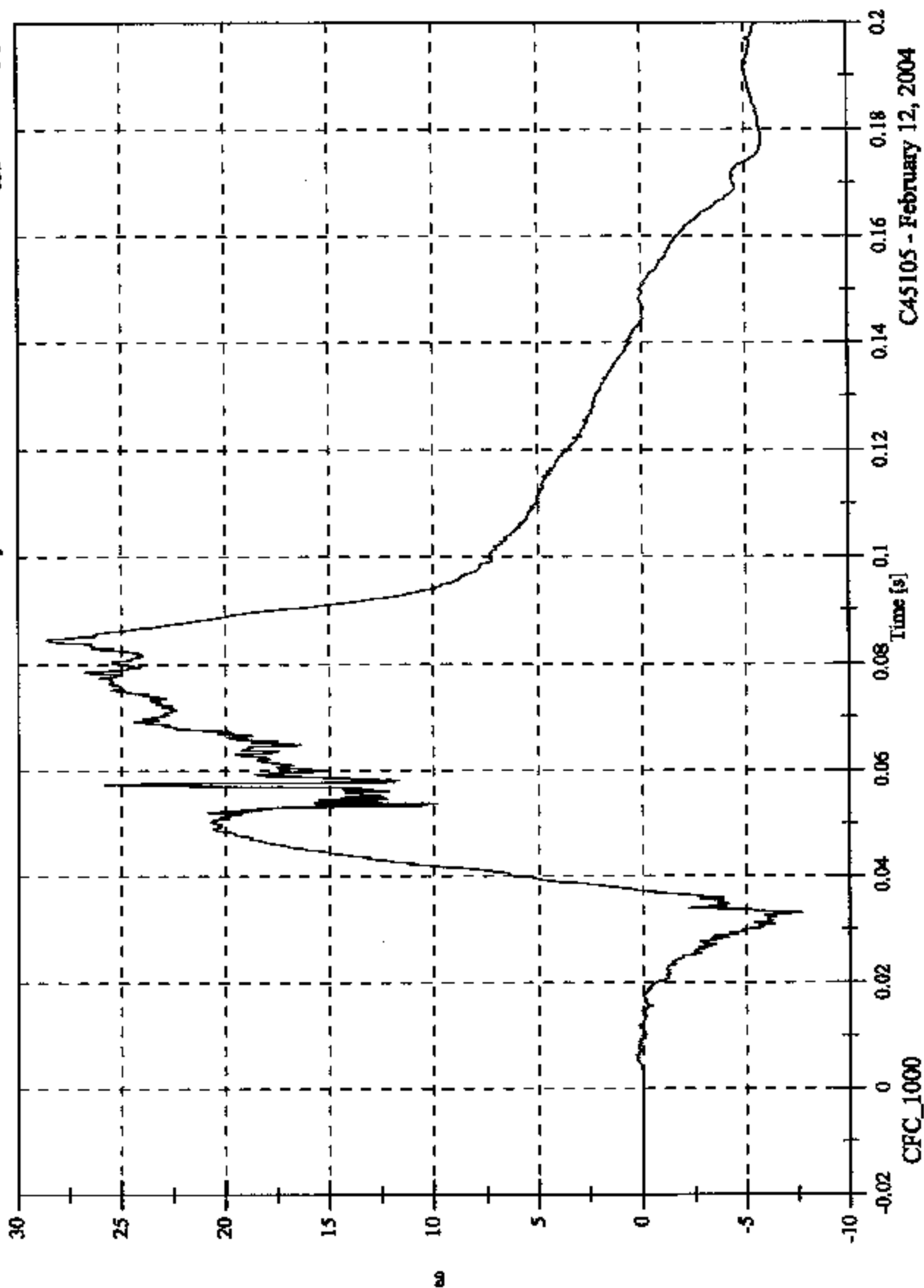


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 28.6 [g] at 0.084 [s]
Min: -7.7 [g] at 0.033 [s]

V2P1 Head y

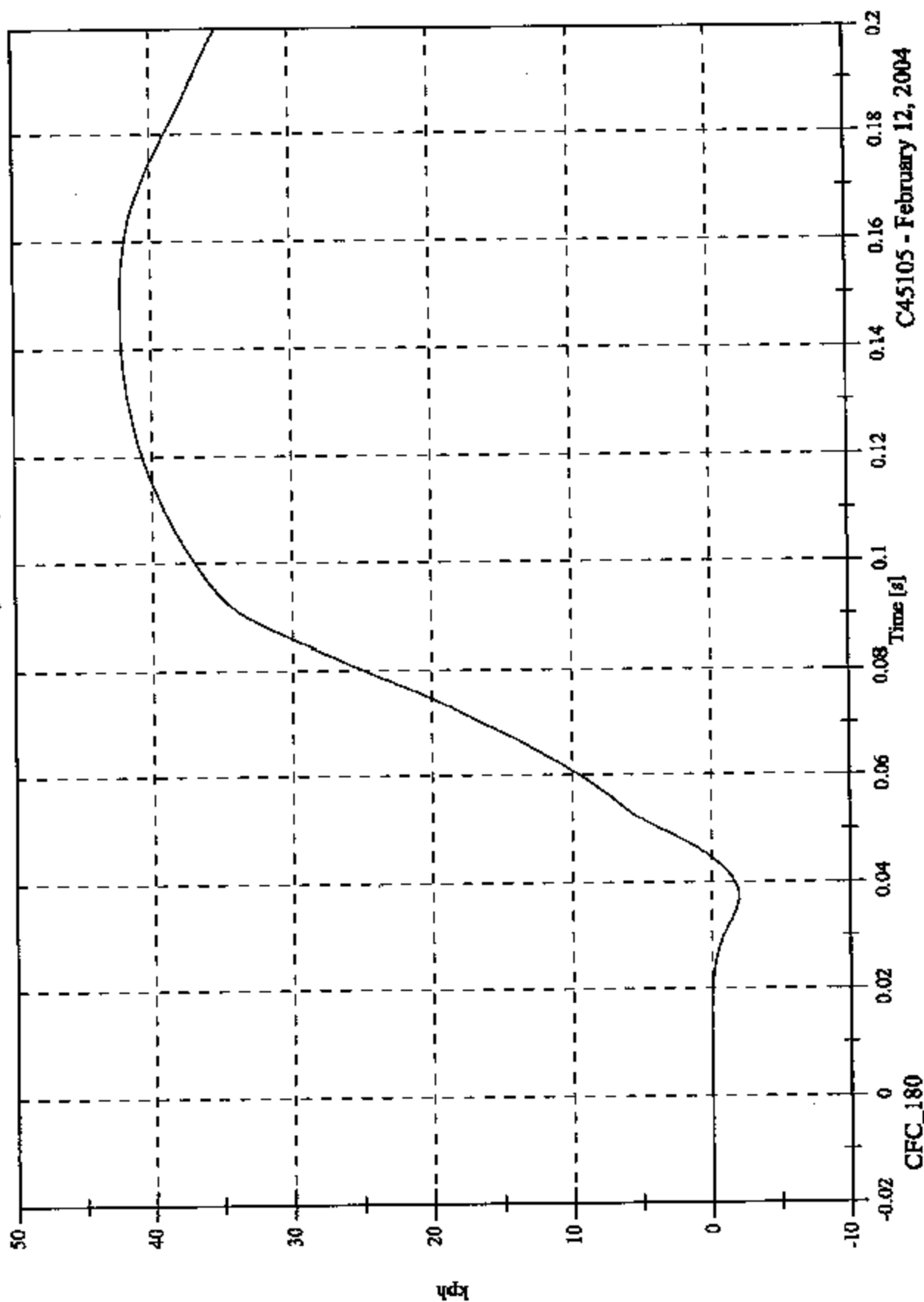


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

Max: 42.2 [kph] at 0.144 [s]
Min: -2.0 [kph] at 0.037 [s]

V2P1 Head y Velocity

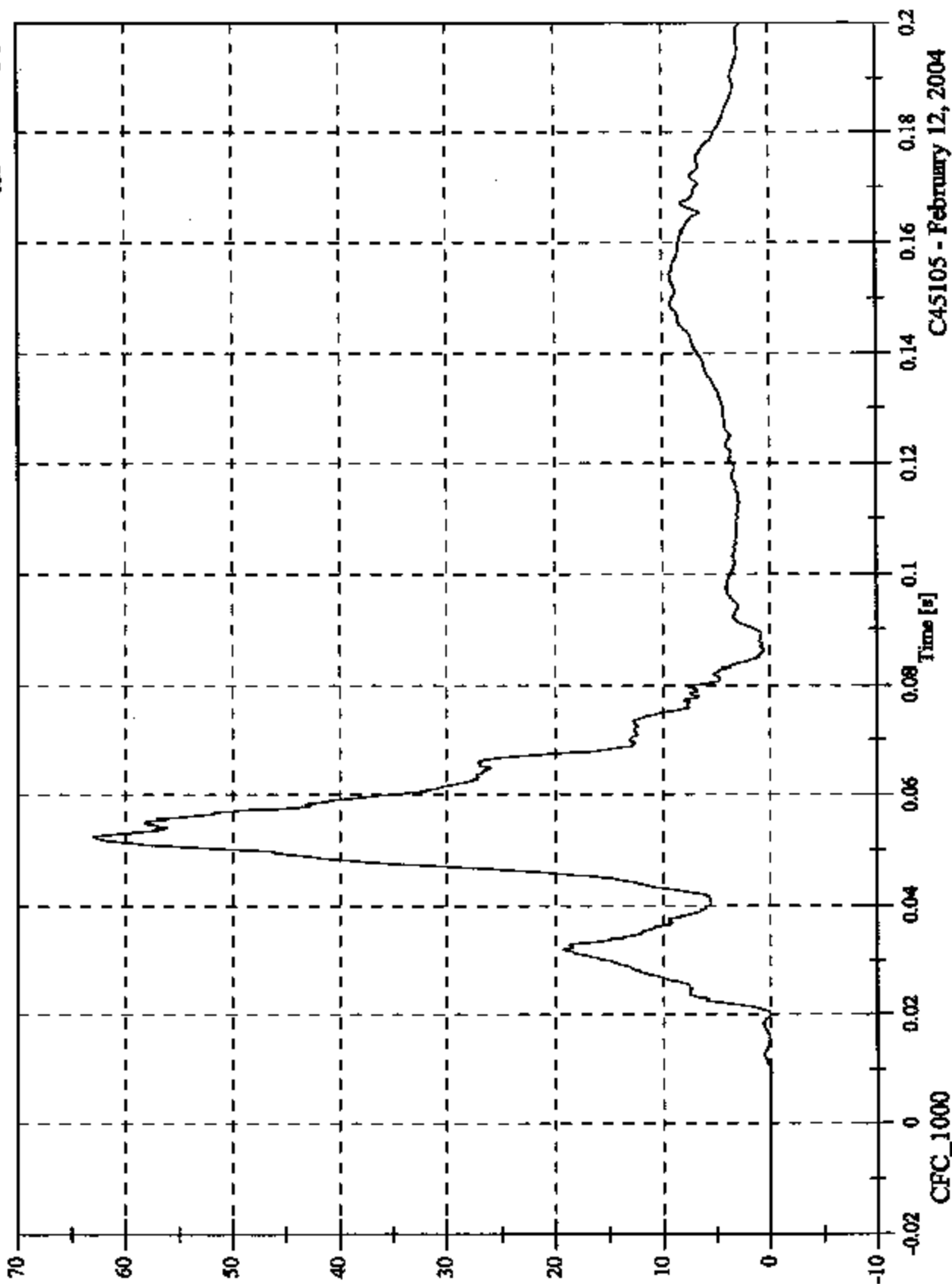


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 63.0 [g] at 0.053 [s]
Min: -0.1 [g] at 0.009 [s]

V2P1 Head z

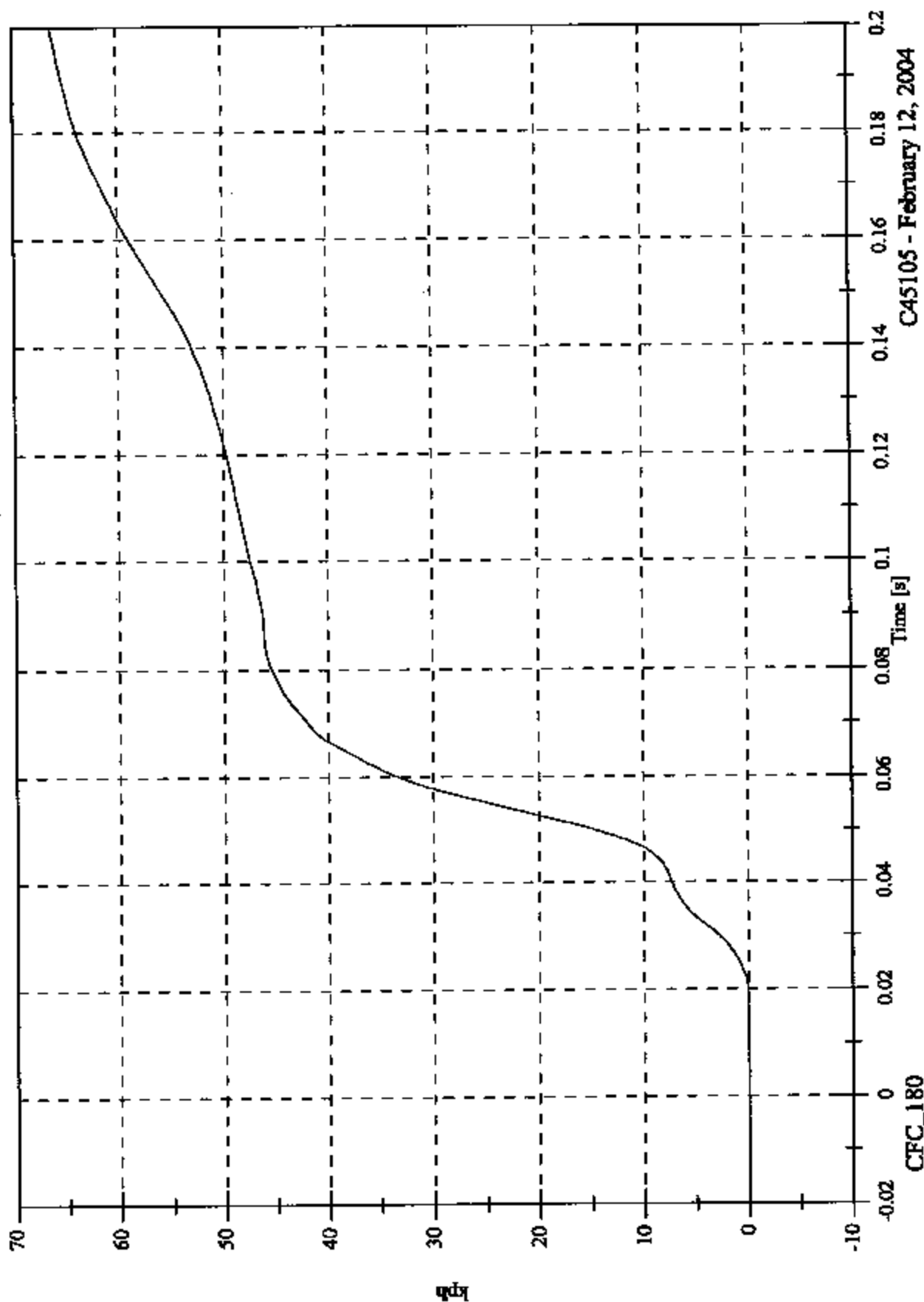


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

V2P1 Head z Velocity

Max: 66.4 [kph] at 0.200 [s]
Min: -0.0 [kph] at 0.005 [s]

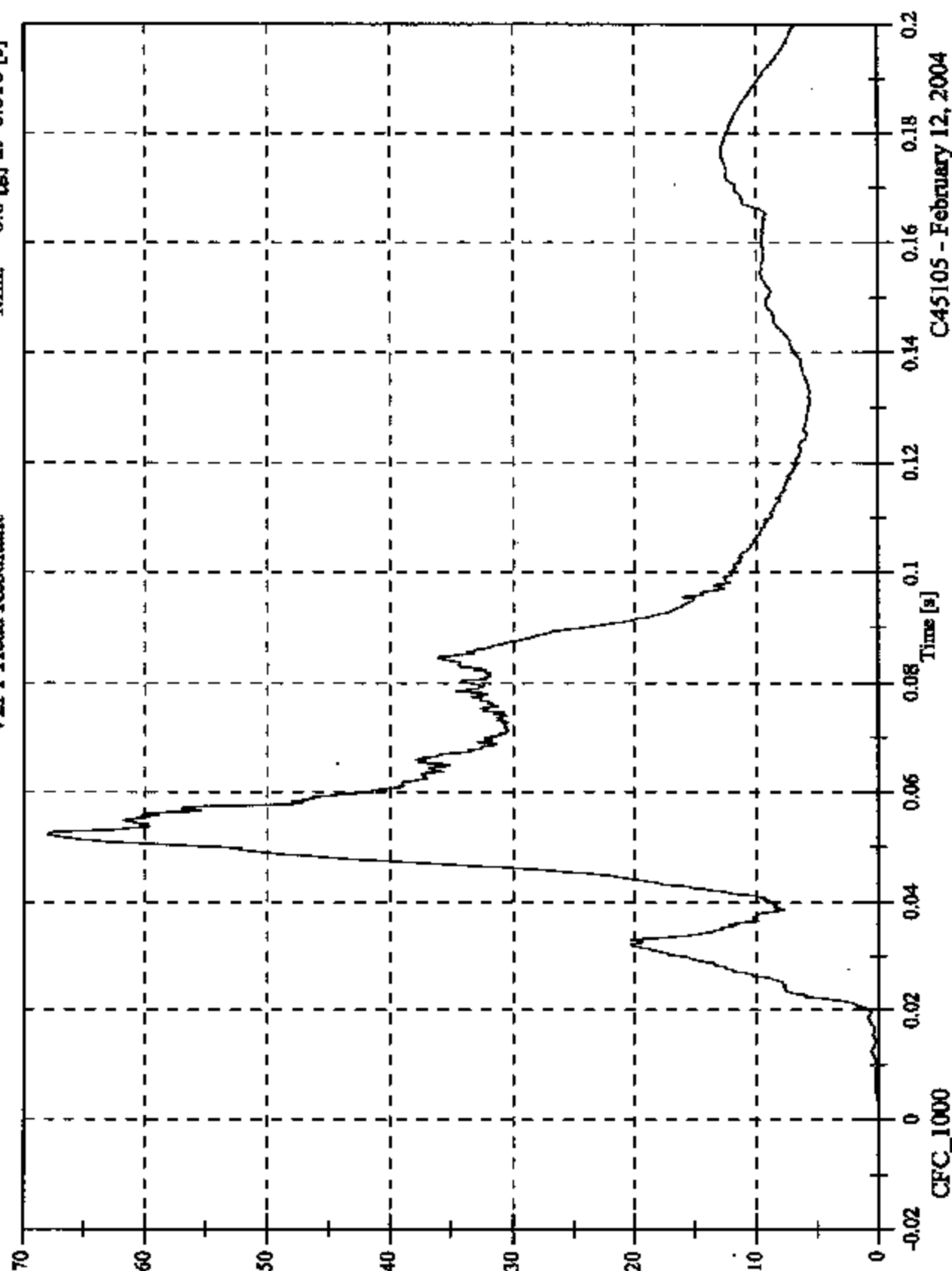


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P1 Head Resultant

Max: 68.0 [g] at 0.052 [s]
Min: 0.0 [g] at -0.010 [s]



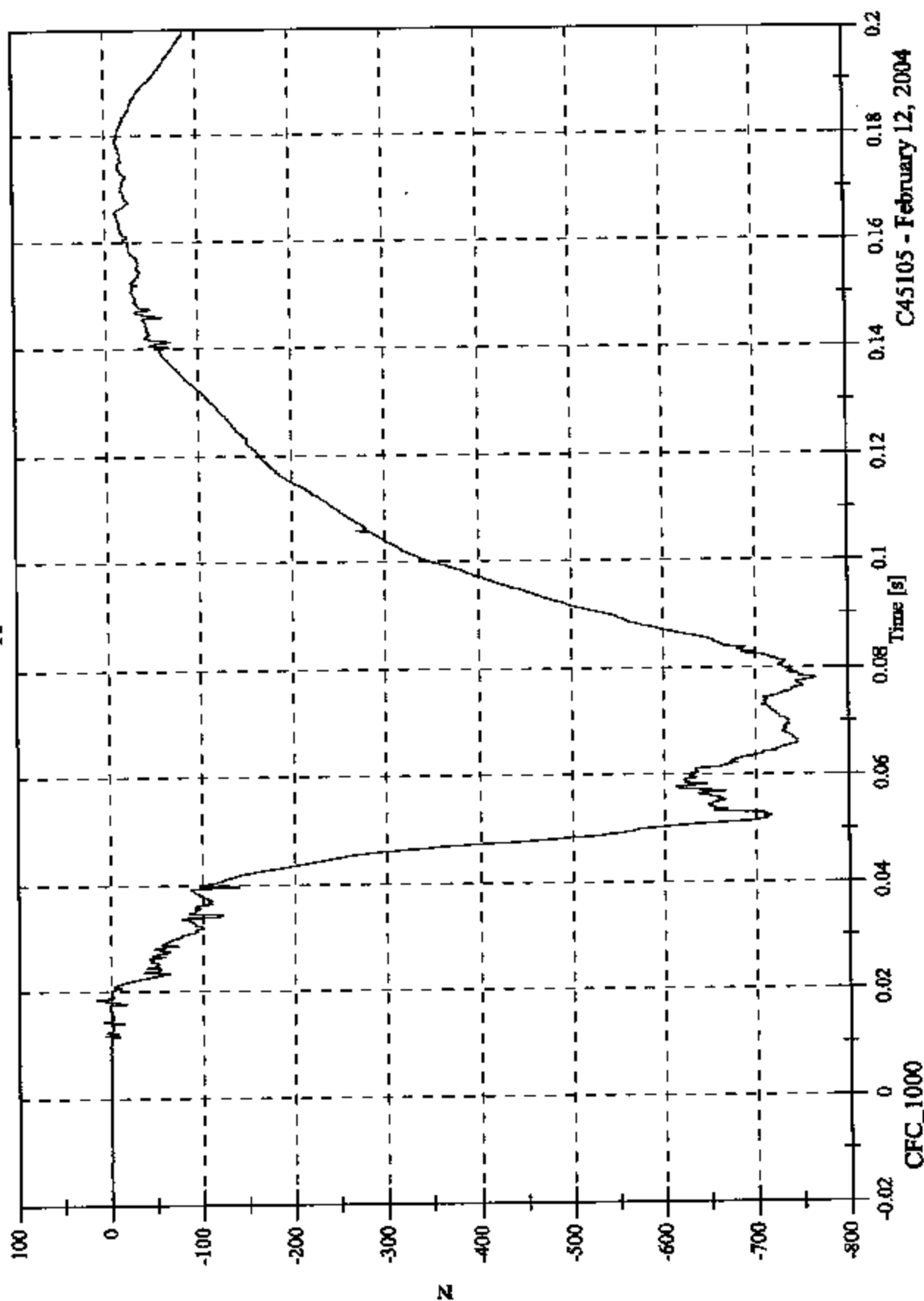
CFC_1000

C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P1 Upper Neck Fx

Max: 16.5 [N] at 0.018 [s]
Min: -764.9 [N] at 0.078 [s]

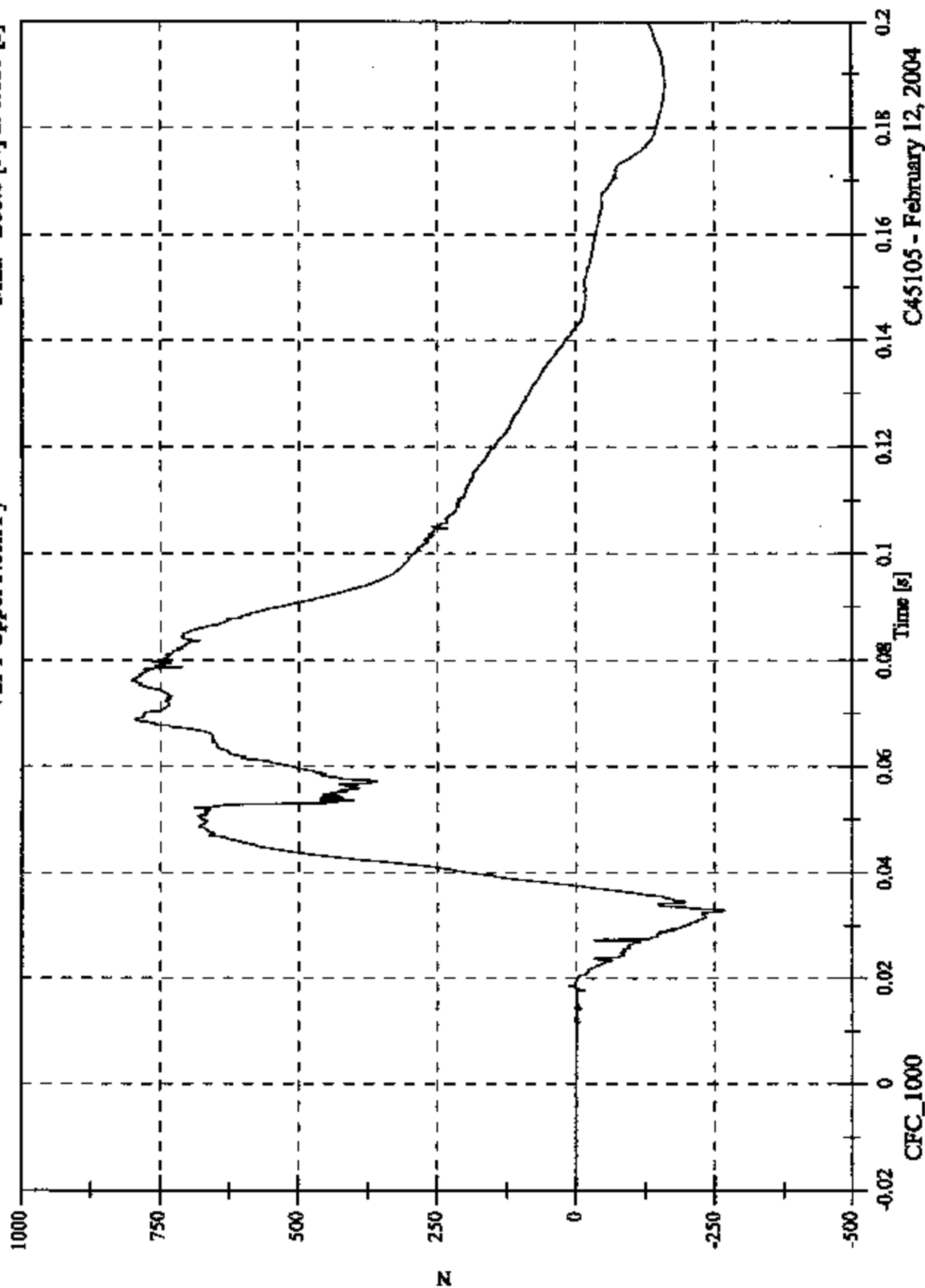


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 800.8 [N] at 0.076 [s]
Min: -268.6 [N] at 0.033 [s]

V2P1 Upper Neck Fy

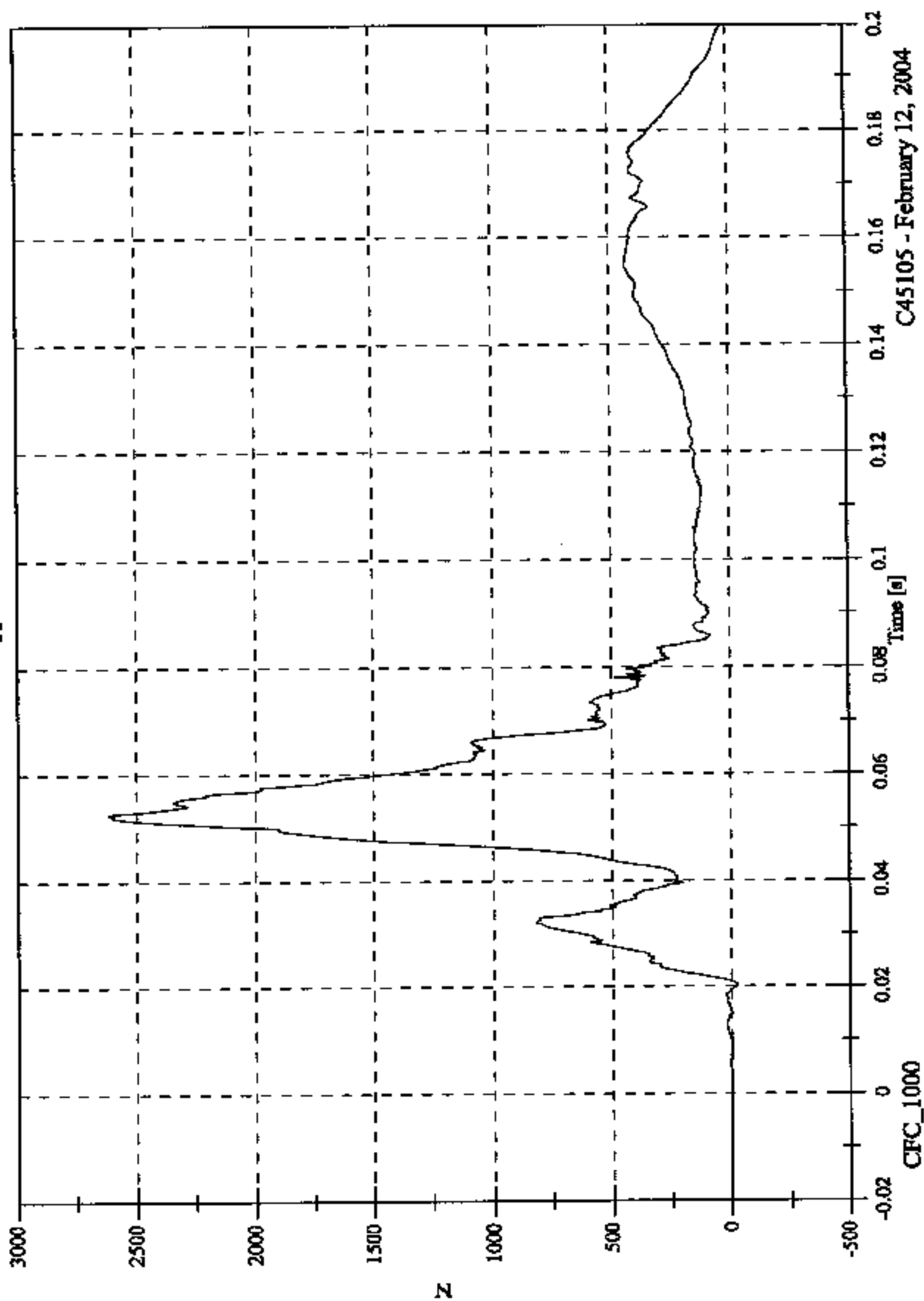


C45105 - February 12, 2004

Max: 2616.8 [N] at 0.053 [s]
Min: -23.8 [N] at 0.020 [s]

V2P1 Upper Neck Fz

FMVSS 214D Indicant - 2004 Toyota Camry

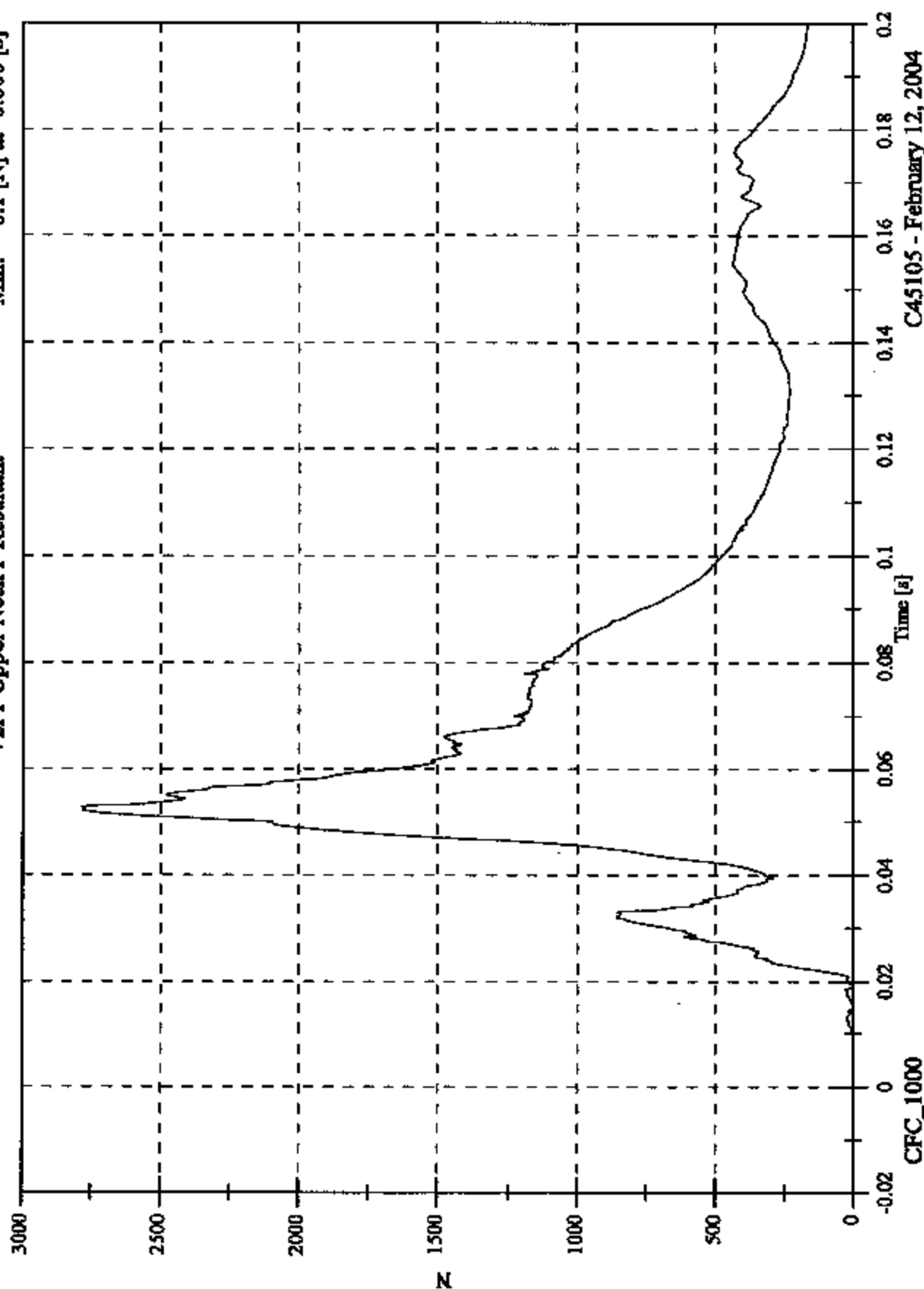


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P1 Upper Neck F Resultant

Max: 2785.2 [N] at 0.053 [s]
Min: 0.1 [N] at -0.000 [s]

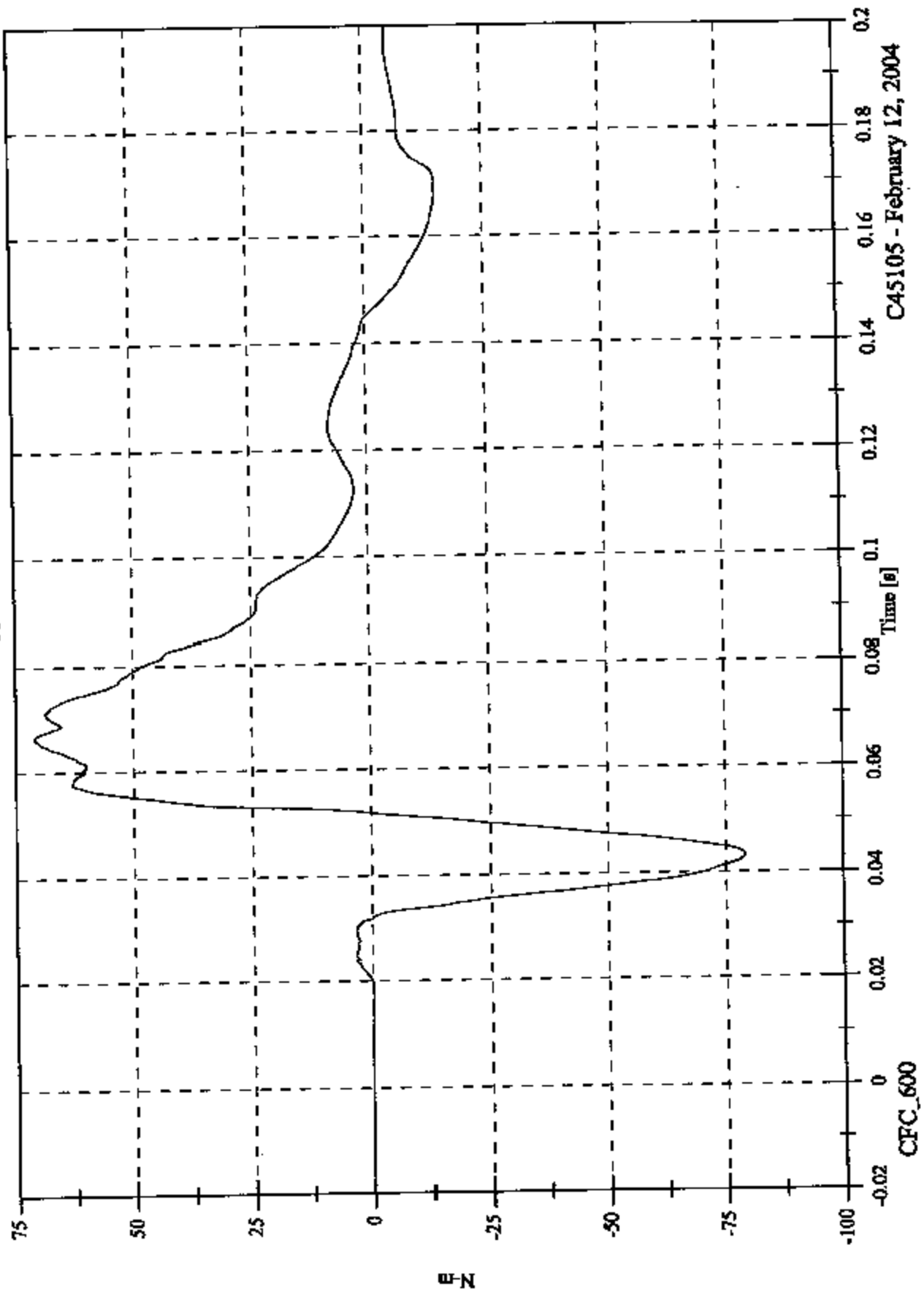


C45105 - February 12, 2004

Max: 71.0 [N-m] at 0.066 [s]
Min: -79.1 [N-m] at 0.043 [s]

FMVSS 214D Indicant - 2004 Toyota Camry

V2P1 UpperNeck Mx

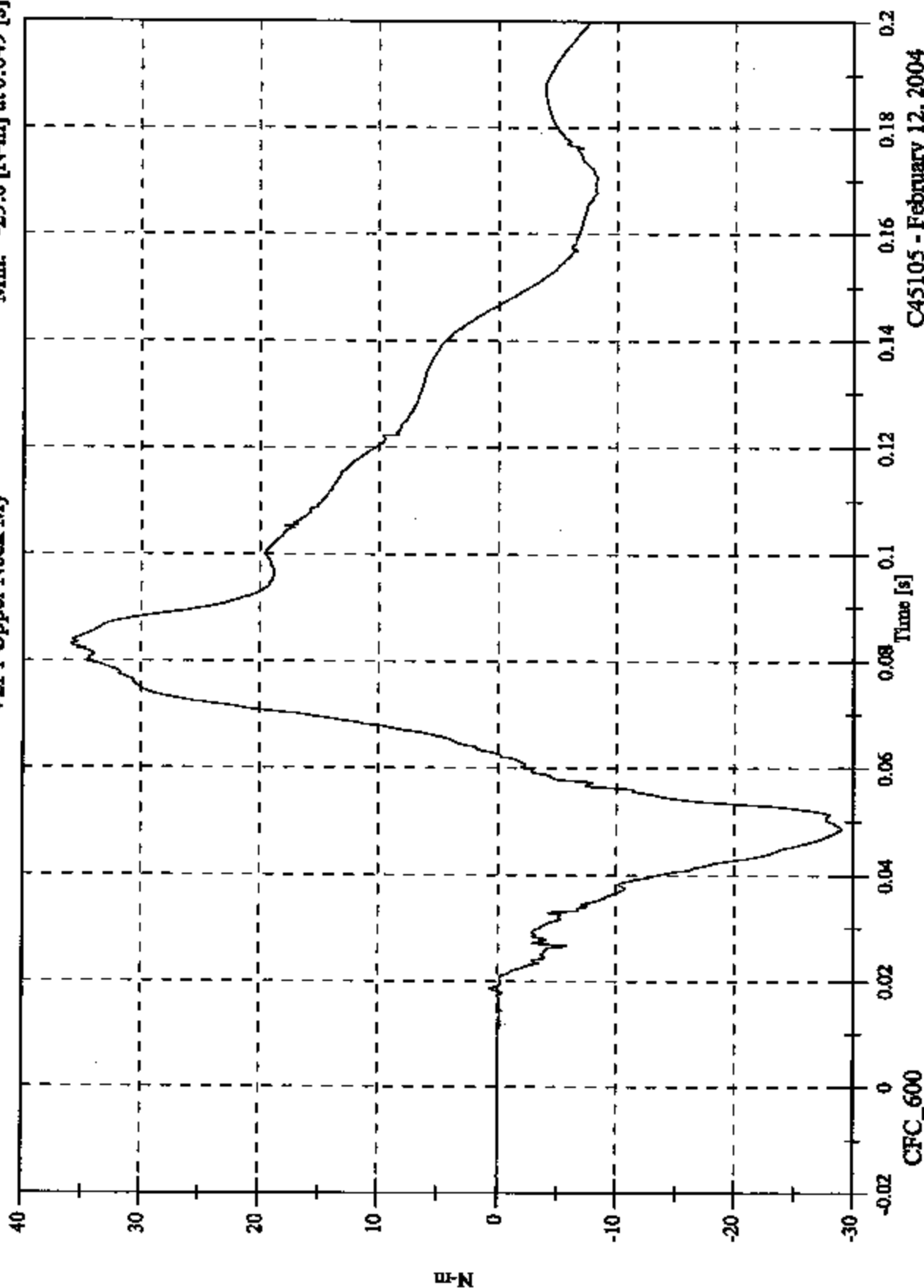


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

Max: 36.0 [N-m] at 0.083 [s]
Min: -29.0 [N-m] at 0.049 [s]

V2P1 Upper Neck My

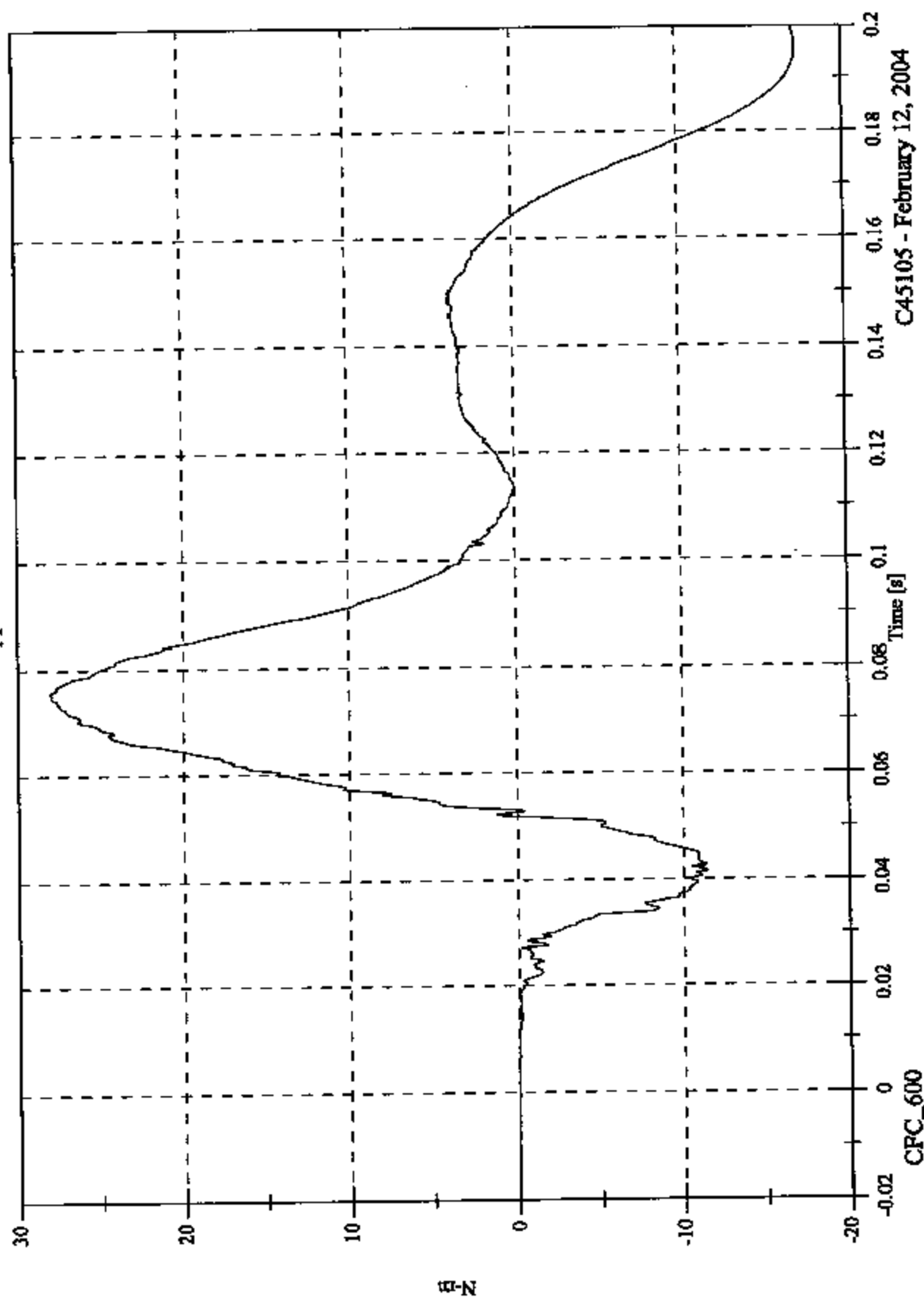


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P1 Upper Neck Mz

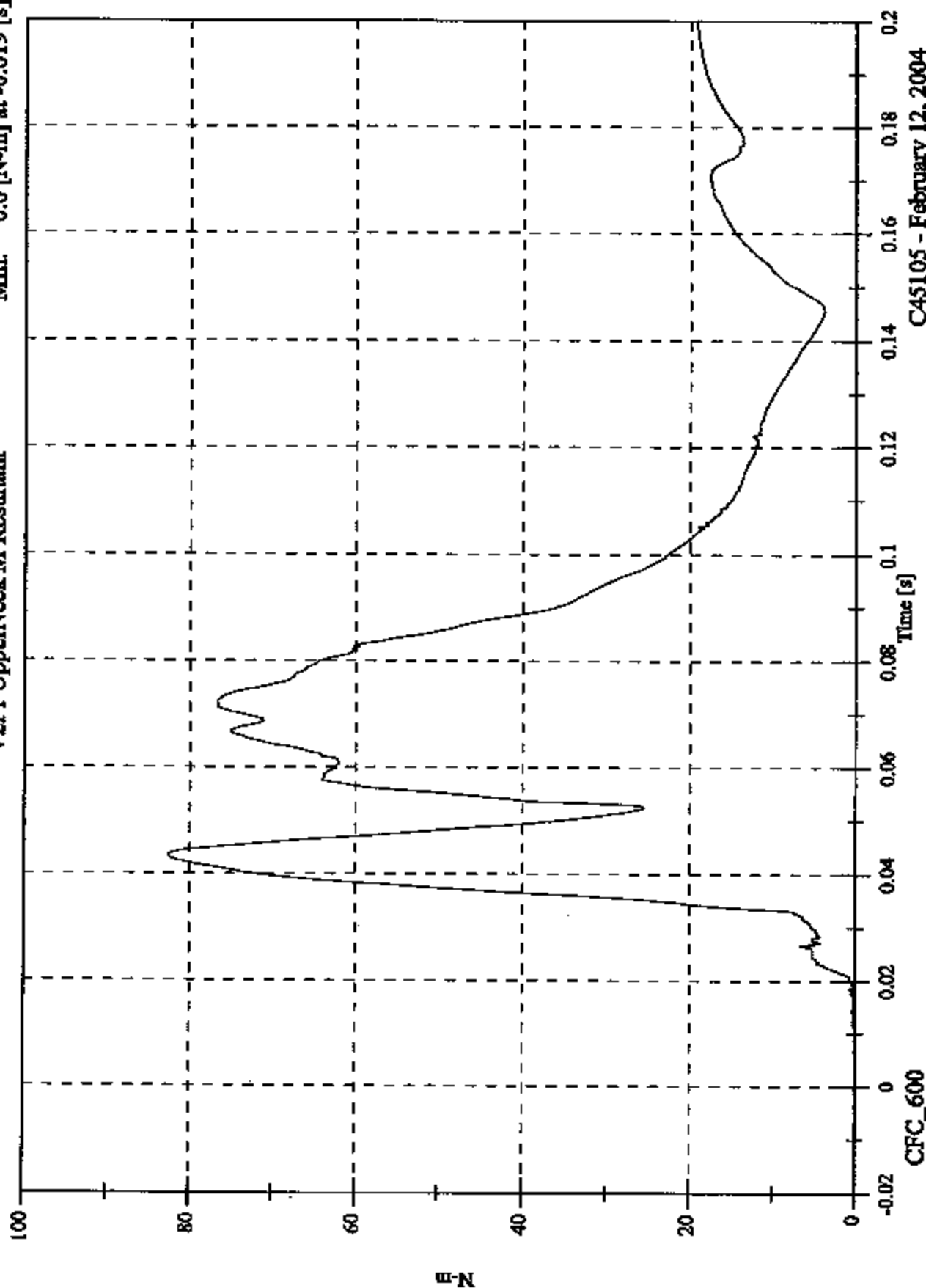
Max: 28.1 [N-m] at 0.076 [s]
Min: -17.2 [N-m] at 0.197 [s]



FMVSS 214D Indicant - 2004 Toyota Camry

V2P1 UpperNeck M Resultant

Max: 82.6 [N-m] at 0.043 [s]
Min: 0.0 [N-m] at -0.019 [s]

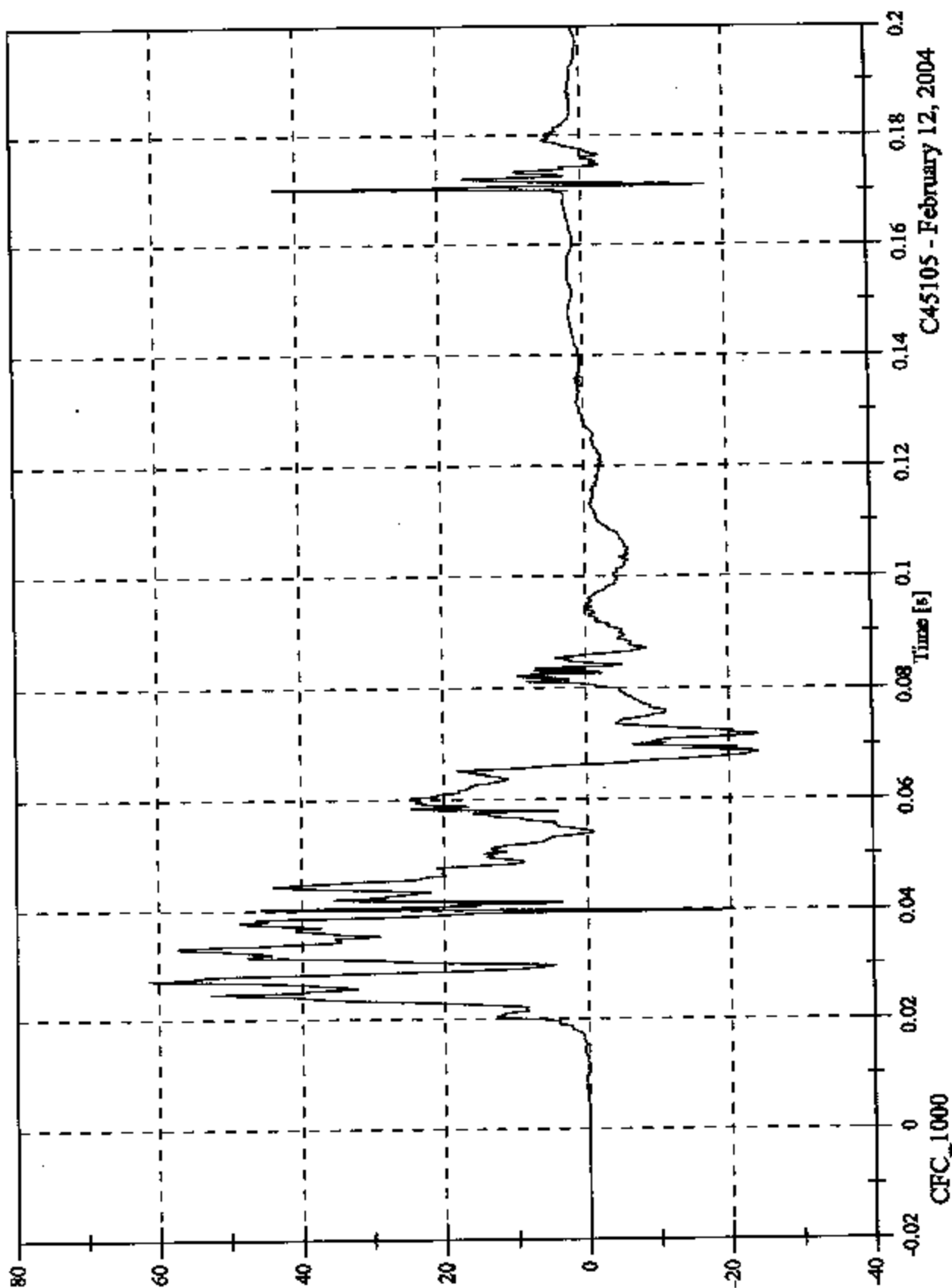


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FMVSS 214D Indicant - 2004 Toyota Camry

V2P1 Upper Rib y

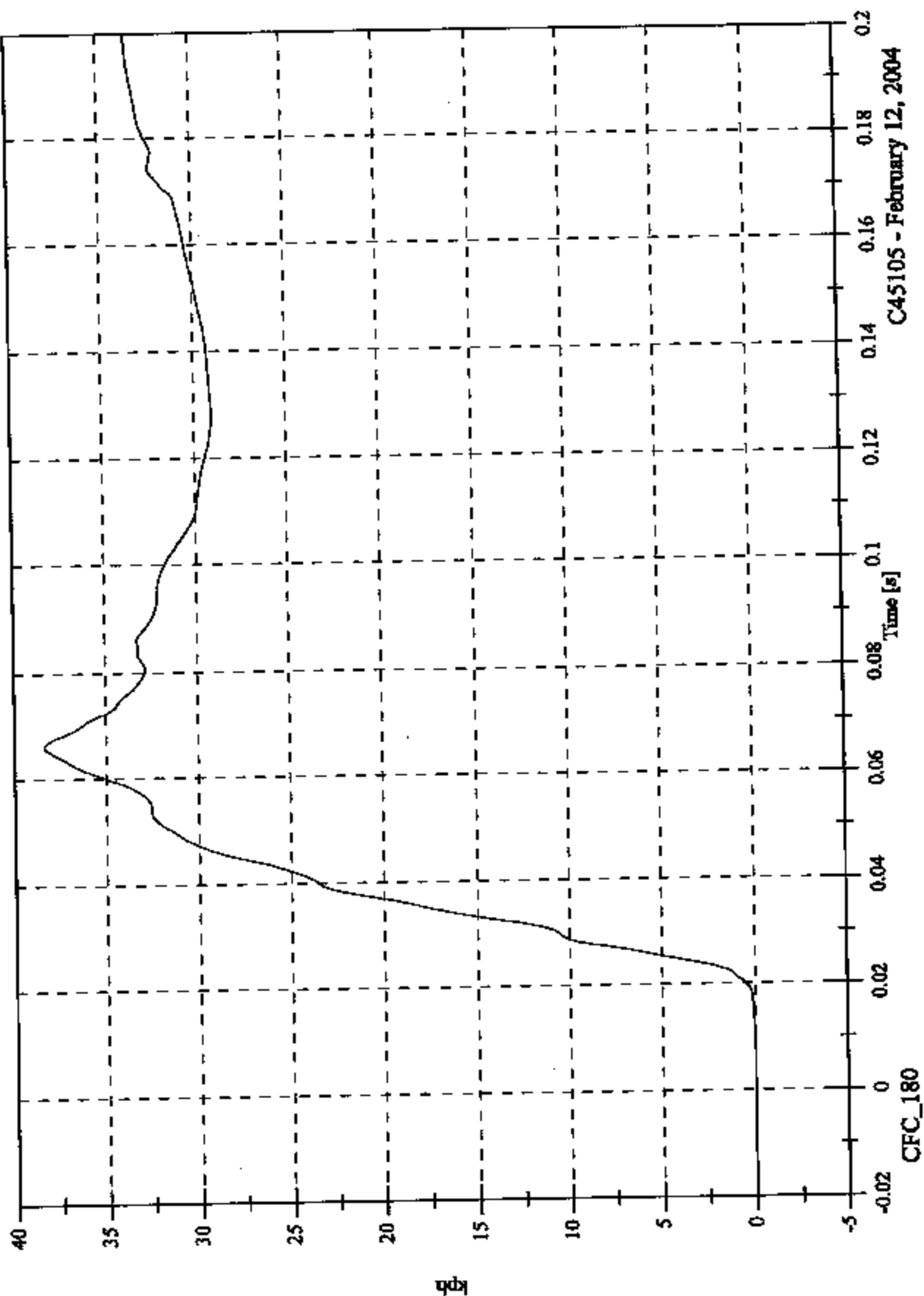
Max: 61.5 [g] at 0.027 [s]
Min: -24.1 [g] at 0.072 [s]



FMVSS 214D Indicant - 2004 Toyota Camry

Max: 38.4 [kph] at 0.066 [s]
Min: -0.0 [kph] at -0.020 [s]

V2P1 Upper Rib y Velocity

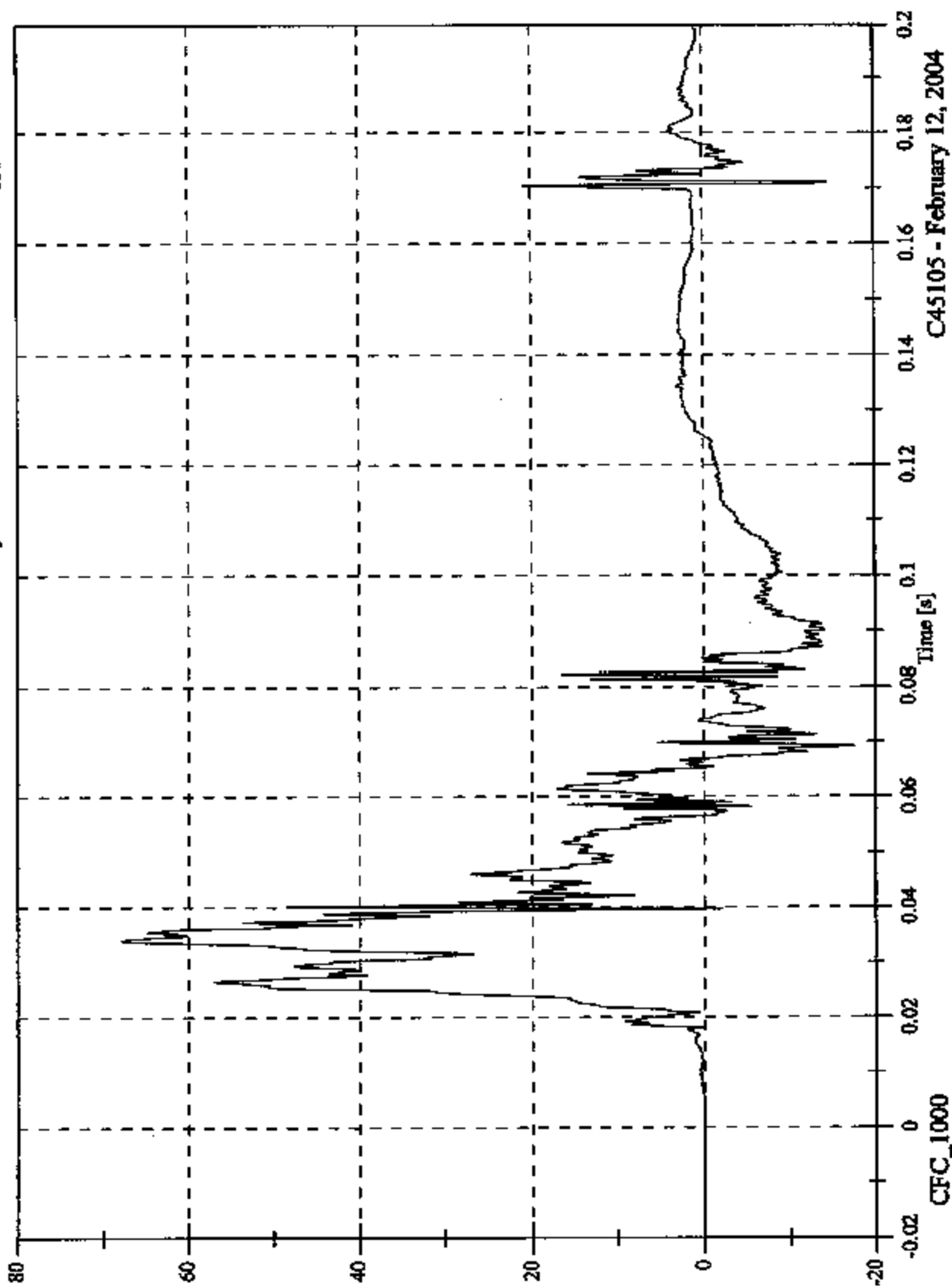


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FMVSS 214D Indicant - 2004 Toyota Camry

V2P1 Lower Rib y

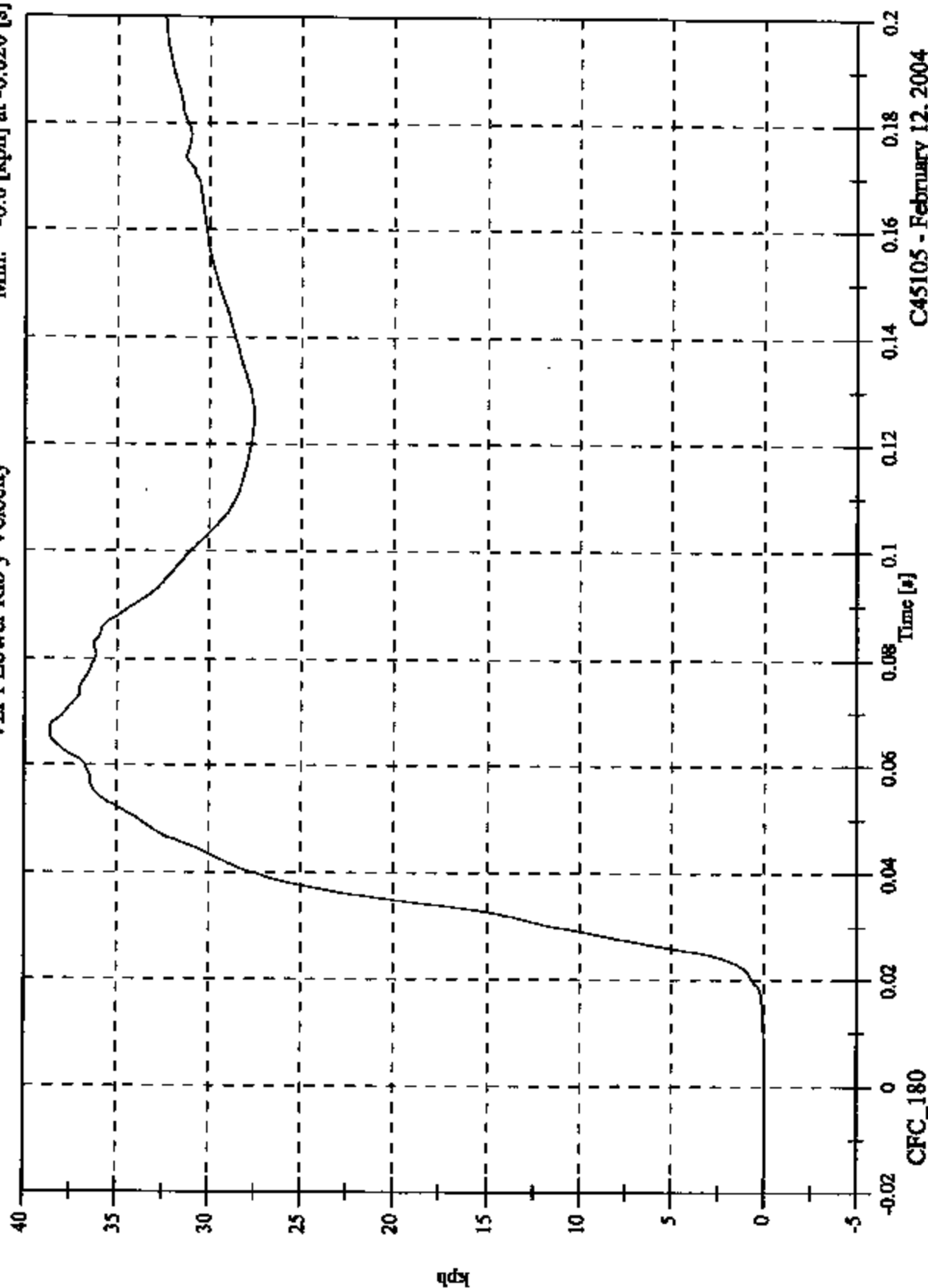
Max: 67.8 [g] at 0.034 [s]
Min: -17.5 [g] at 0.069 [s]



FMVSS 214D Inducant - 2004 Toyota Camry

Max: 38.6 [kph] at 0.067 [s]
Min: -0.0 [kph] at -0.020 [s]

V2P1 Lower Rib y Velocity

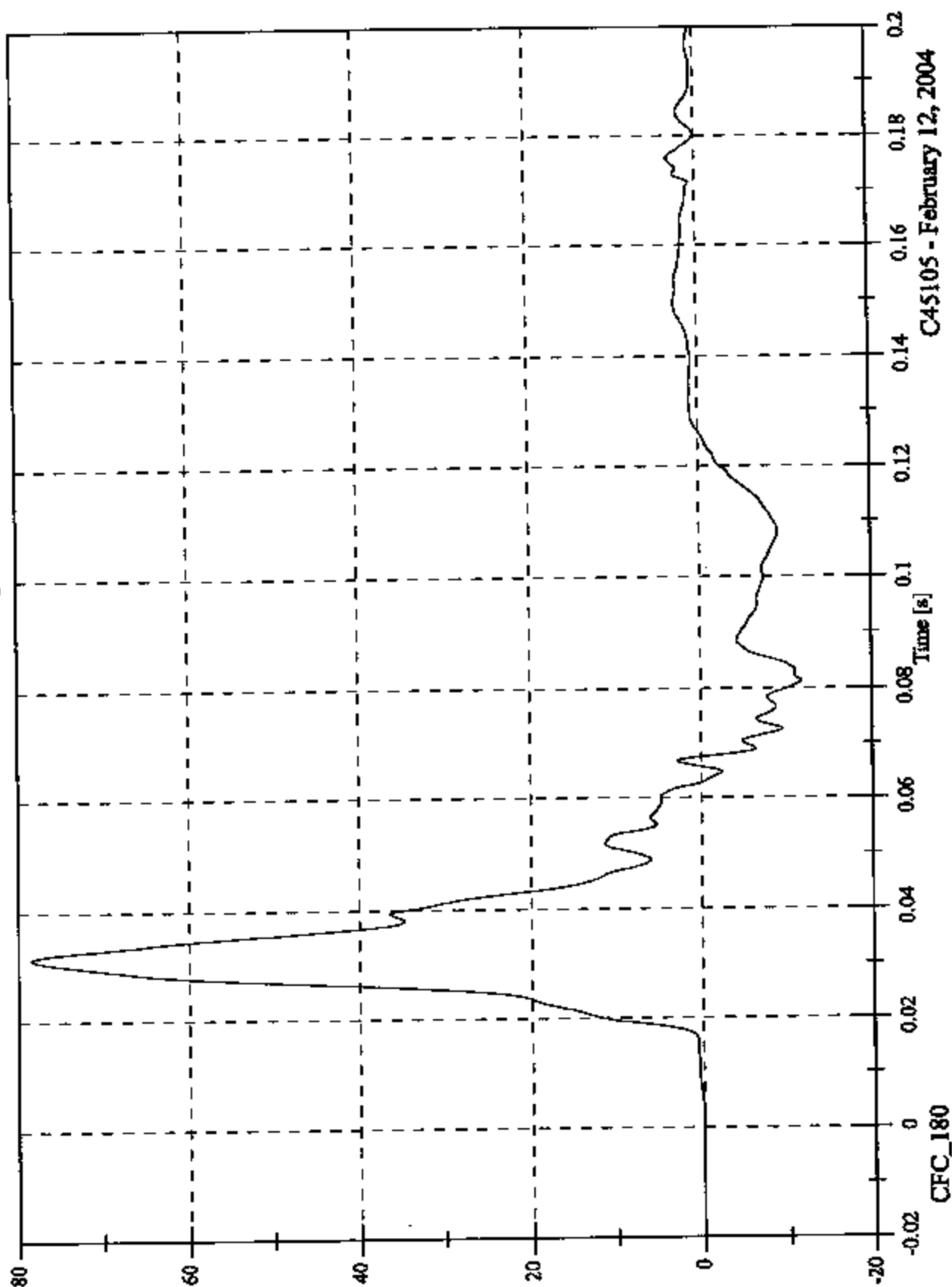


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P1 Lower Spine y

Max: 78.5 [g] at 0.031 [s]
Min: -11.8 [g] at 0.081 [s]

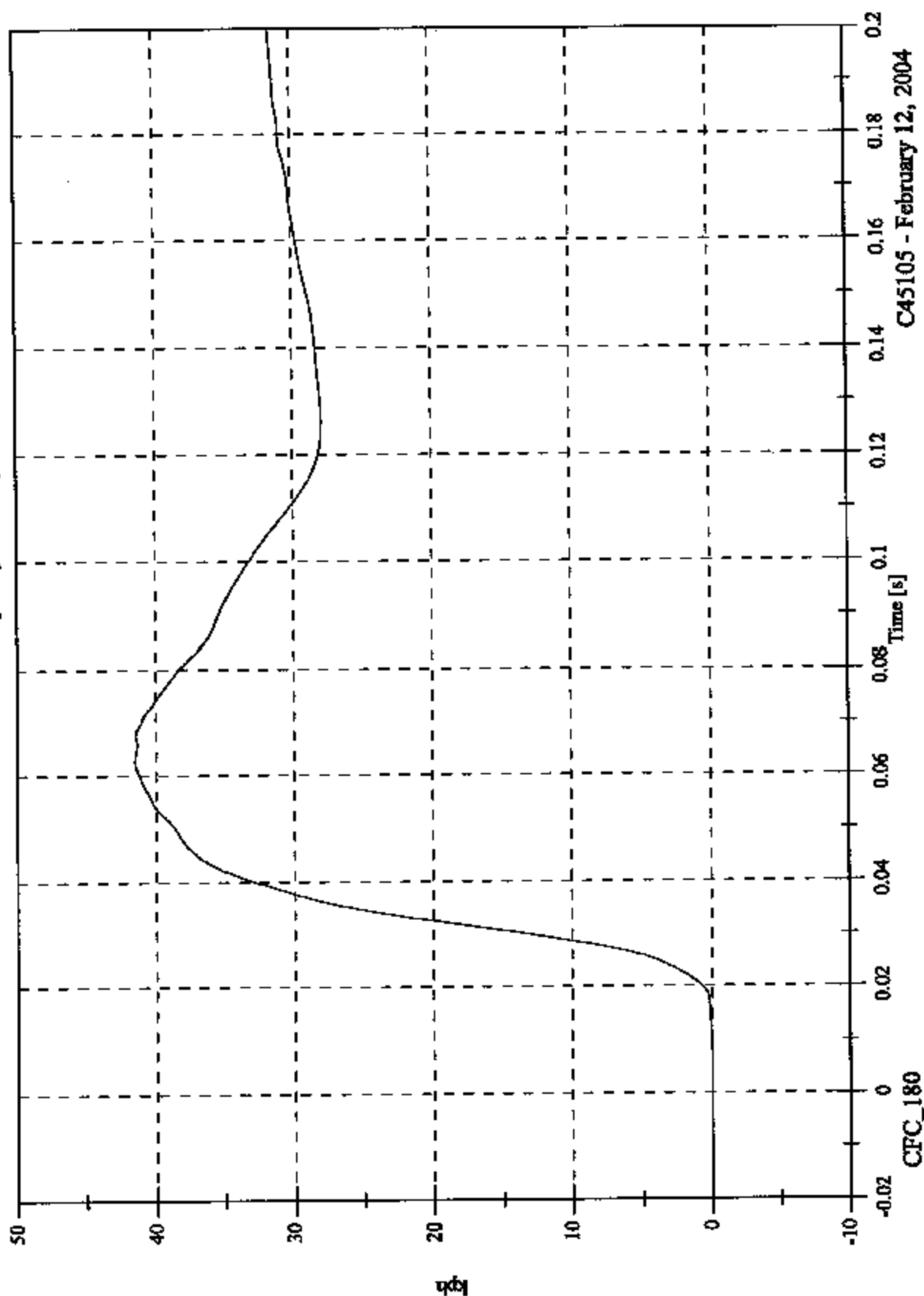


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P1 Lower Spine y Velocity

Max: 41.5 [kph] at 0.063 [s]
Min: -0.0 [kph] at -0.019 [s]

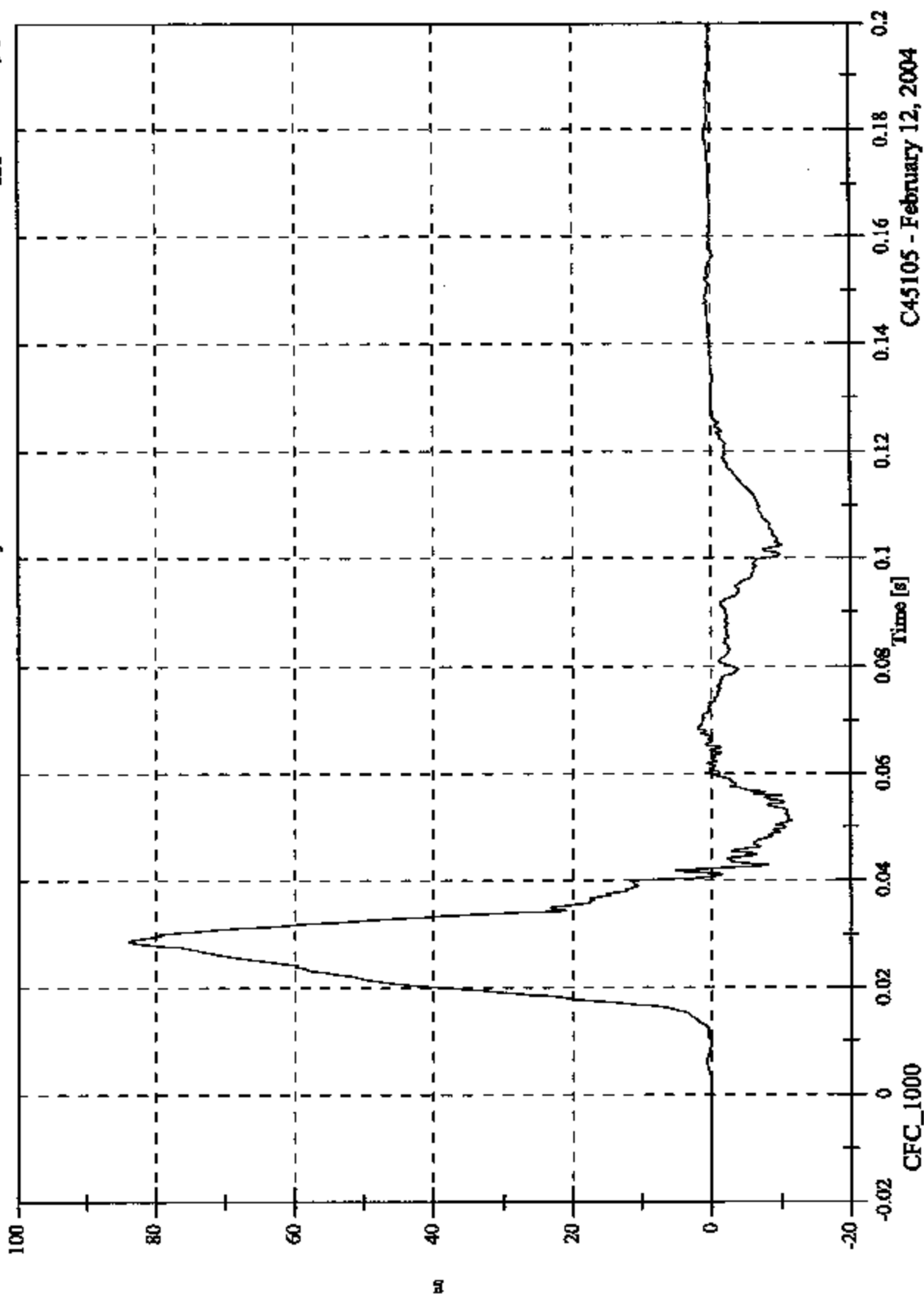


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P1 Pelvic y

Max: 83.9 [g] at 0.029 [s]
Min: -11.5 [g] at 0.051 [s]

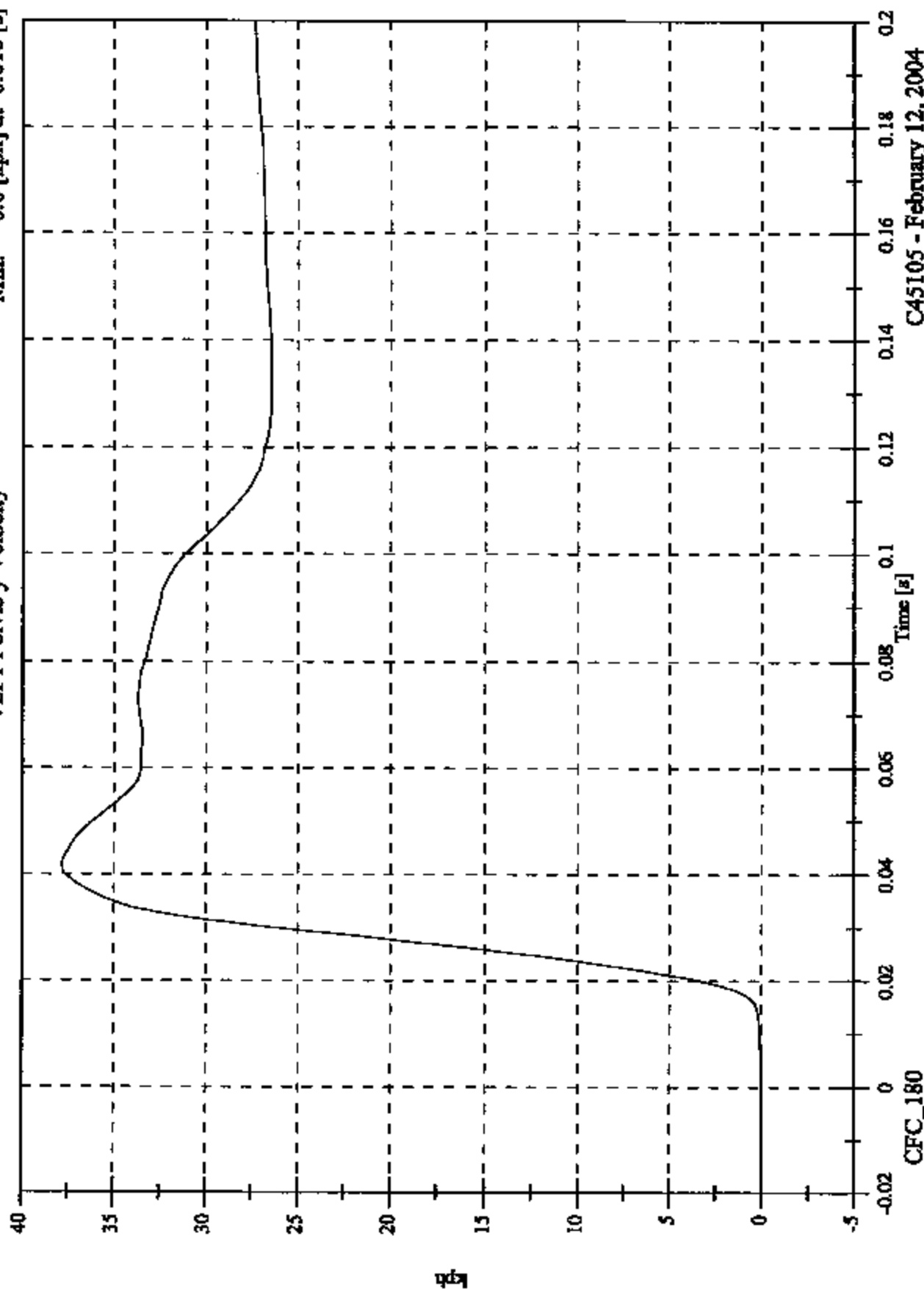


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P1 Pelvic y Velocity

Max: 37.8 [kph] at 0.042 [s]
Min: -0.0 [kph] at -0.018 [s]

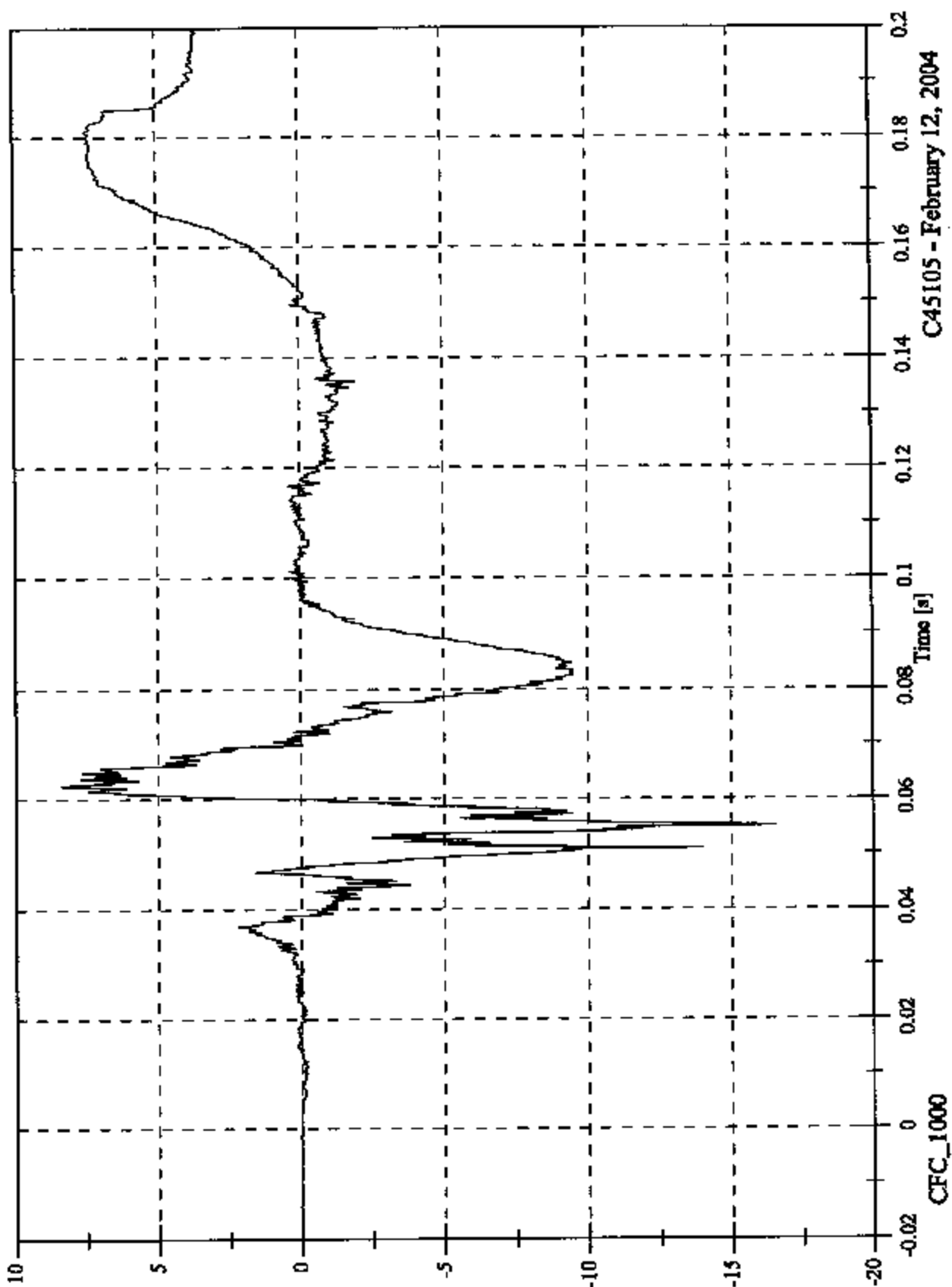


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P4 Head x

Max: 8.4 [g] at 0.063 [s]
Min: -16.6 [g] at 0.055 [s]

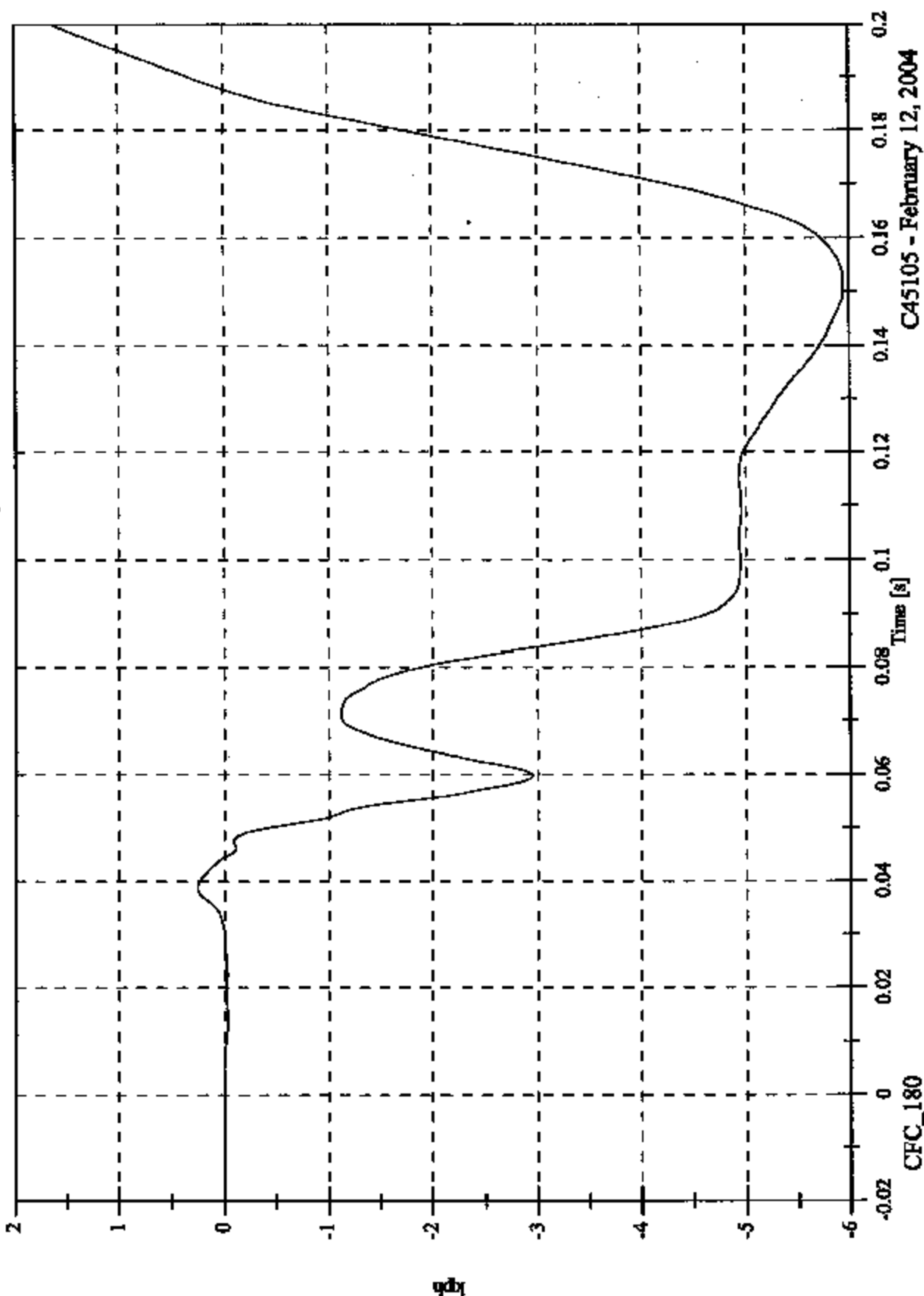


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P4 Head x Velocity

Max: 1.6 [kph] at 0.200 [s]
Min: -5.9 [kph] at 0.152 [s]



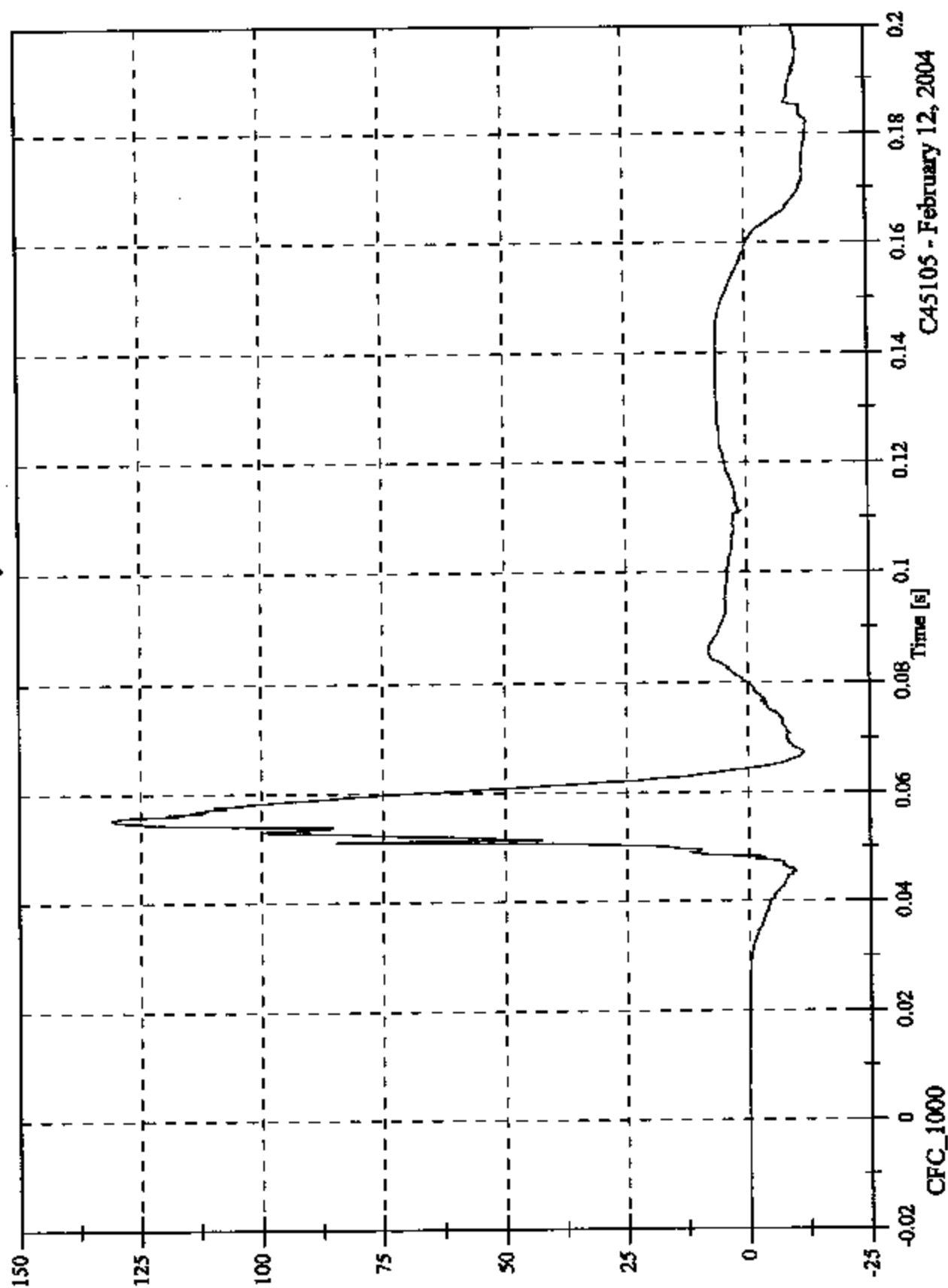
CFC_180

C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

V2P4 Head y

Max: 130.9 [g] at 0.055 [s]
Min: -12.9 [g] at 0.182 [s]

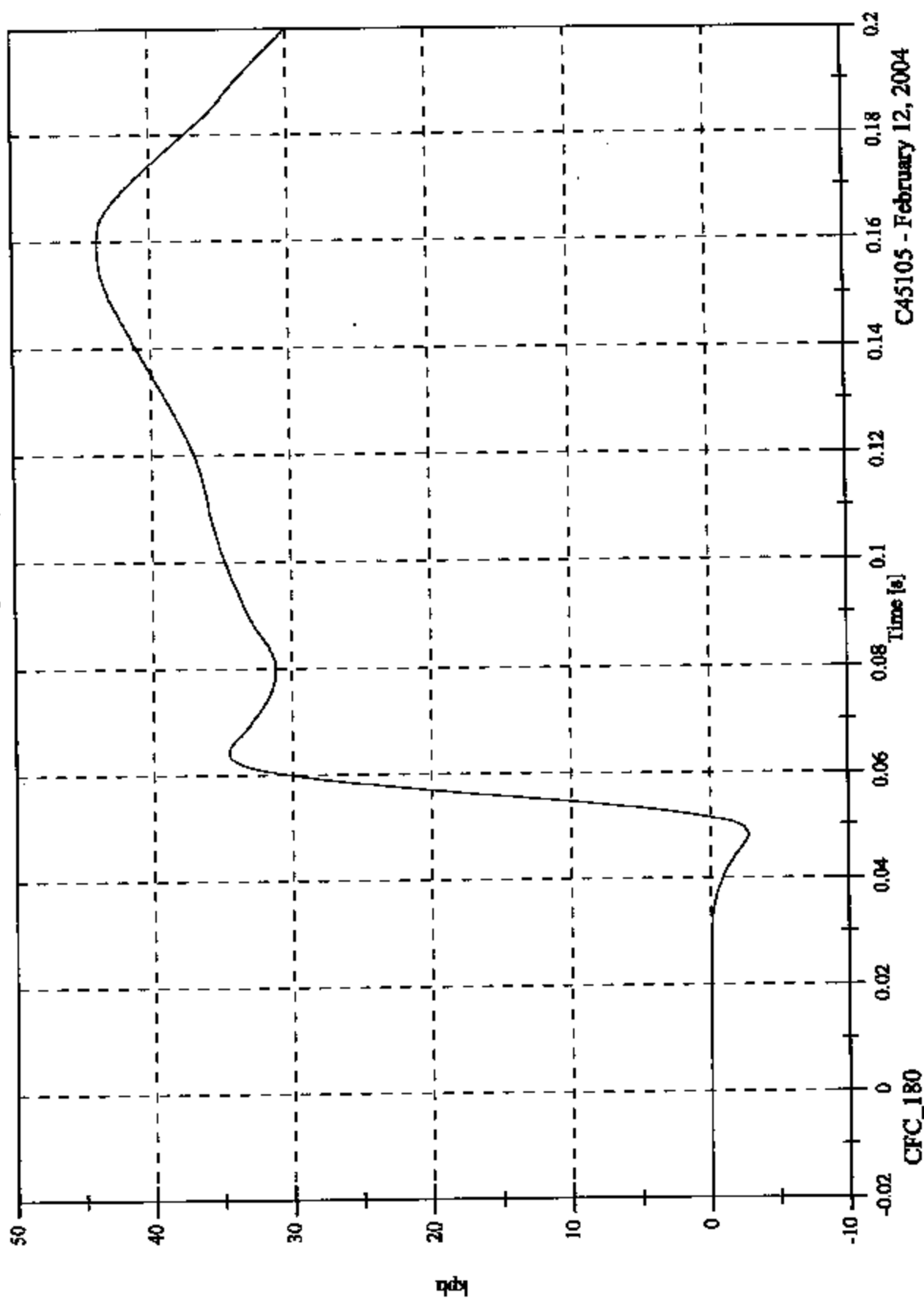


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

V2P4 Head y Velocity

Max: 43.8 [kph] at 0.159 [s]
Min: -2.8 [kph] at 0.048 [s]

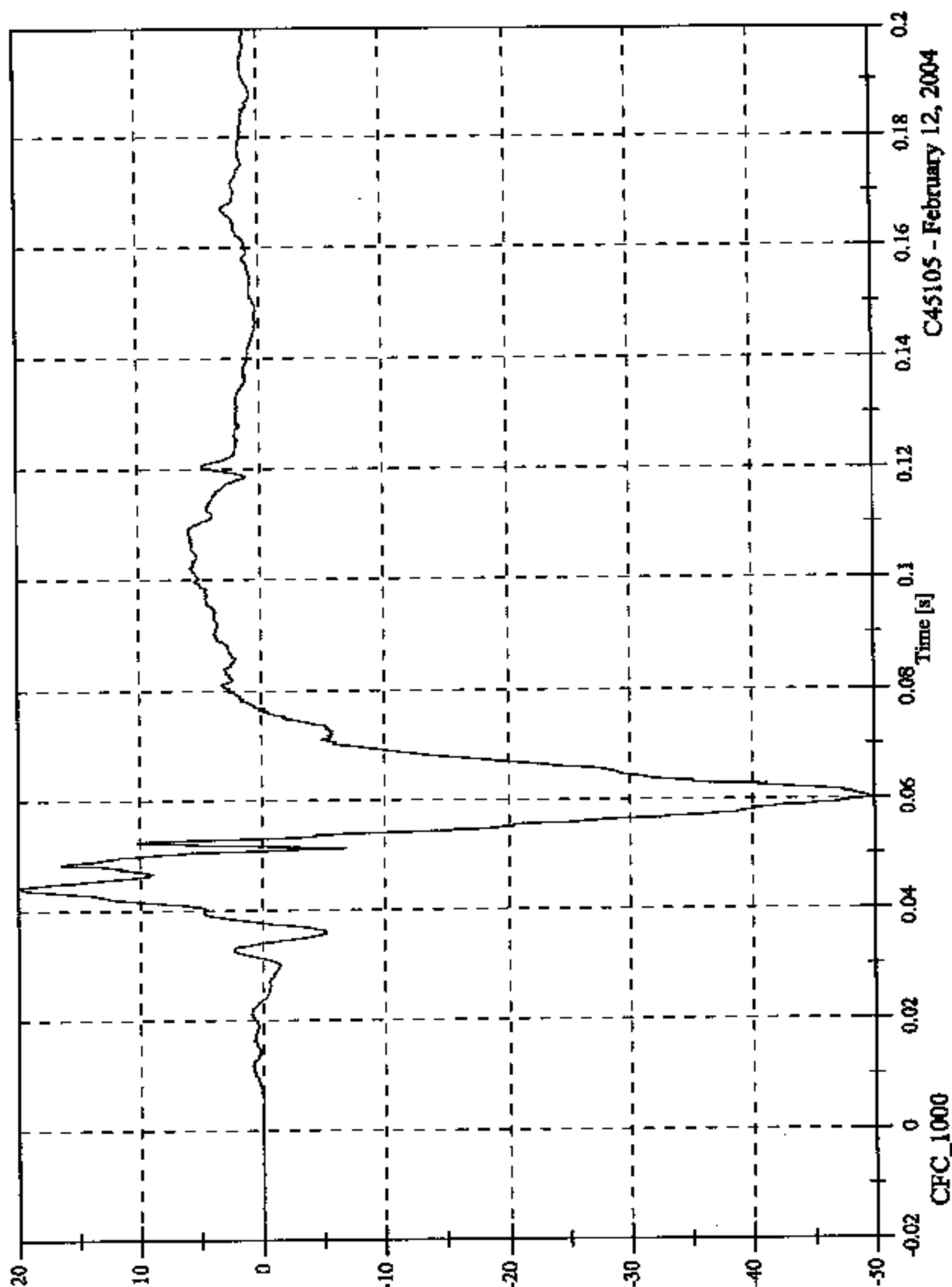


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 19.8 [g] at 0.044 [s]
Min: -49.7 [g] at 0.060 [s]

V2P4 Head z

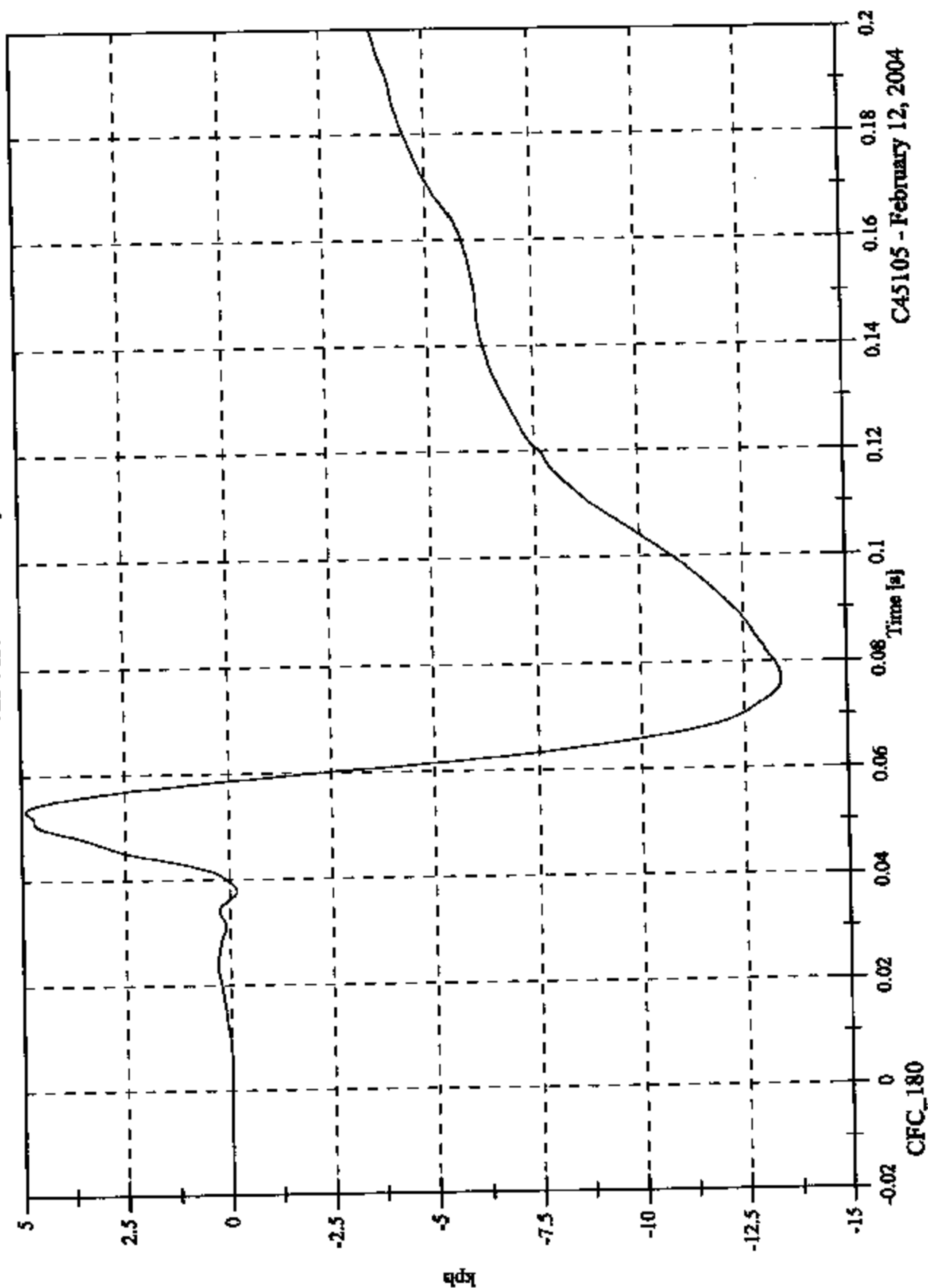


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

V2P4 Head z Velocity

Max: 4.9 [kph] at 0.053 [s]
Min: -13.4 [kph] at 0.077 [s]

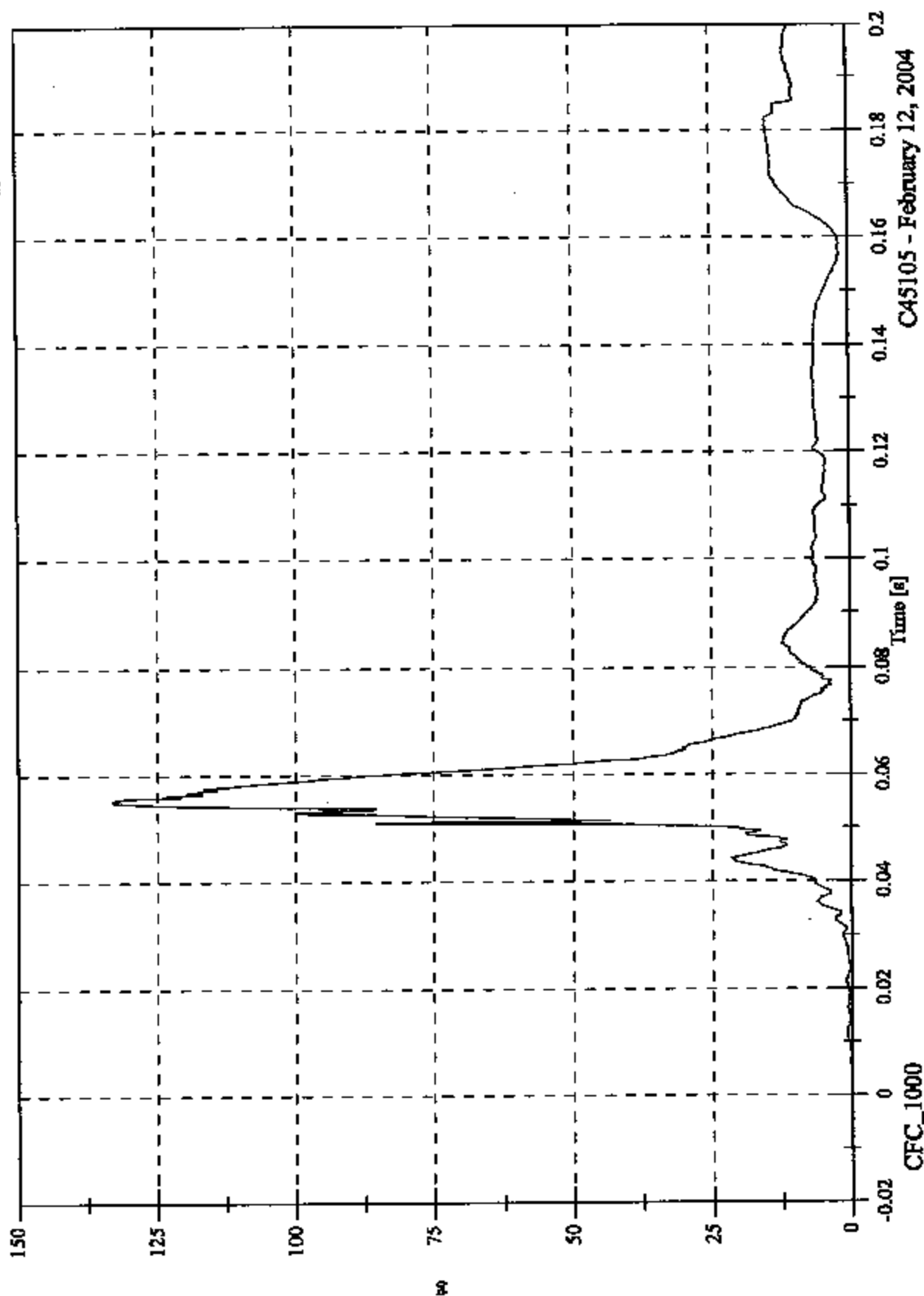


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P4 Head Resultant

Max: 133.1 [g] at 0.055 [s]
Min: 0.0 [g] at -0.003 [s]

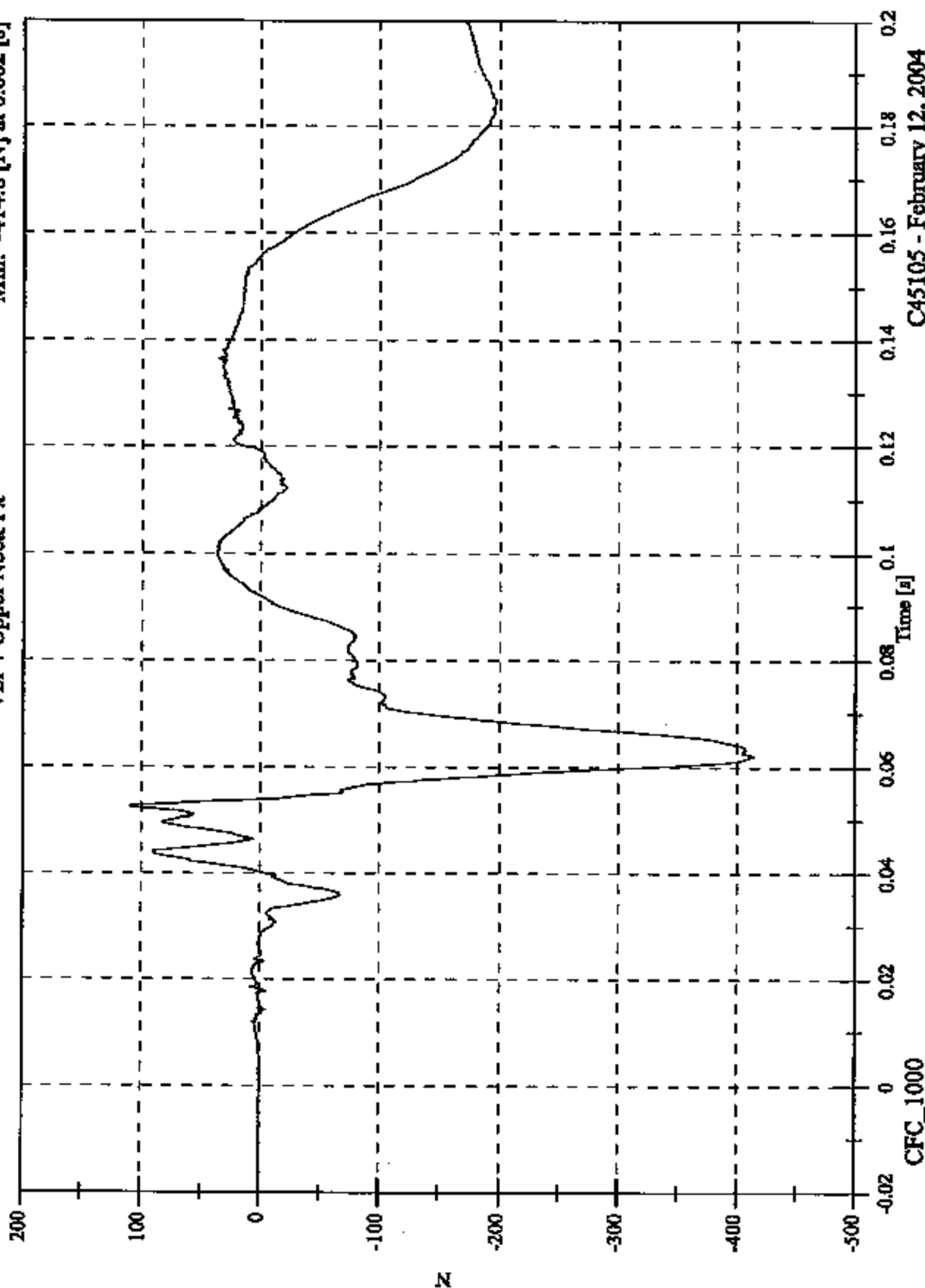


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

Max: 110.0 [N] at 0.052 [s]
Min: -414.8 [N] at 0.062 [s]

V2P4 Upper Neck Fx

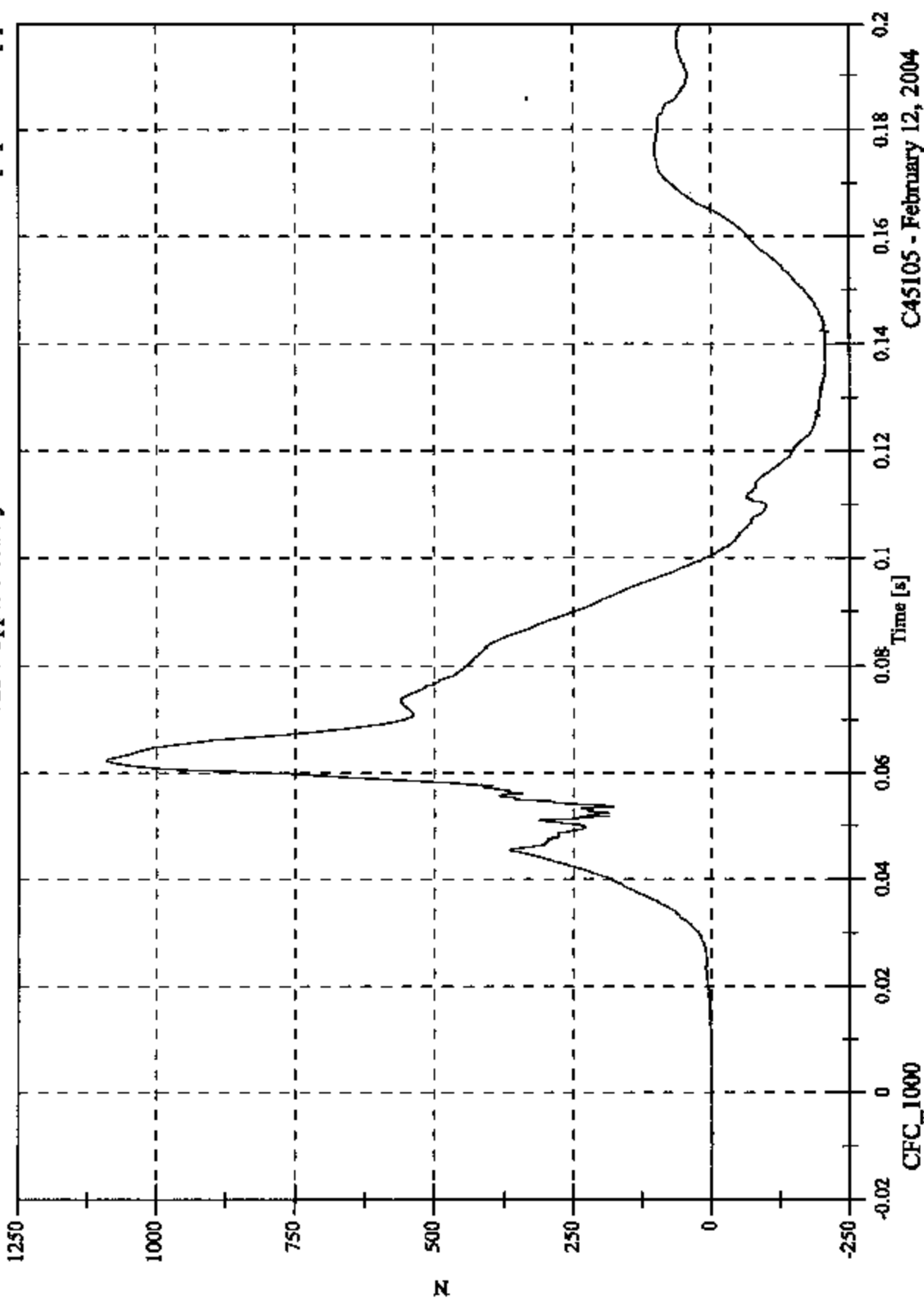


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P4 Upper Neck Fy

Max: 1090.5 [N] at 0.062 [s]
Min: -212.7 [N] at 0.142 [s]

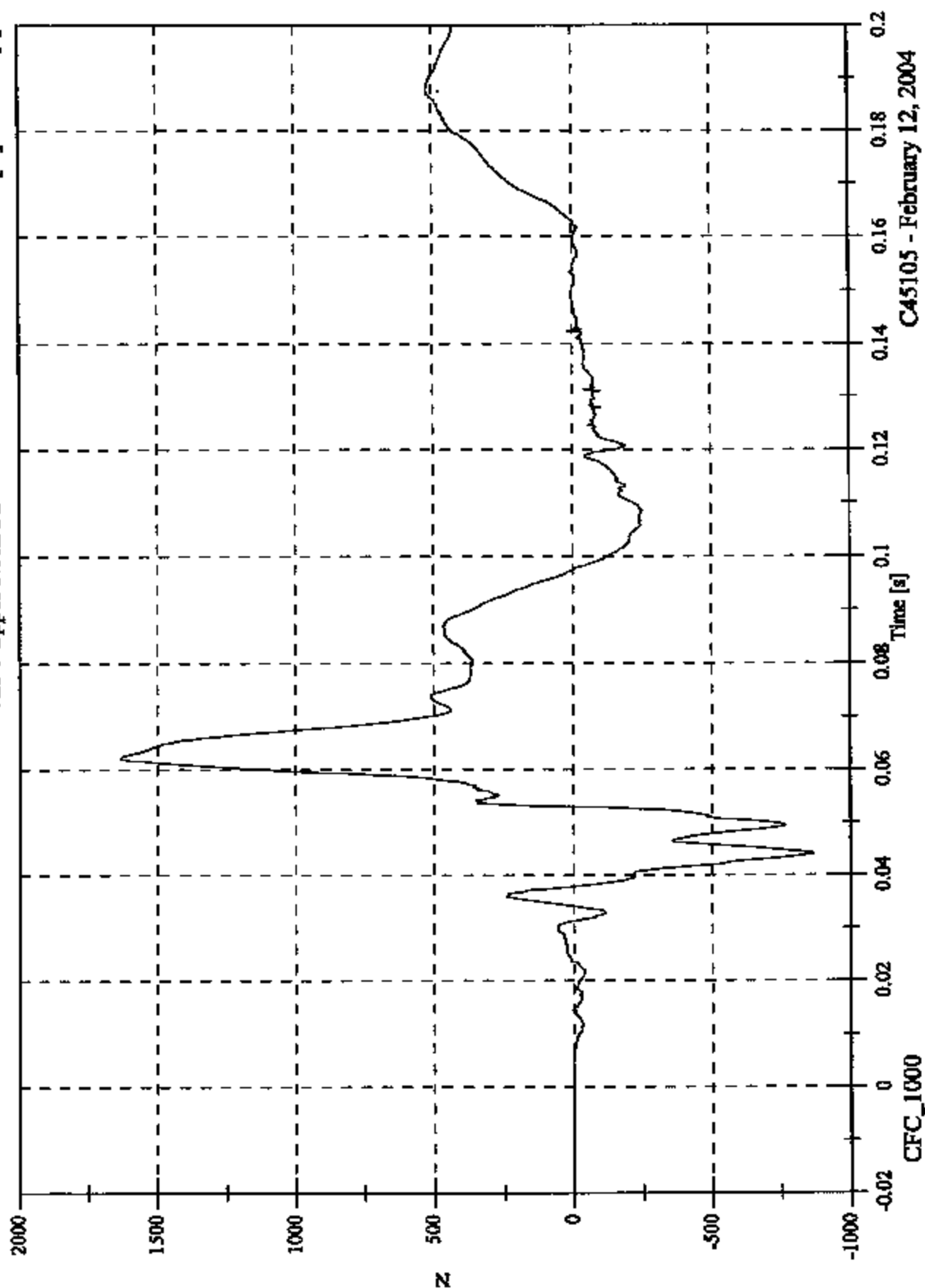


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

V2P4 Upper Neck Fz

Max: 1634.1 [N] at 0.062 [s]
Min: -866.4 [N] at 0.044 [s]



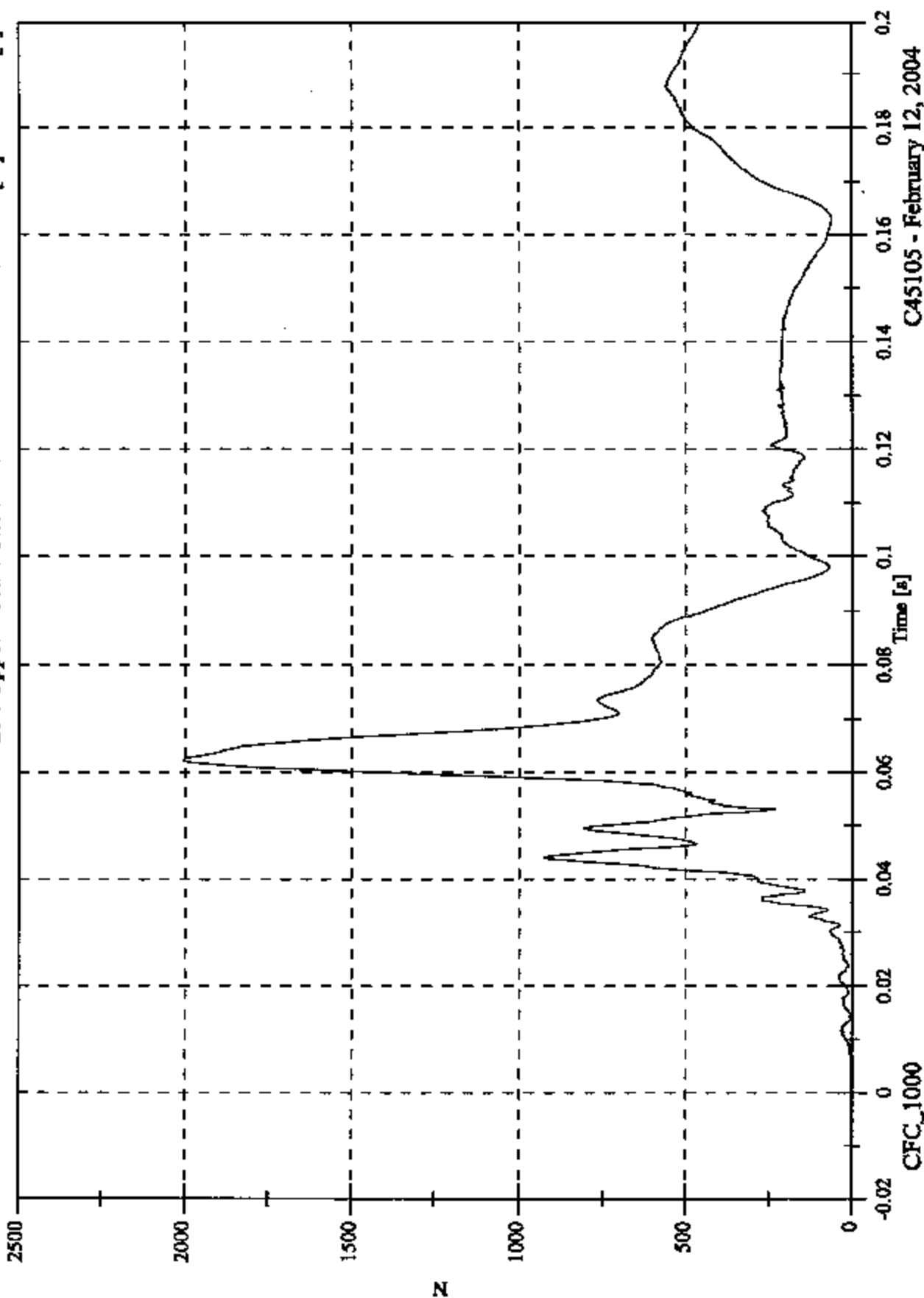
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 2006.5 [N] at 0.062 [s]

V2P4 Upper Neck F Resultant

Min: 0.0 [N] at -0.003 [s]

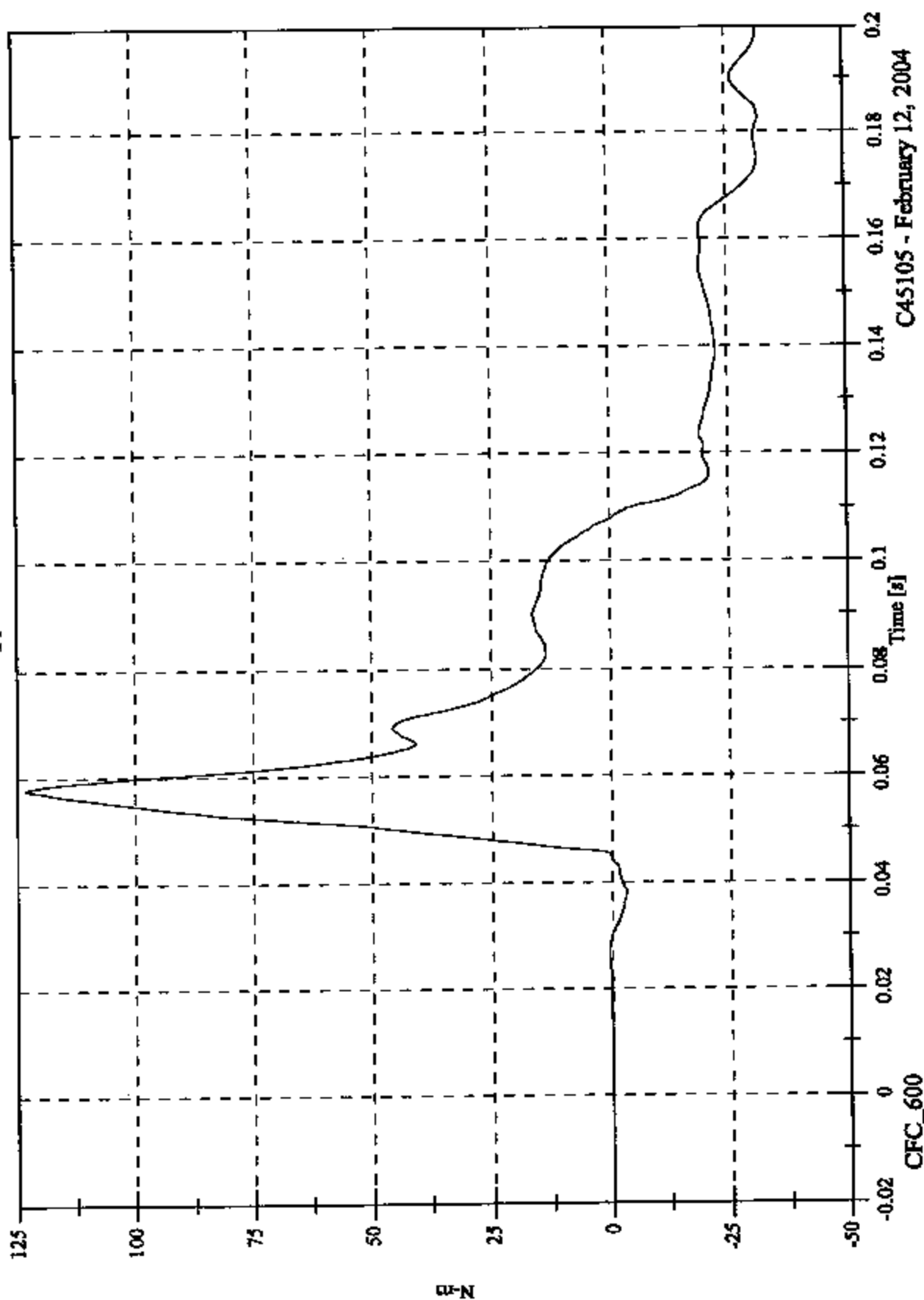


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P4 Upper Neck Mx

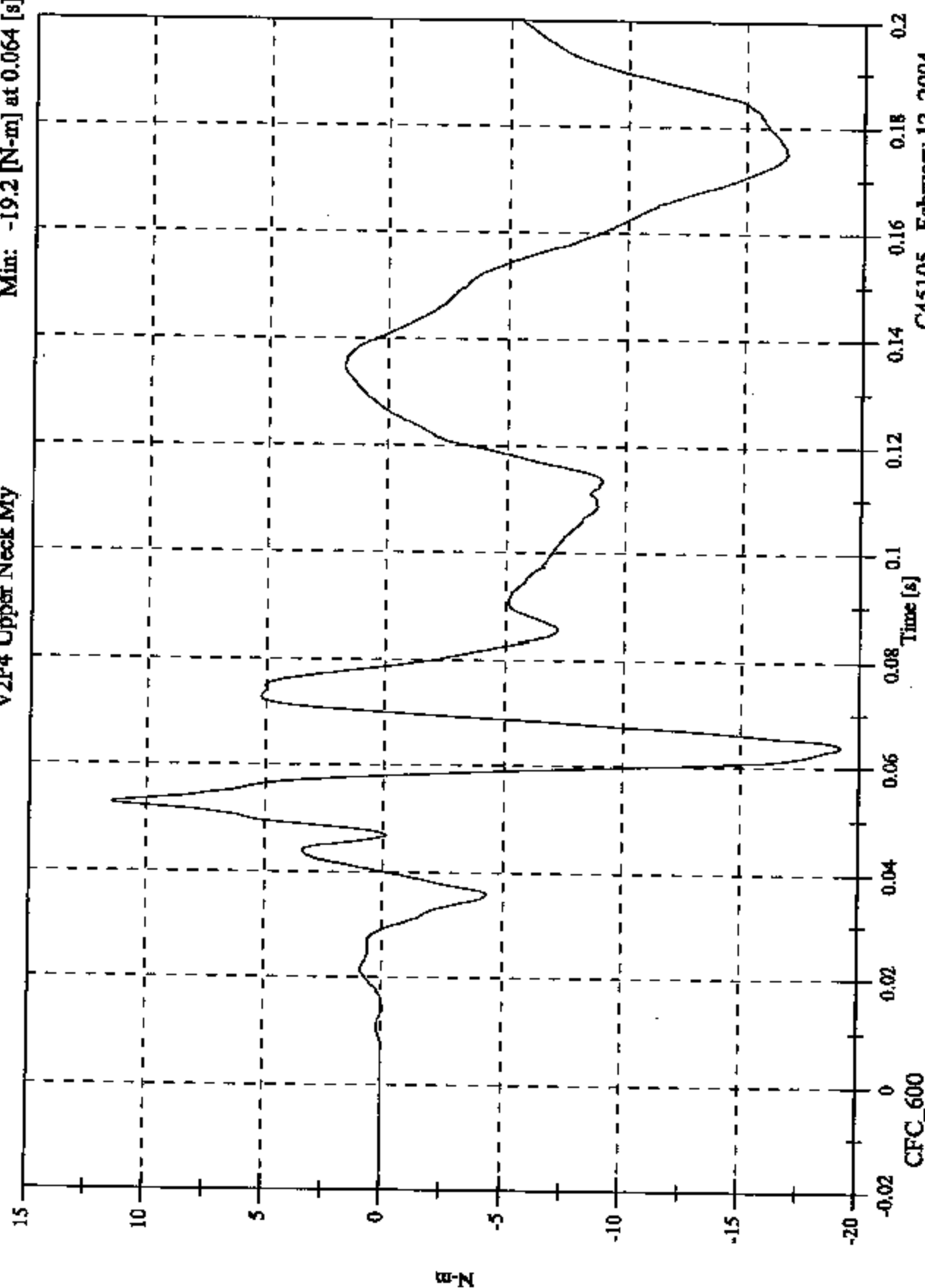
Max: 123.2 [N-m] at 0.058 [s]
Min: -32.0 [N-m] at 0.183 [s]



FMVSS 214D Indicant - 2004 Toyota Camry

Max: 11.5 [N-m] at 0.053 [s]
Min: -19.2 [N-m] at 0.064 [s]

V2P4 Upper Neck My

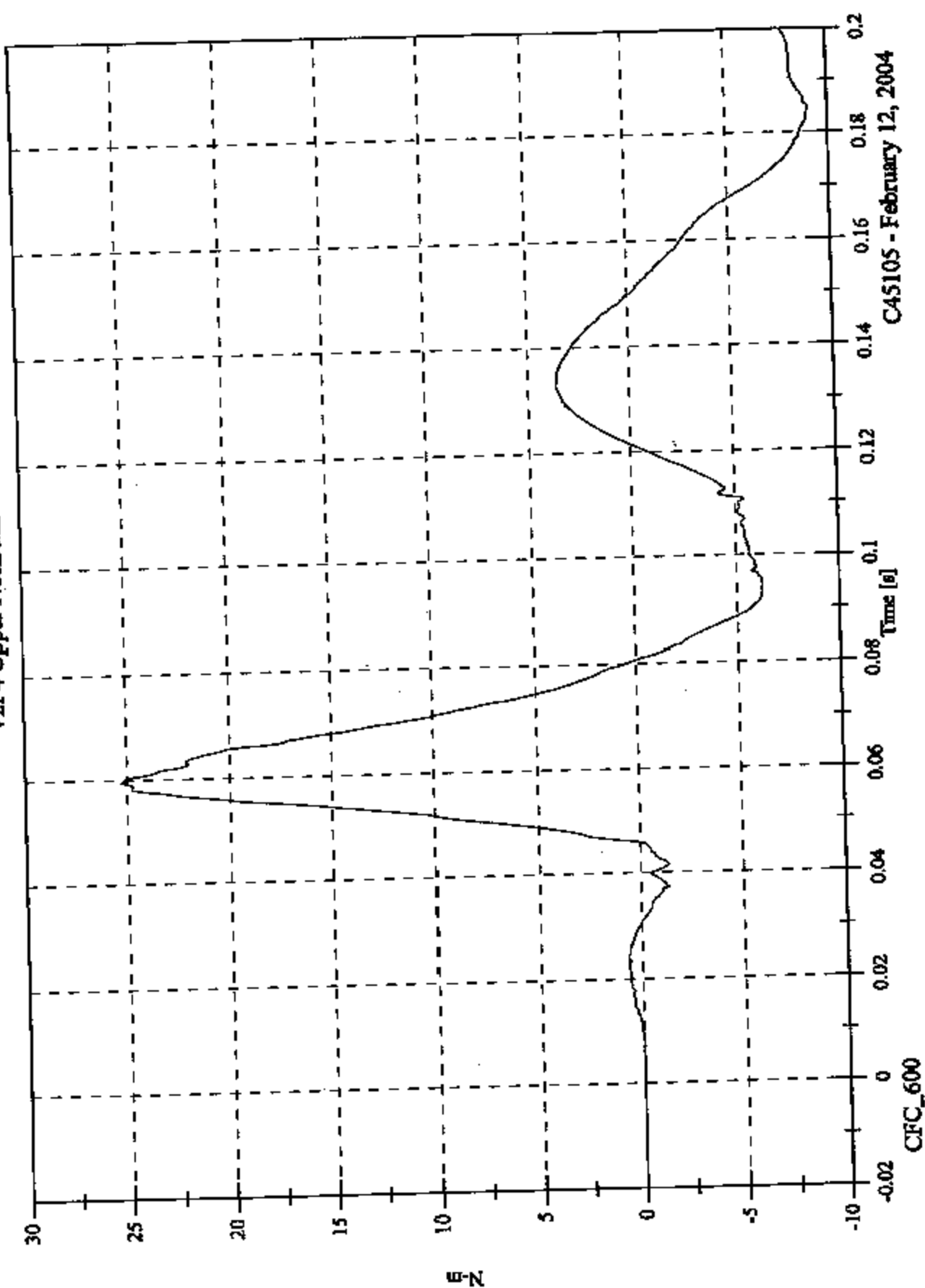


C45105 - February 12, 2004

Max: 25.3 [N-m] at 0.059 [s]
Min: -9.1 [N-m] at 0.185 [s]

FMVSS 214D Indicant - 2004 Toyota Camry

V2P4 Upper Neck Mz



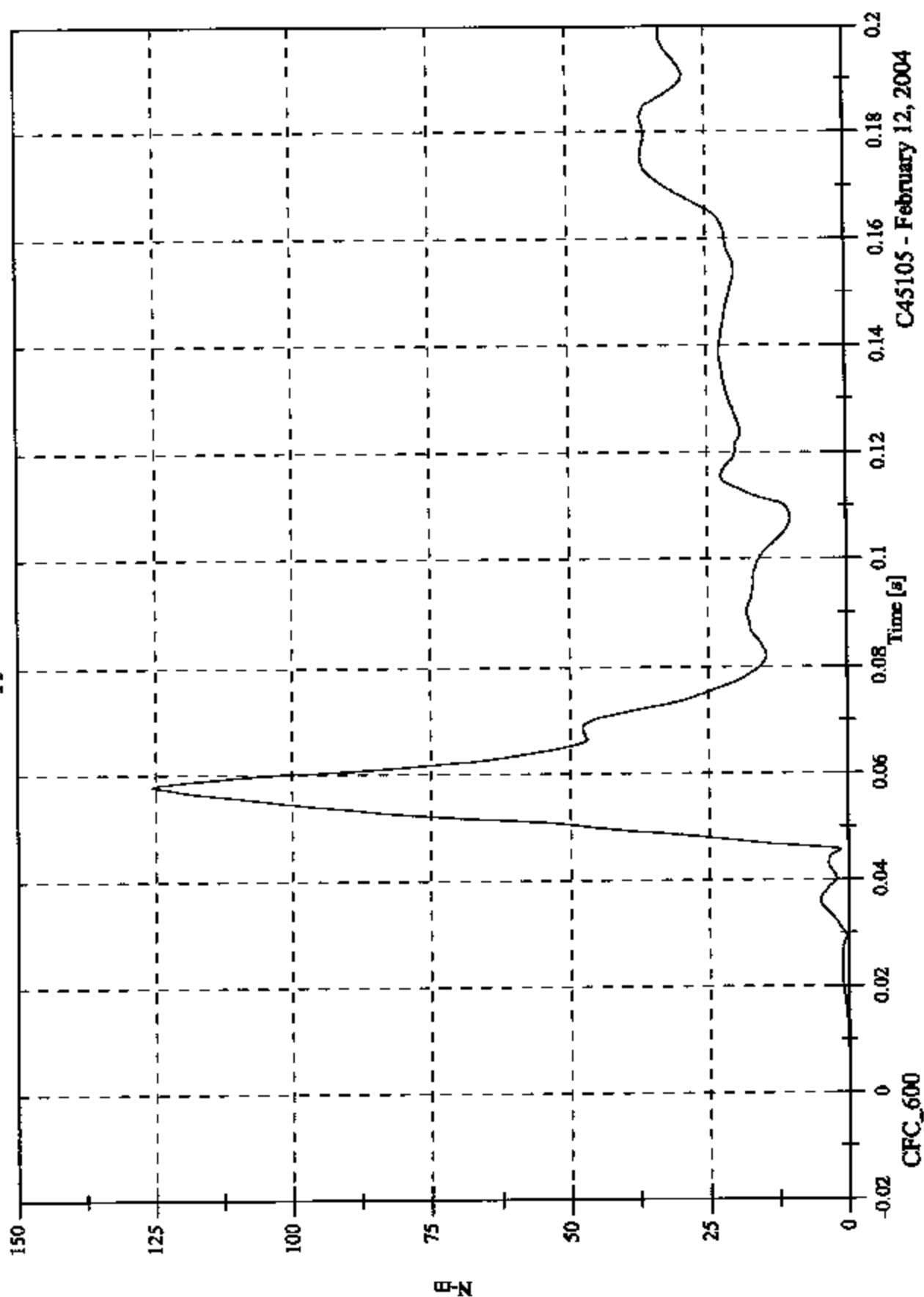
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P4 Upper Neck M Resultant

Max: 125.5 [N-m] at 0.058 [s]

Min: 0.0 [N-m] at -0.005 [s]

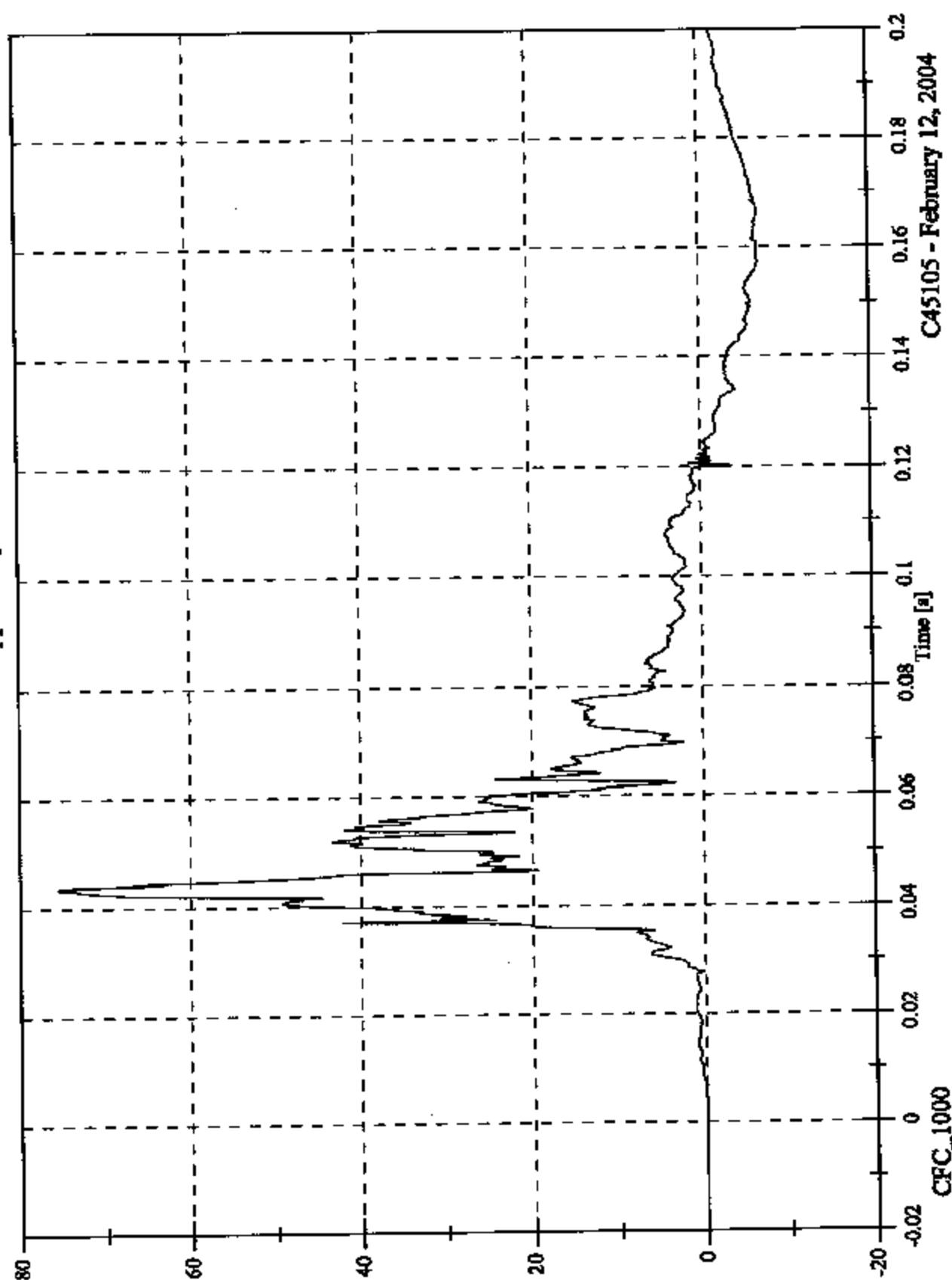


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P4 Upper Rib y

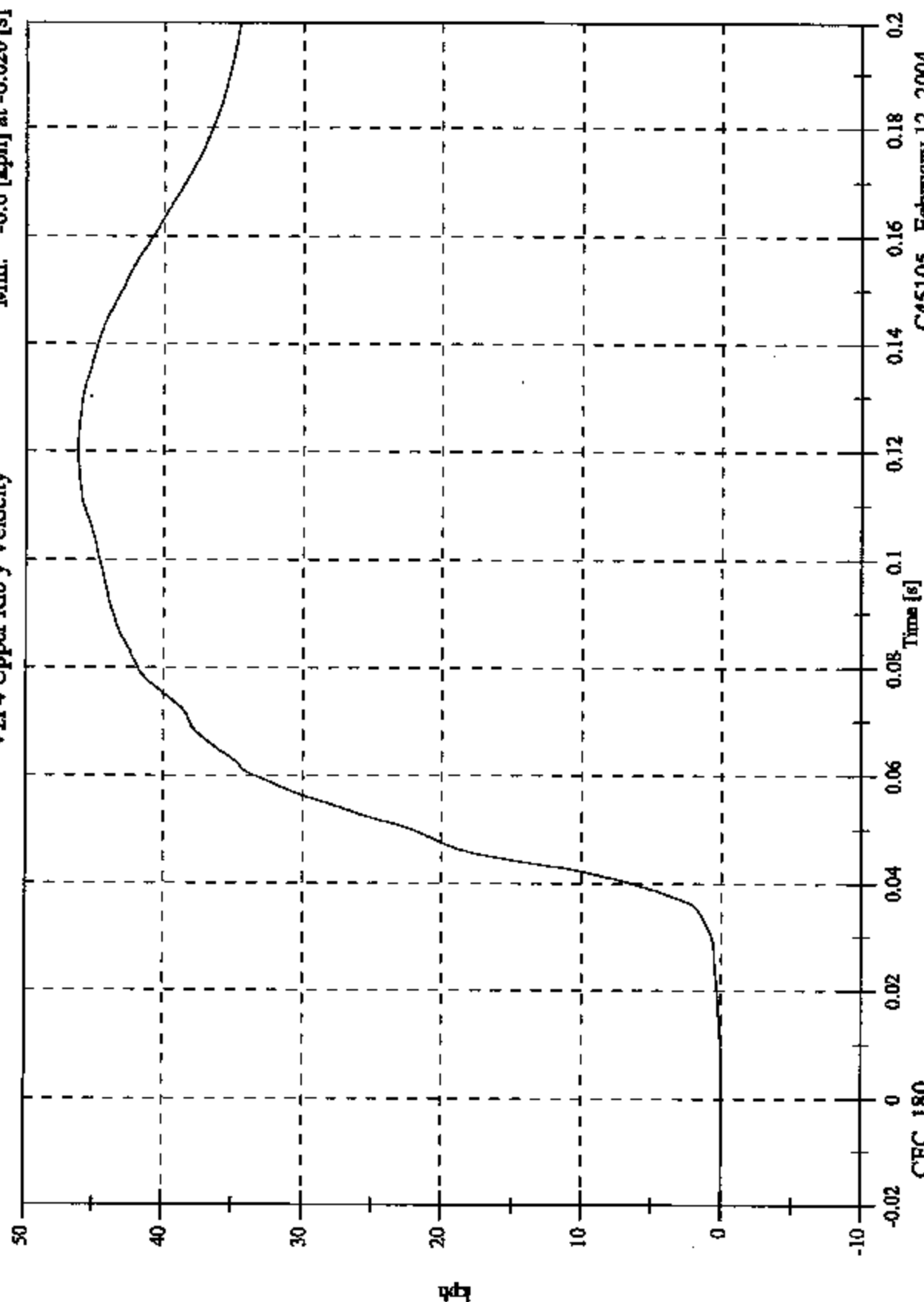
Max: 75.6 [g] at 0.044 [s]
Min: -7.0 [g] at 0.157 [s]



FMVSS 214D Inducant - 2004 Toyota Camry

Max: 46.3 [kph] at 0.120 [s]
Min: -0.0 [kph] at -0.020 [s]

V2P4 Upper Rib y Velocity

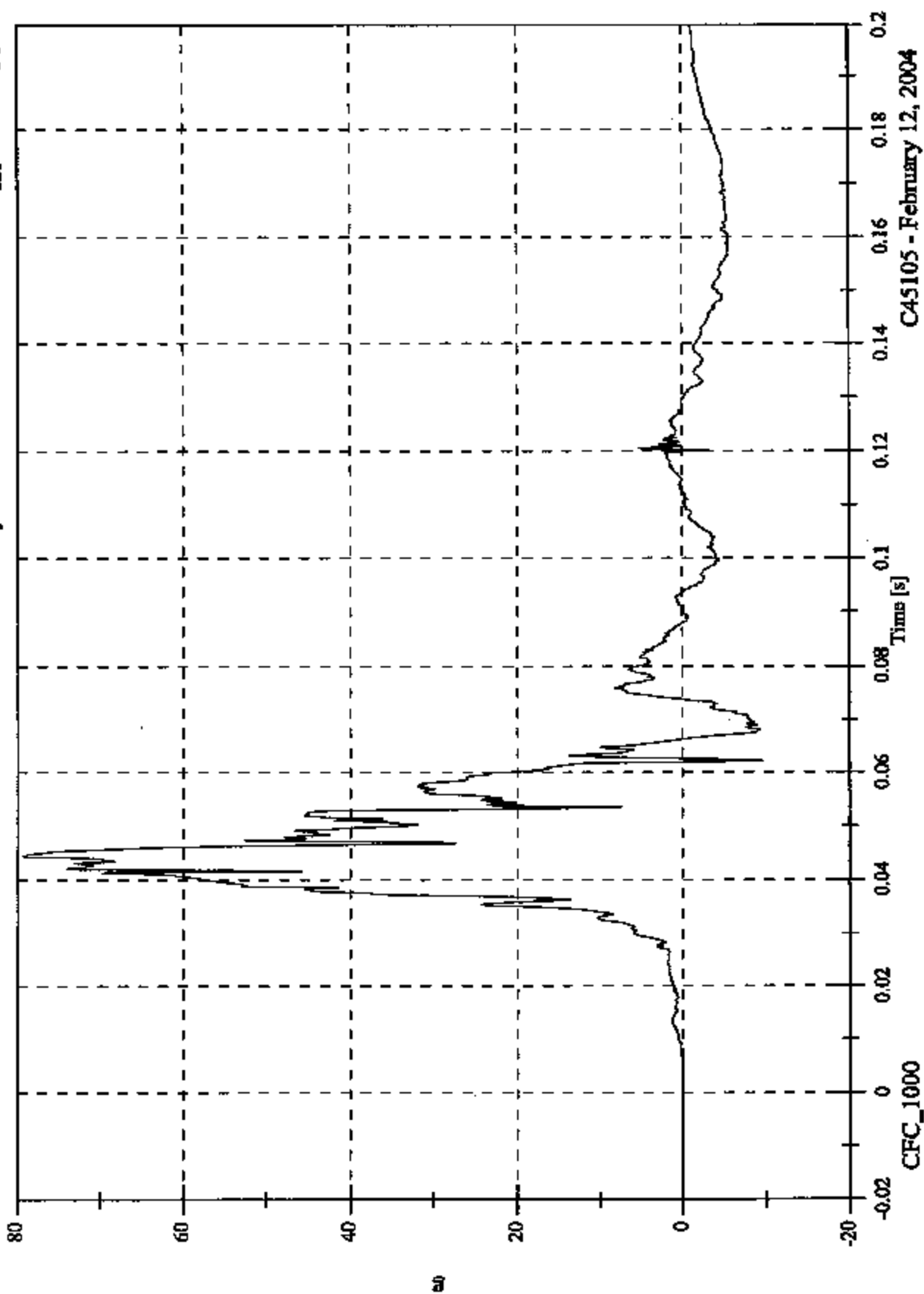


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P4 Lower Rib y

Max: 79.3 [g] at 0.044 [s]
Min: -9.5 [g] at 0.062 [s]

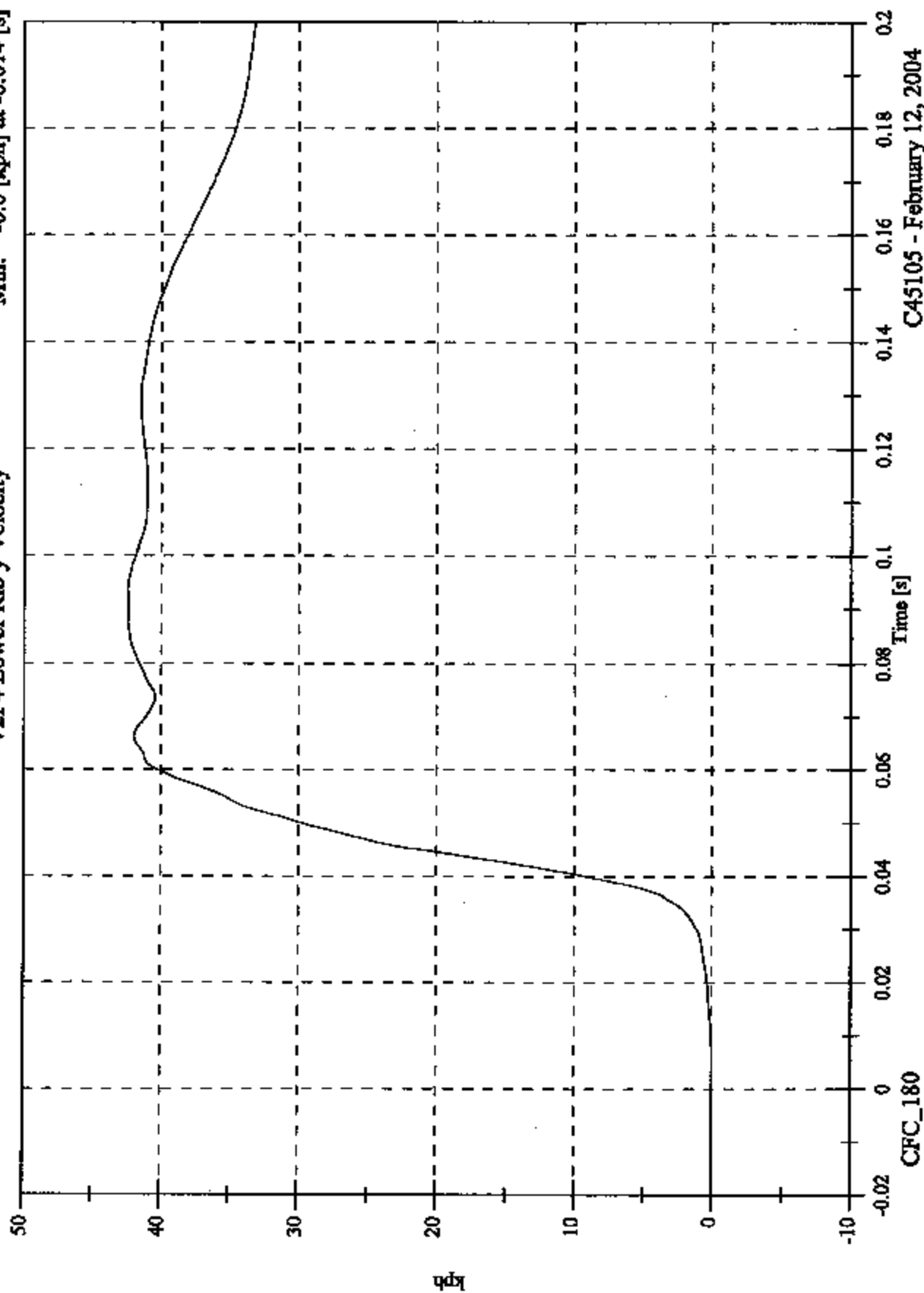


FMVSS 214D Indicant - 2004 Toyota Camry

Max: 42.4 [kph] at 0.094 [s]

Min: -0.0 [kph] at -0.014 [s]

V2P4 Lower Rib y Velocity

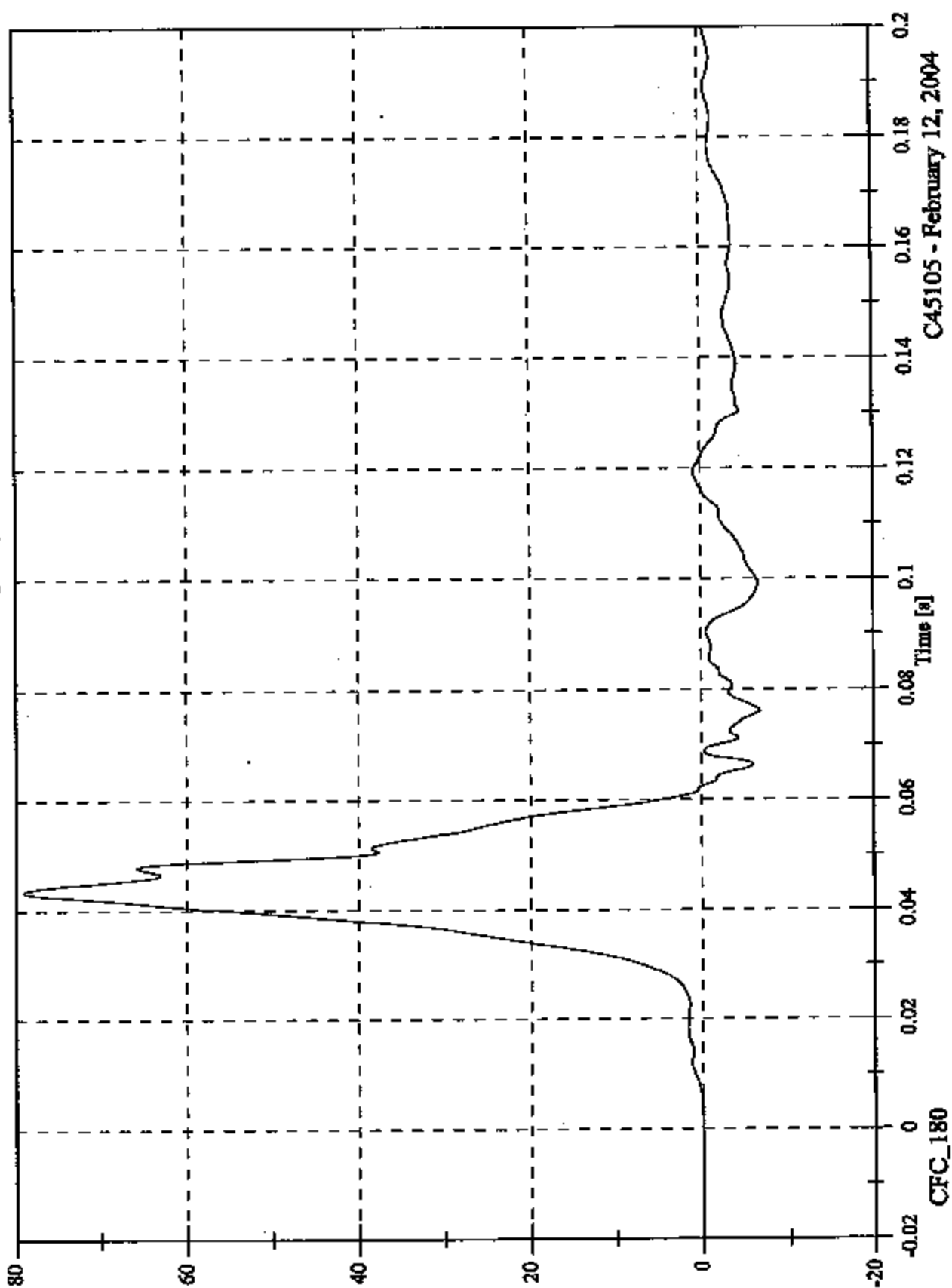


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 79.1 [g] at 0.043 [s]
Min: -6.9 [g] at 0.076 [s]

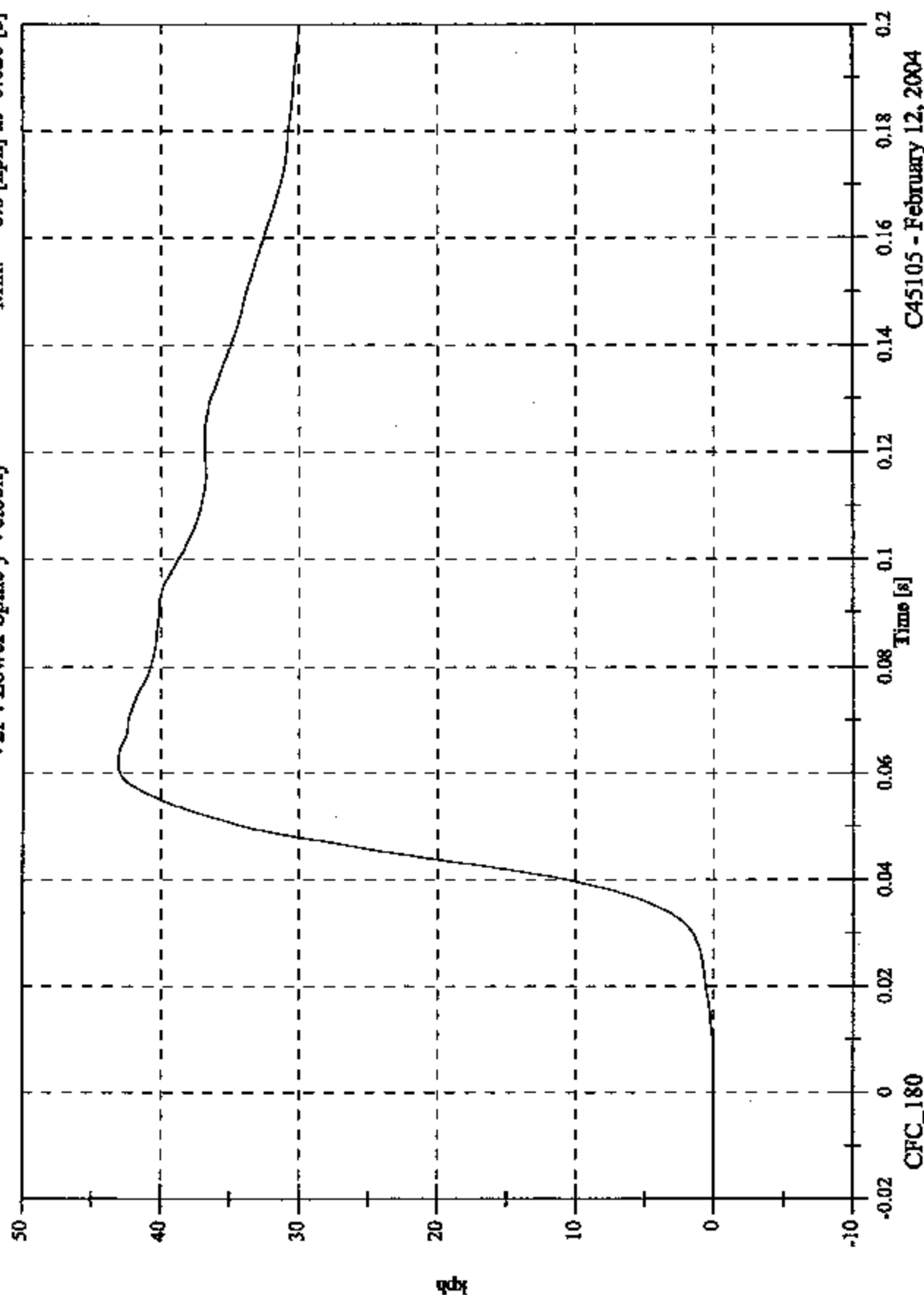
V2P4 Lower Spine y



FMVSS 214D Inducant - 2004 Toyota Camry

V2P4 Lower Spine y Velocity

Max: 43.0 [kph] at 0.062 [s]
Min: -0.0 [kph] at -0.020 [s]

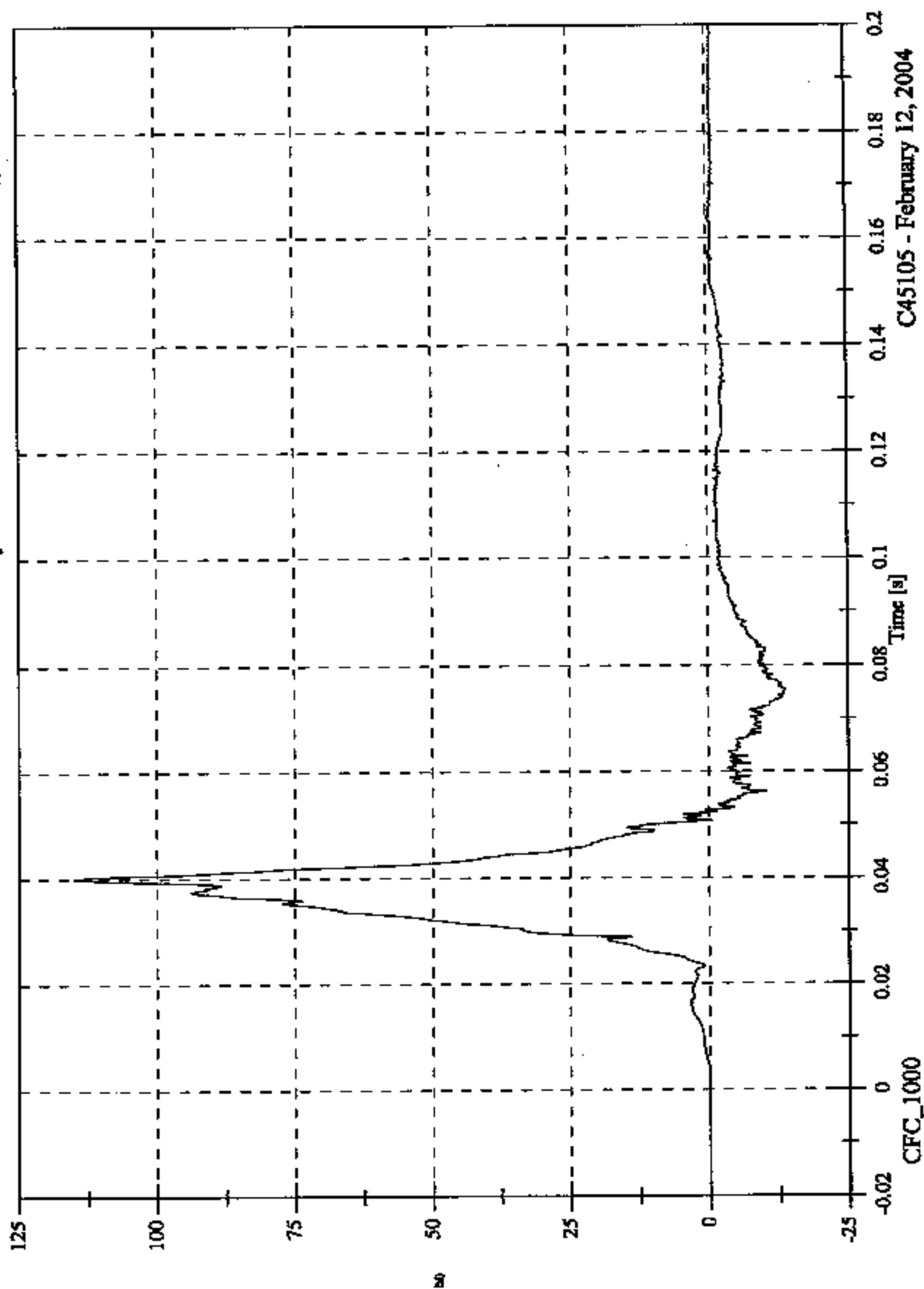


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 115.0 [g] at 0.040 [s]
Min: -13.7 [g] at 0.075 [s]

V2P4 Pelvic y

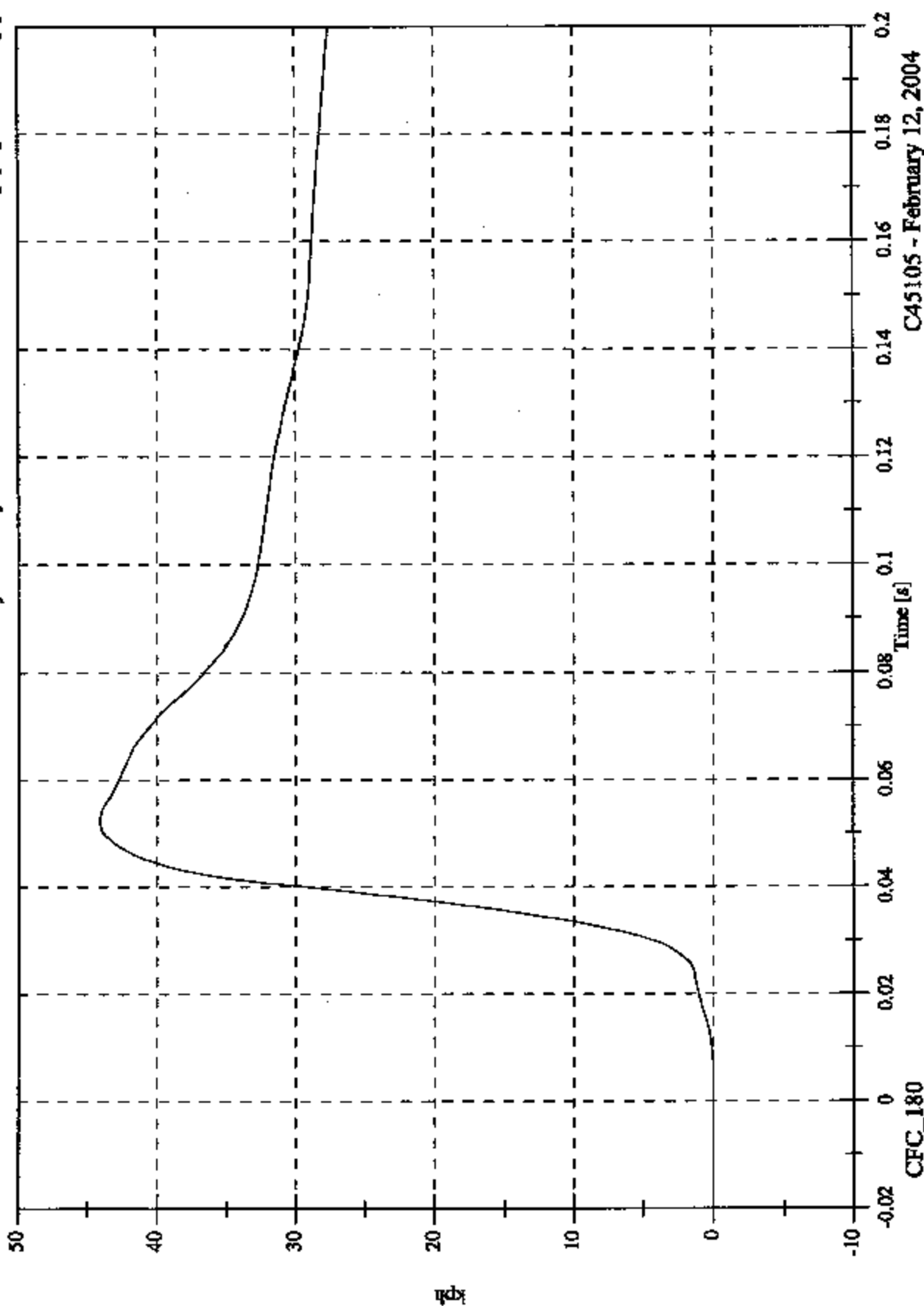


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 44.0 [kph] at 0.052 [s]
Min: -0.0 [kph] at -0.020 [s]

V2P4 Pelvic y Velocity



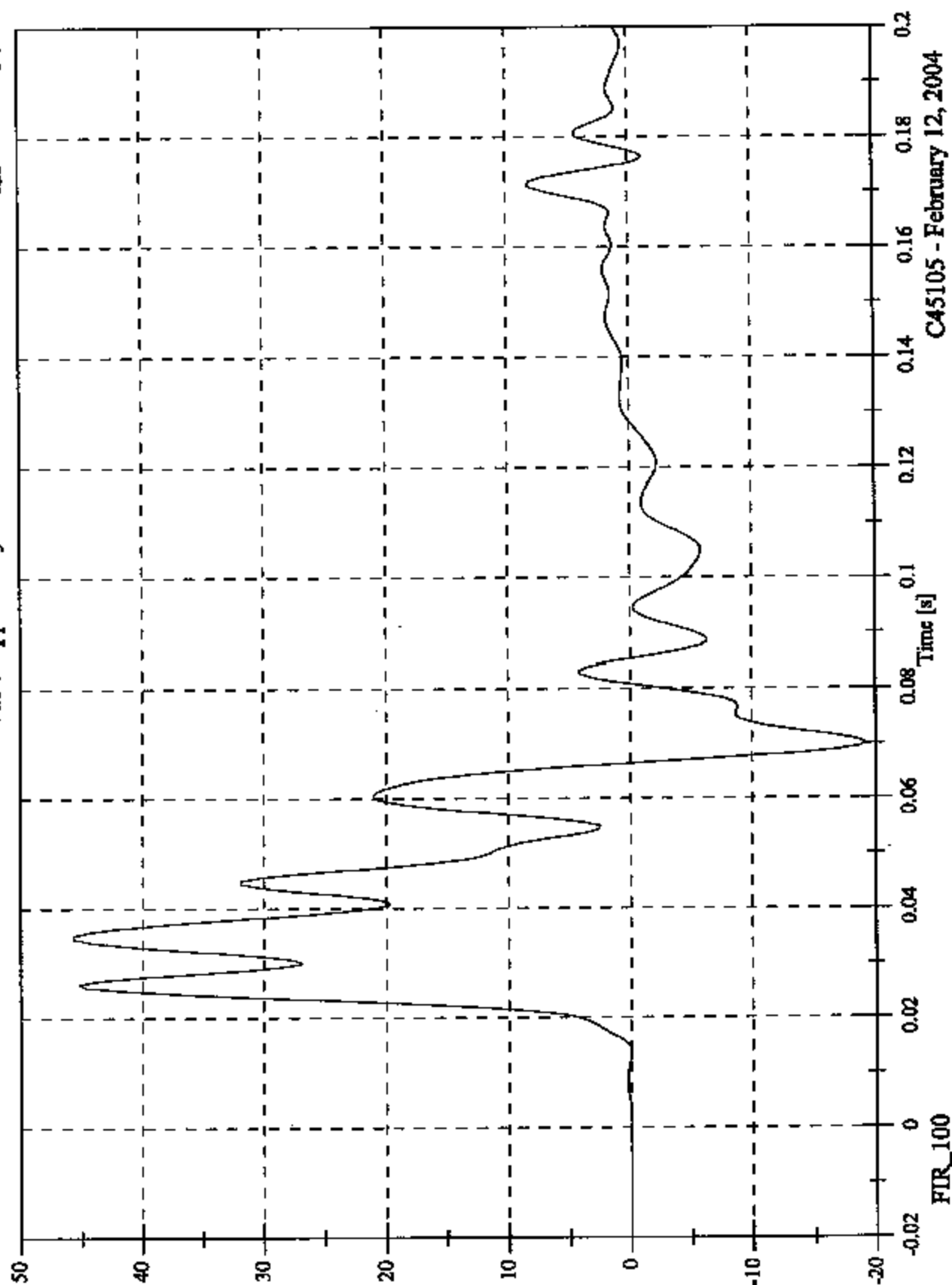
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 45.7 [g] at 0.035 [s]

Min: -19.2 [g] at 0.070 [s]

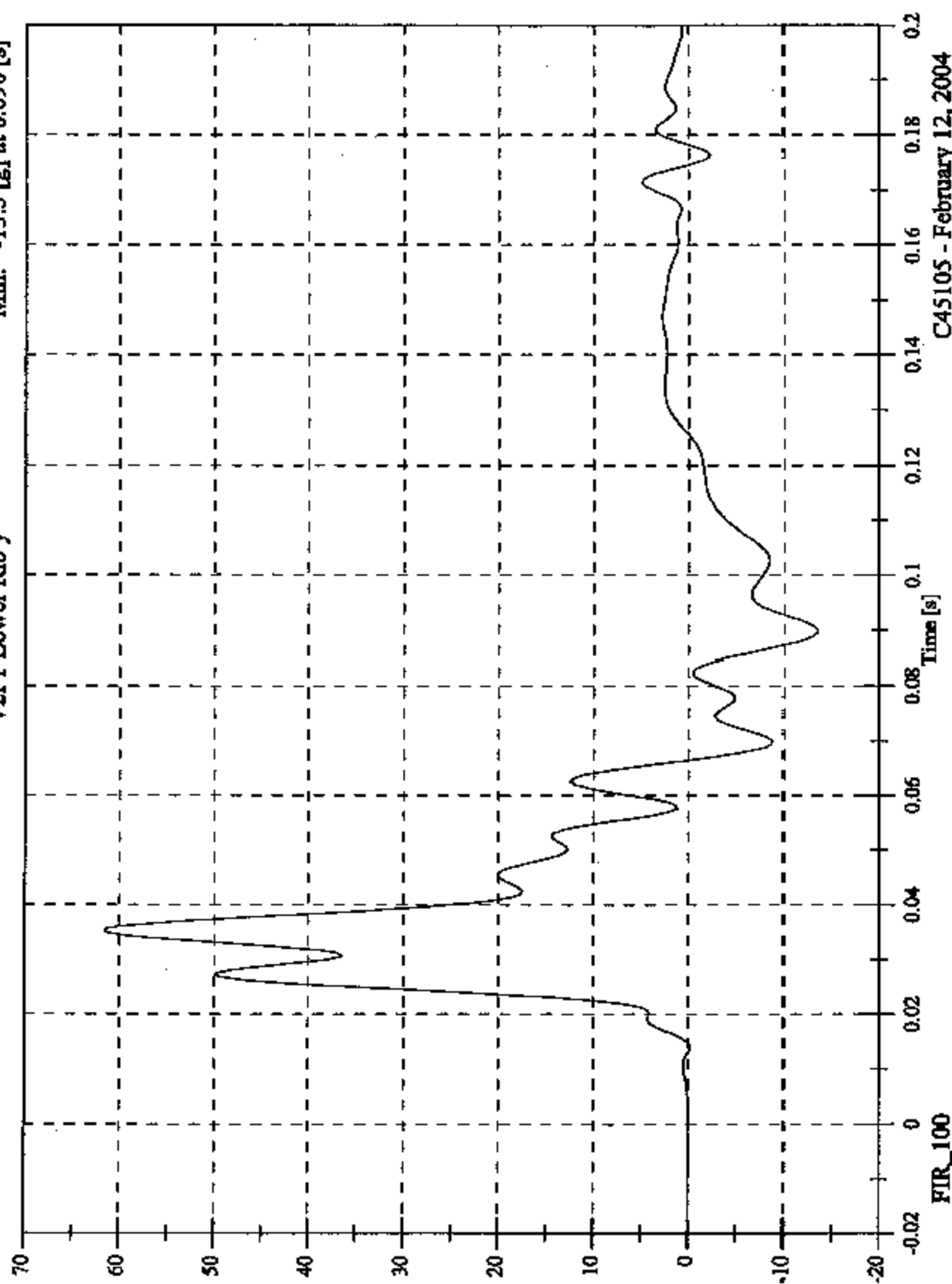
V2PI Upper Rib y



FMVSS 214D Indicant - 2004 Toyota Camry

V2P1 Lower Rib y

Max: 61.5 [g] at 0.035 [s]
Min: -13.5 [g] at 0.090 [s]

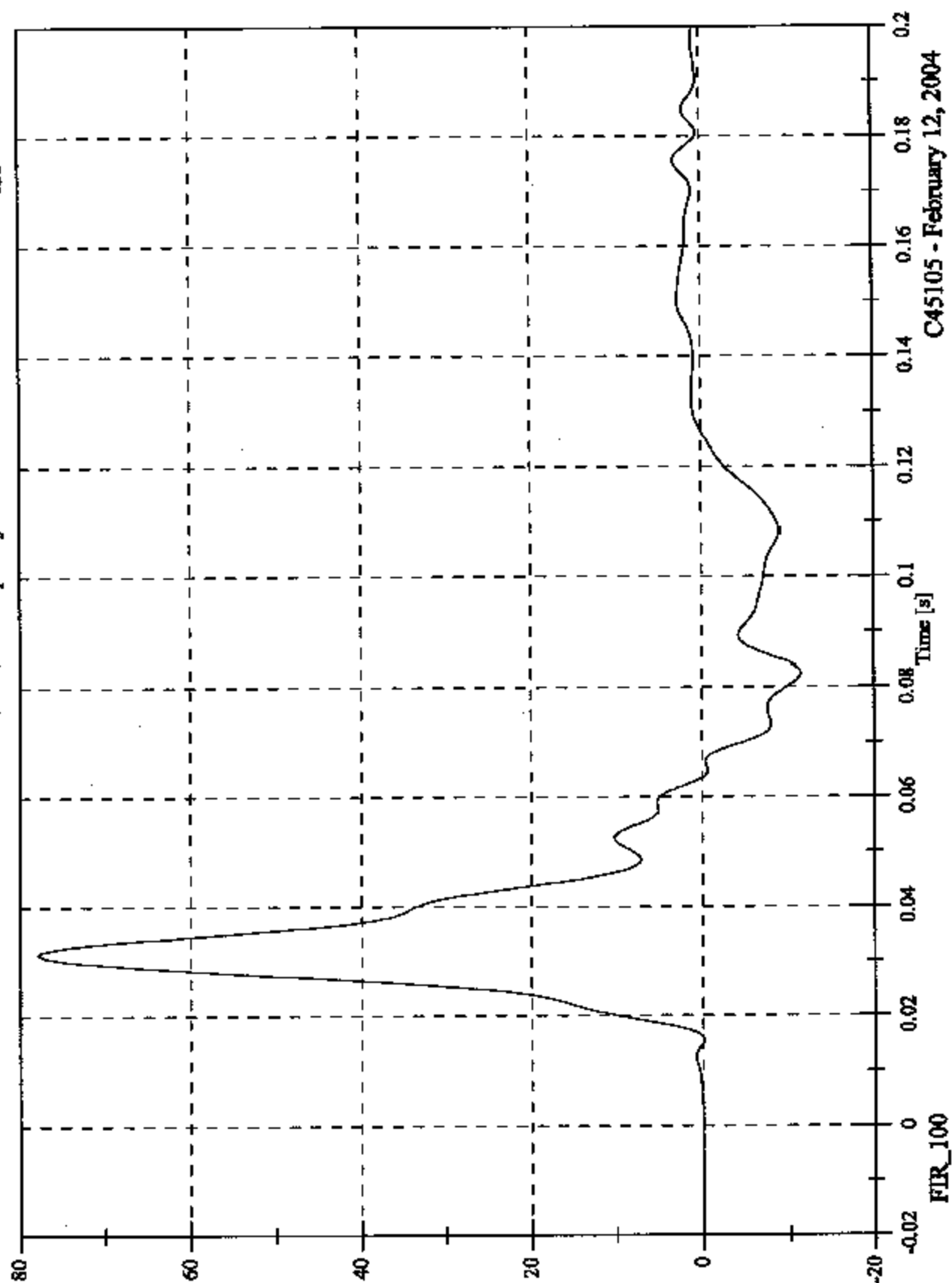


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

Max: 77.9 [g] at 0.031 [s]
Min: -11.5 [g] at 0.083 [s]

V2P1 Lower Spine y



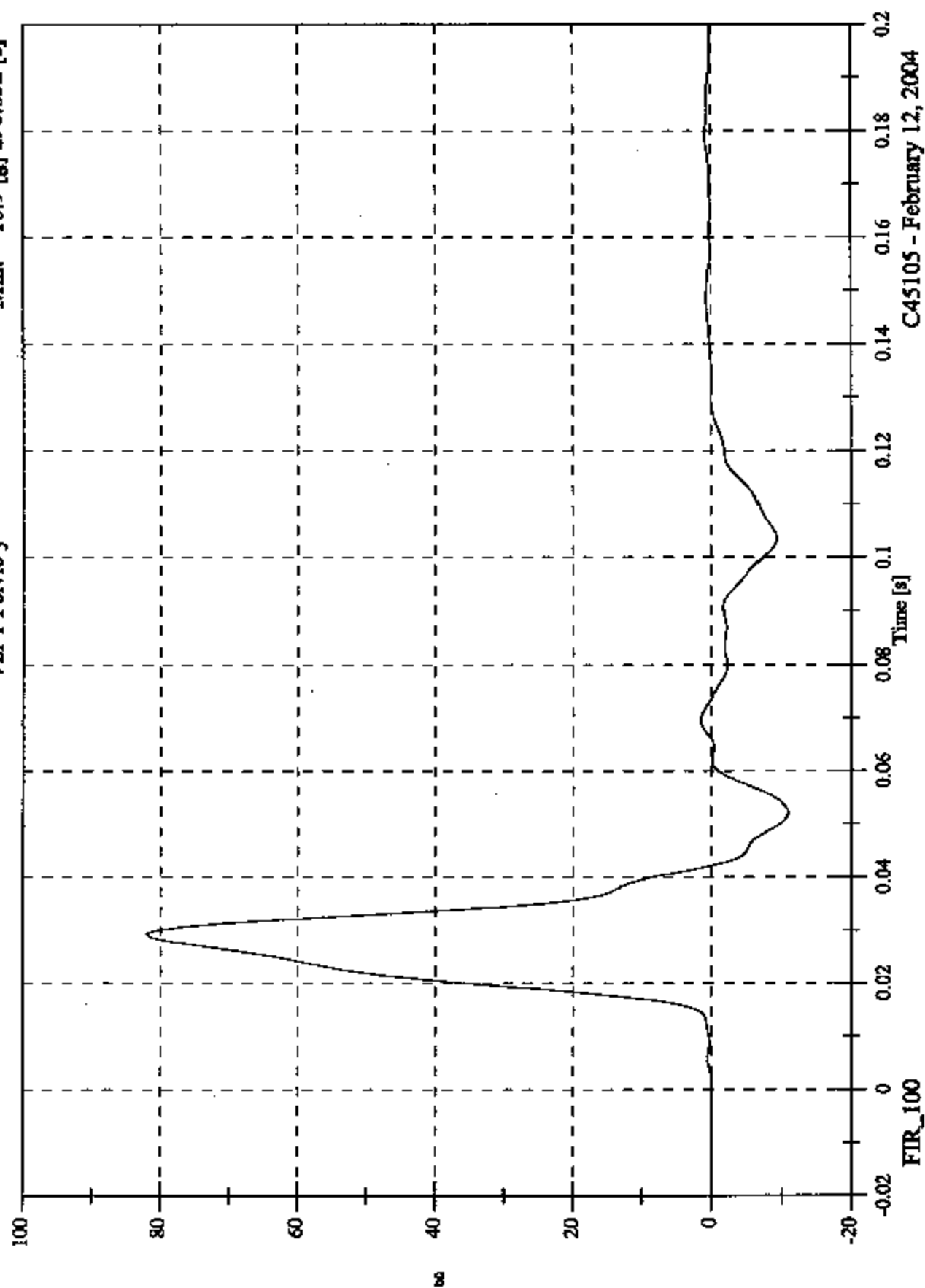
C45105 - February 12, 2004

FIR_100

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 82.0 [g] at 0.029 [s]
Min: -10.9 [g] at 0.052 [s]

V2P1 Pelvic y

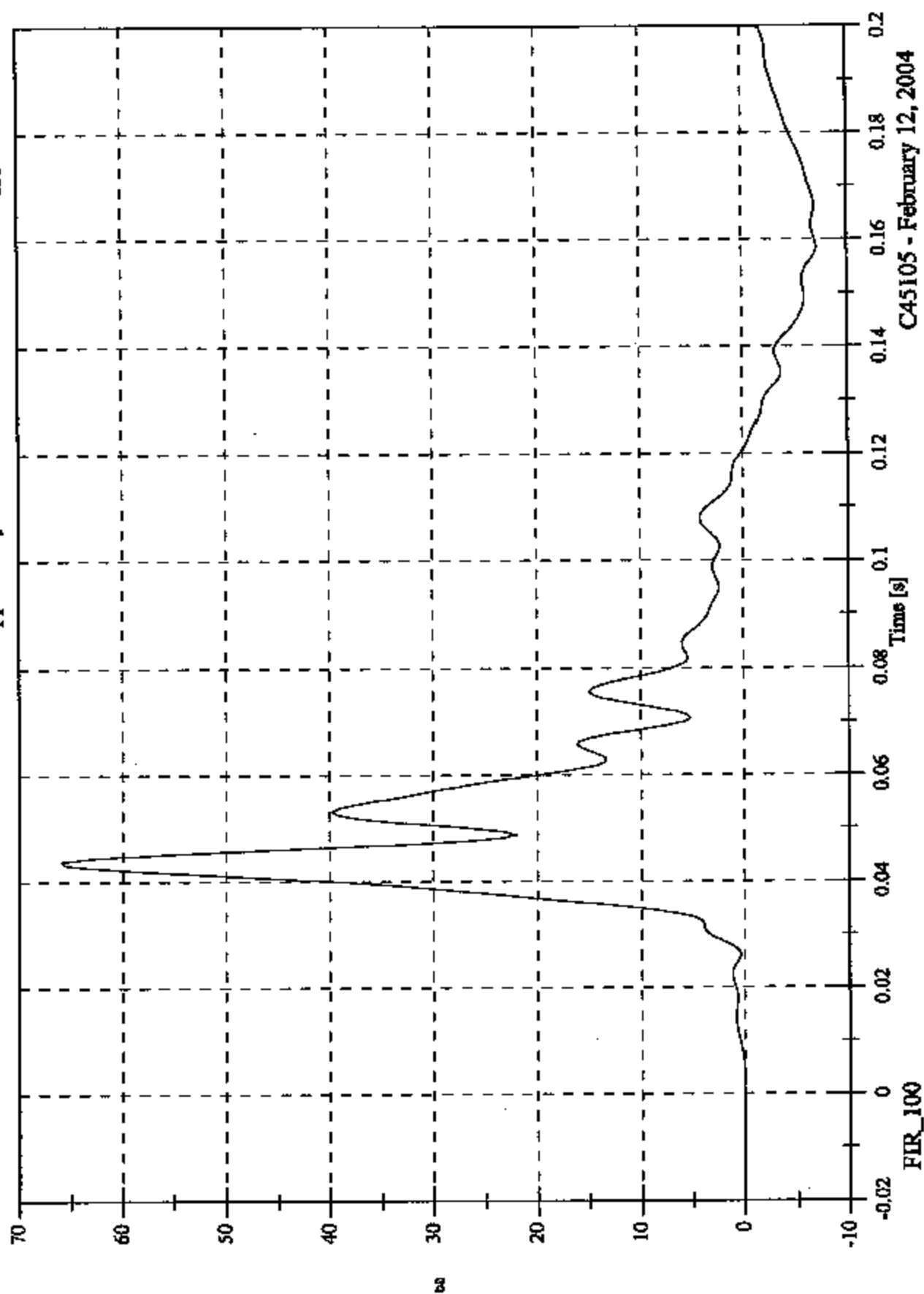


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P4 Upper Rib y

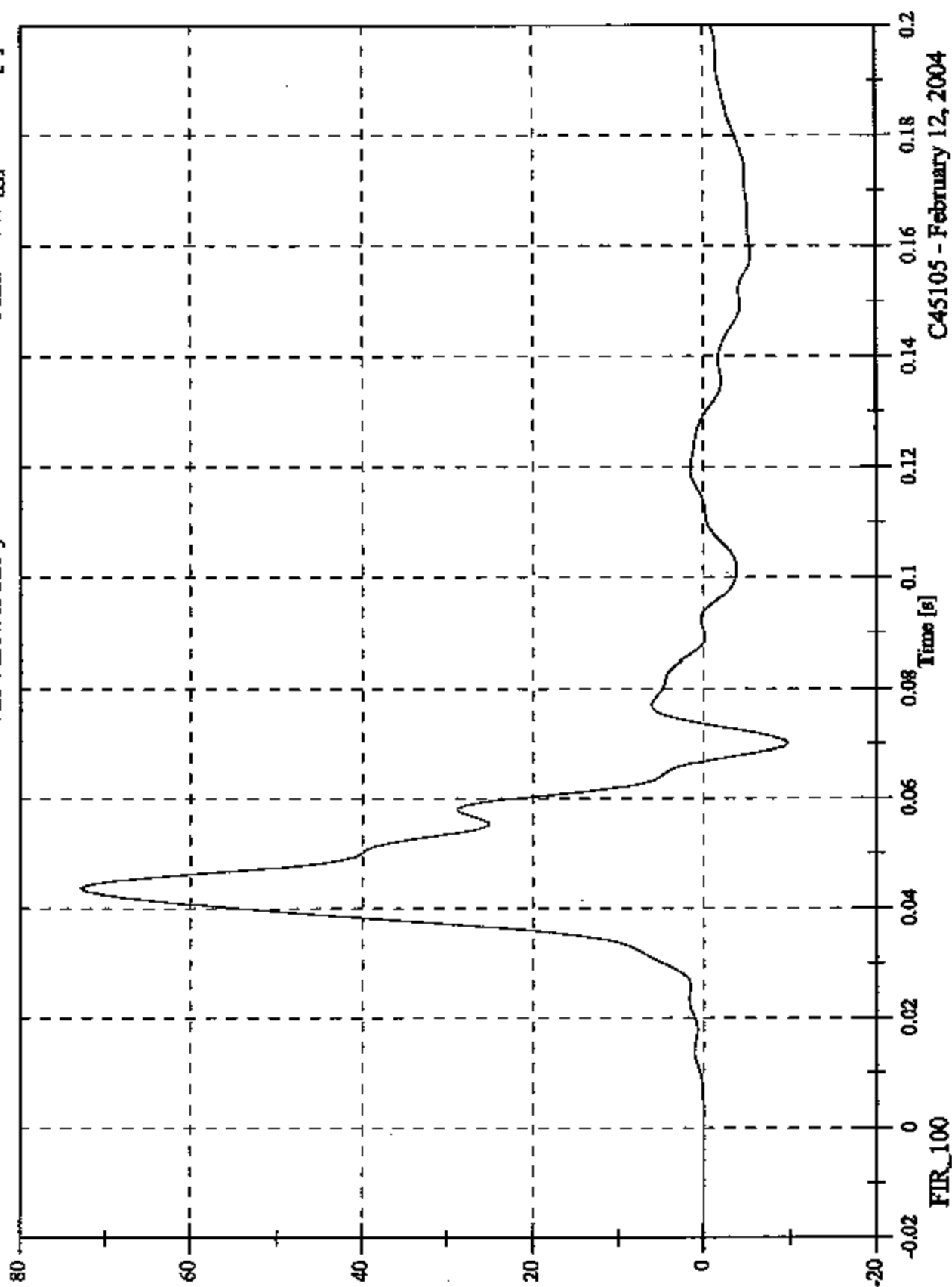
Max: 65.9 [g] at 0.044 [s]
Min: -7.0 [g] at 0.159 [s]



FMVSS 214D Inducant - 2004 Toyota Camry

V2P4 Lower Rib y

Max: 72.8 [g] at 0.044 [s]
Min: -9.7 [g] at 0.070 [s]

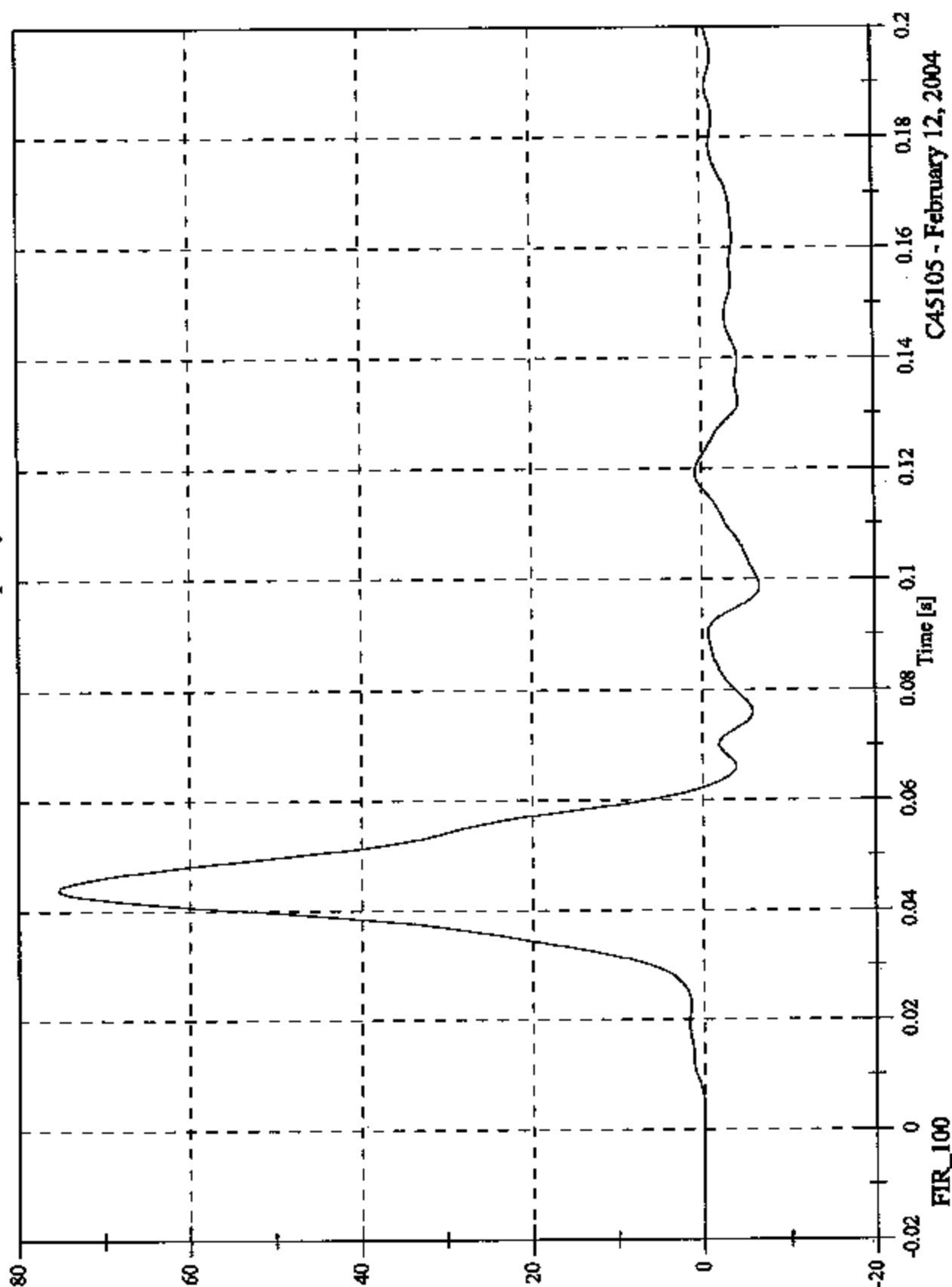


FMVSS 214D Indicant - 2004 Toyota Camry

Max: 75.4 [g] at 0.044 [s]

Min: -6.7 [g] at 0.099 [s]

V2P4 Lower Spine y



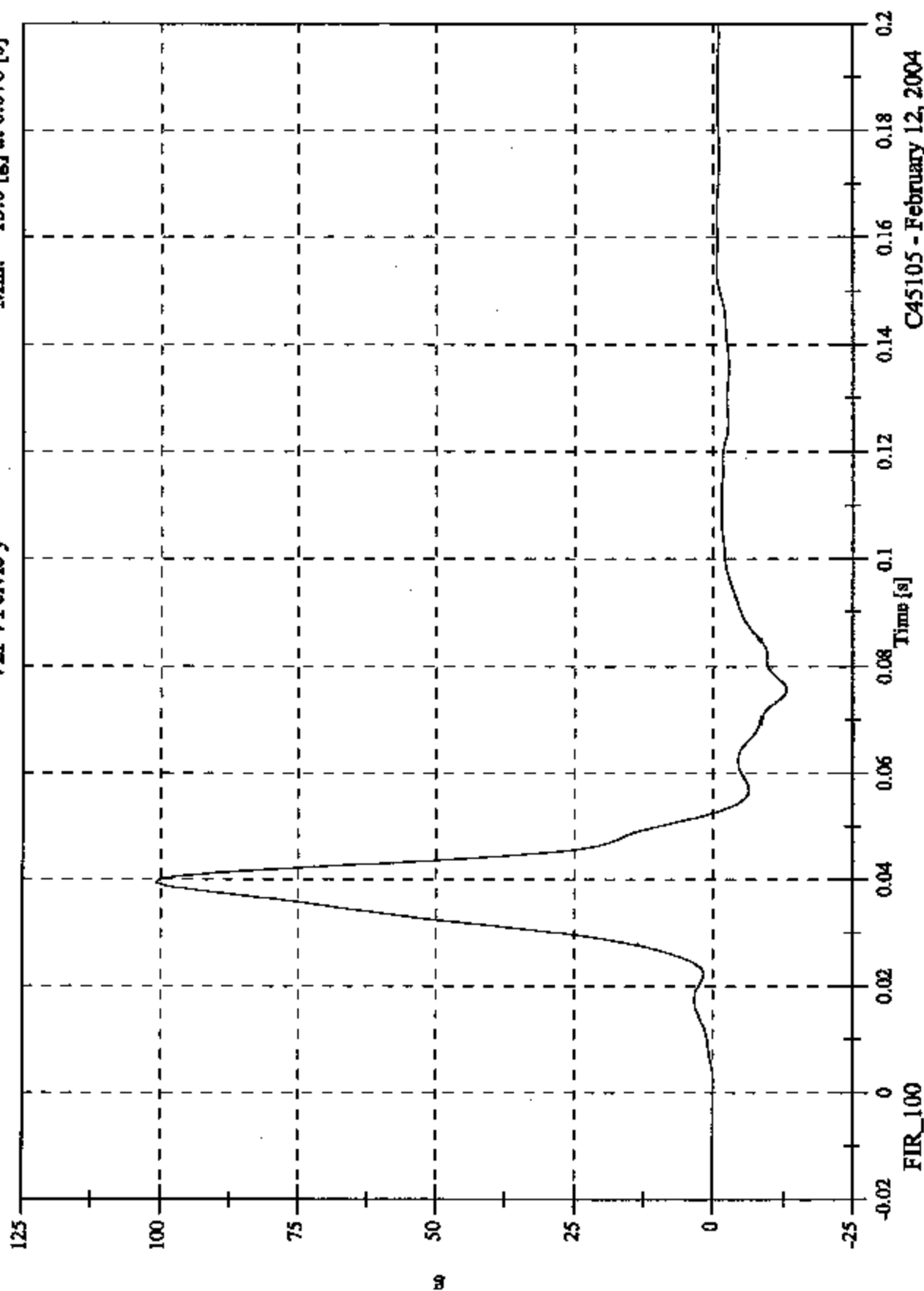
C45105 - February 12, 2004

FIR_100

FMVSS 214D Indicant - 2004 Toyota Camry

V2P4 Pelvic y

Max: 100.8 [g] at 0.039 [s]
Min: -13.0 [g] at 0.076 [s]

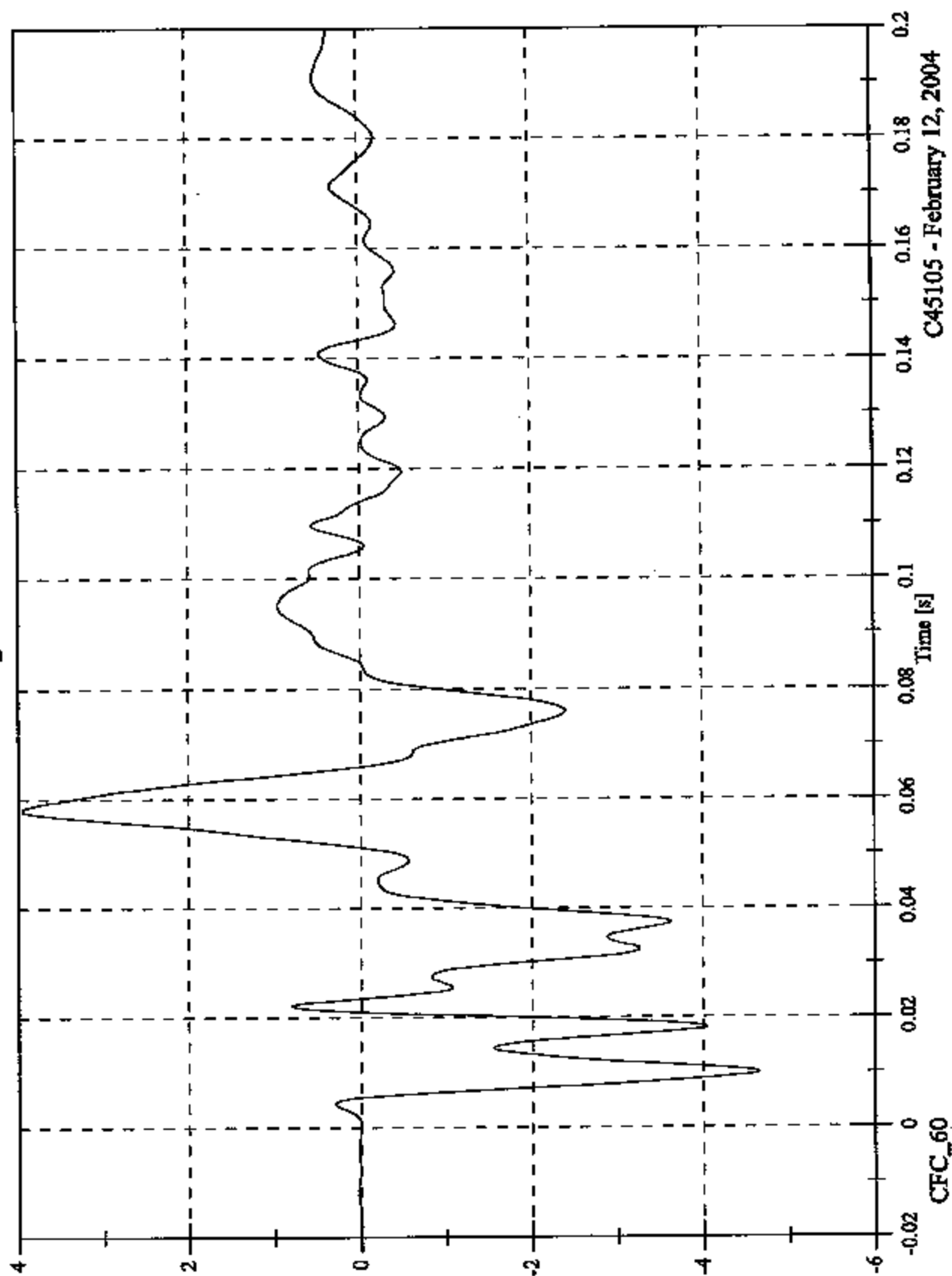


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

Max: 4.0 [g] at 0.058 [s]
Min: -4.7 [g] at 0.010 [s]

V2 A1 Right Front Sill x

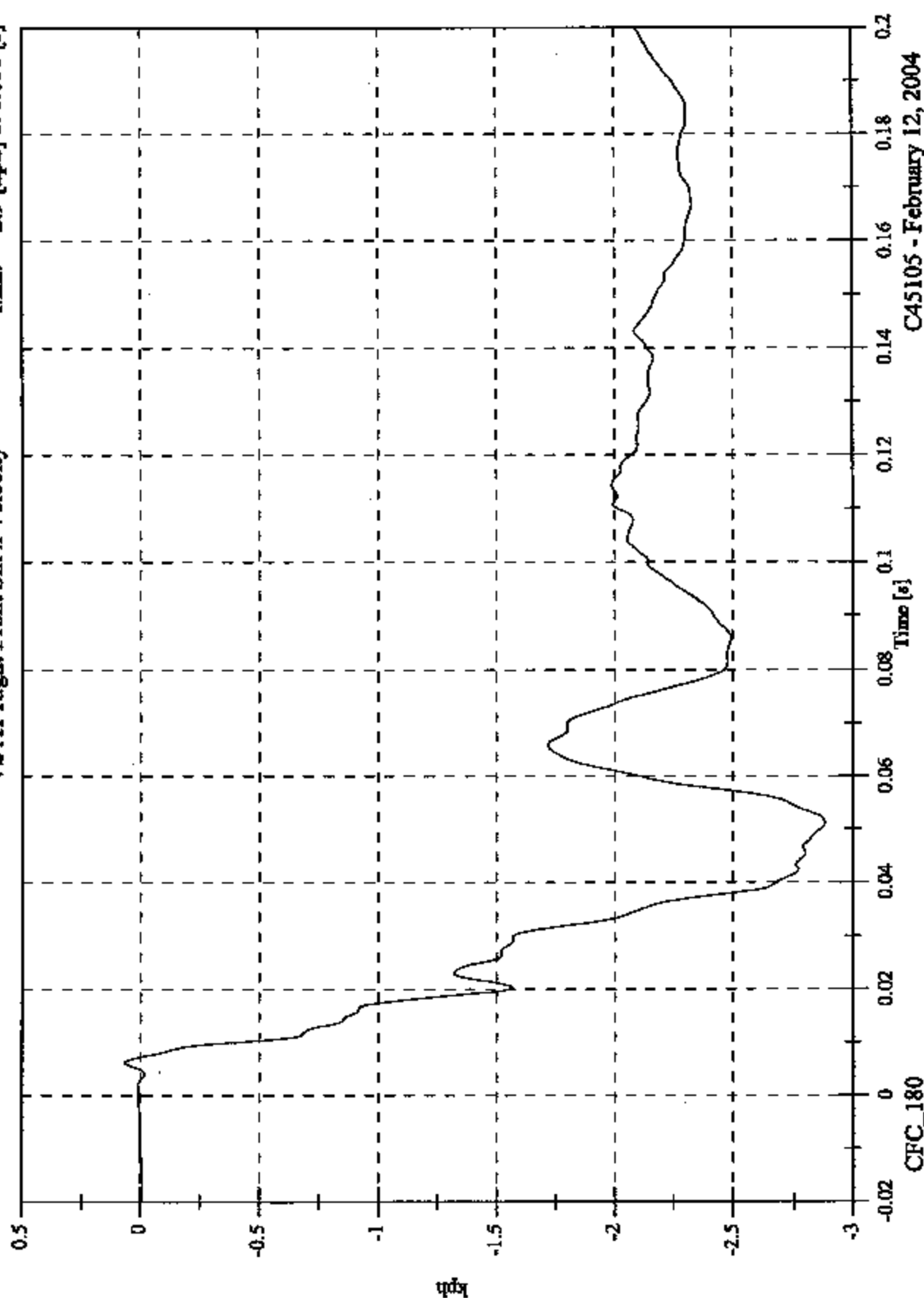


FMVSS 214D Indicant - 2004 Toyota Camry

Max: 0.1 [kph] at 0.006 [s]

V2 A1 Right Front Sill x Velocity

Min: -2.9 [kph] at 0.051 [s]



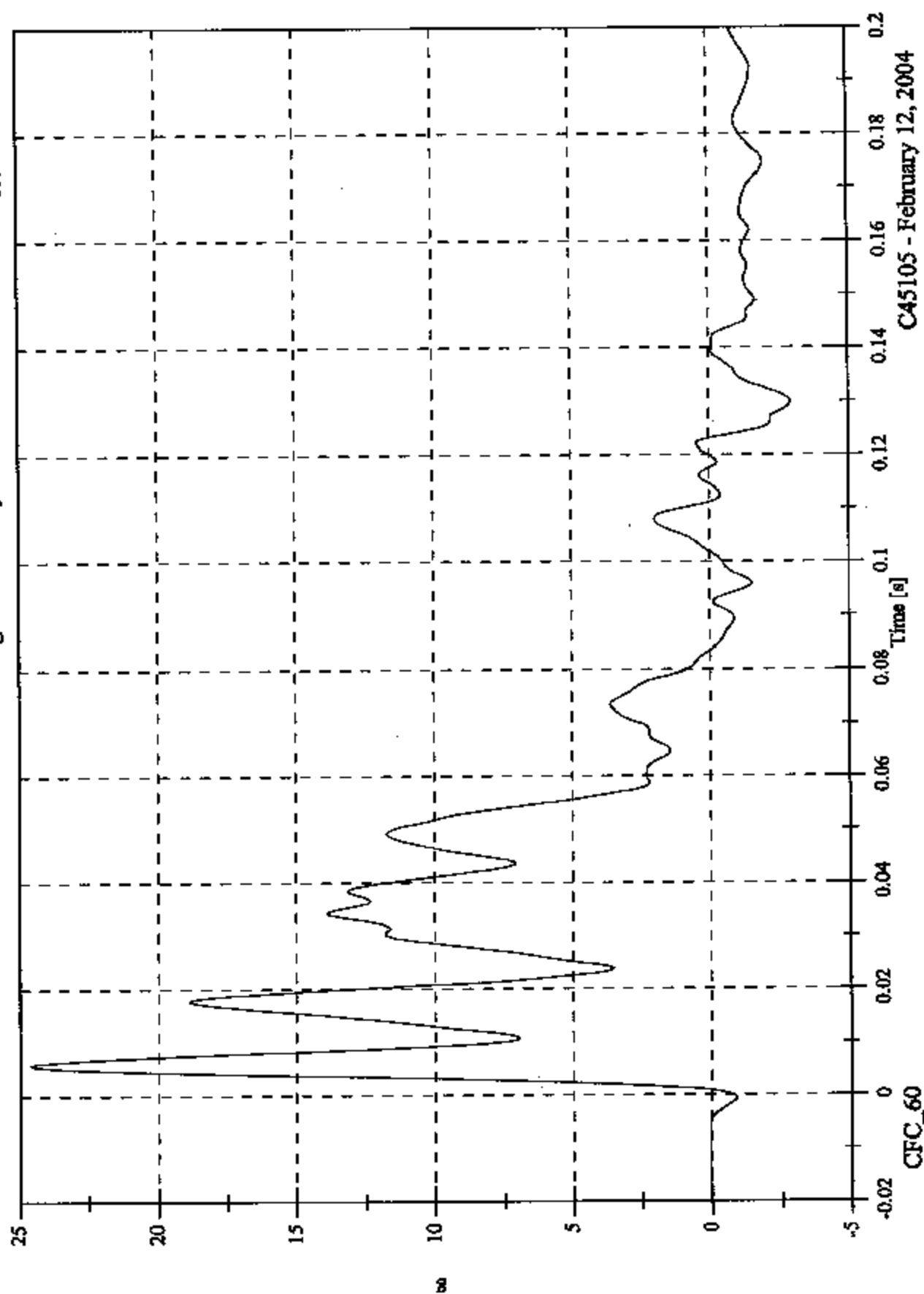
CFC_180

C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2 A1 Right Front Sill y

Max: 24.6 [g] at 0.006 [s]
Min: -2.9 [g] at 0.130 [s]



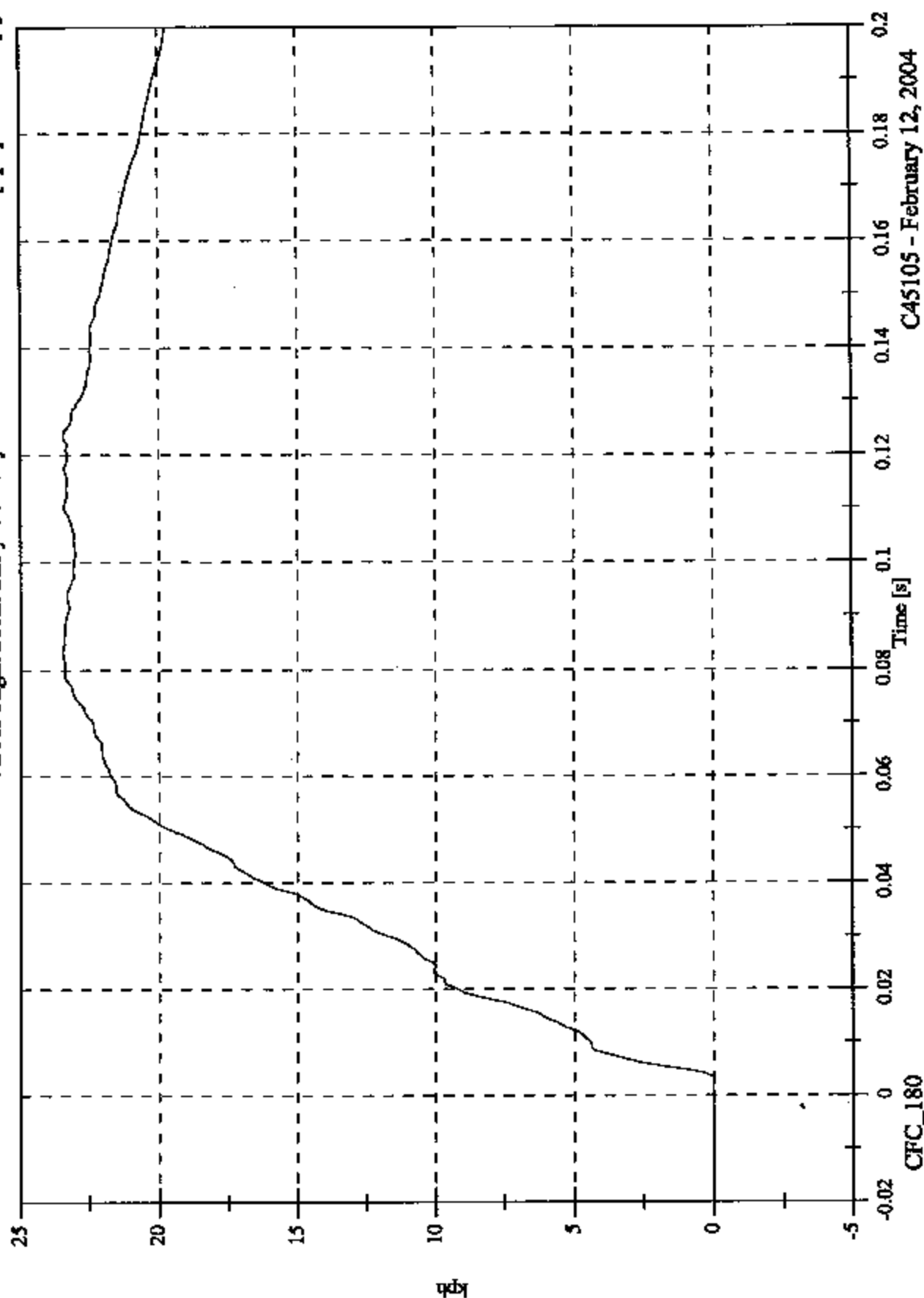
C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

V2 A1 Right Front Sill y Velocity

Max: 23.5 [kph] at 0.084 [s]

Min: -0.0 [kph] at -0.020 [s]



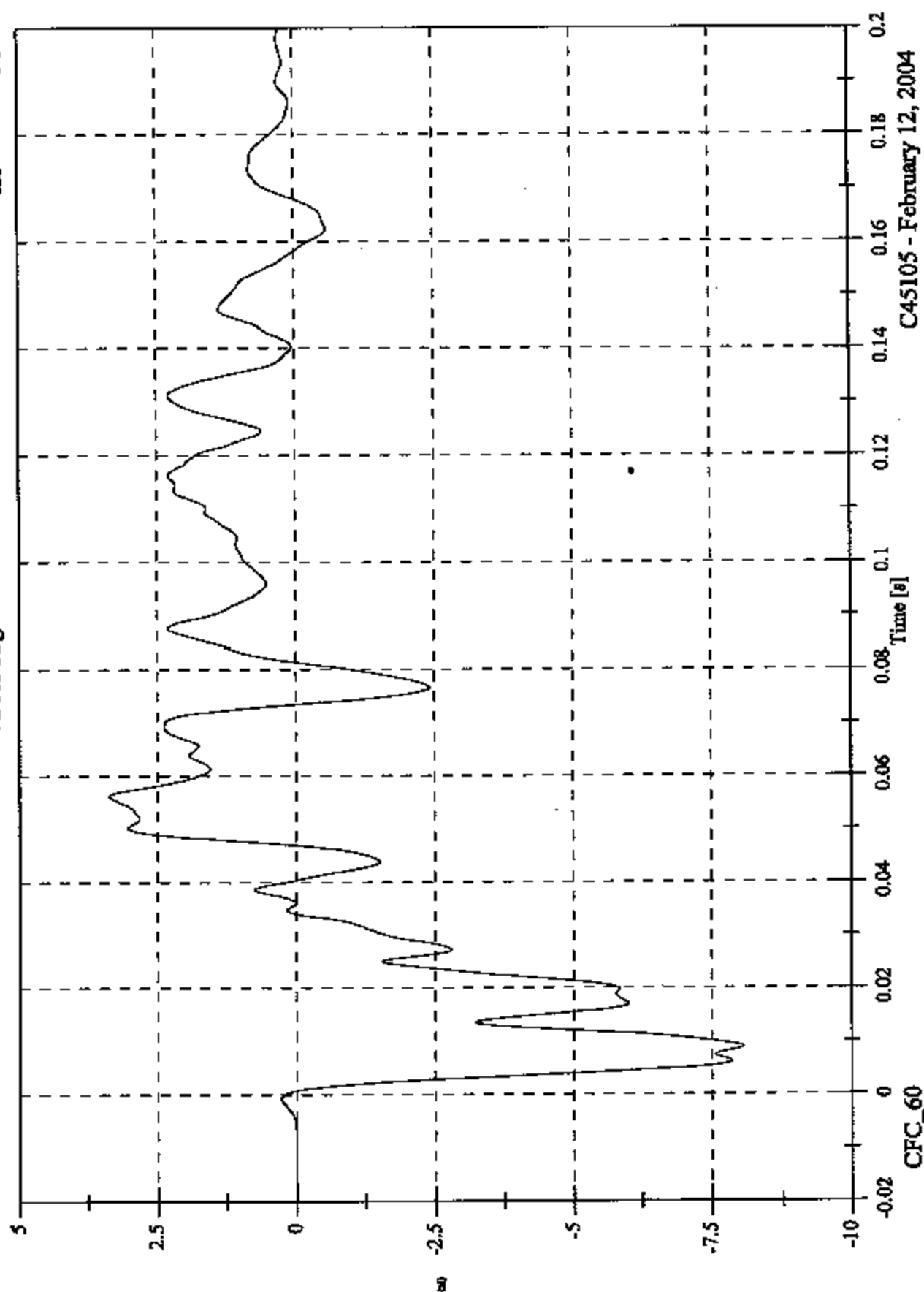
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 3.4 [g] at 0.056 [s]

Min: -8.1 [g] at 0.009 [s]

V2 A1 Right Front Sill z



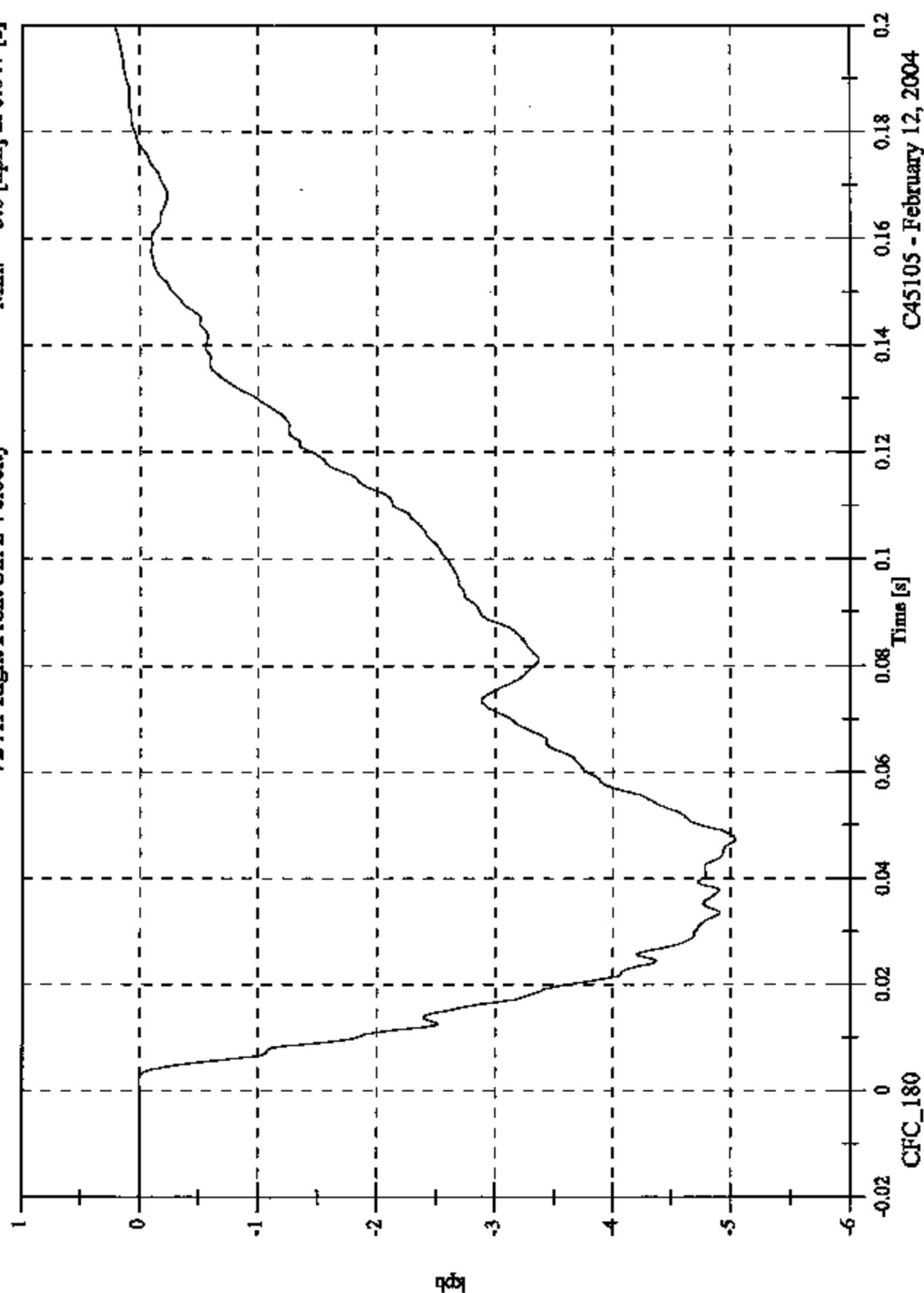
CFC_60

C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2 A1 Right Front Sill z Velocity

Max: 0.2 [kph] at 0.200 [s]
Min: -5.0 [kph] at 0.047 [s]



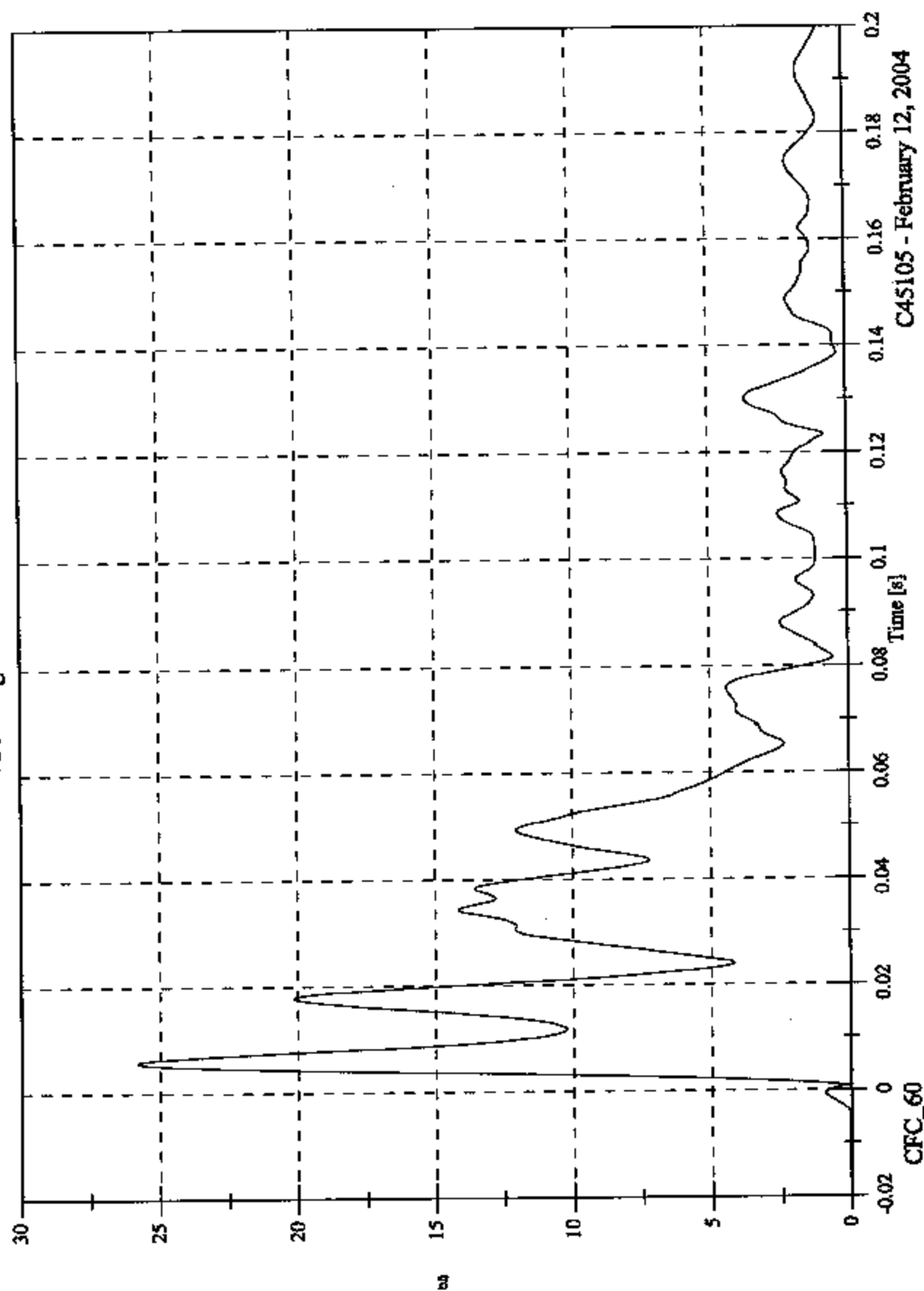
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 25.8 [g] at 0.006 [s]

Min: 0.0 [g] at -0.020 [s]

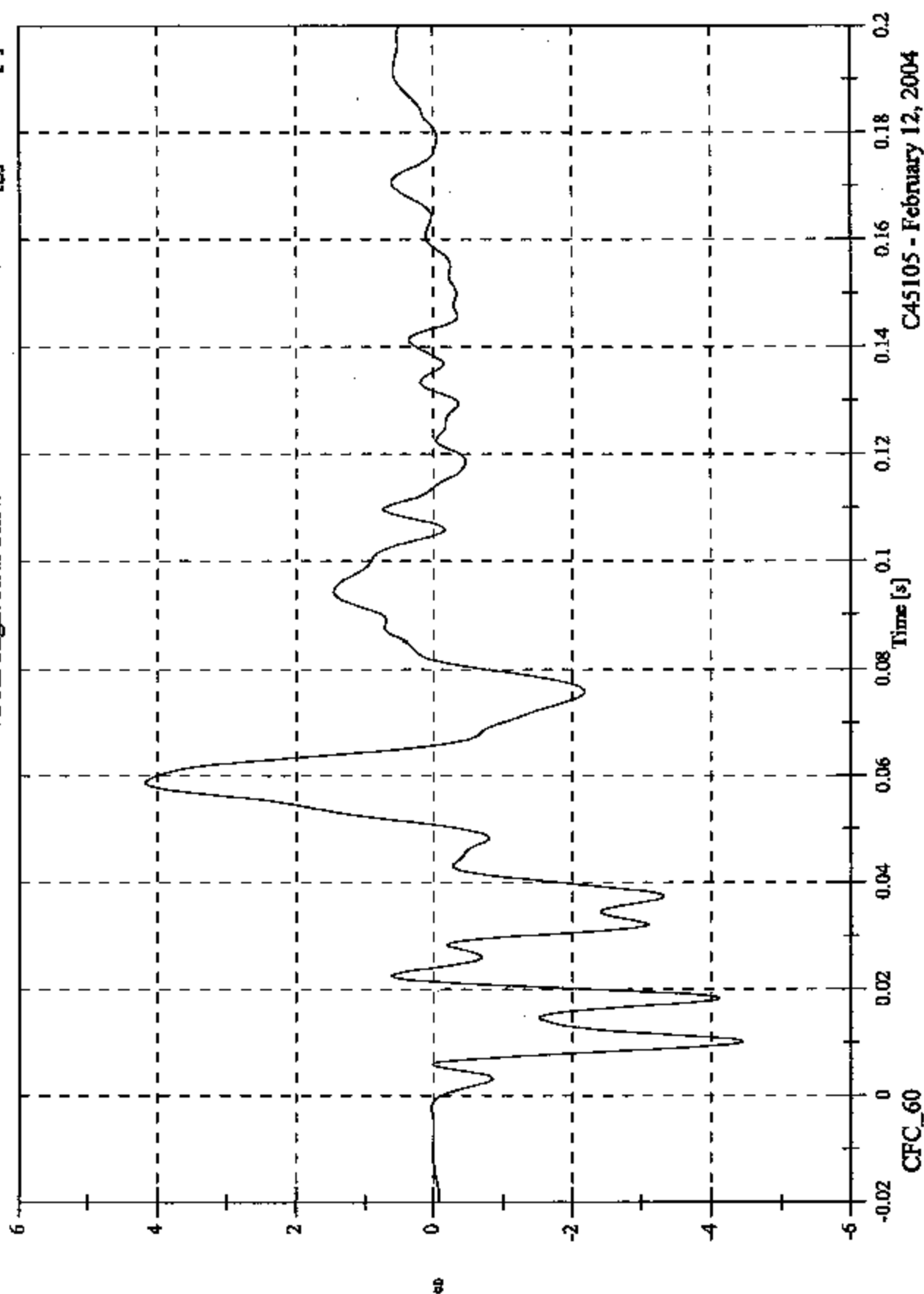
V2 A1 Right Front Sill Resultant



FMVSS 214D Indicant - 2004 Toyota Camry

V2 A2 Right Rear Sill x

Max: 4.2 [g] at 0.059 [s]
Min: -4.5 [g] at 0.010 [s]

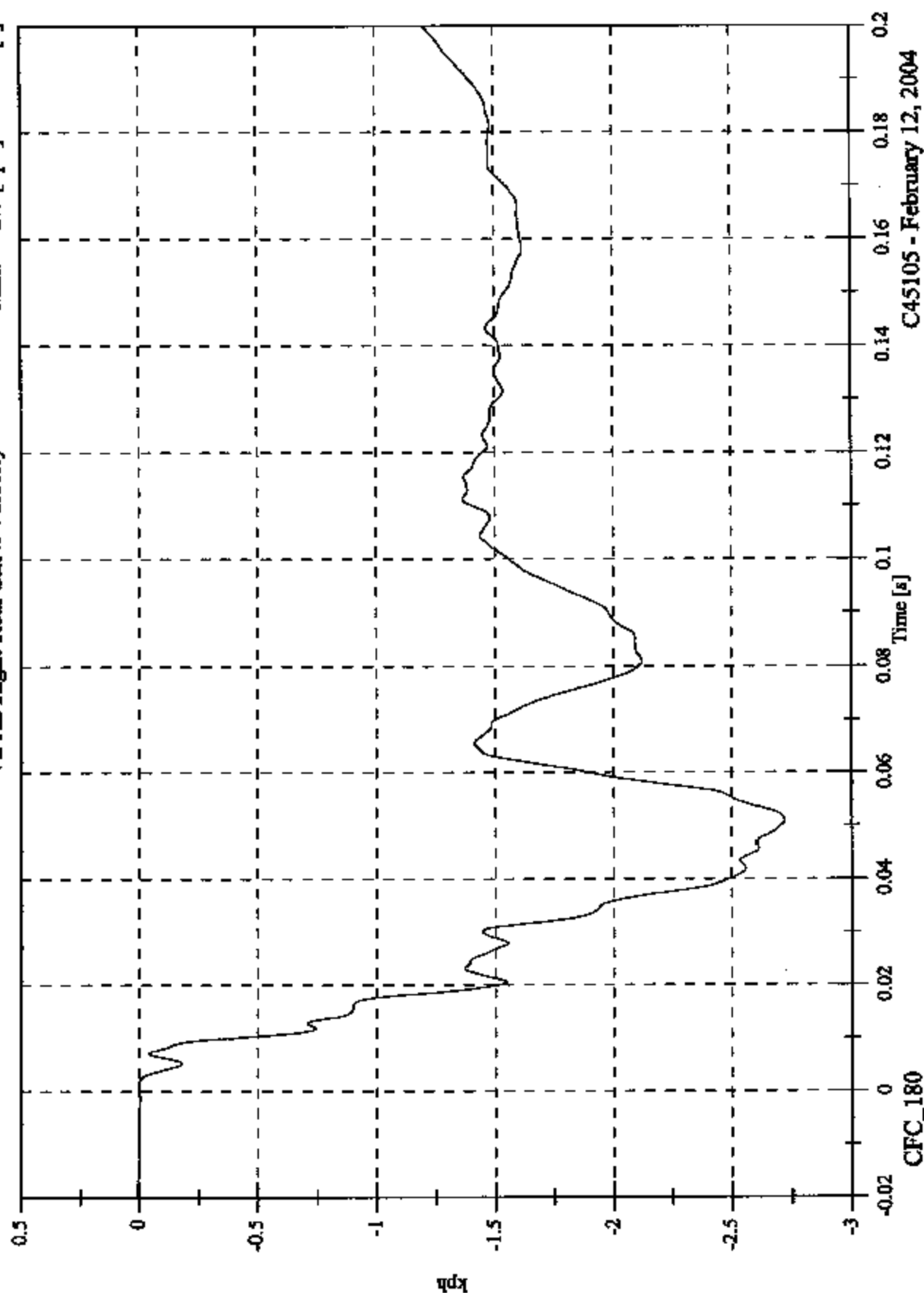


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2 A2 Right Rear Sill x Velocity

Max: 0.0 [kph] at -0.020 [s]
Min: -2.7 [kph] at 0.051 [s]

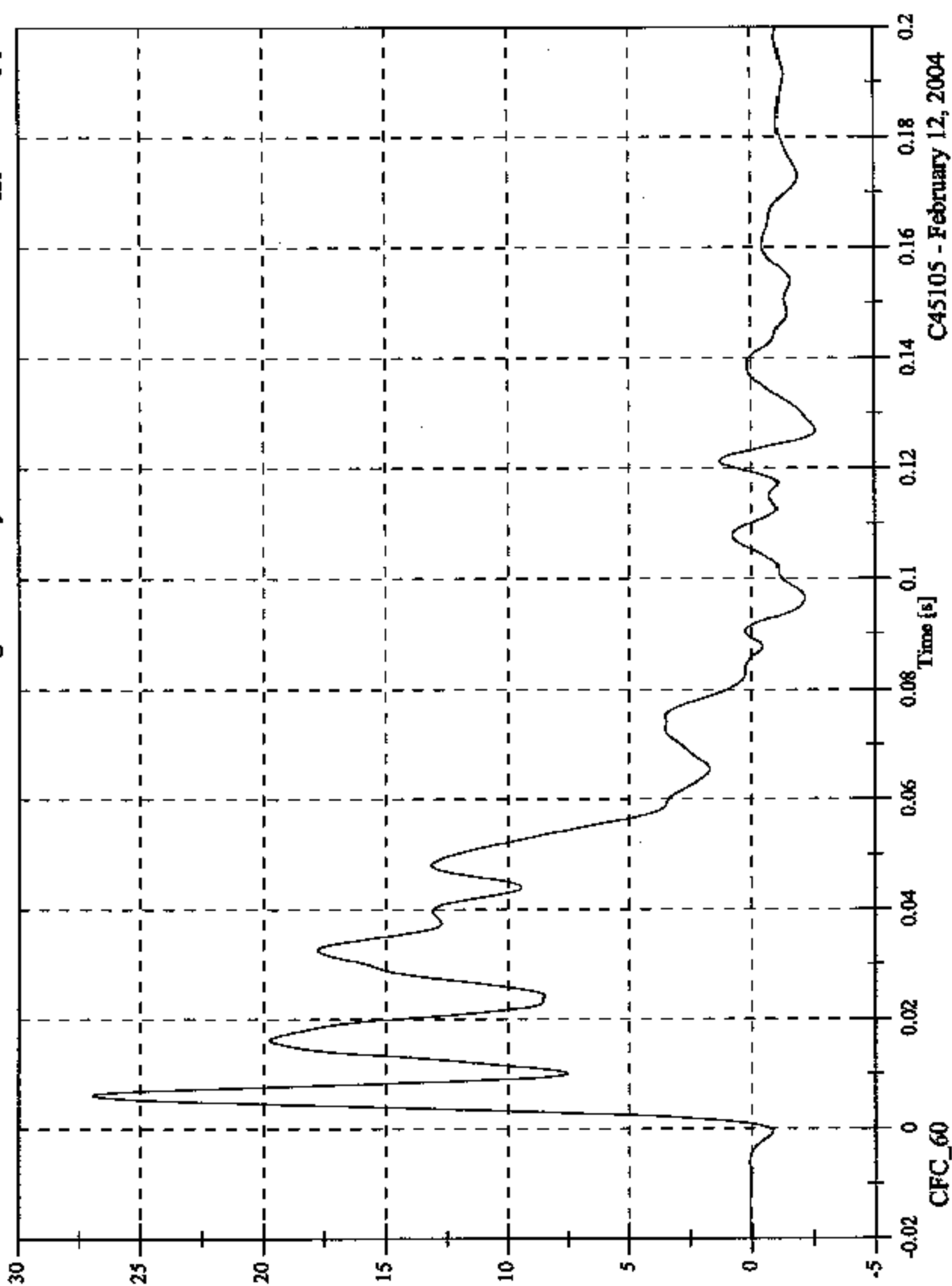


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

V2 A2 Right Rear Sill y

Max: 27.0 [g] at 0.006 [s]
Min: -2.6 [g] at 0.127 [s]



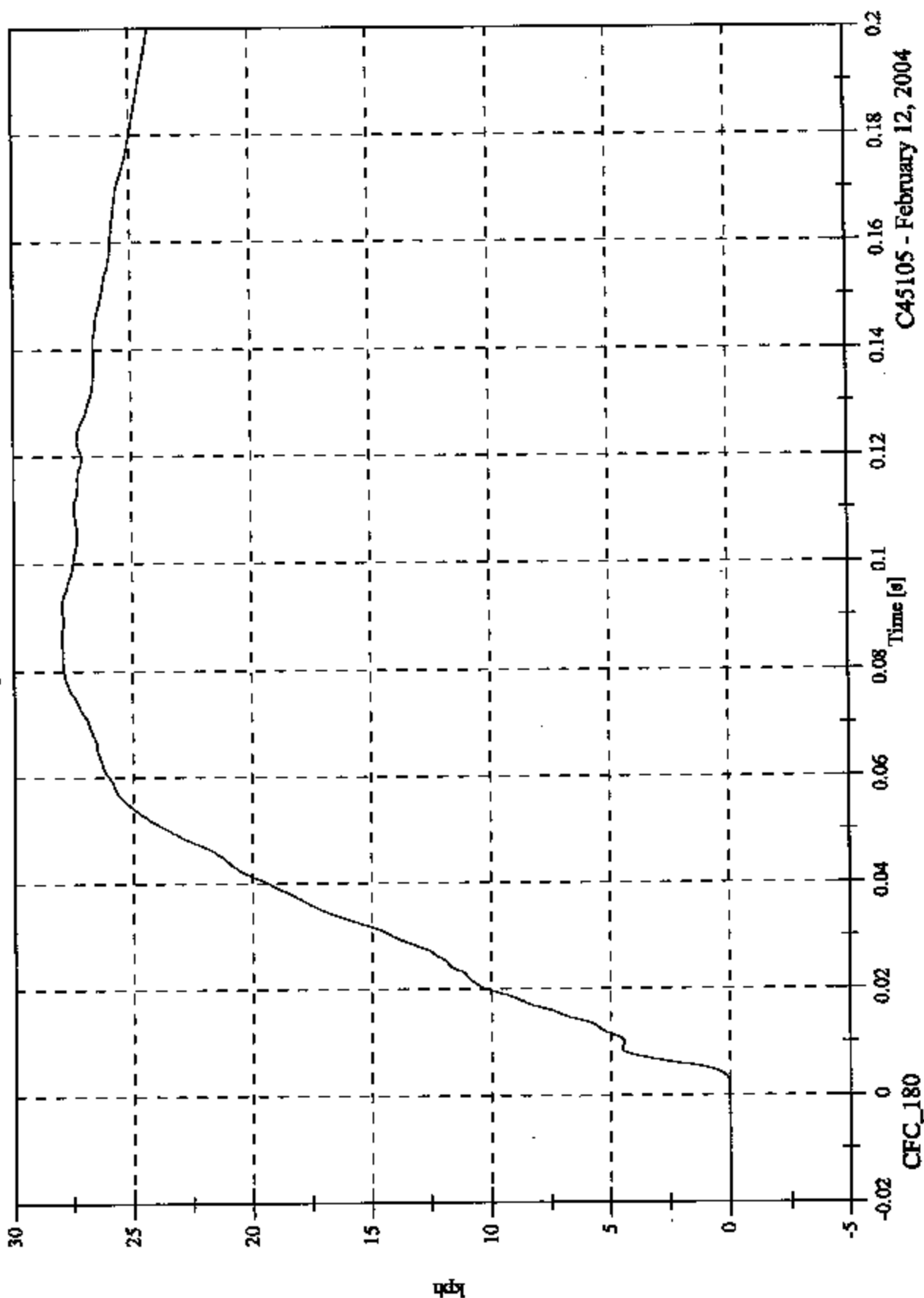
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 28.0 [kph] at 0.086 [s]

V2 A2 Right Rear Sill y Velocity

Min: -0.0 [kph] at -0.020 [s]

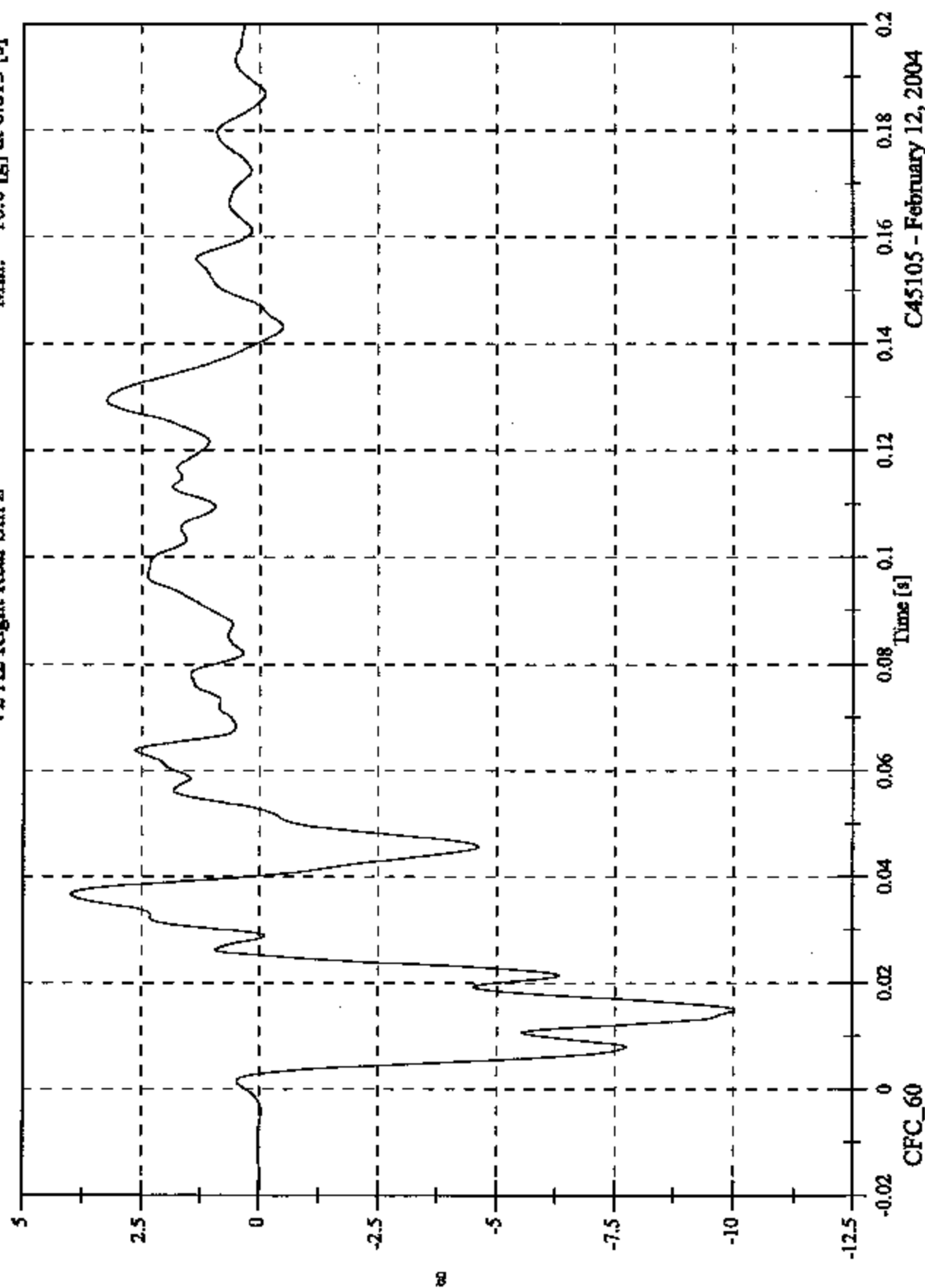


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2 A2 Right Rear Sill z

Max: 4.0 [g] at 0.037 [s]
Min: -10.0 [g] at 0.015 [s]

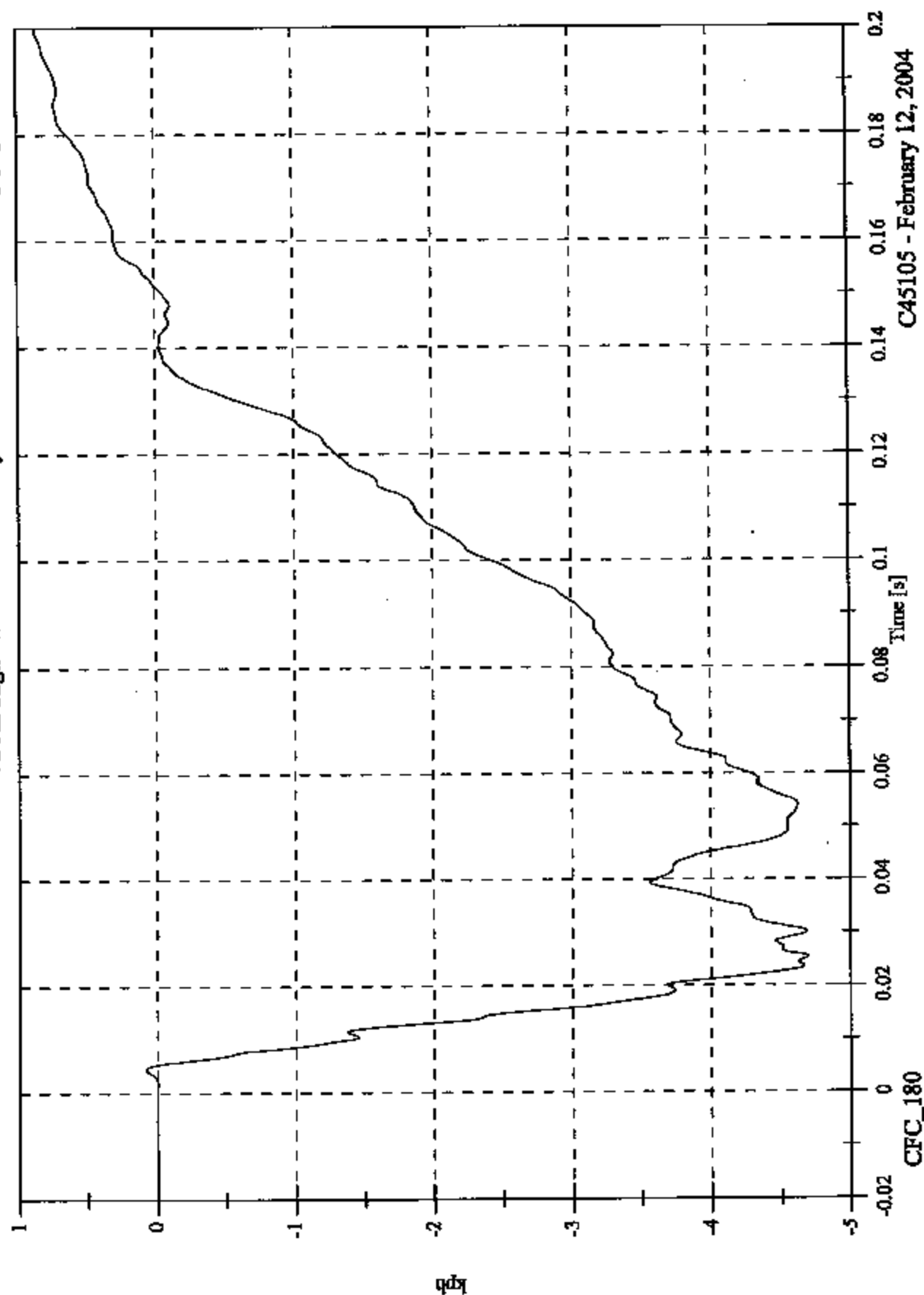


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2 A2 Right Rear Sill z Velocity

Max: 0.9 [kph] at 0.200 [s]
Min: -4.7 [kph] at 0.025 [s]



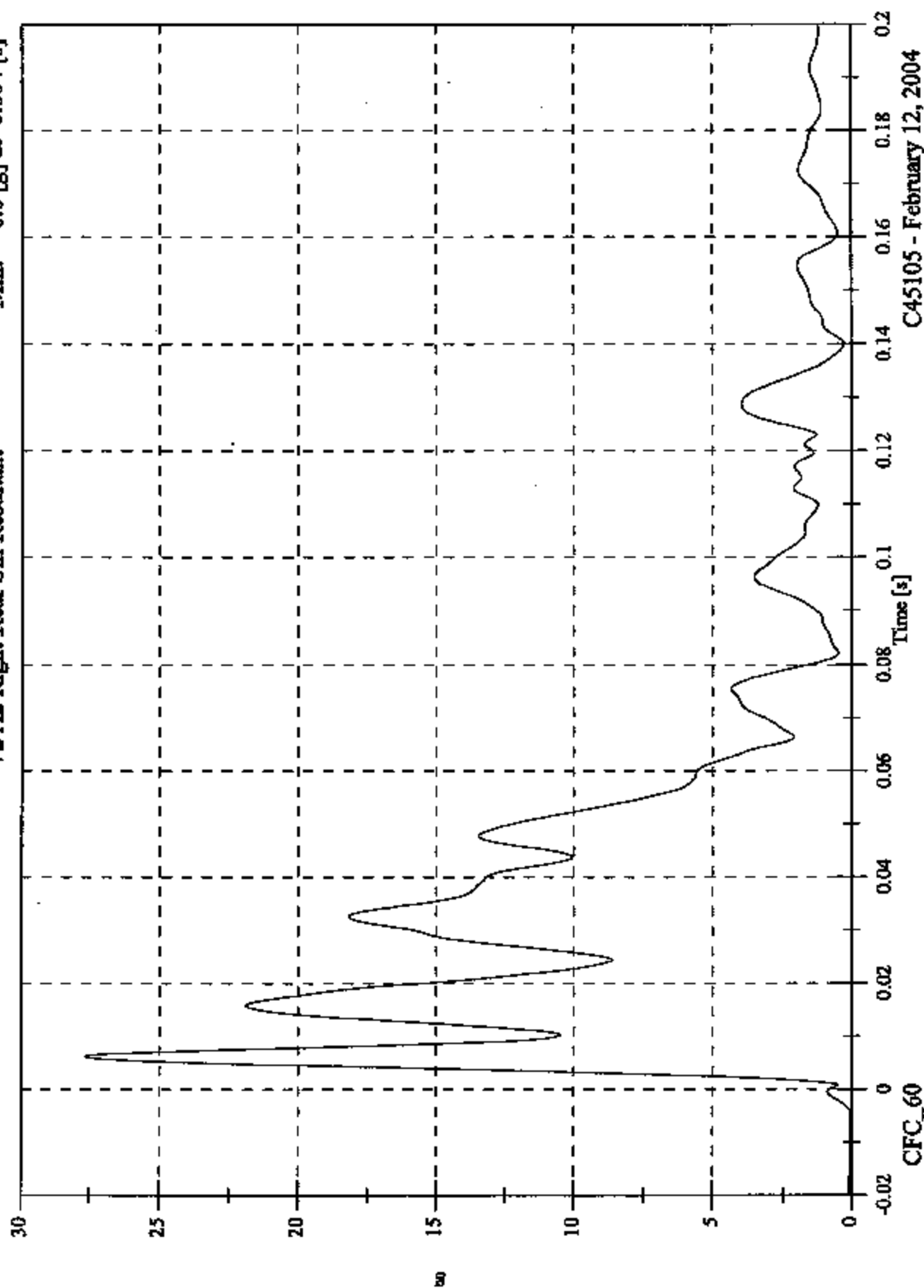
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 27.7 [g] at 0.006 [s]

Min: 0.0 [g] at -0.004 [s]

V2 A2 Right Rear Sill Resultant

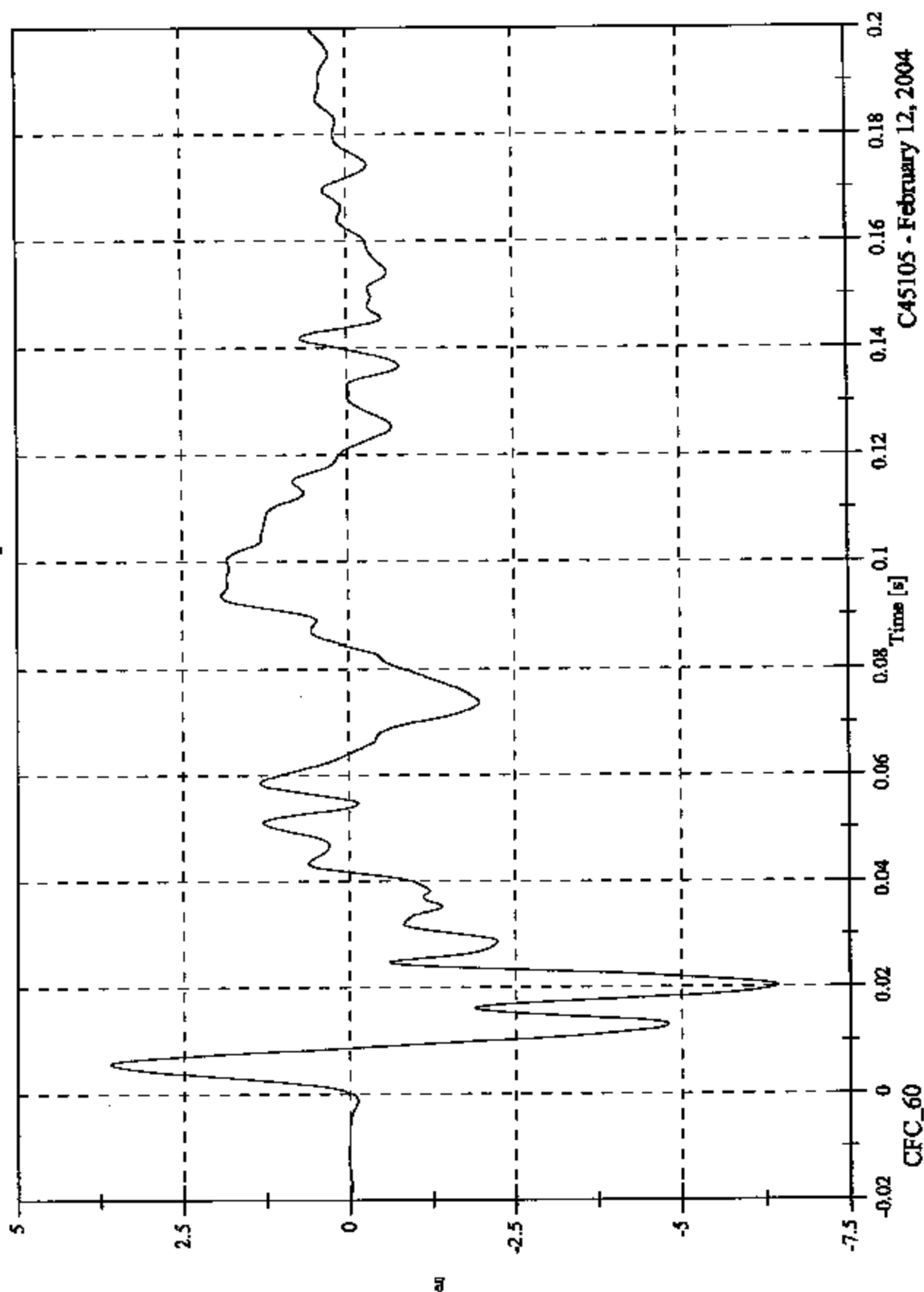


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 3.6 [g] at 0.006 [s]
Min: -6.4 [g] at 0.020 [s]

V2 A3 Rear Floorpan x



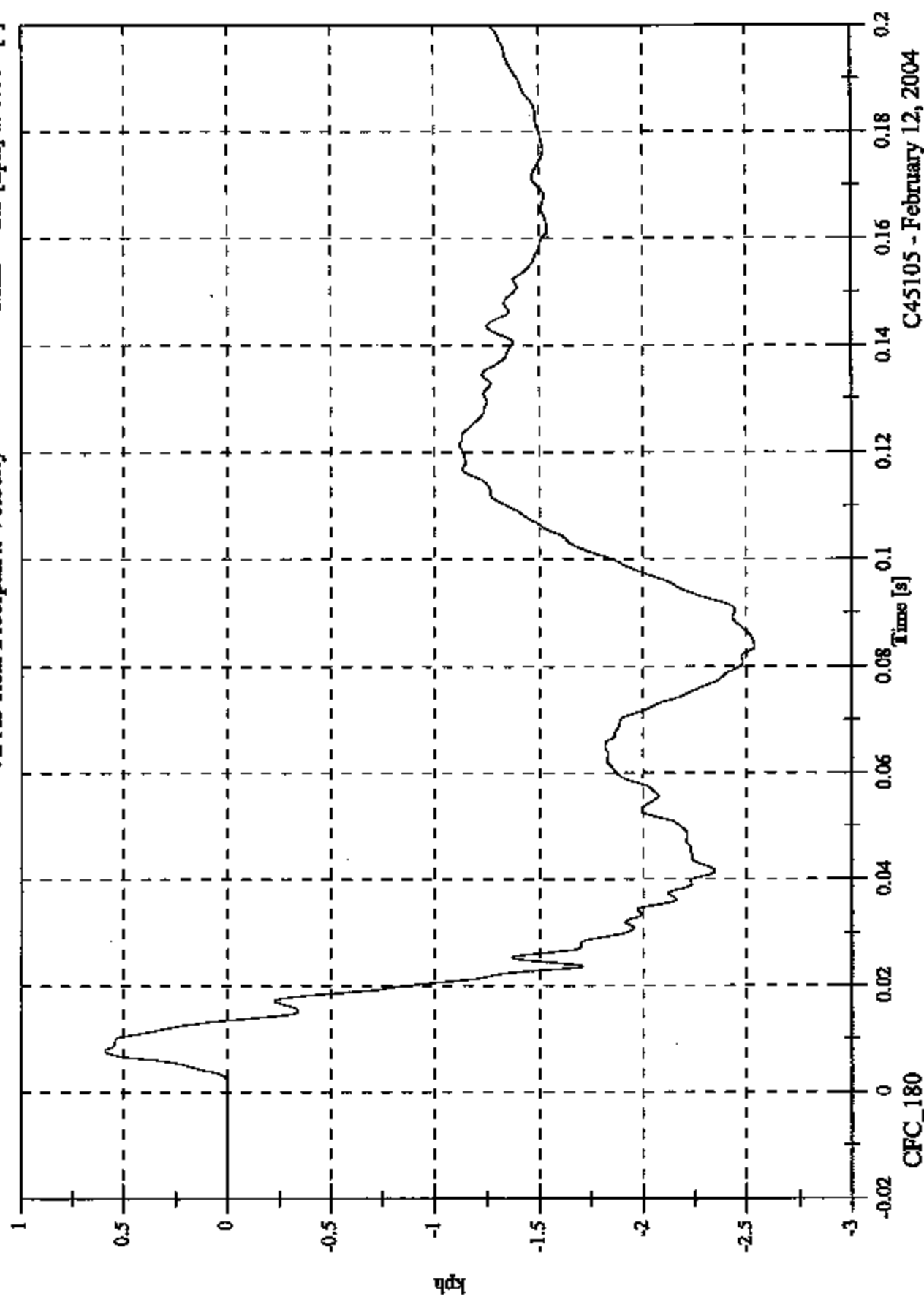
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 0.6 [kph] at 0.008 [s]

V2 A3 Rear Floorpan x Velocity

Min: -2.5 [kph] at 0.084 [s]

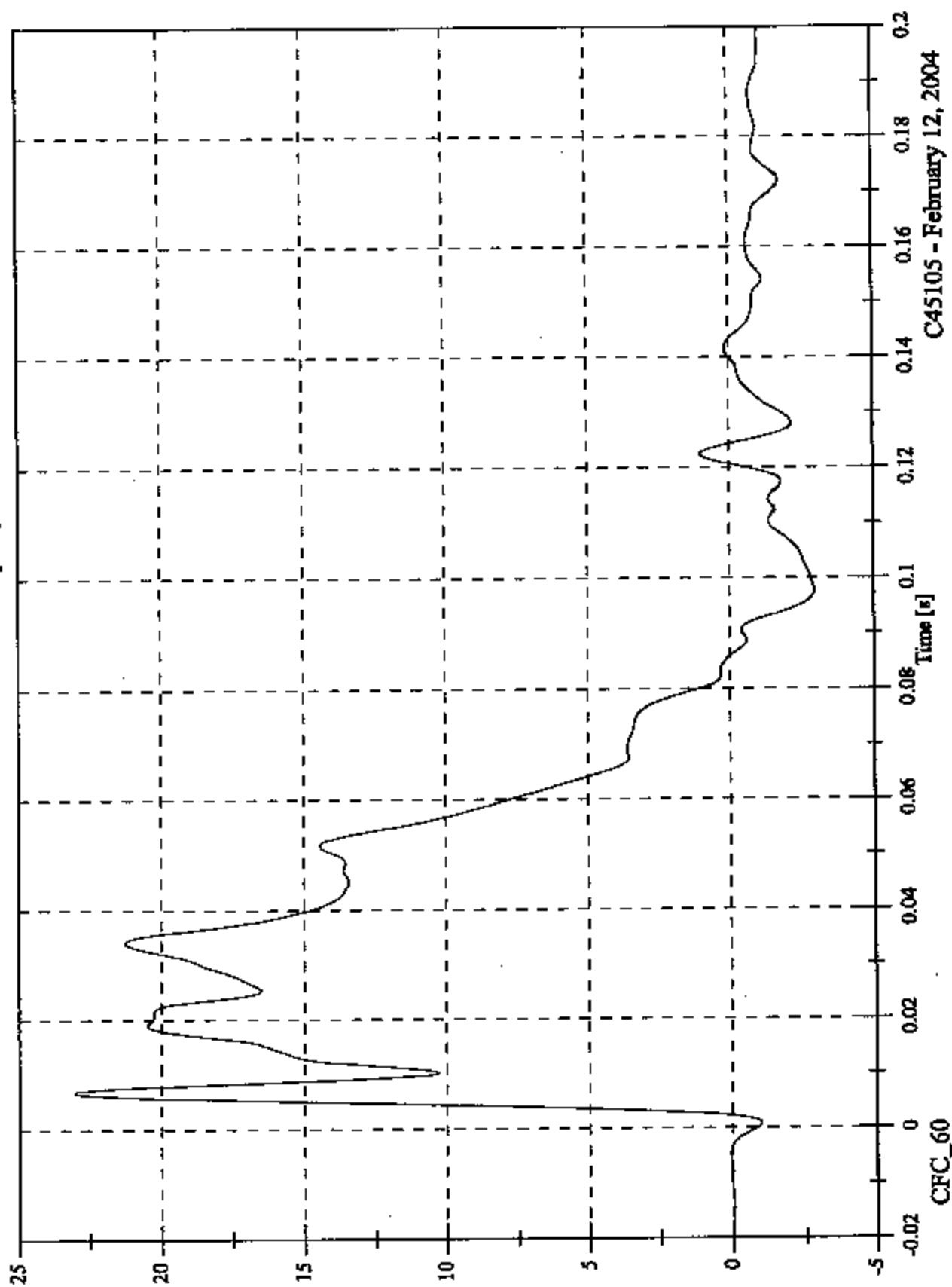


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2 A3 Rear Floorpan y

Max: 23.1 [g] at 0.007 [s]
Min: -2.9 [g] at 0.098 [s]

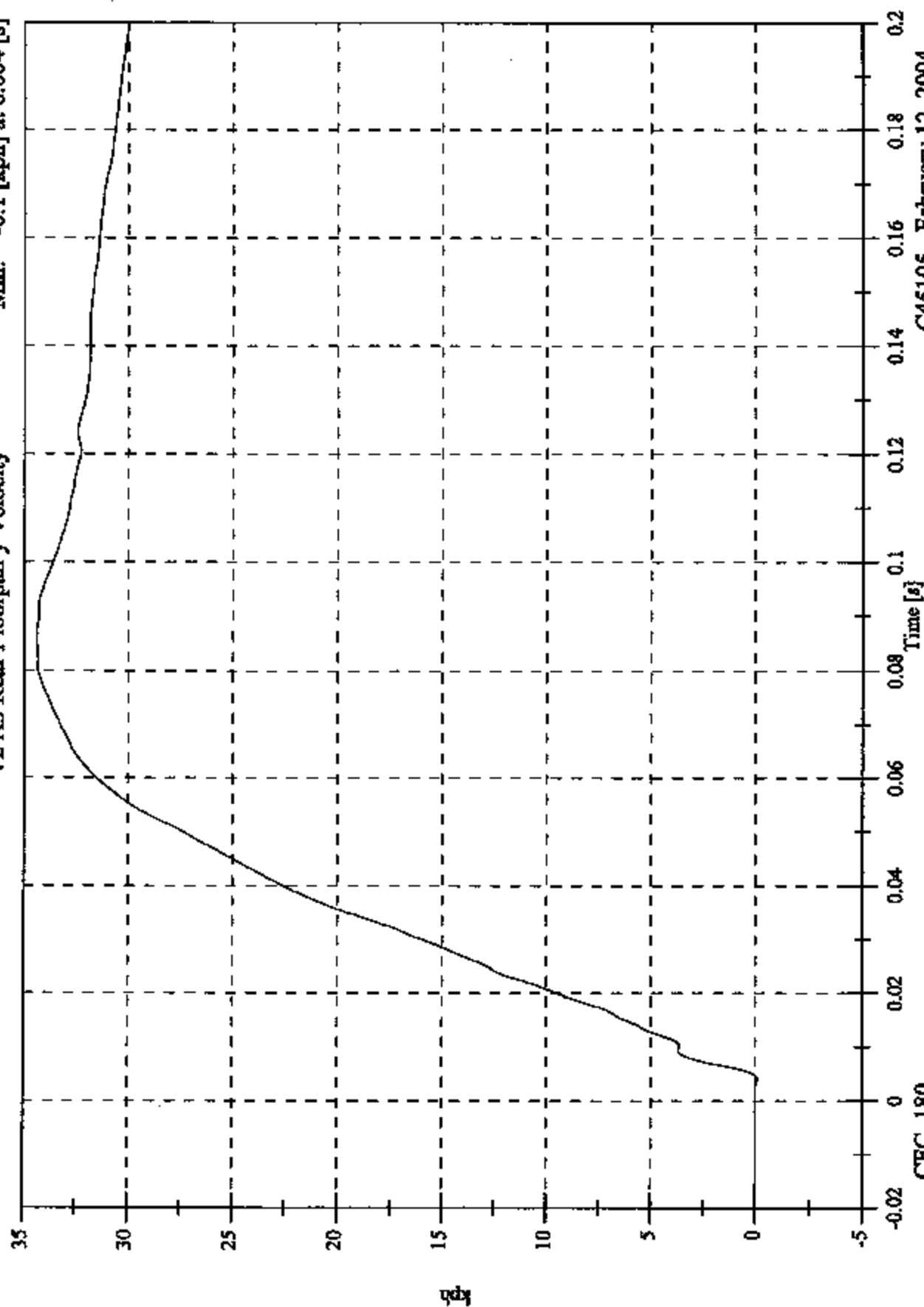


FMVSS 214D Indicant - 2004 Toyota Camry

Max: 34.4 [kph] at 0.087 [s]

Min: -0.1 [kph] at 0.004 [s]

V2 A3 Rear Floorpan y Velocity

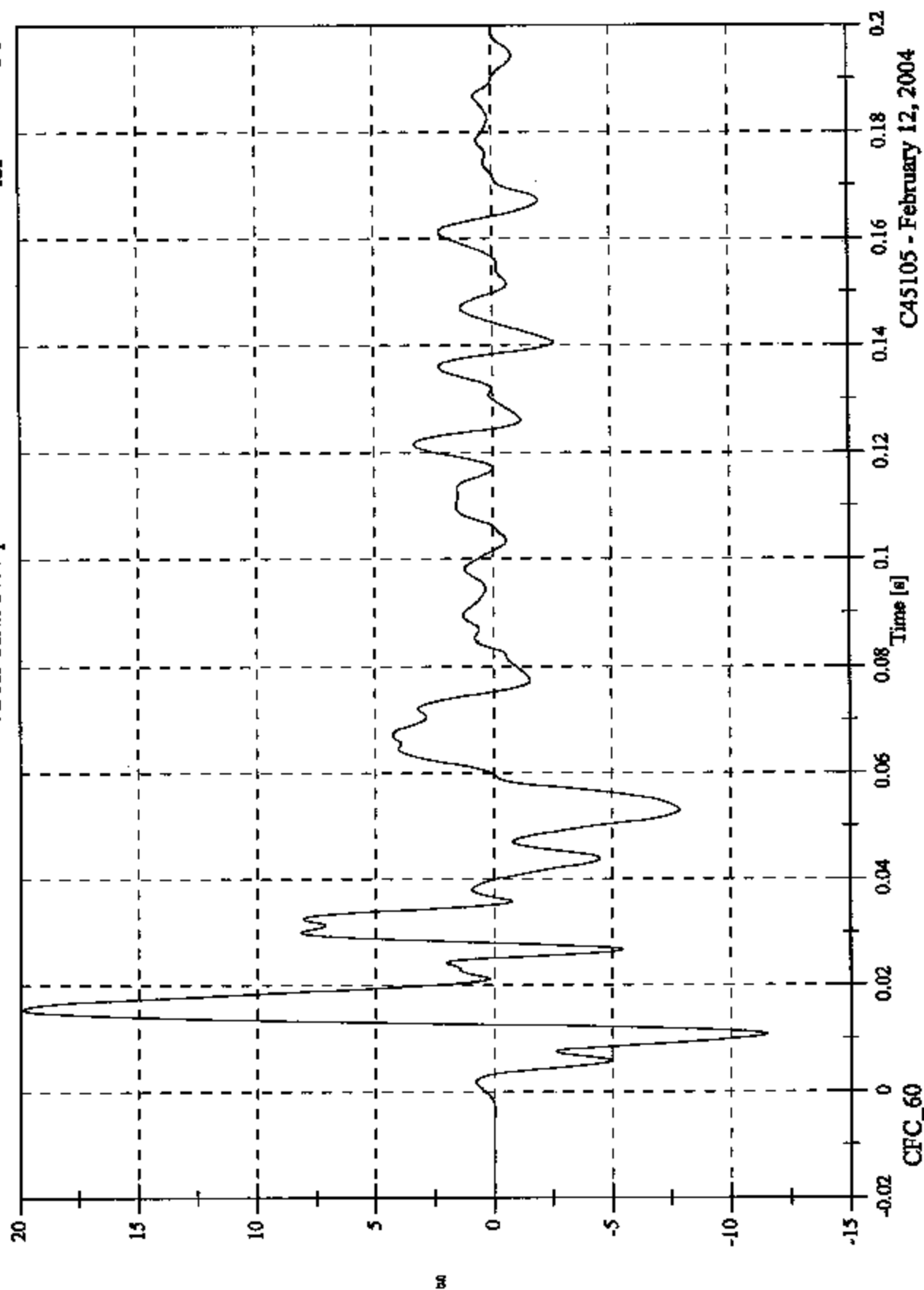


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 19.9 [g] at 0.015 [s]
Min: -11.5 [g] at 0.011 [s]

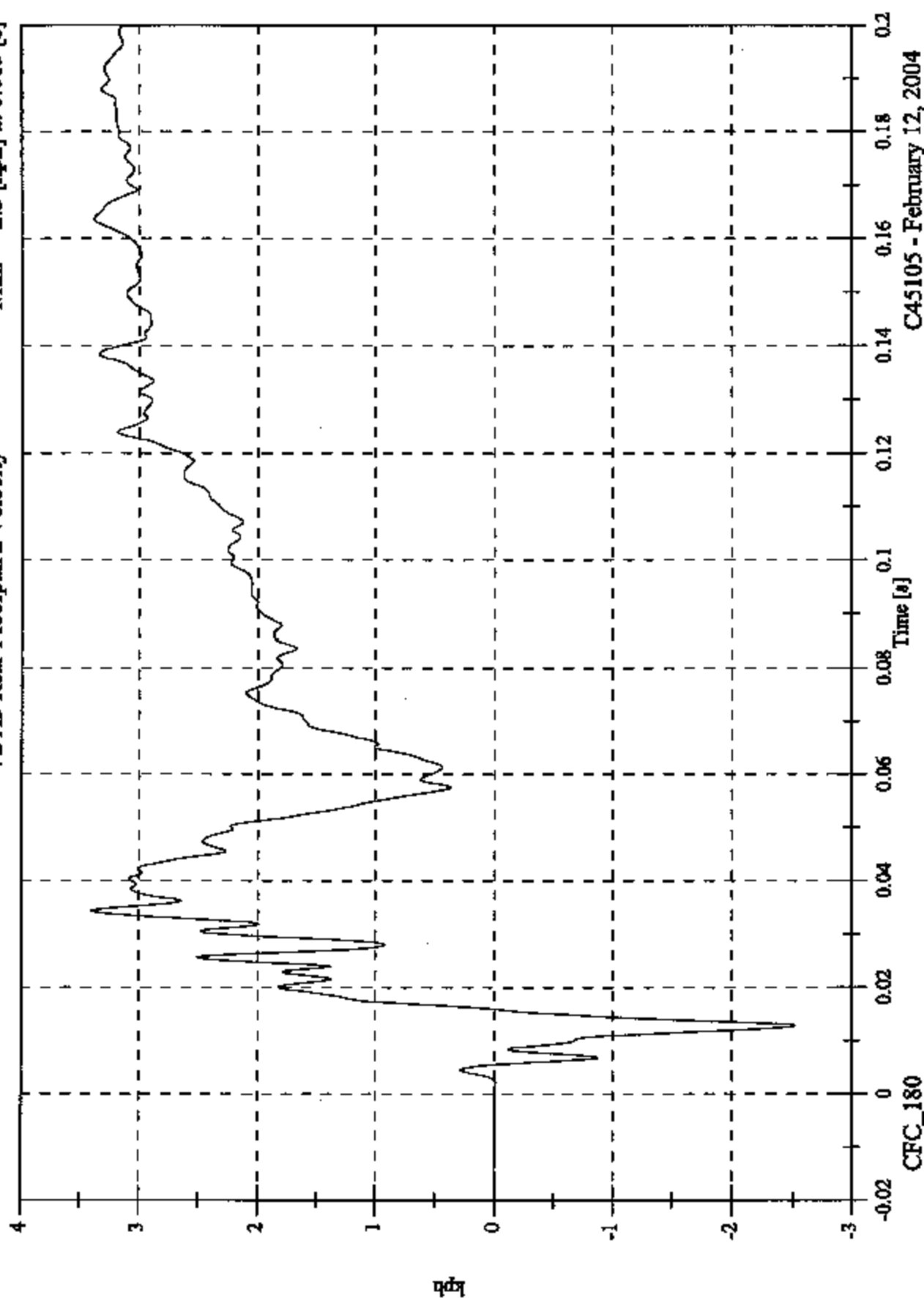
V2 A3 Rear Floorpan z



FMVSS 214D Indicant - 2004 Toyota Camry

V2 A3 Rear Floorpan z Velocity

Max: 3.4 [kph] at 0.034 [s]
Min: -2.5 [kph] at 0.013 [s]

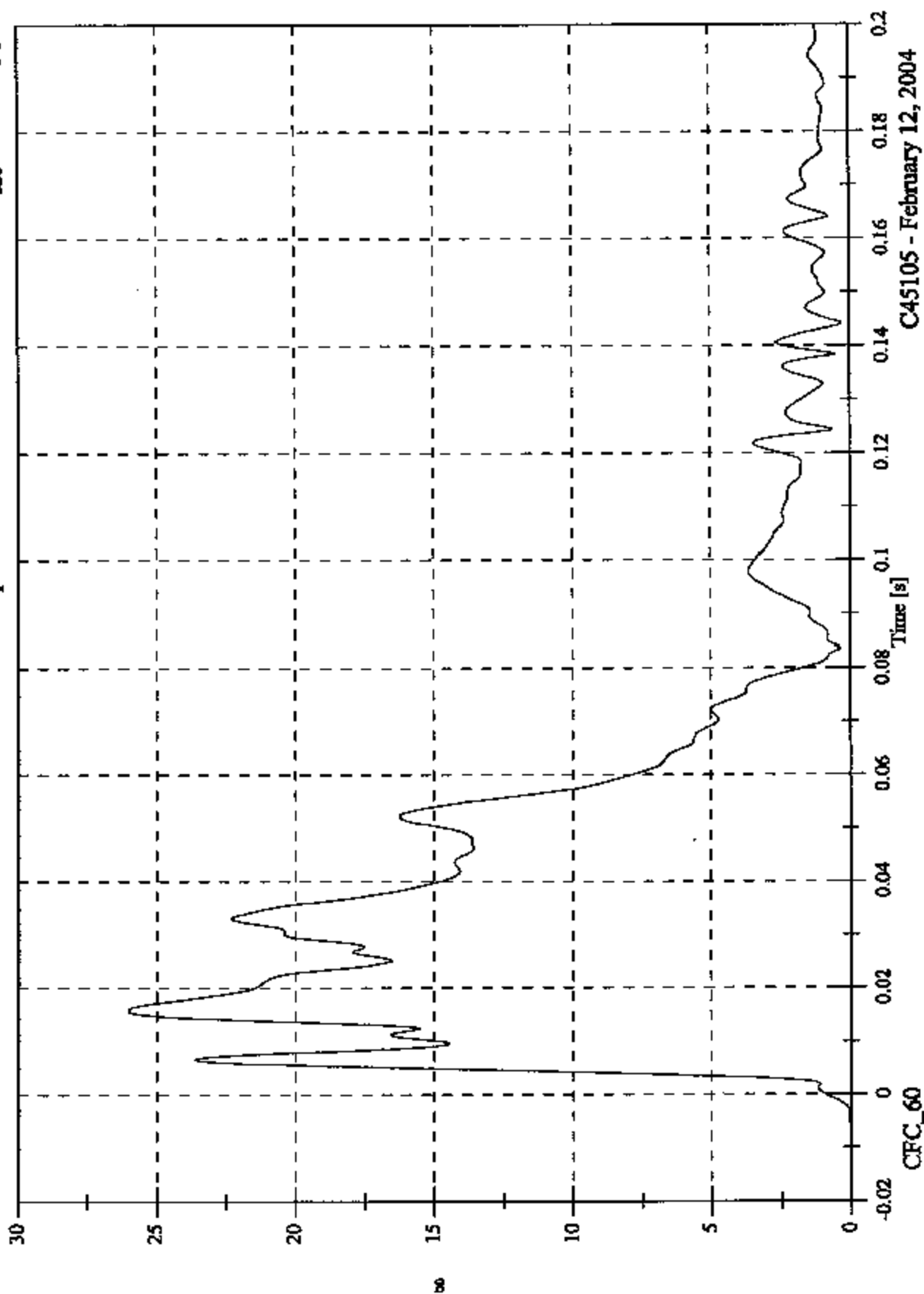


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

V2 A3 Rear Floorpan Resultant

Max: 26.0 [g] at 0.016 [s]
Min: 0.0 [g] at -0.020 [s]

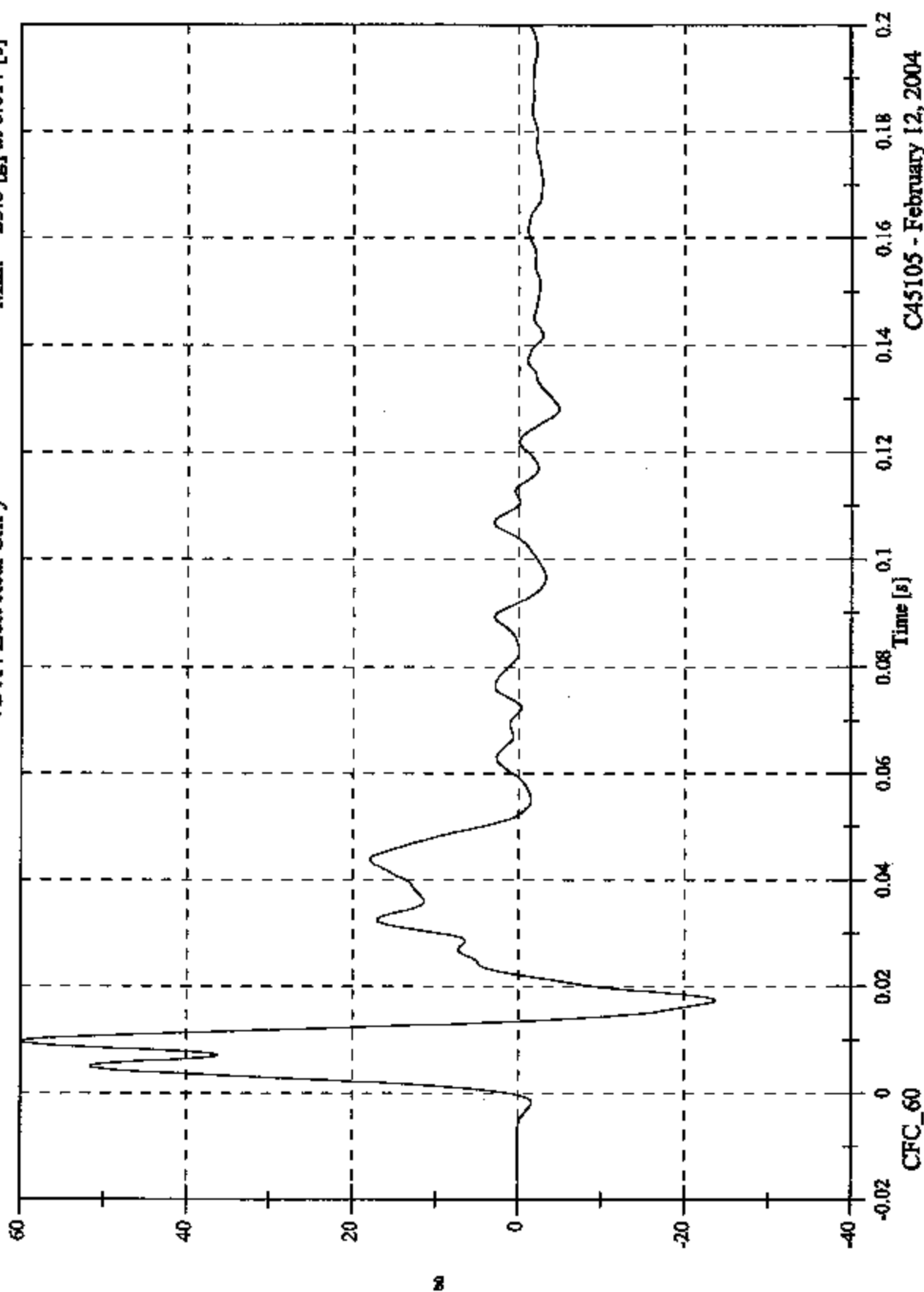


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2 A4 Left Rear Sill y

Max: 59.9 [g] at 0.010 [s]
Min: -23.8 [g] at 0.017 [s]



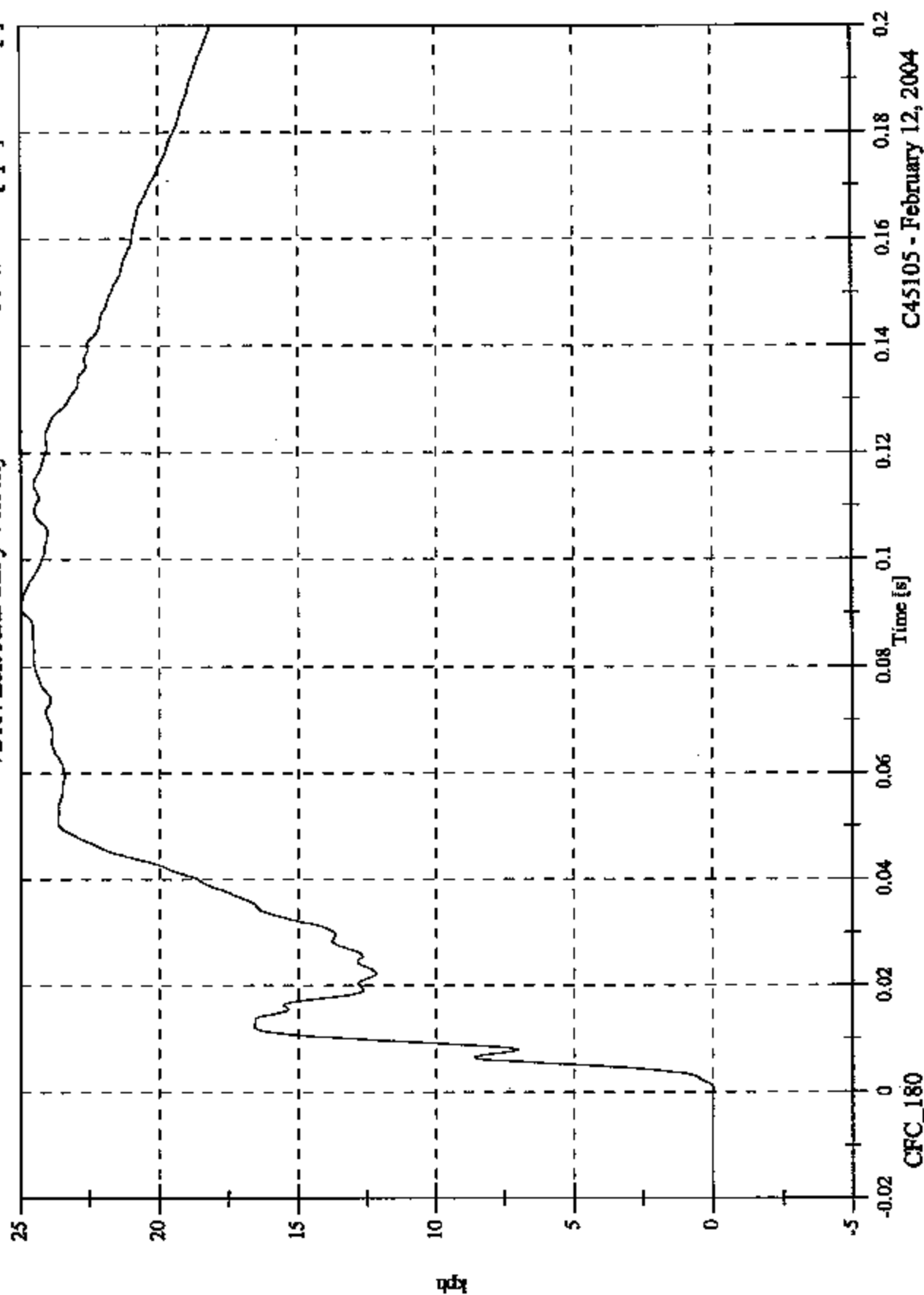
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 25.0 [kph] at 0.091 [s]

V2 A4 Left Rear Sill y Velocity

Min: -0.0 [kph] at 0.001 [s]

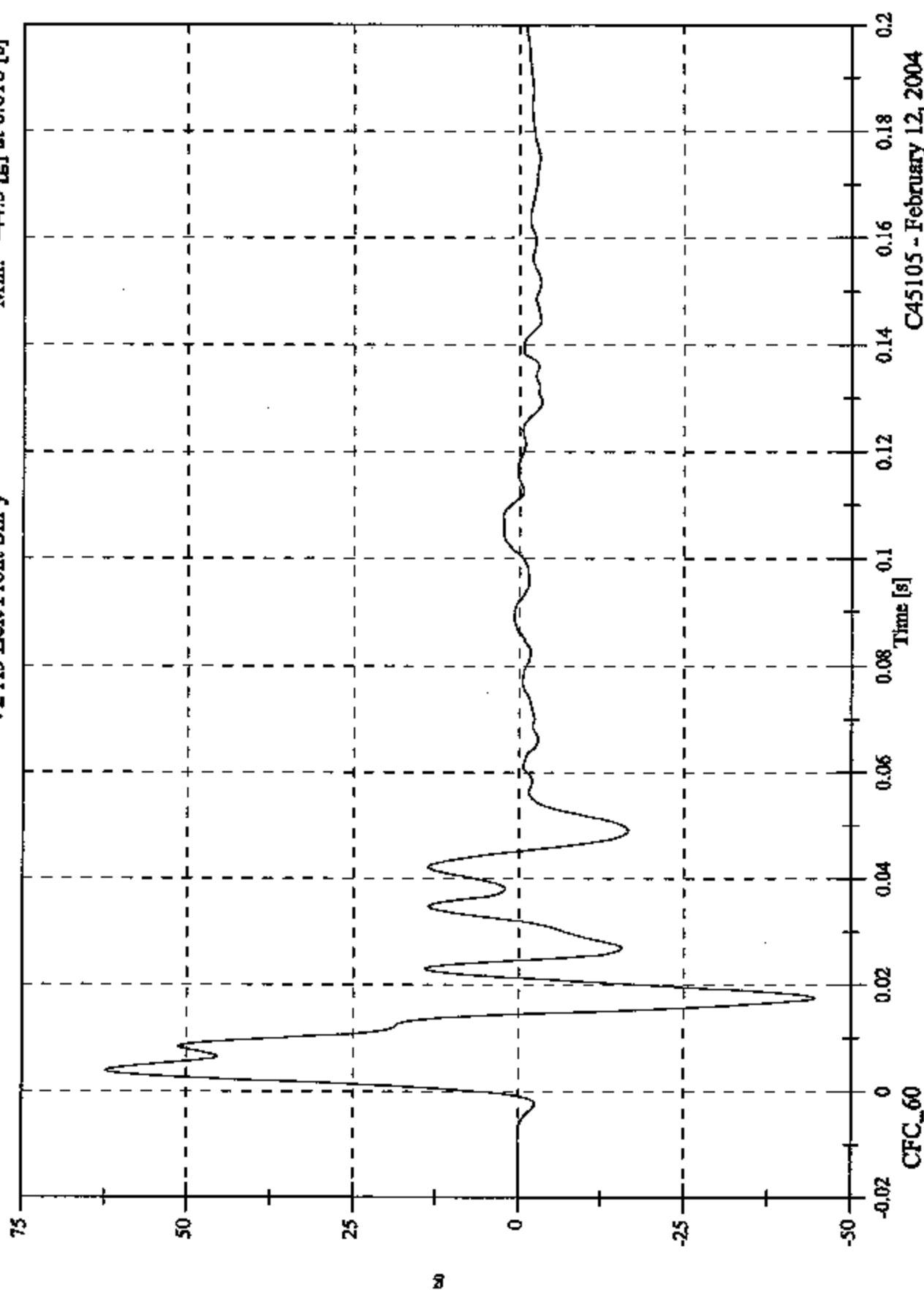


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

V2 A5 Left Front Sill y

Max: 62.4 [g] at 0.004 [s]
Min: -44.5 [g] at 0.018 [s]



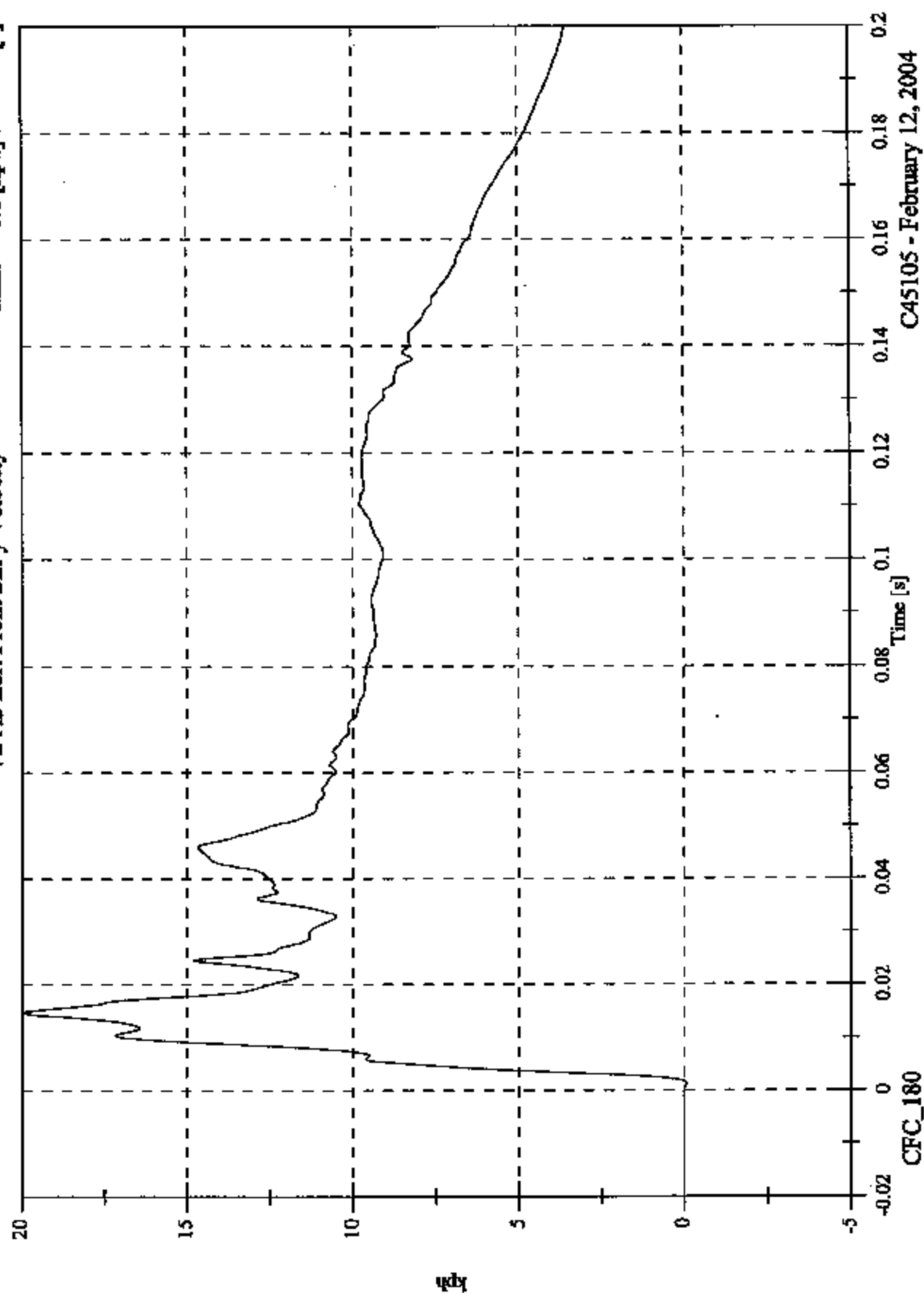
C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

Max: 20.0 [kph] at 0.015 [s]

V2 A5 Left Front Sill y Velocity

Min: -0.1 [kph] at 0.001 [s]

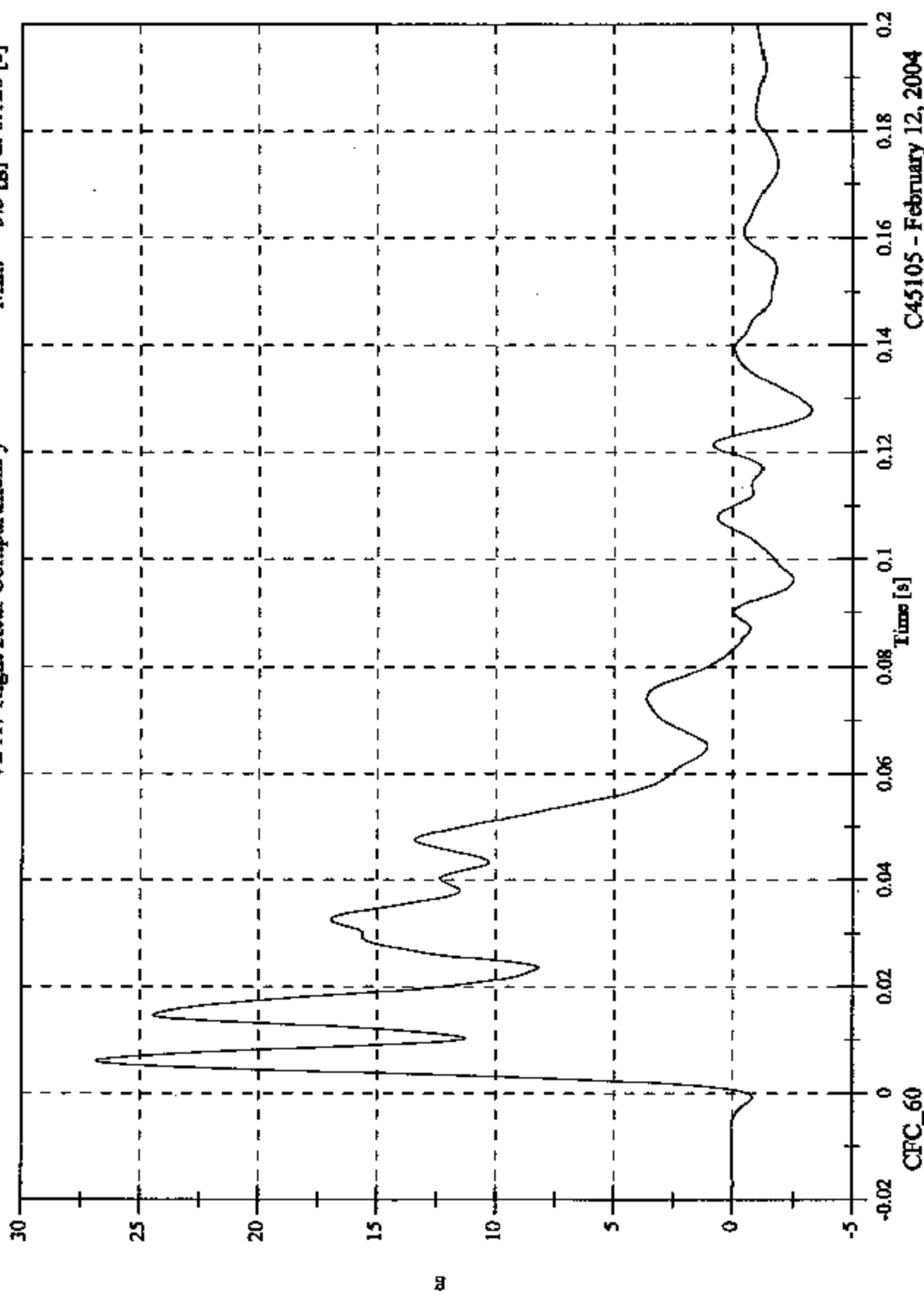


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2 A7 Right Rear Compartment y

Max: 26.9 [g] at 0.006 [s]
Min: -3.3 [g] at 0.128 [s]



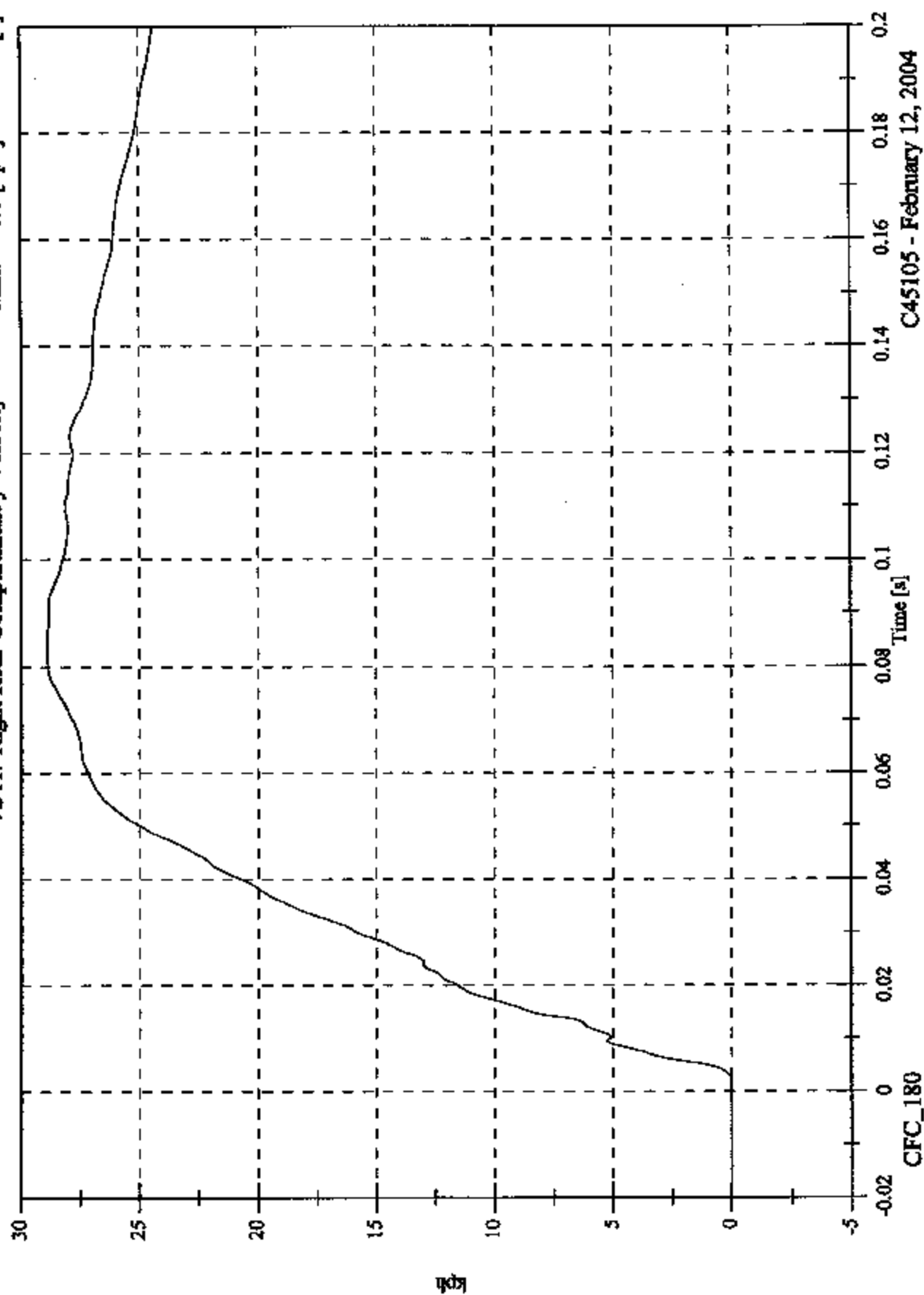
C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

V2 A7 Right Rear Compartment y Velocity

Max: 28.9 [kph] at 0.084 [s]

Min: -0.0 [kph] at -0.016 [s]



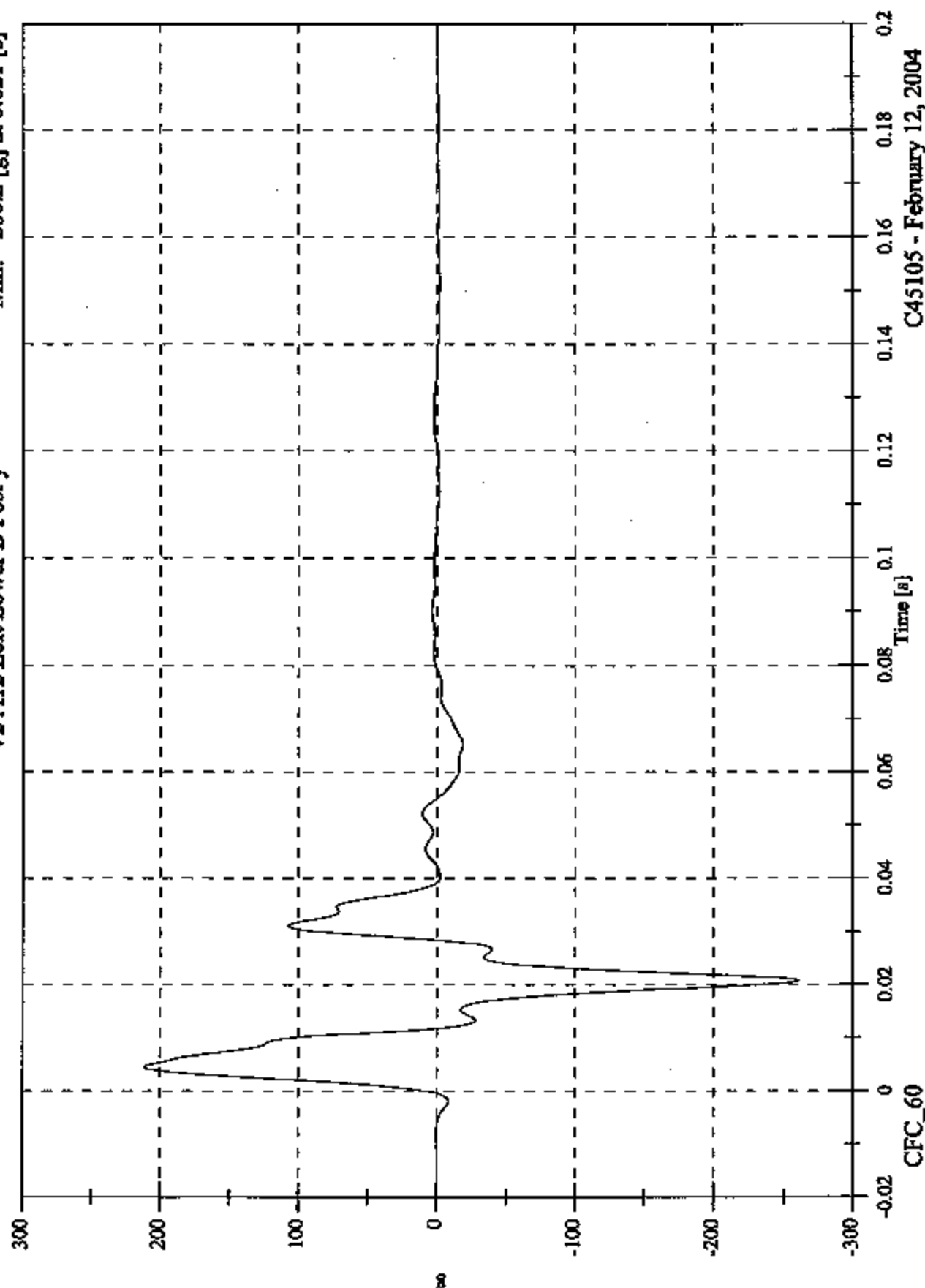
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 211.4 [g] at 0.004 [s]

V2 A12 Left Lower B Post y

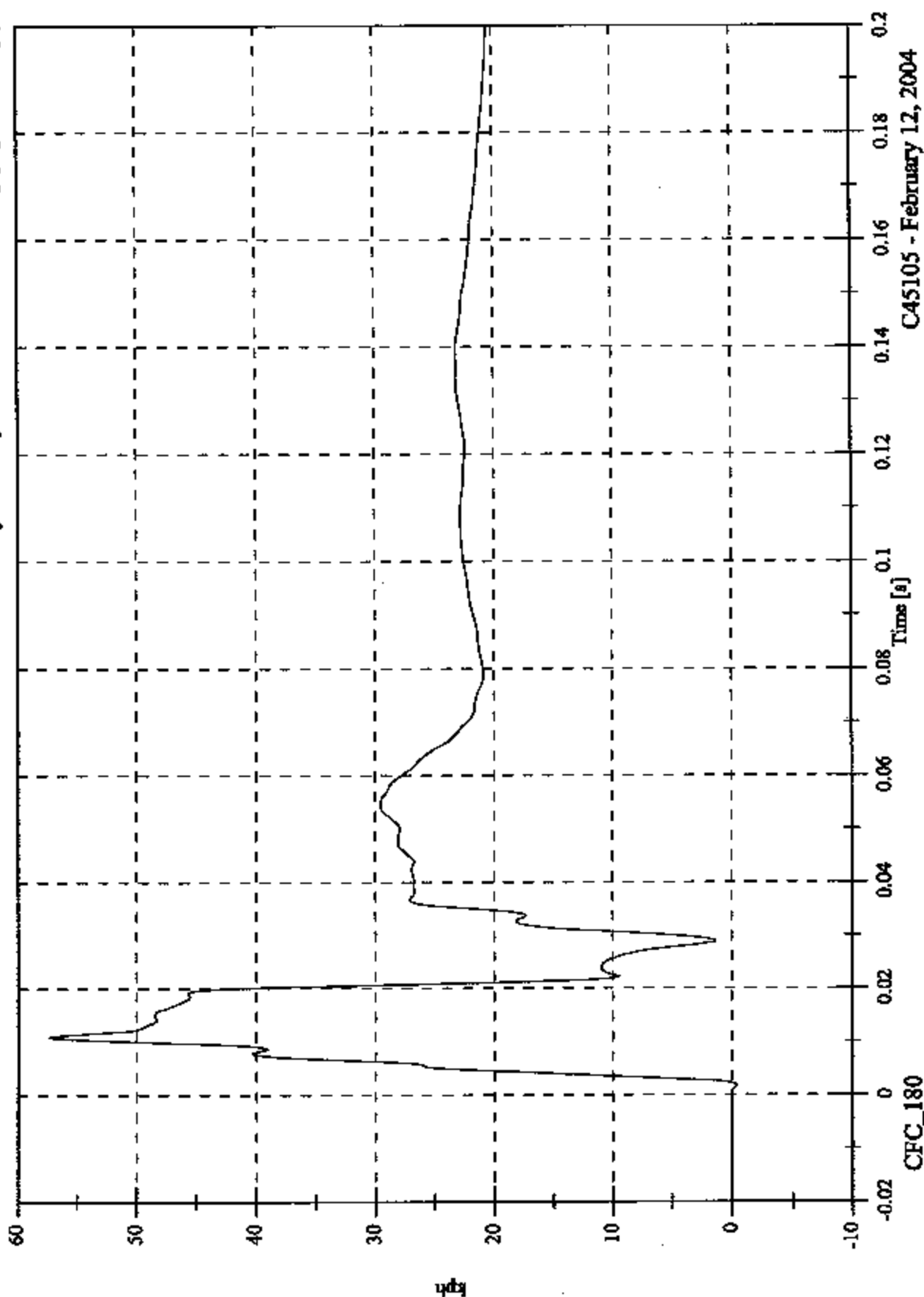
Min: -260.2 [g] at 0.021 [s]



FMVSS 214D Indicant - 2004 Toyota Camry

V2 A12 Left Lower B Post y Velocity

Max: 57.3 [kph] at 0.011 [s]
Min: -0.3 [kph] at 0.002 [s]



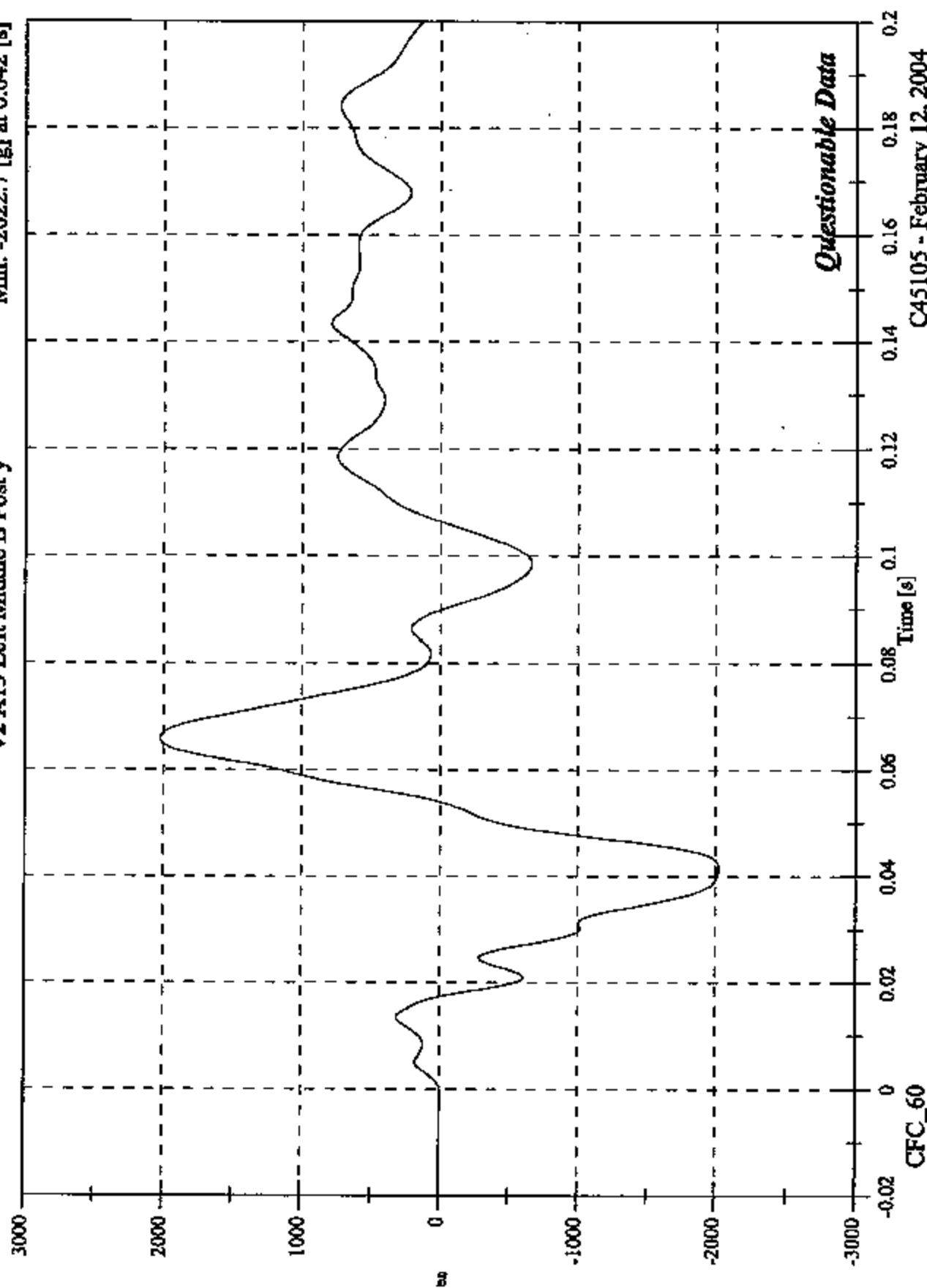
CFC_180

C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2 A13 Left Middle B Post y

Max: 2022.8 [g] at 0.066 [s]
Min: -2022.7 [g] at 0.042 [s]

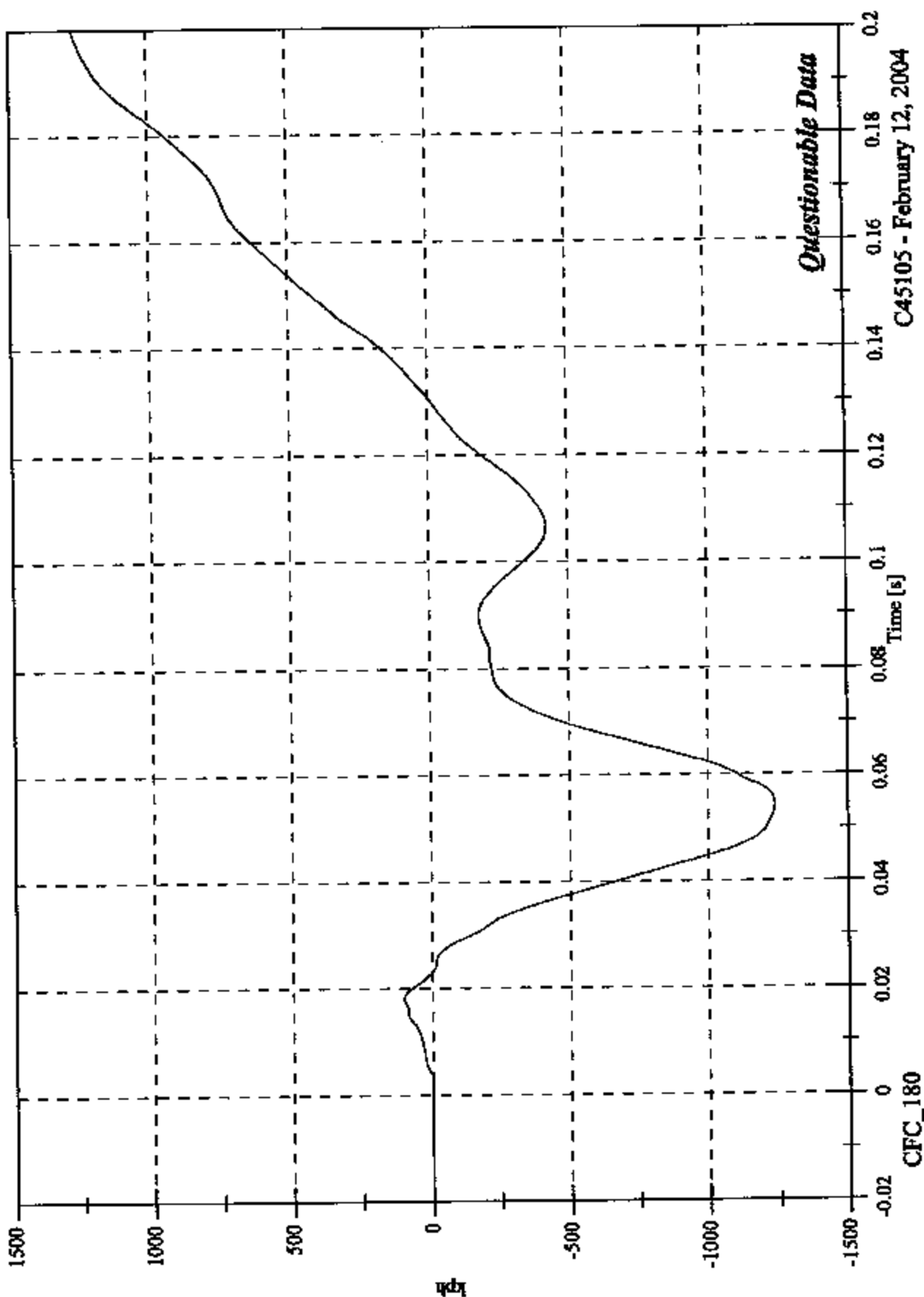


FMVSS 214D Indicant - 2004 Toyota Camry

V2 A13 Left Middle B Post y Velocity

Max: 1270.0 [kph] at 0.200 [s]

Min: -1235.1 [kph] at 0.054 [s]



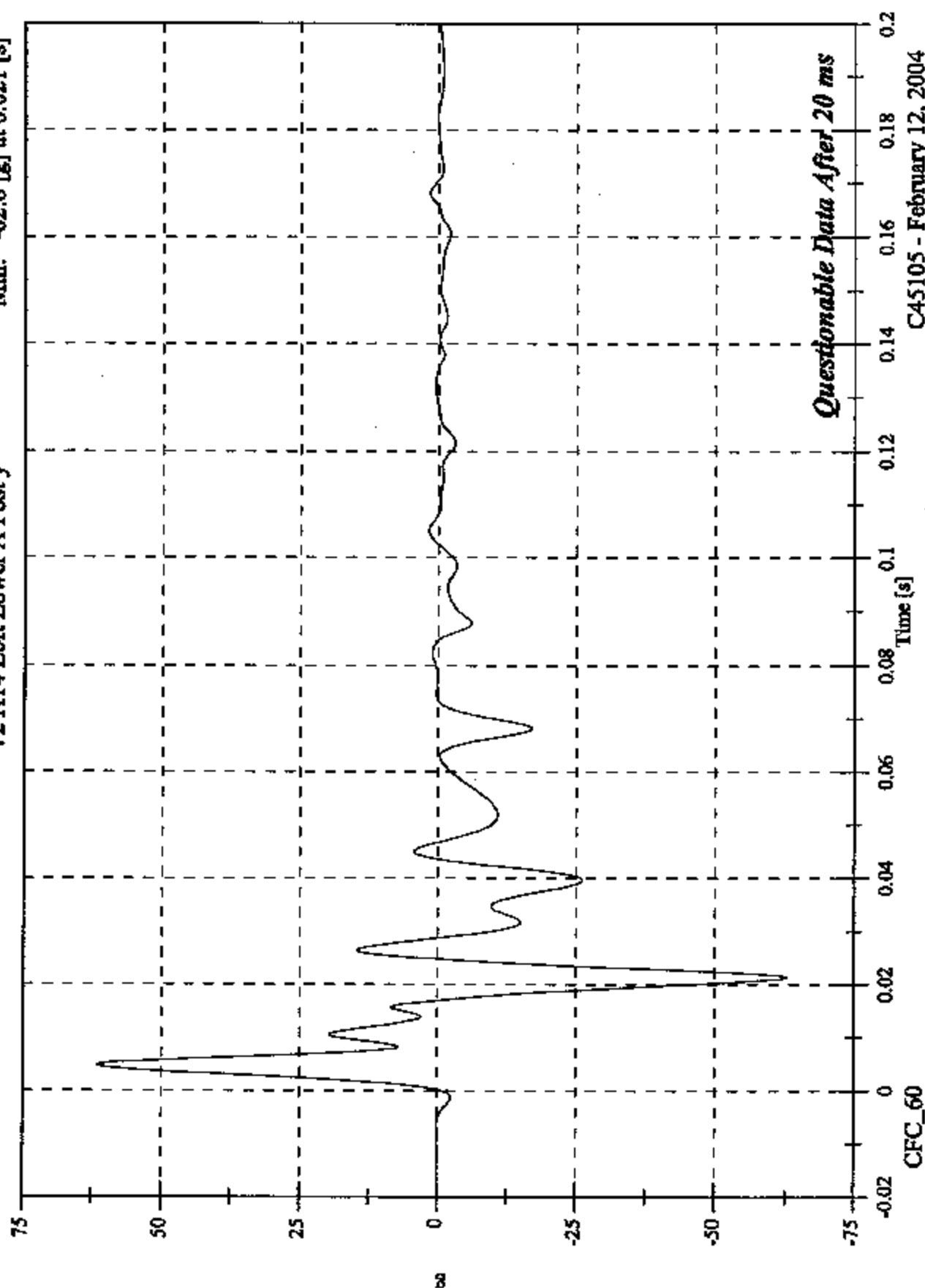
Questionable Data

C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2 A14 Left Lower A Post y

Max: 61.4 [g] at 0.005 [s]
Min: -62.8 [g] at 0.021 [s]



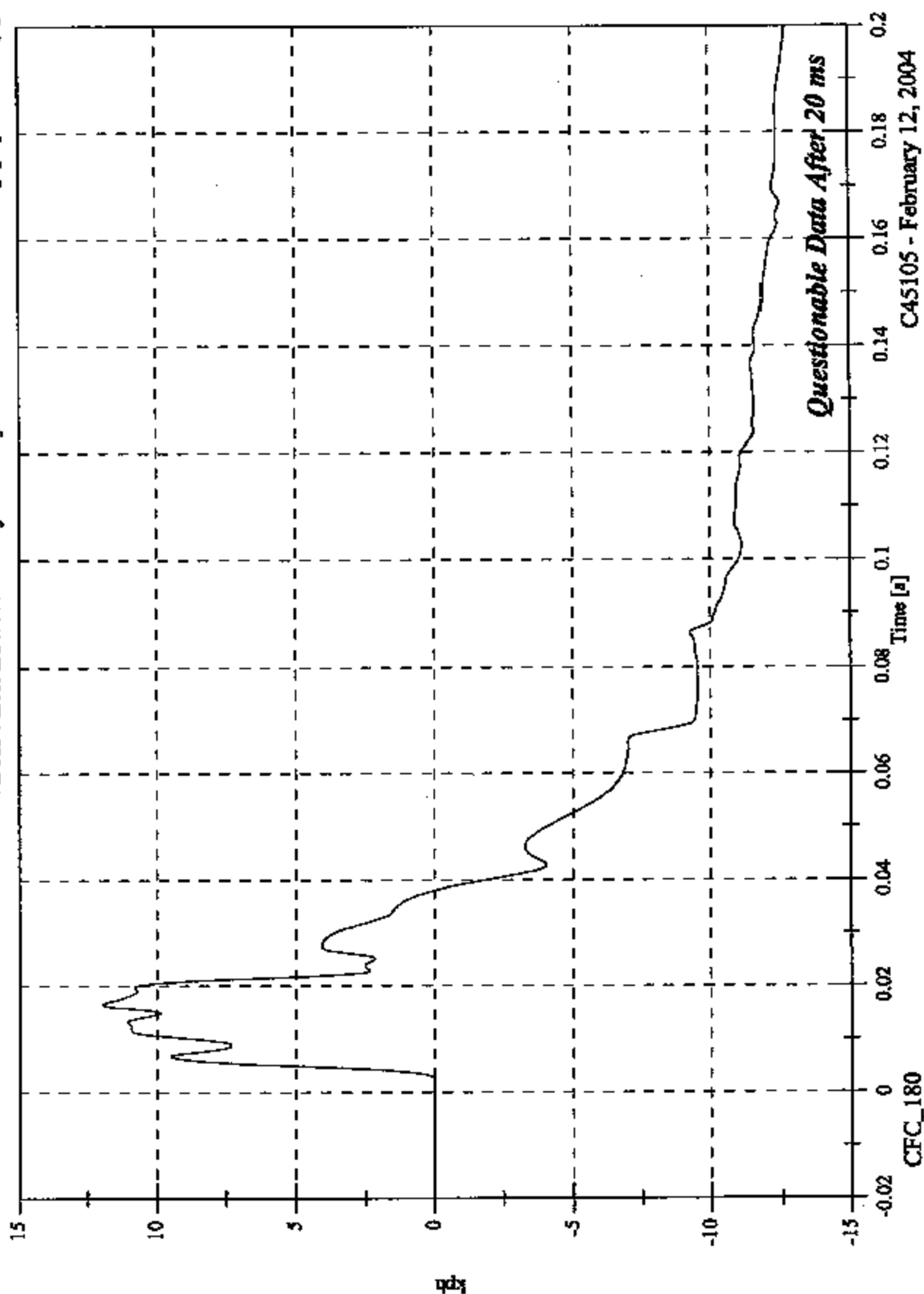
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 12.0 [kph] at 0.017 [s]

V2 A14 Left Lower A Post y Velocity

Min: -12.7 [kph] at 0.200 [s]



CFC_180

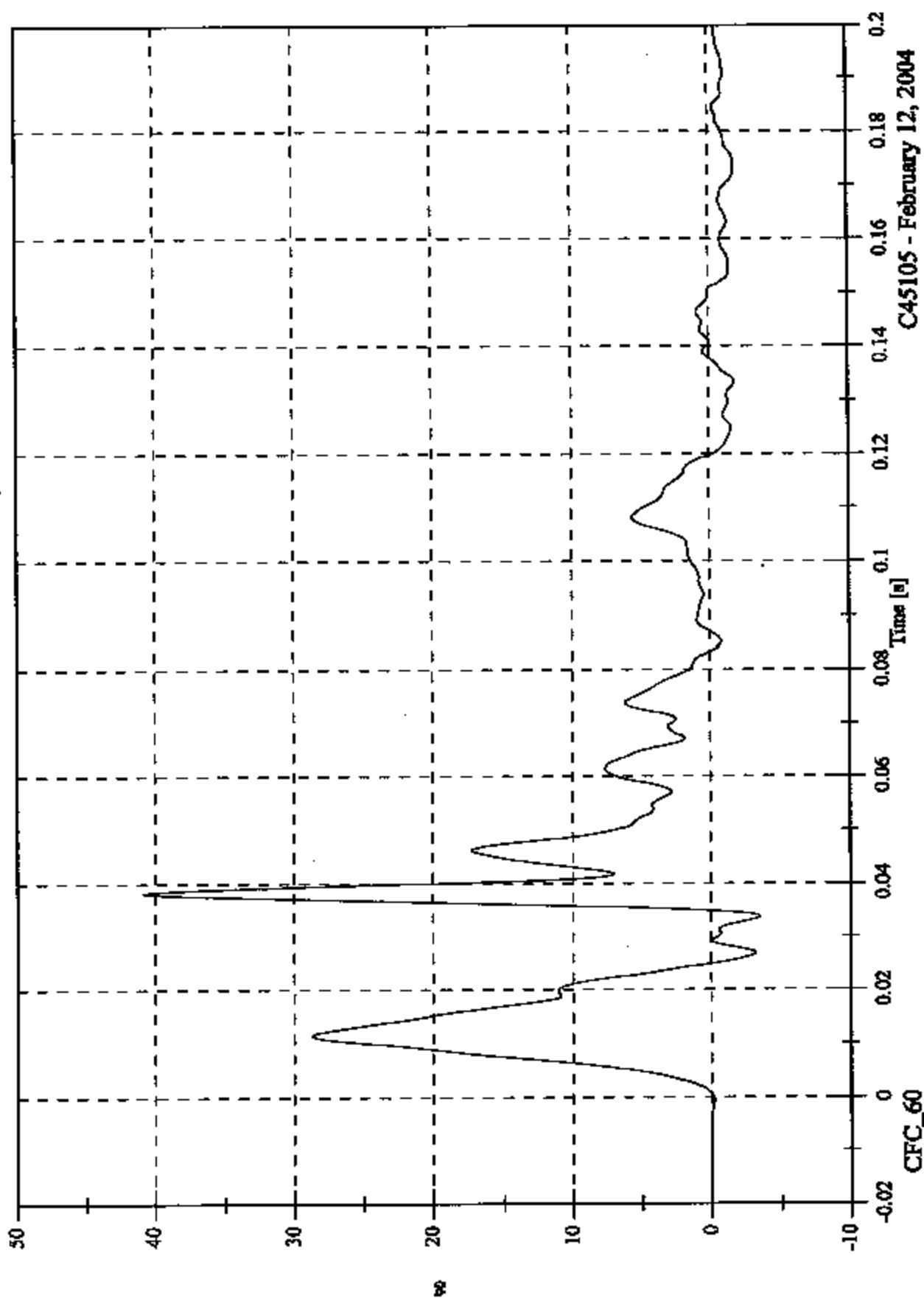
C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

Max: 40.8 [g] at 0.038 [s]

Min: -3.5 [g] at 0.034 [s]

V2 A15 Left Mid A Post y

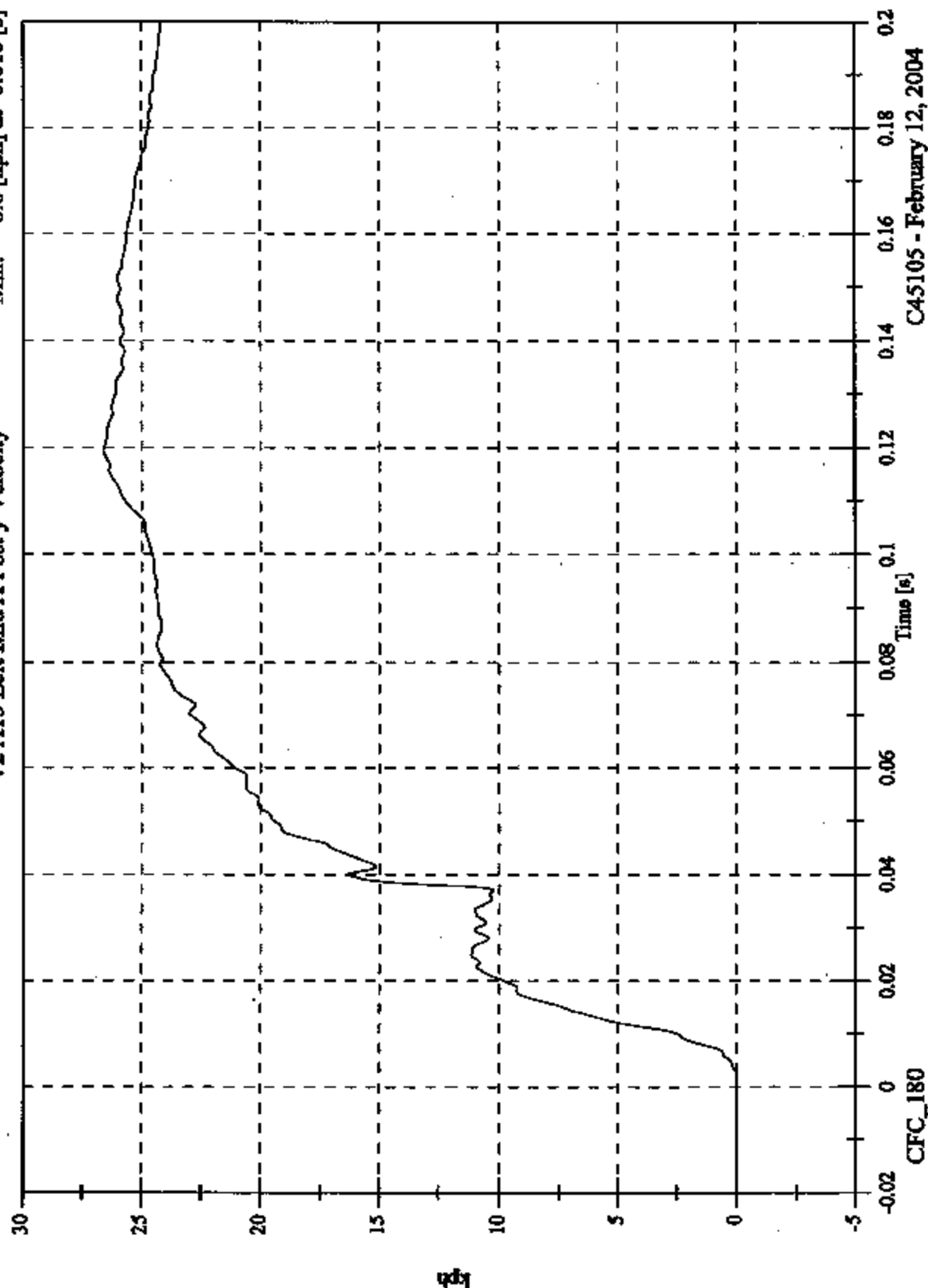


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2 A15 Left Mid A Post y Velocity

Max: 26.6 [kph] at 0.119 [s]
Min: -0.0 [kph] at -0.016 [s]



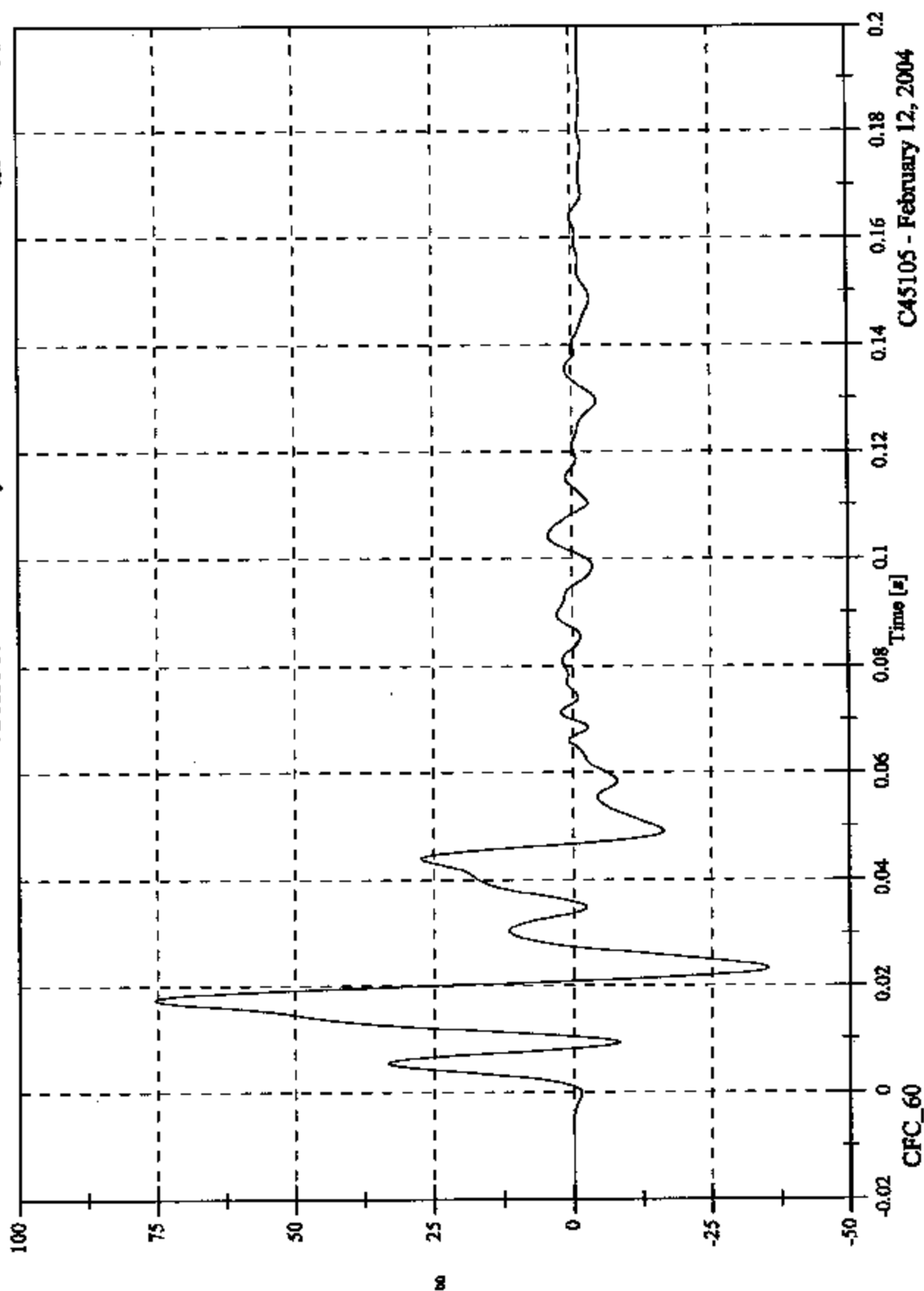
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 75.4 [g] at 0.017 [s]

Min: -35.2 [g] at 0.023 [s]

V2 A16 Front Seat Track y

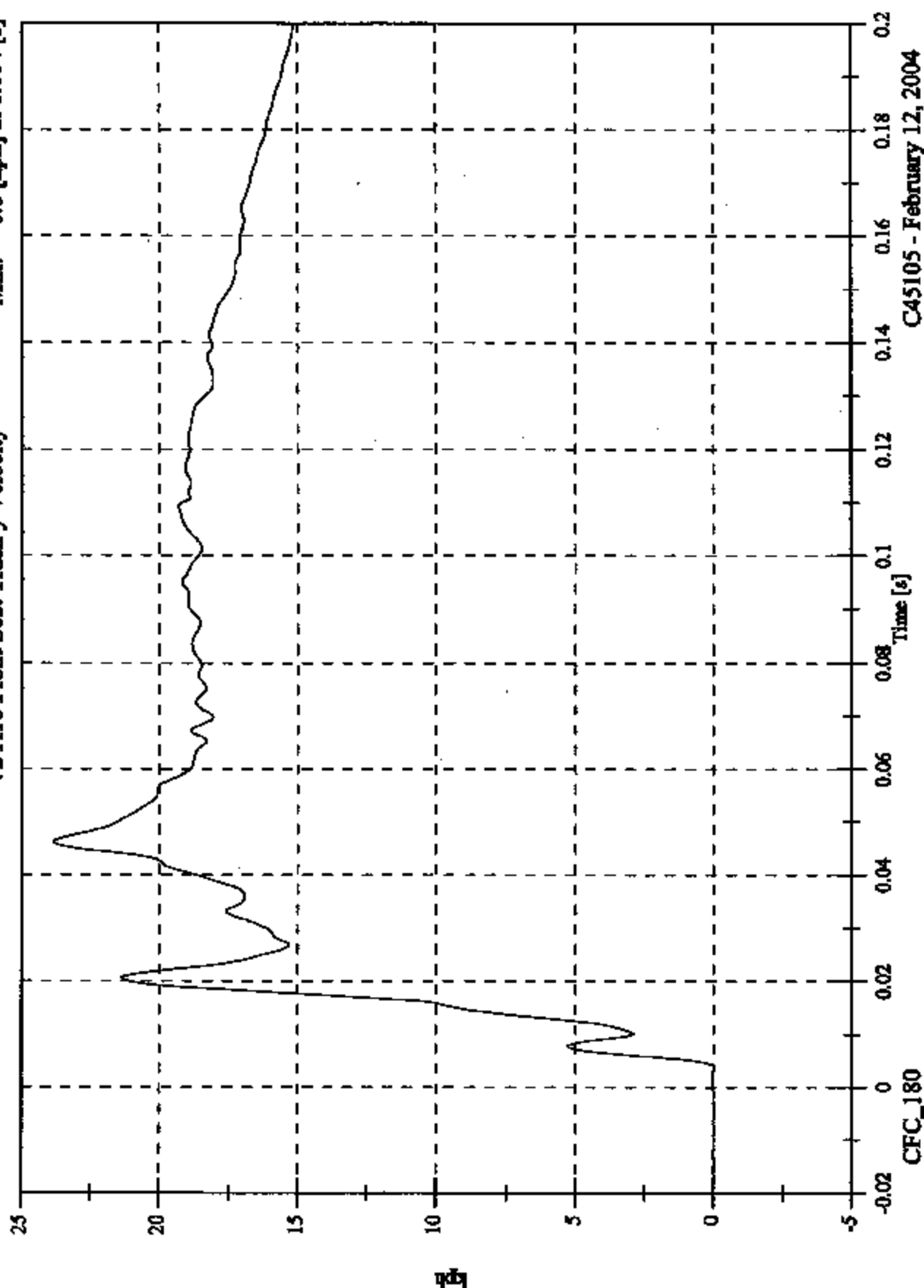


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

V2 A16 Front Seat Track y Velocity

Max: 23.8 [kph] at 0.046 [s]
Min: -0.0 [kph] at 0.004 [s]



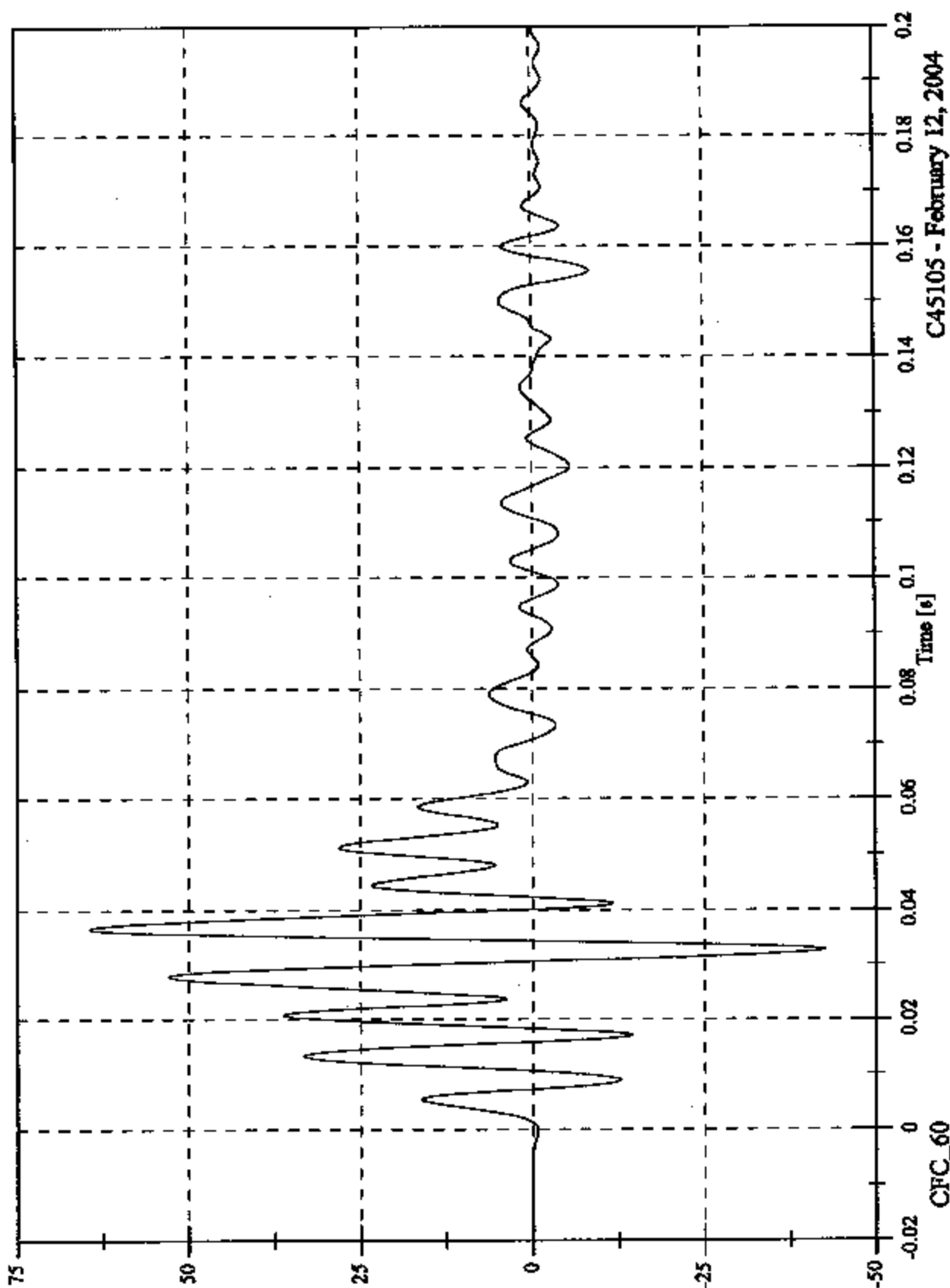
CFC_180

C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

V2 A17 Rear Seat Track y

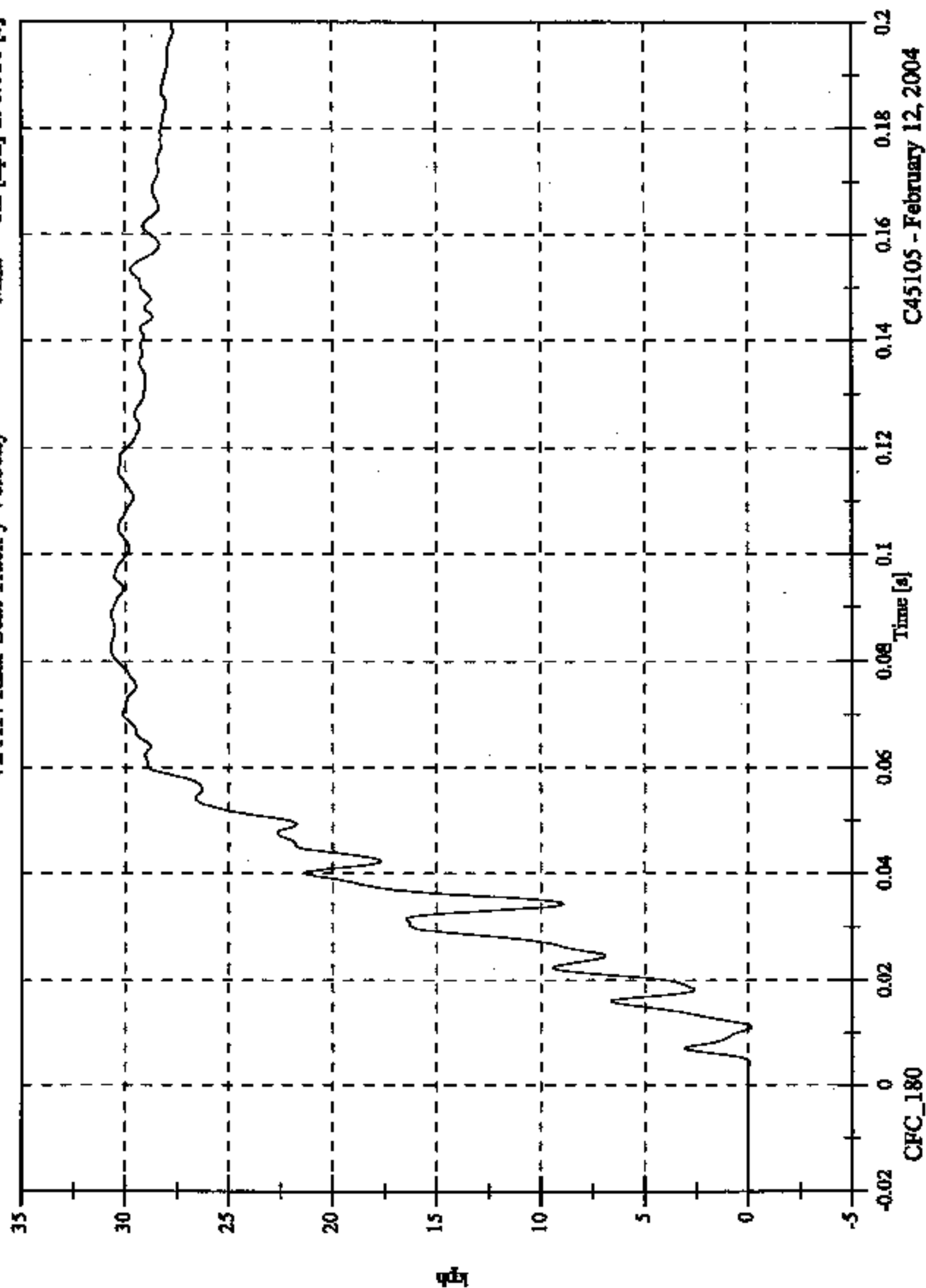
Max: 64.5 [g] at 0.037 [s]
Min: -42.6 [g] at 0.033 [s]



FMVSS 214D Indicant - 2004 Toyota Camry

V2 A17 Rear Seat Track y Velocity

Max: 30.7 [kph] at 0.089 [s]
Min: -0.2 [kph] at 0.011 [s]



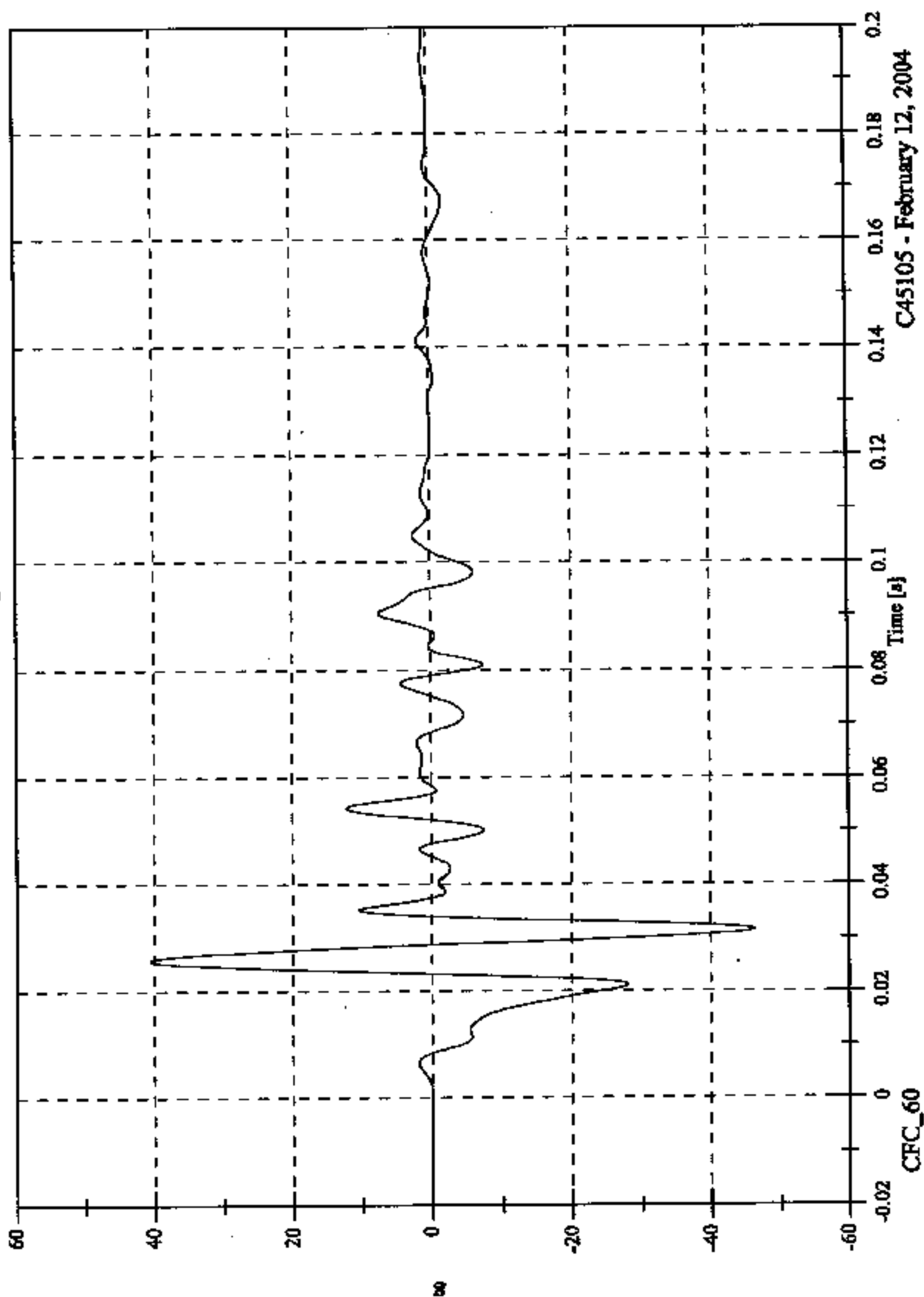
CFC_180

C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2 A18 Target CG x

Max: 40.6 [g] at 0.026 [s]
Min: -46.4 [g] at 0.031 [s]



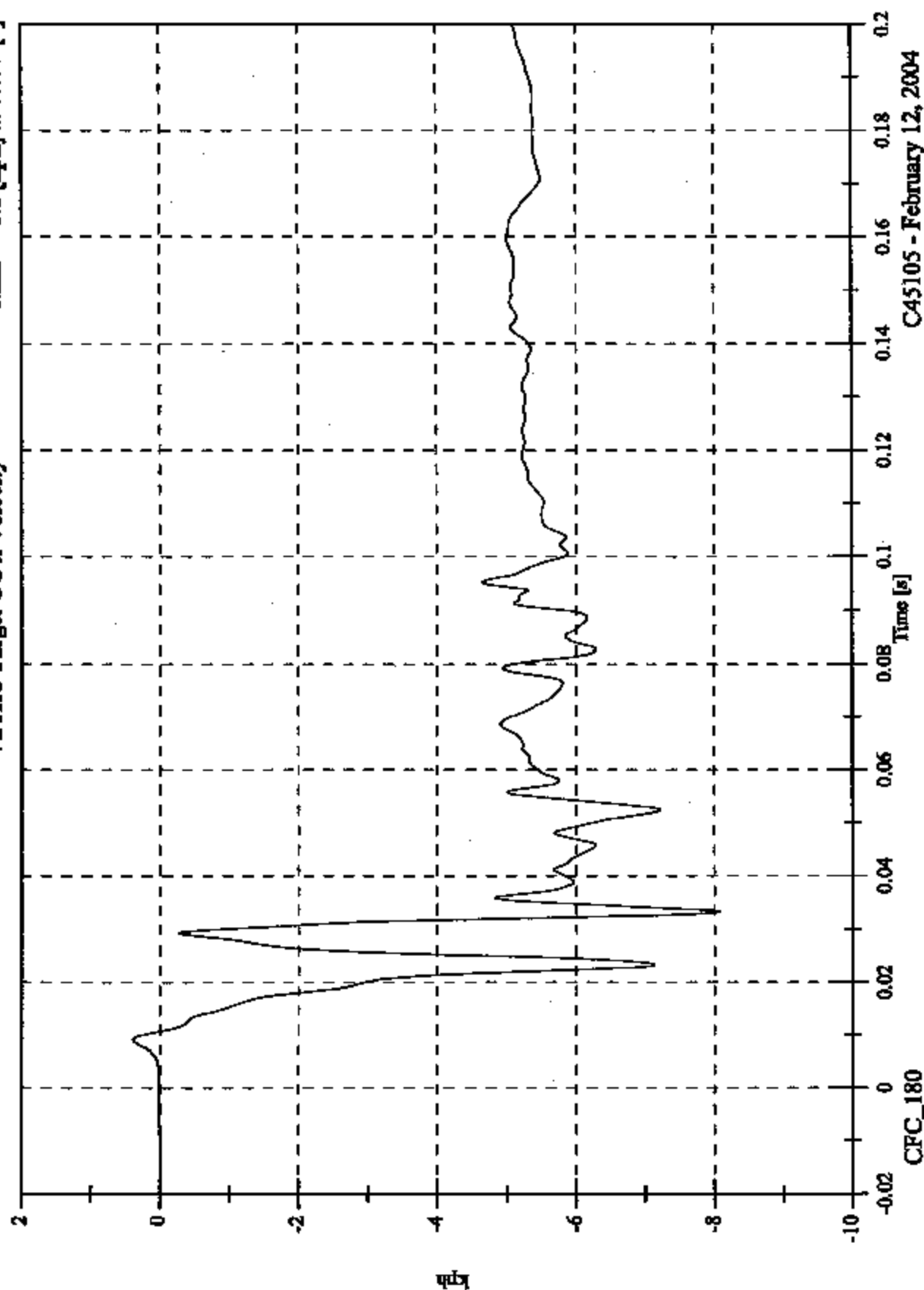
C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

Max: 0.4 [kph] at 0.009 [s]

V2 A18 Target CG x Velocity

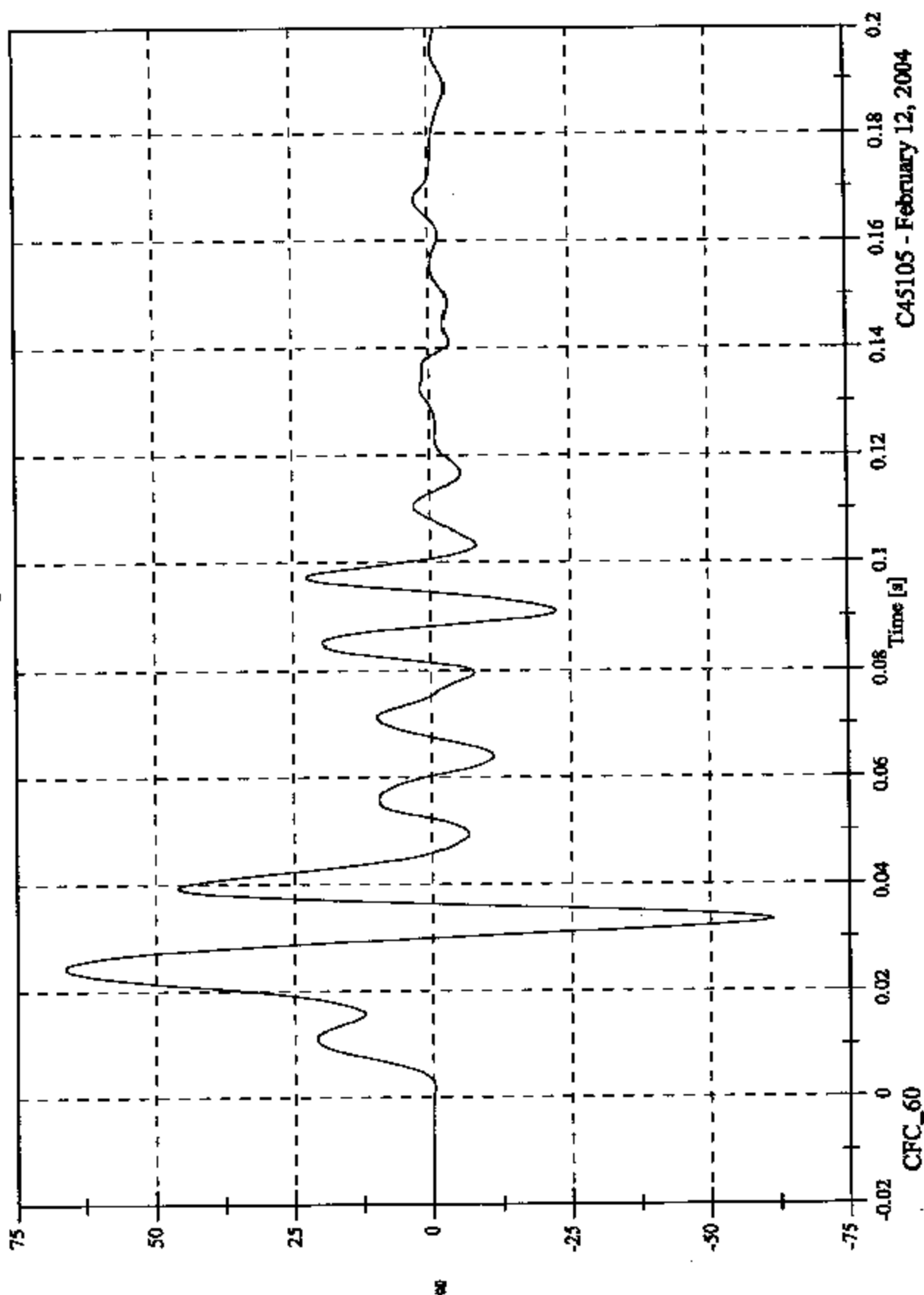
Min: -8.1 [kph] at 0.033 [s]



FMVSS 214D Indicant - 2004 Toyota Camry

Max: 66.3 [g] at 0.024 [s]
Min: -61.1 [g] at 0.033 [s]

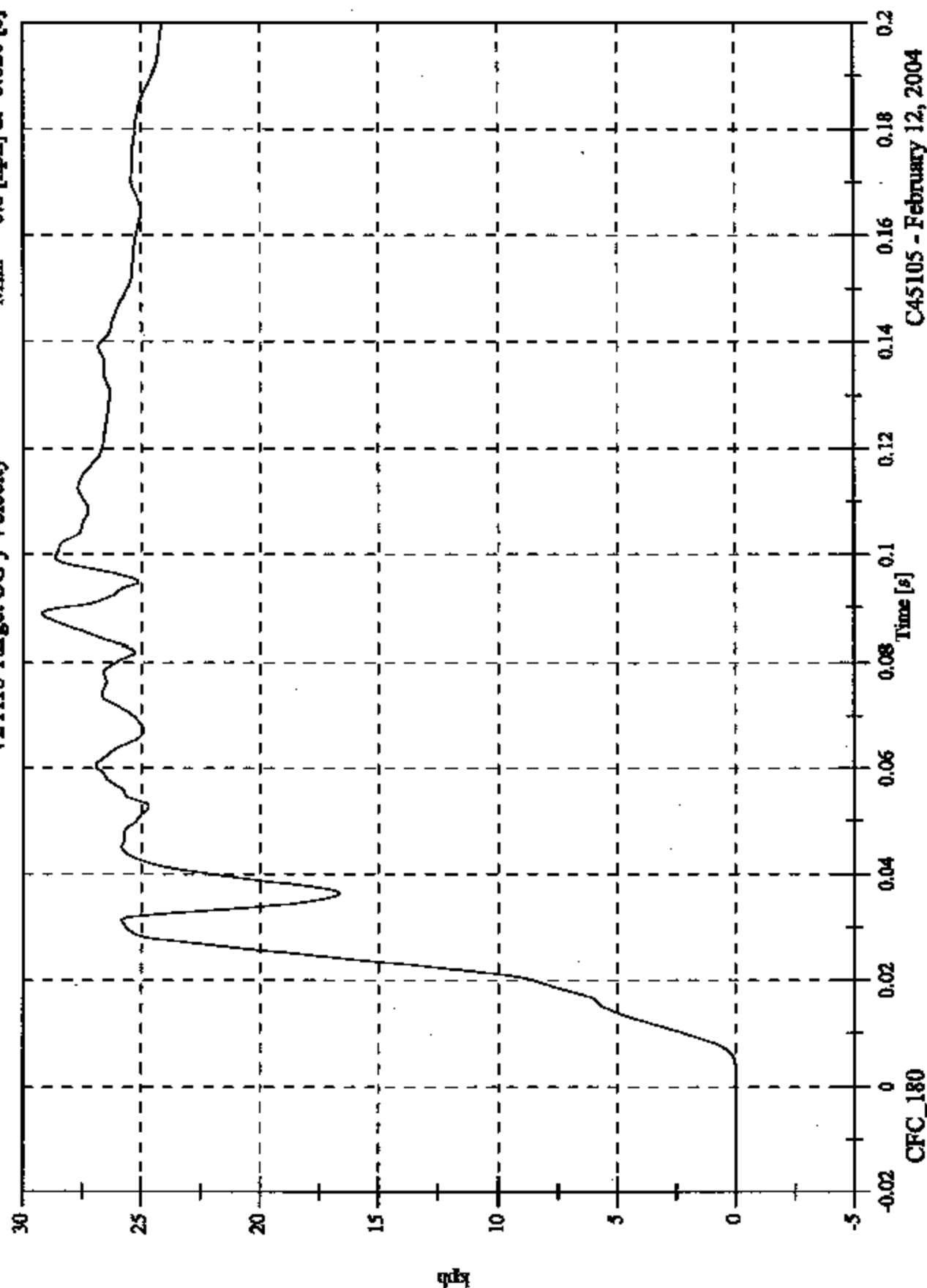
V2 A18 Target CG y



FMVSS 214D Inducant - 2004 Toyota Camry

V2 A18 Target CG y Velocity

Max: 29.2 [kph] at 0.089 [s]
Min: -0.0 [kph] at -0.020 [s]

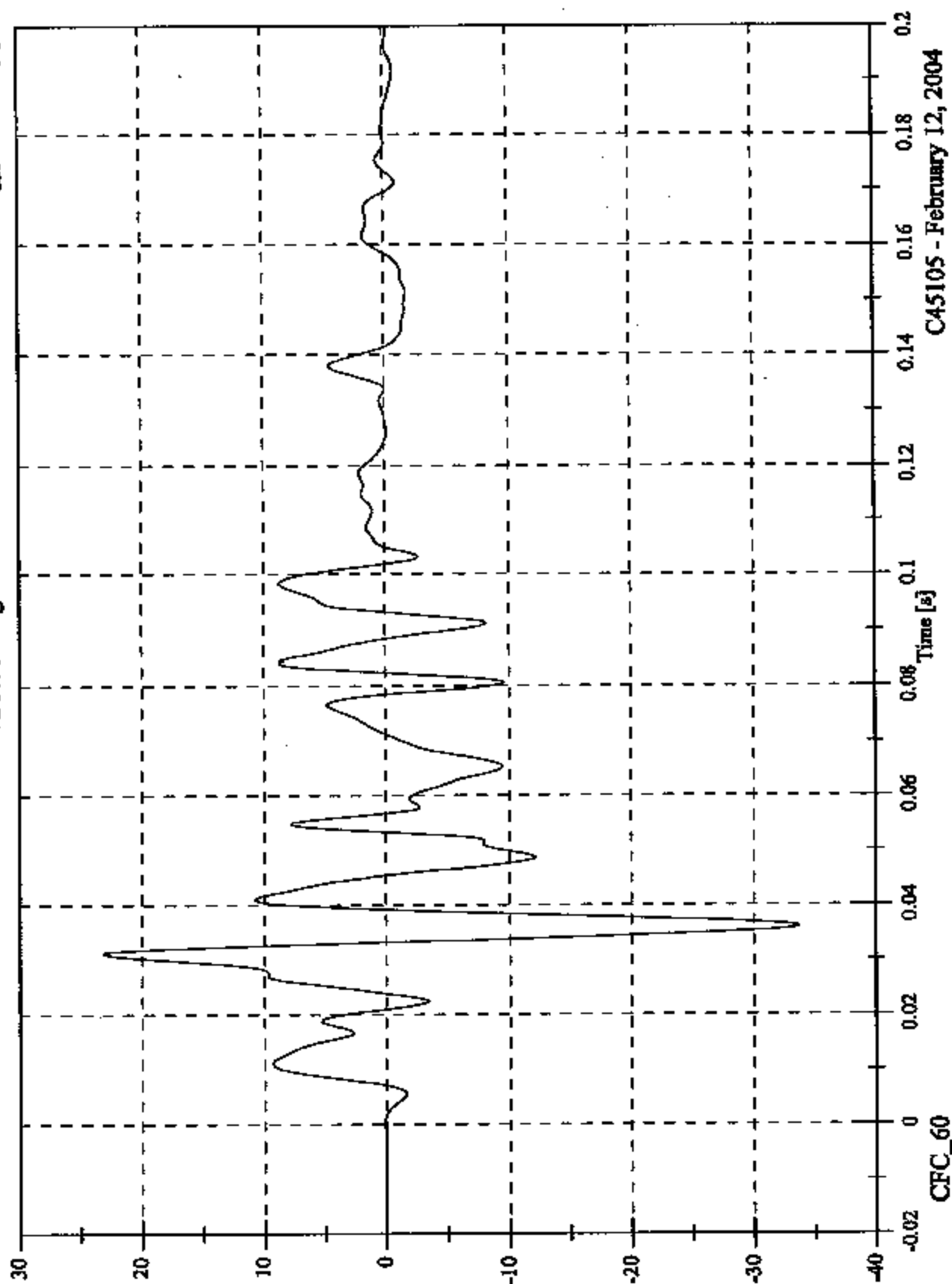


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FMVSS 214D Indicant - 2004 Toyota Camry

Max: 23.1 [g] at 0.031 [s]
Min: -33.7 [g] at 0.036 [s]

V2 A18 Target CG z

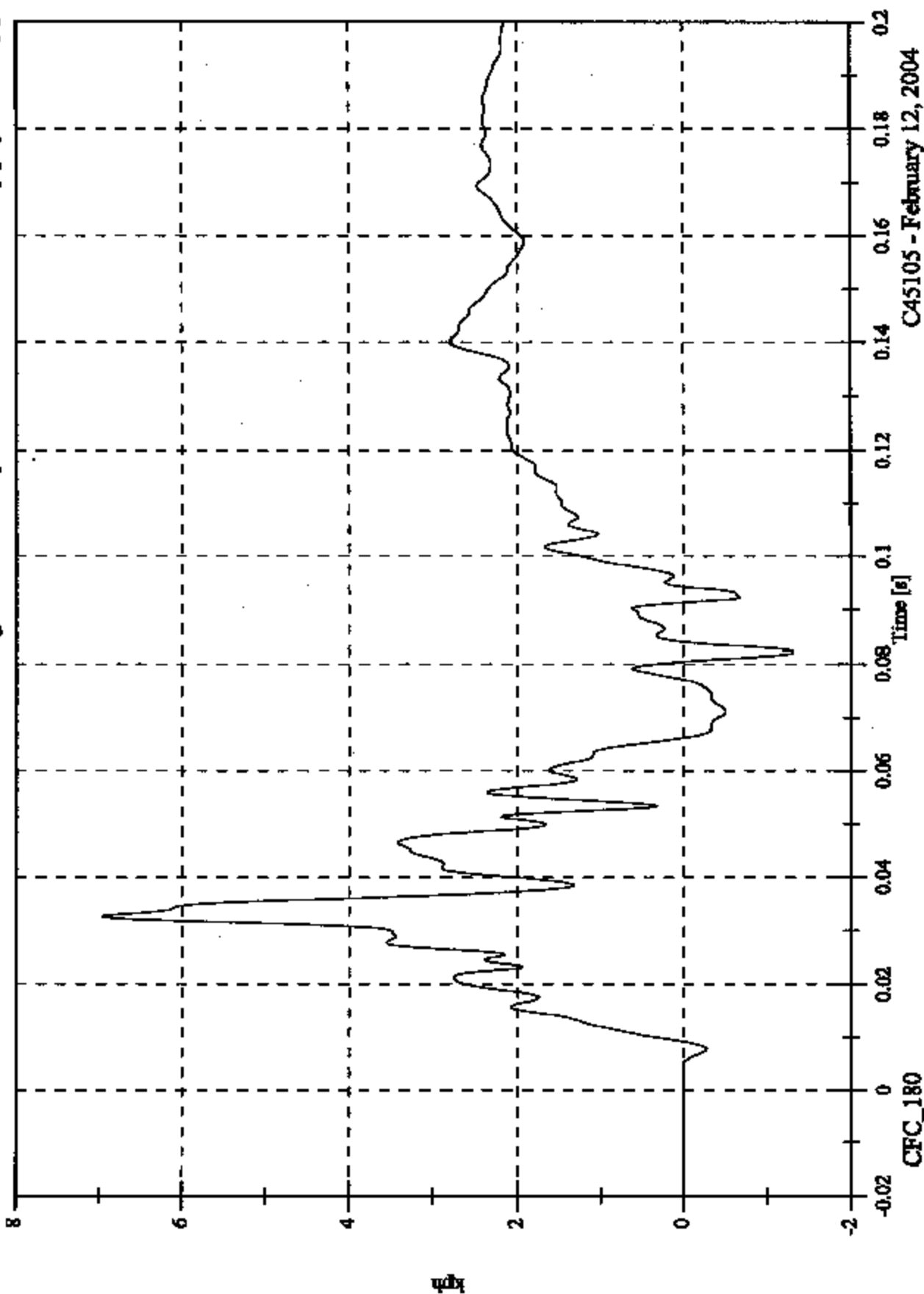


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 7.0 [kph] at 0.033 [s]
Min: -1.3 [kph] at 0.082 [s]

V2 A18 Target CG z Velocity



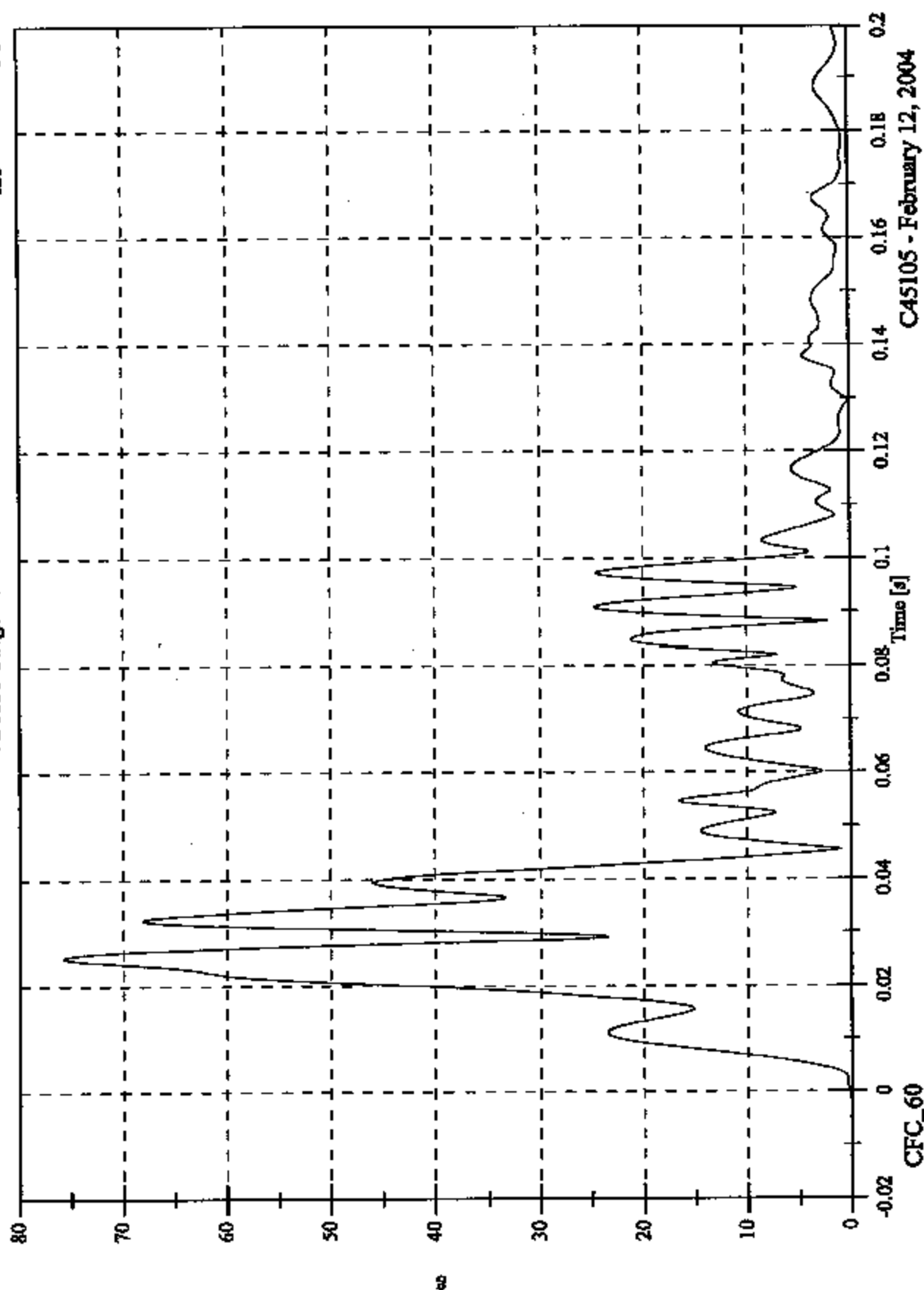
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 75.7 [g] at 0.025 [s]

V2 A18 Target CG Resultant

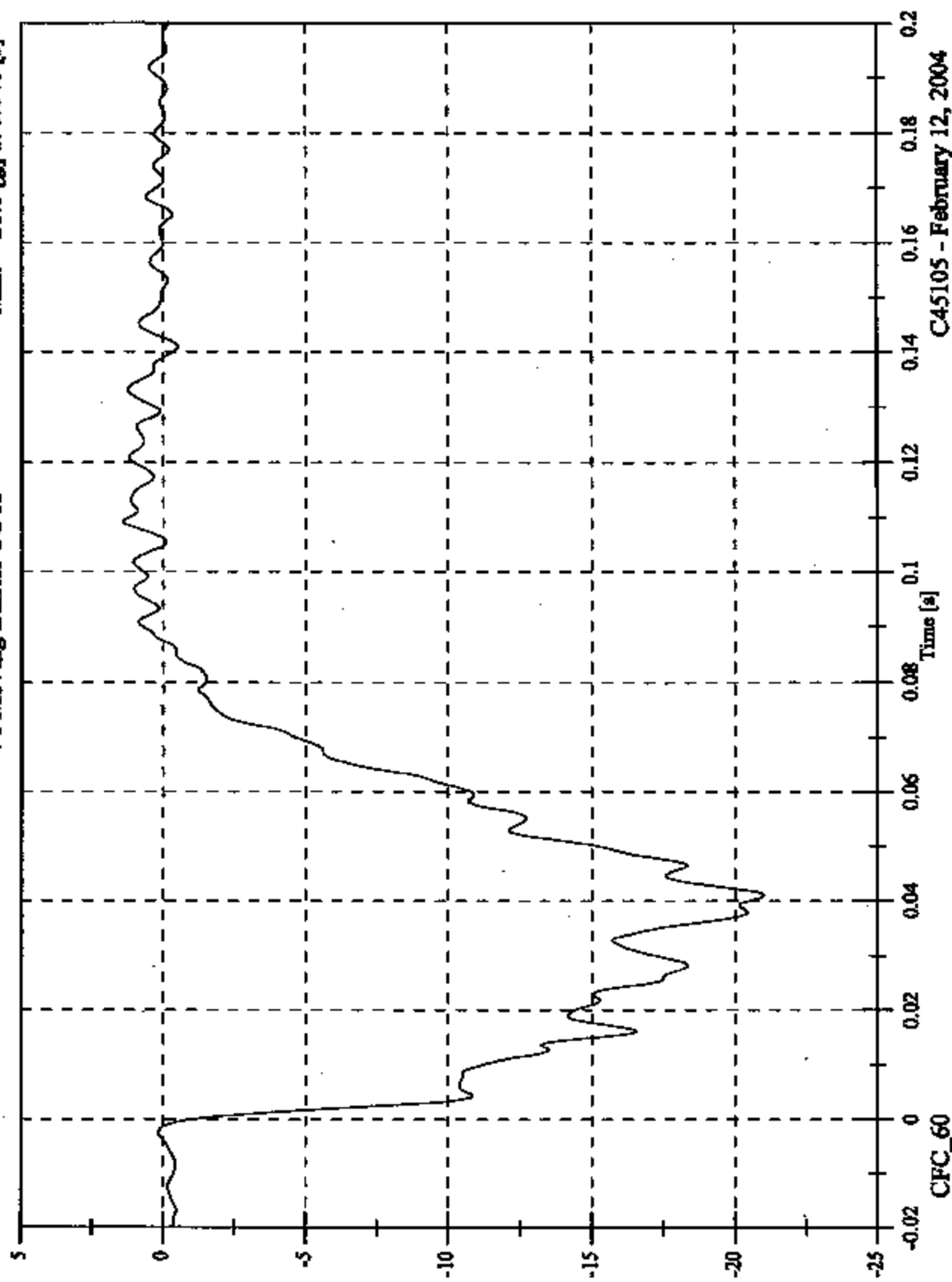
Min: 0.0 [g] at -0.020 [s]



FMVSS 214D Indicant - 2004 Toyota Camry

VI Moving Barrier CG X

Max: 1.4 [g] at 0.109 [s]
Min: -21.0 [g] at 0.041 [s]

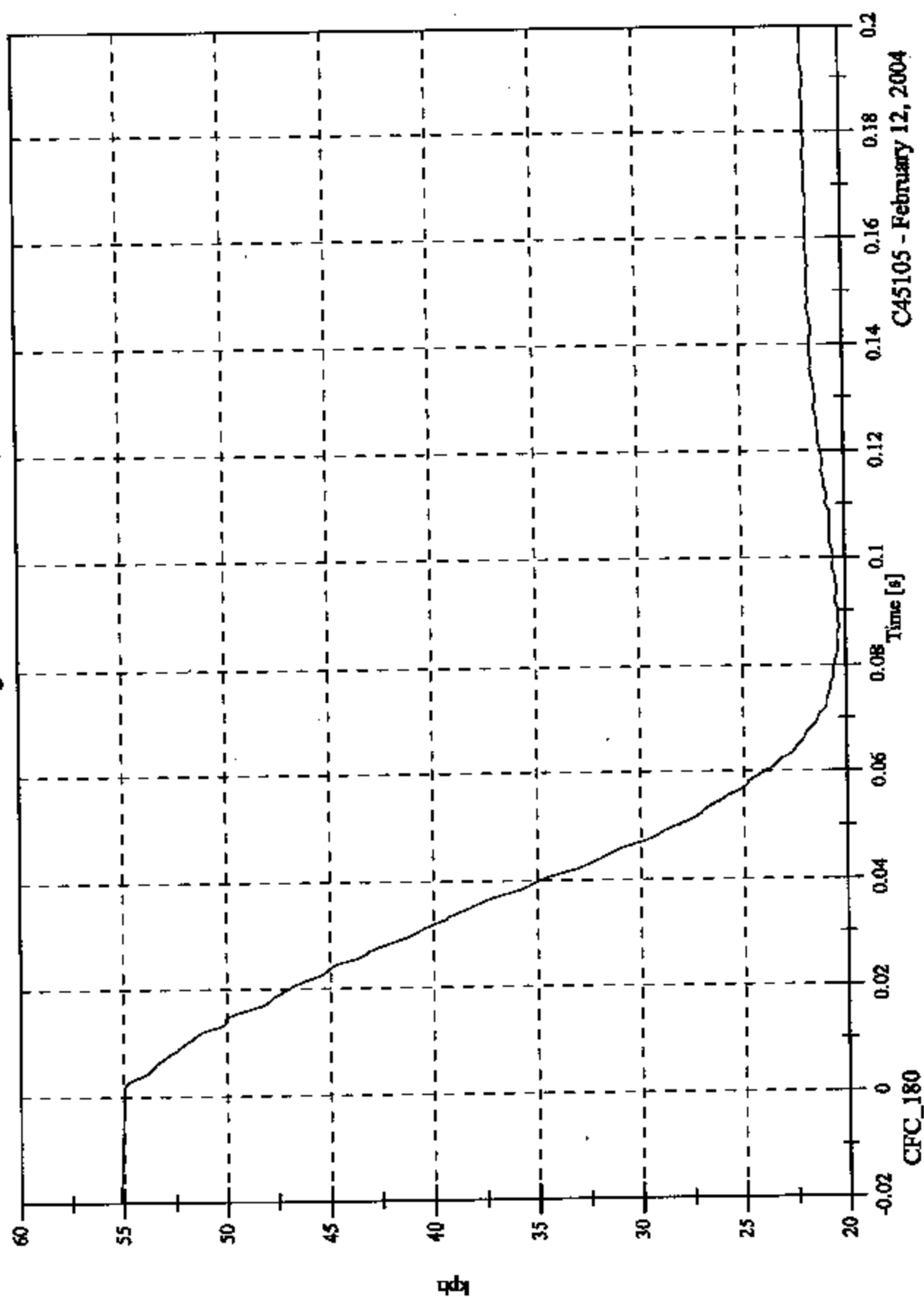


CFC_60

C45105 - February 12, 2004

Max: 55.2 [kph] at -0.020 [s]
Min: 20.3 [kph] at 0.087 [s]

FMVSS 214D Indicant - 2004 Toyota Camry
V1 Moving Barrier CG X Velocity

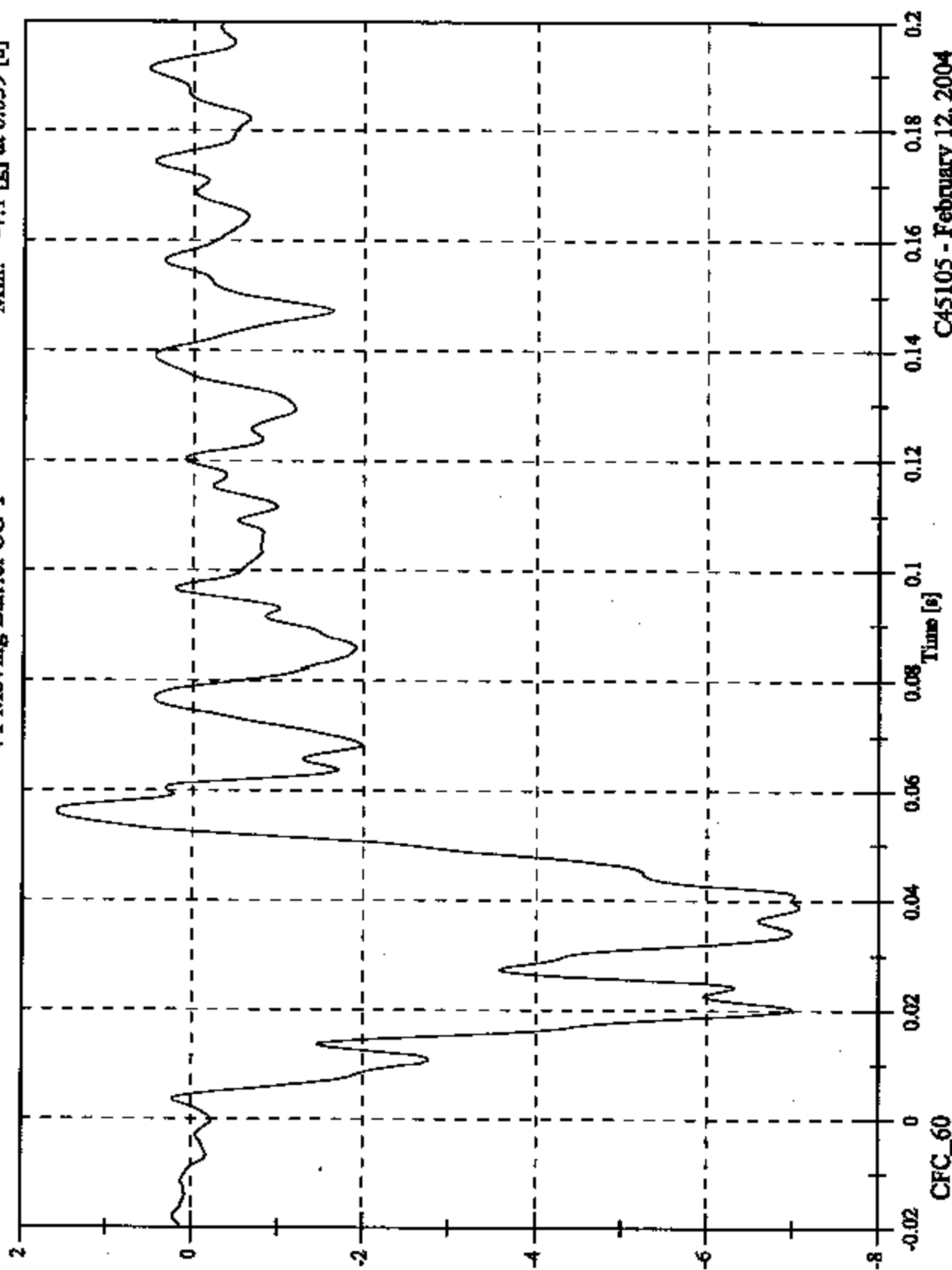


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

V1 Moving Barrier CG Y

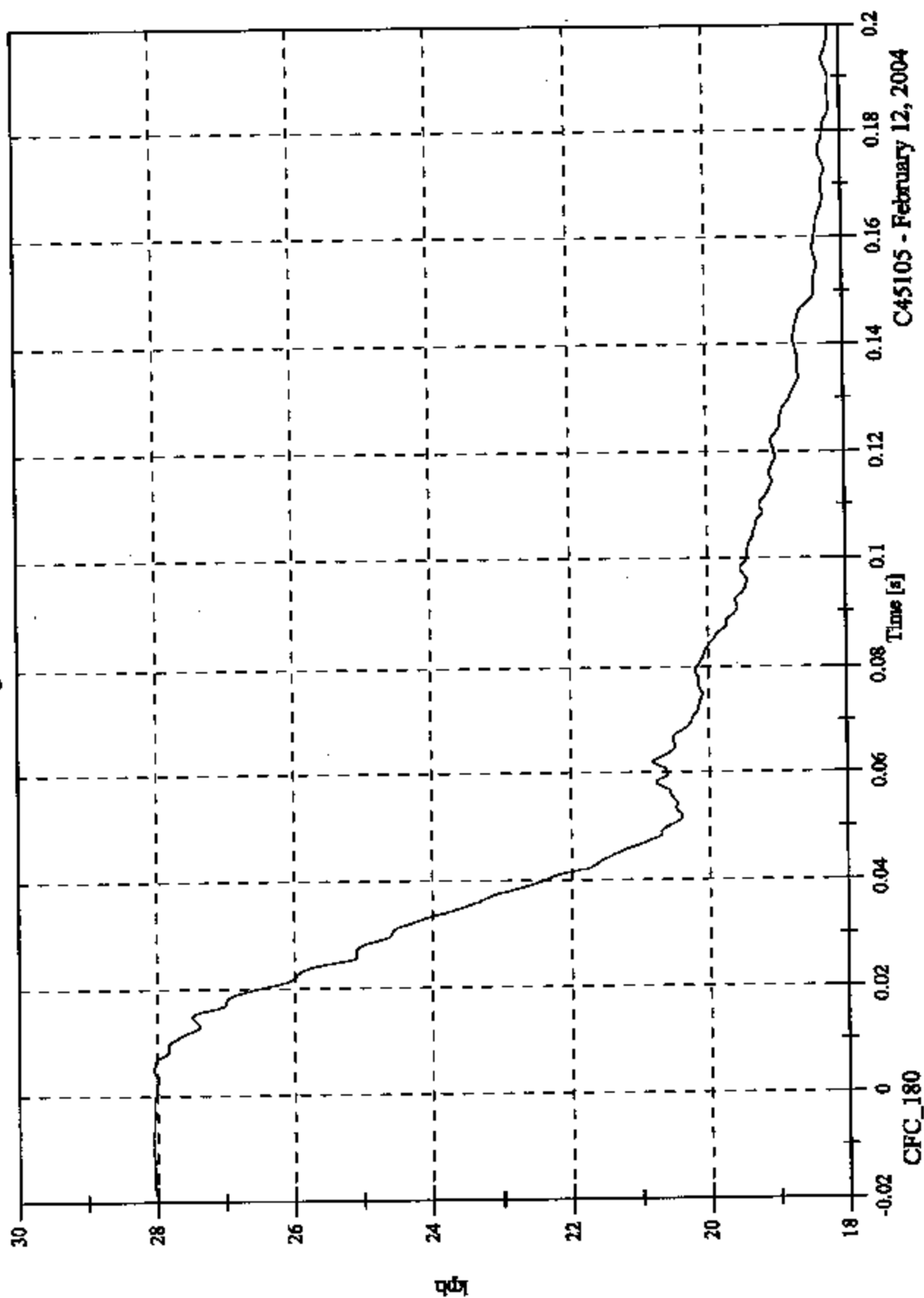
Max: 1.6 [g] at 0.056 [s]
Min: -7.1 [g] at 0.039 [s]



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Max: 28.1 [kph] at -0.008 [s]
Min: 18.2 [kph] at 0.185 [s]

FMVSS 214D Indicant - 2004 Toyota Camry
V1 Moving Barrier CG Y Velocity



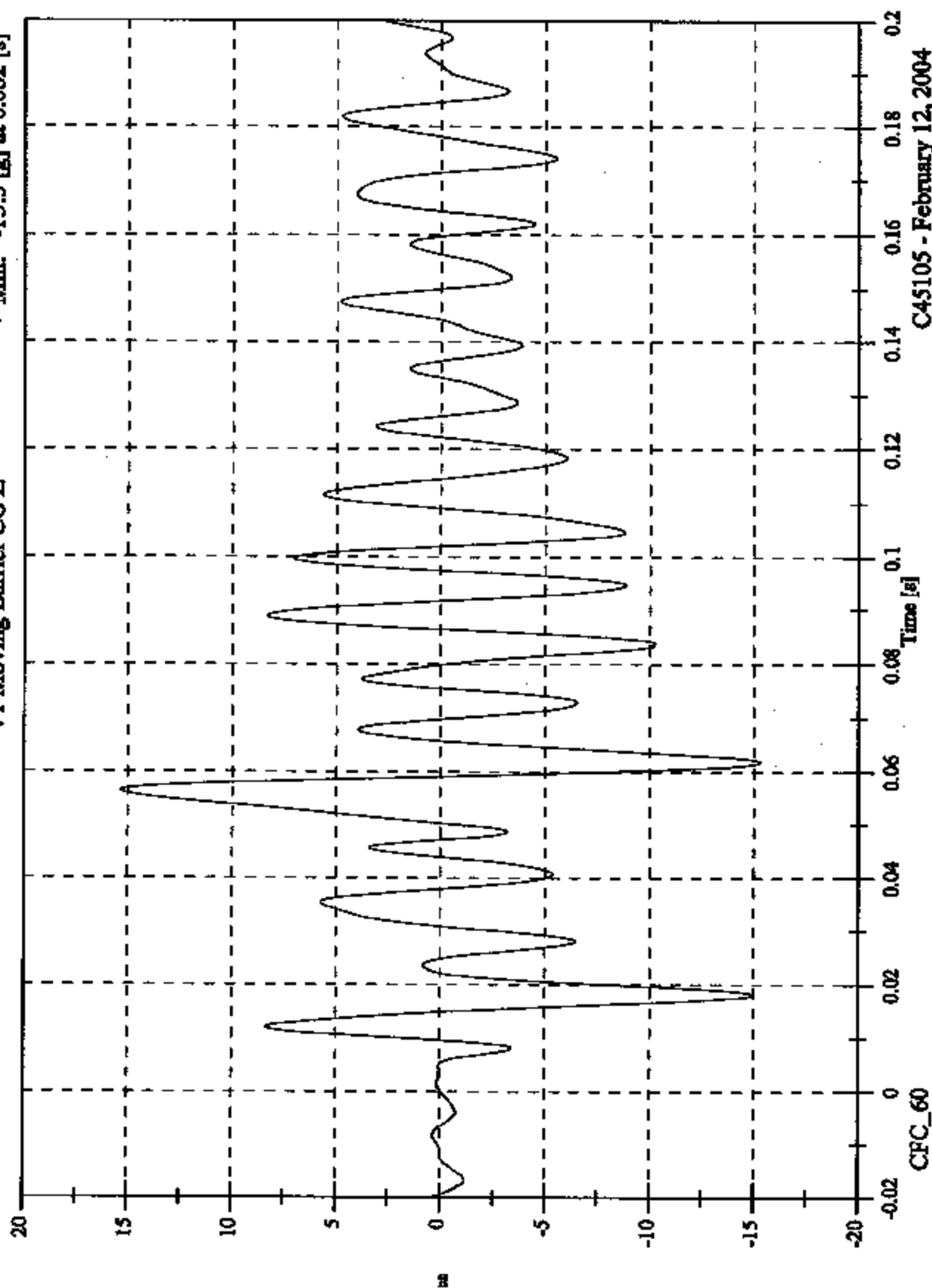
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 15.4 [g] at 0.056 [s]

Min: -15.3 [g] at 0.062 [s]

V1 Moving Barrier CG Z

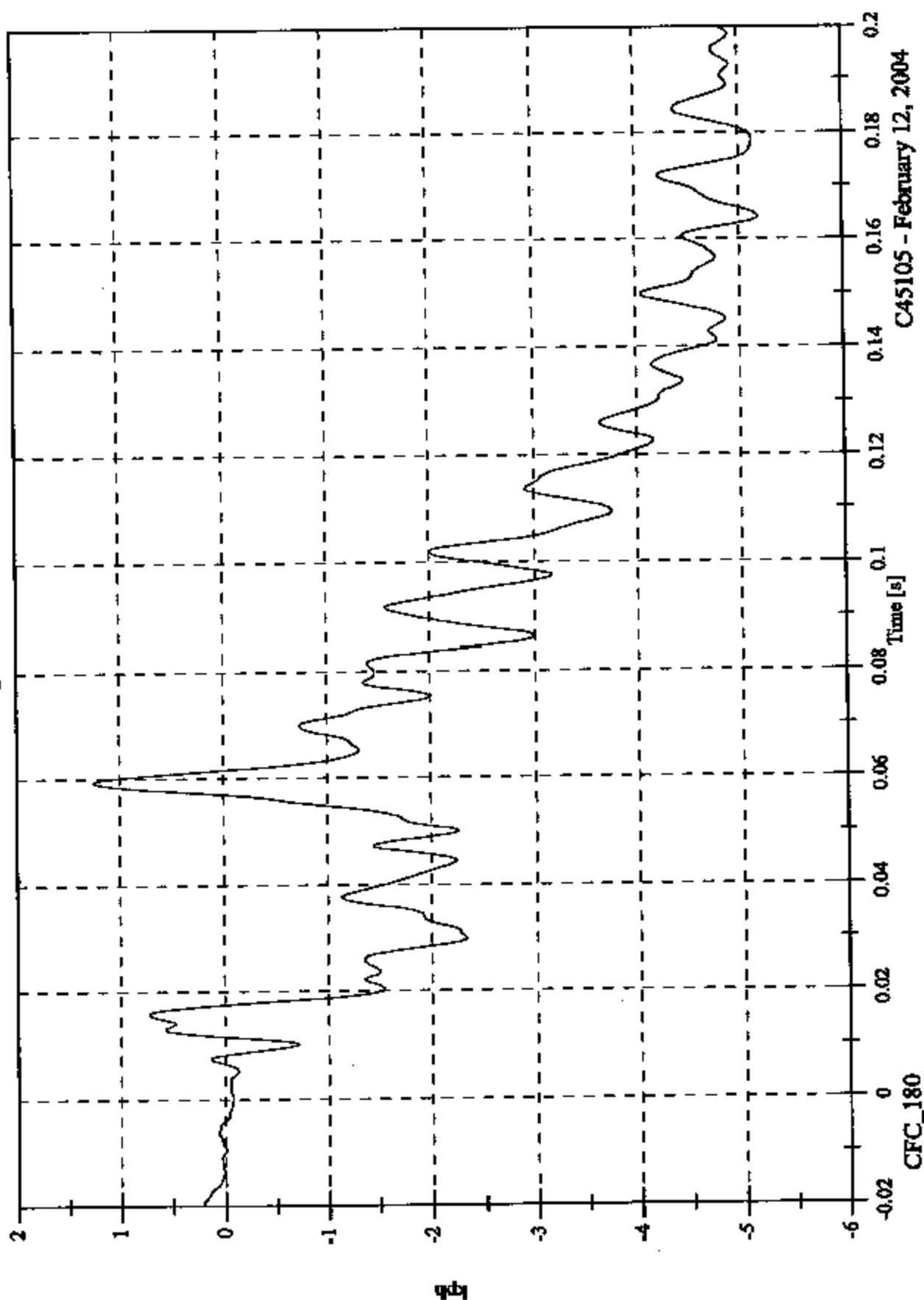


FMVSS 214D Inducant - 2004 Toyota Camry

Max: 1.3 [kph] at 0.059 [s]

Min: -5.2 [kph] at 0.164 [s]

V1 Moving Barrier CG Z Velocity

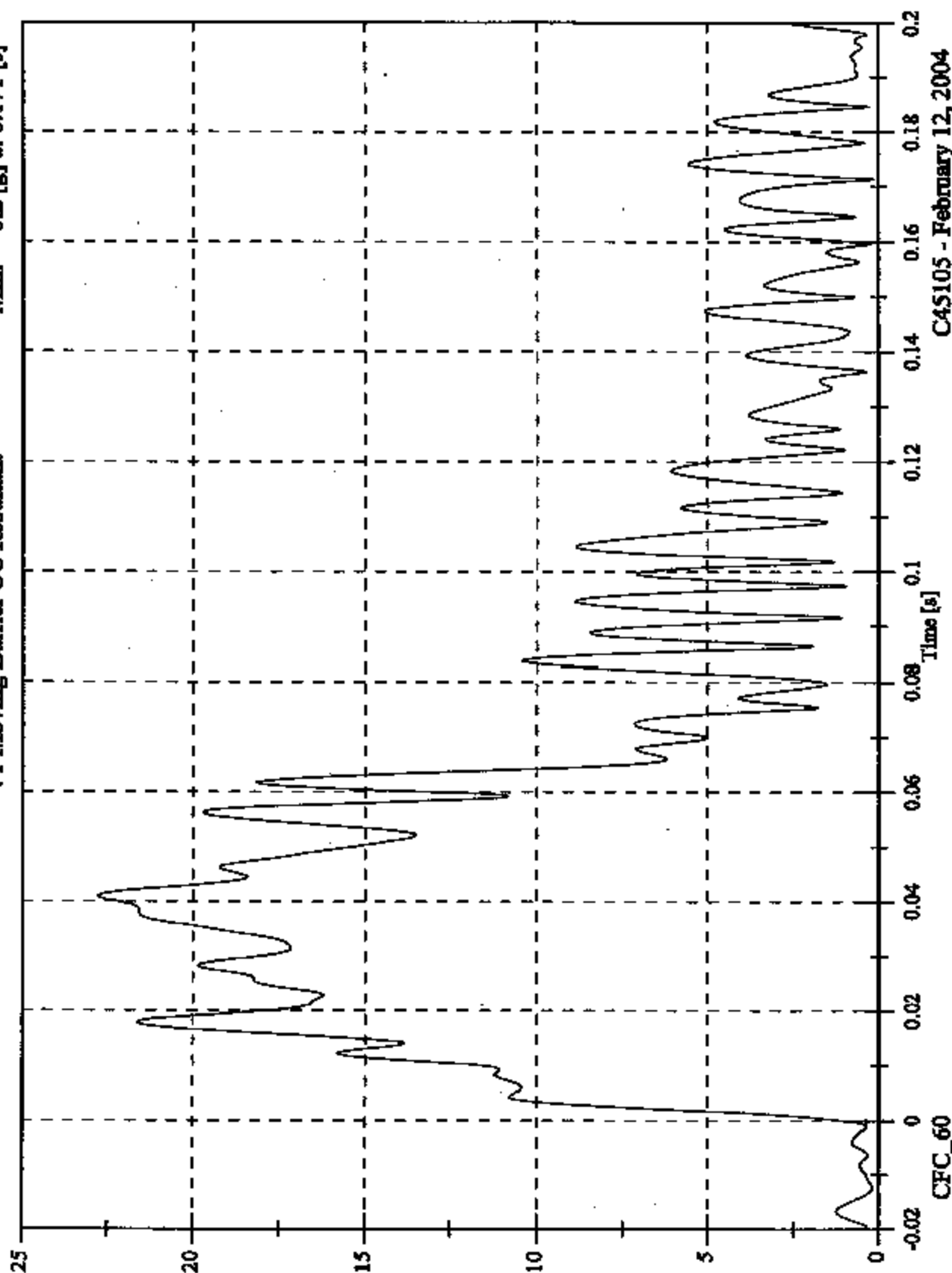


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

V1 Moving Barrier CG Resultant

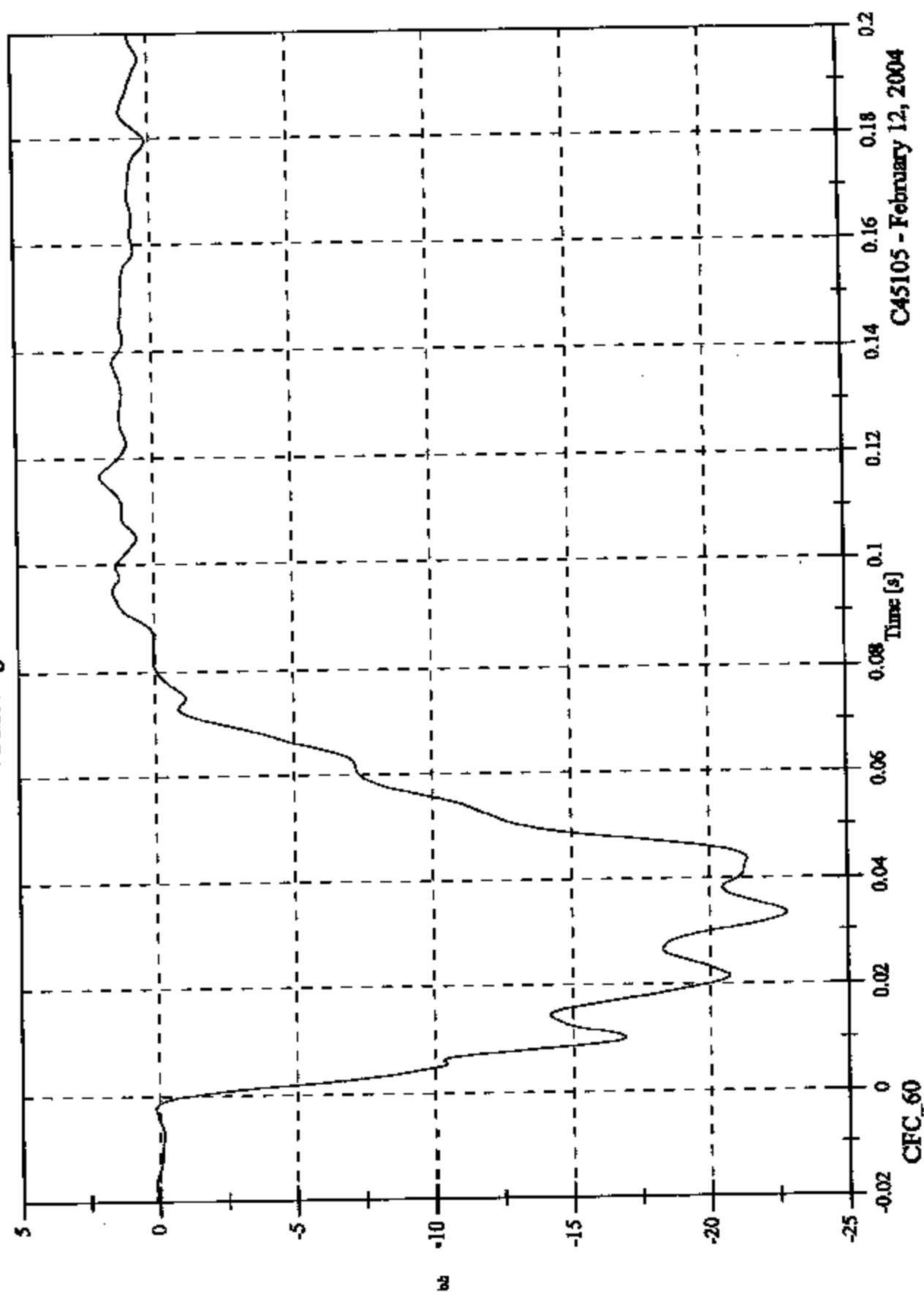
Max: 22.8 [g] at 0.041 [s]
Min: 0.2 [g] at 0.171 [s]



FMVSS 214D Indicant - 2004 Toyota Camry

V1 Moving Barrier Left Rail X

Max: 1.9 [g] at 0.117 [s]
Min: -22.8 [g] at 0.033 [s]

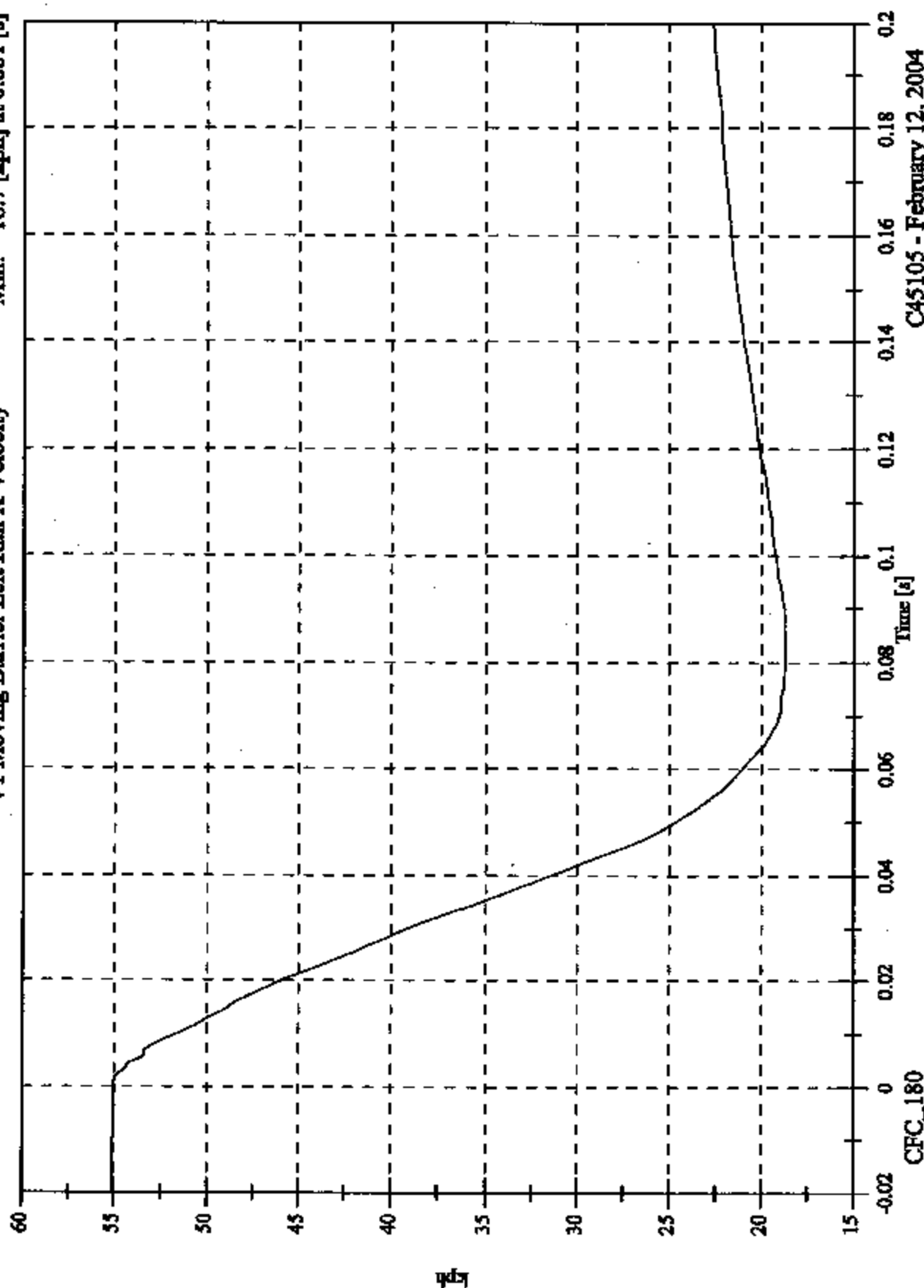


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

V1 Moving Barrier Left Rail X Velocity

Max: 55.1 [kph] at -0.015 [s]
Min: 18.7 [kph] at 0.081 [s]



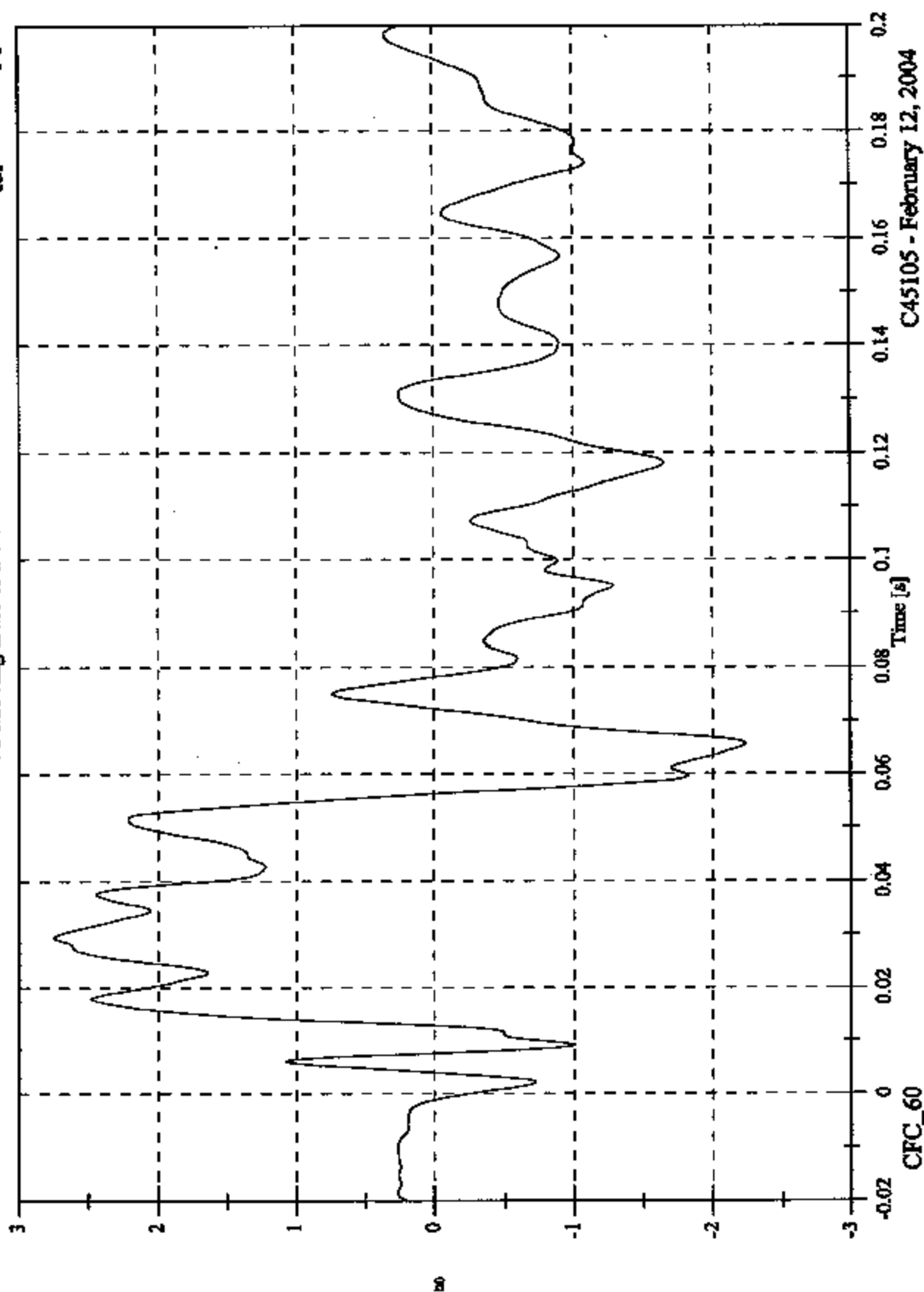
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 2.7 [g] at 0.029 [s]

V1 Moving Barrier Left Rail Y

Min: -2.2 [g] at 0.066 [s]



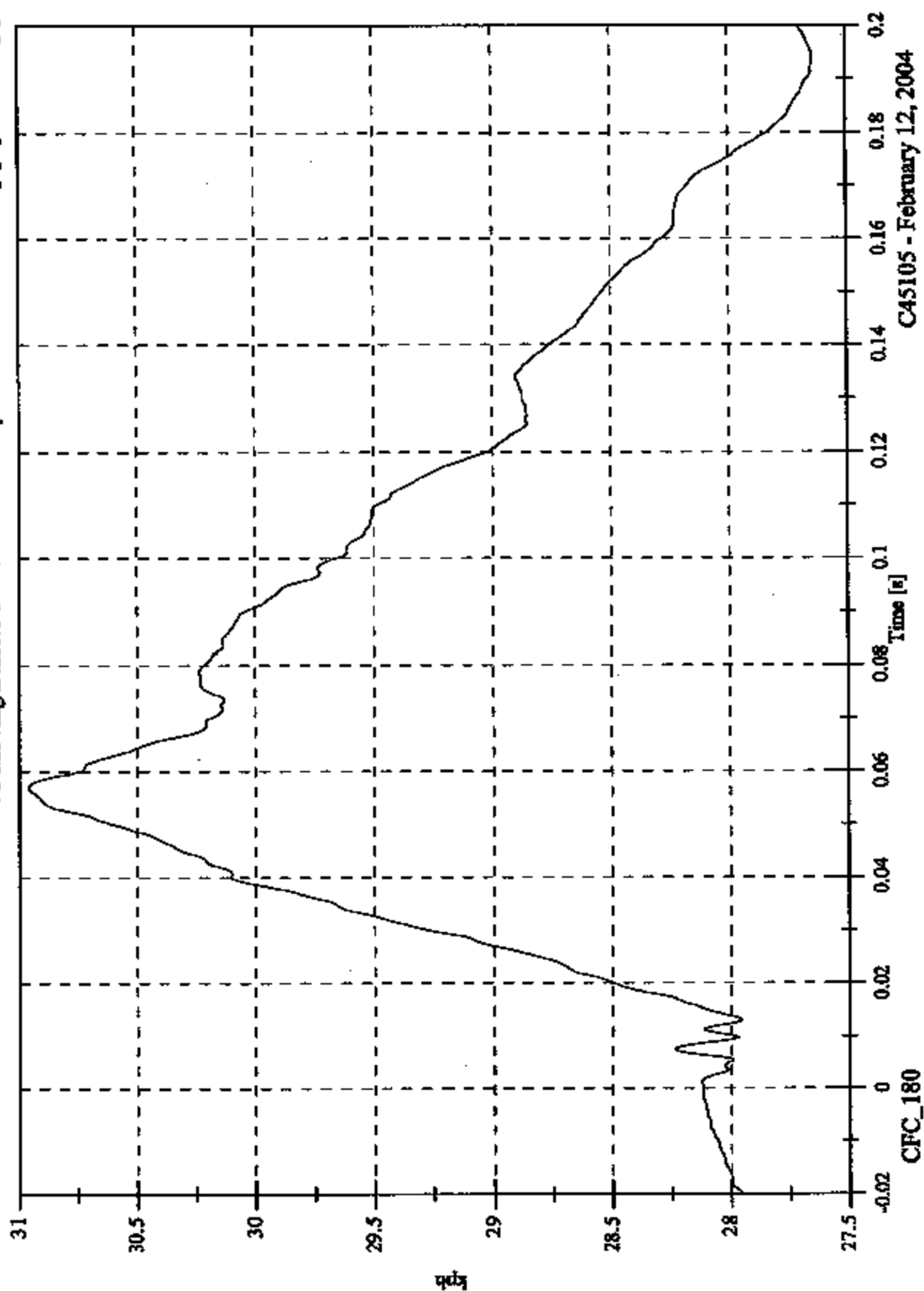
C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

Max: 31.0 [kph] at 0.057 [s]

Min: 27.6 [kph] at 0.194 [s]

V1 Moving Barrier Left Rail Y Velocity

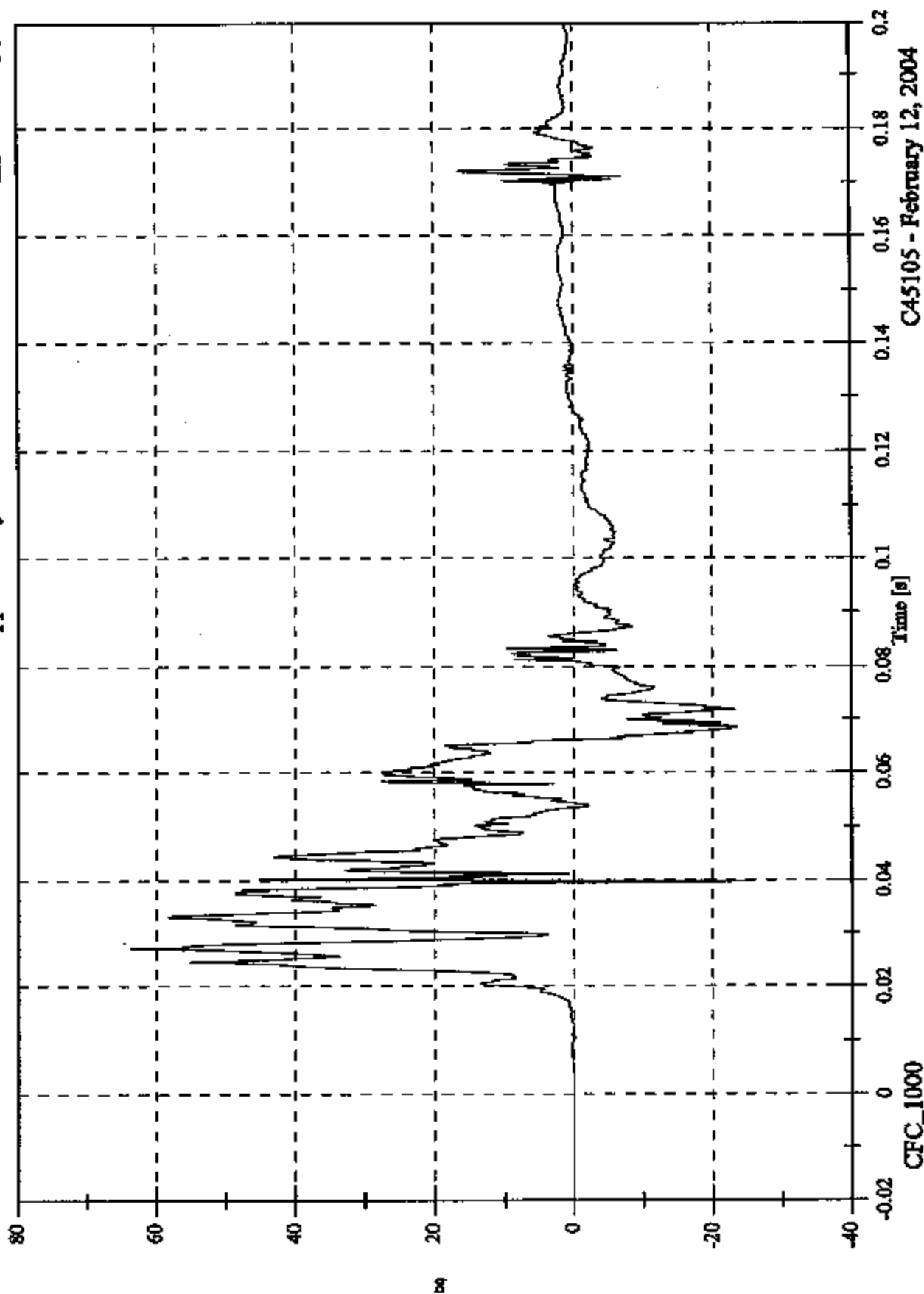


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P1 Upper Rib Ry

Max: 63.6 [g] at 0.027 [s]
Min: -25.1 [g] at 0.040 [s]

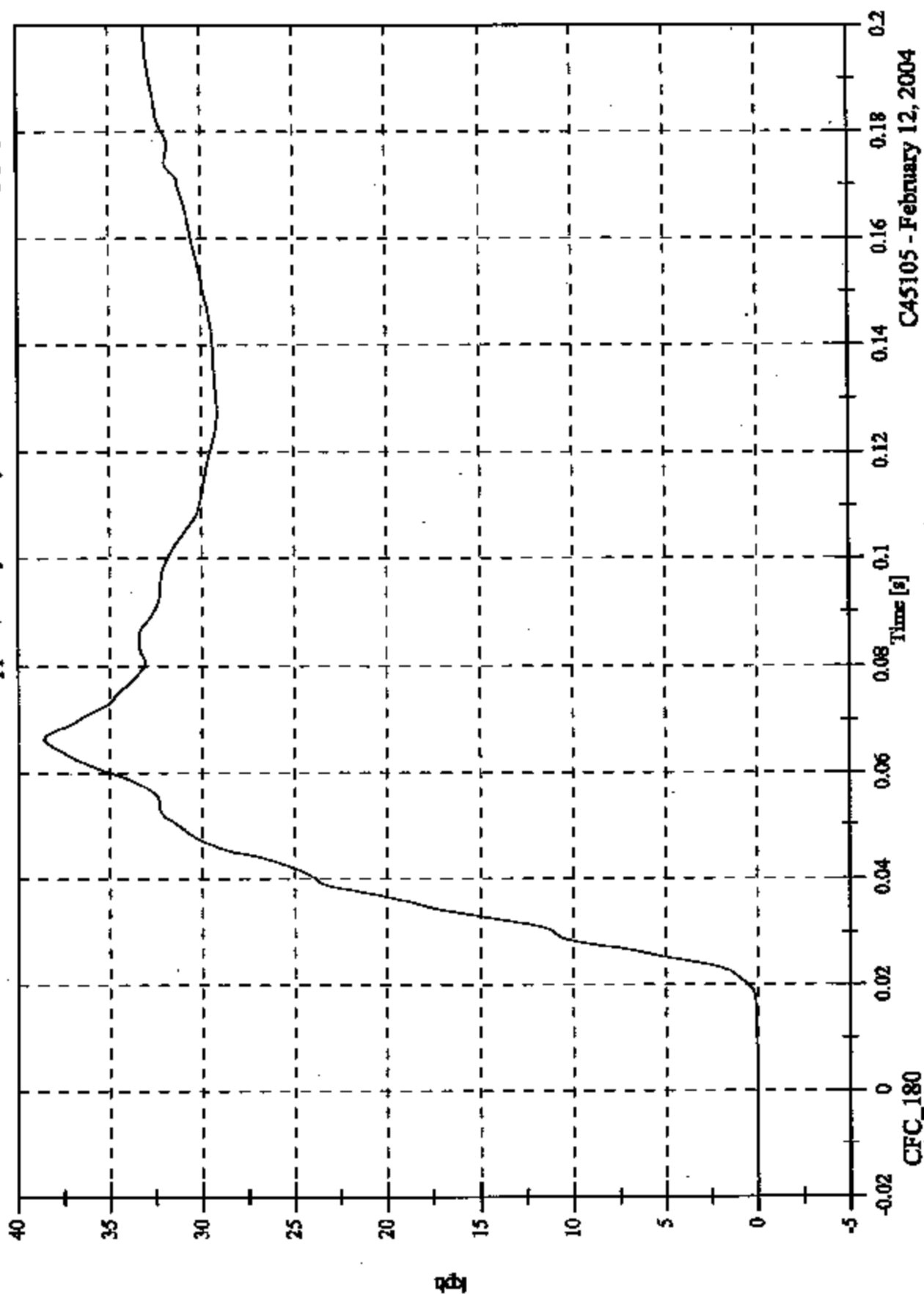


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P1 Upper Rib Ry Velocity

Max: 38.6 [kph] at 0.066 [s]
Min: -0.0 [kph] at -0.020 [s]

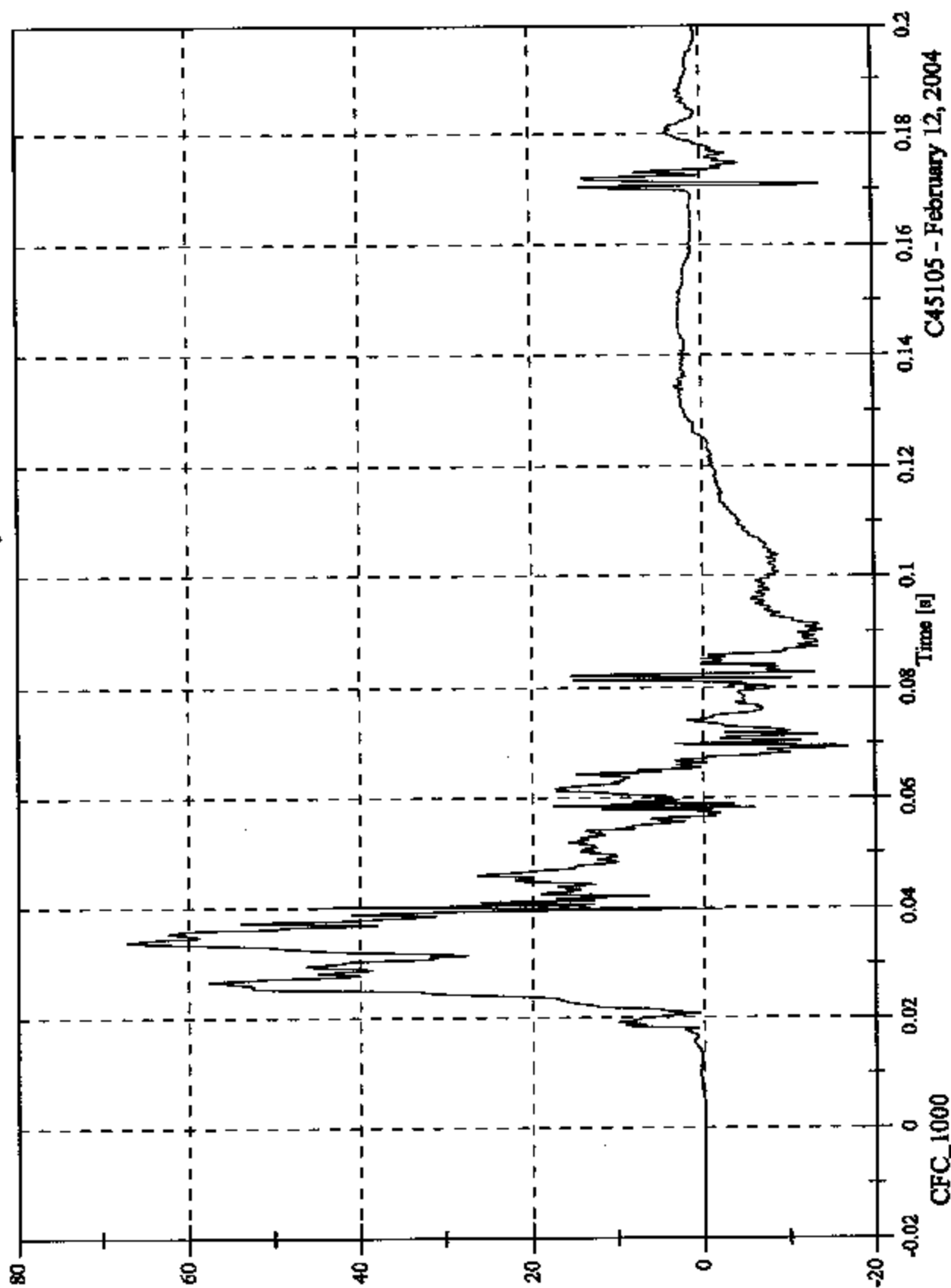


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 67.1 [g] at 0.034 [s]
Min: -16.9 [g] at 0.069 [s]

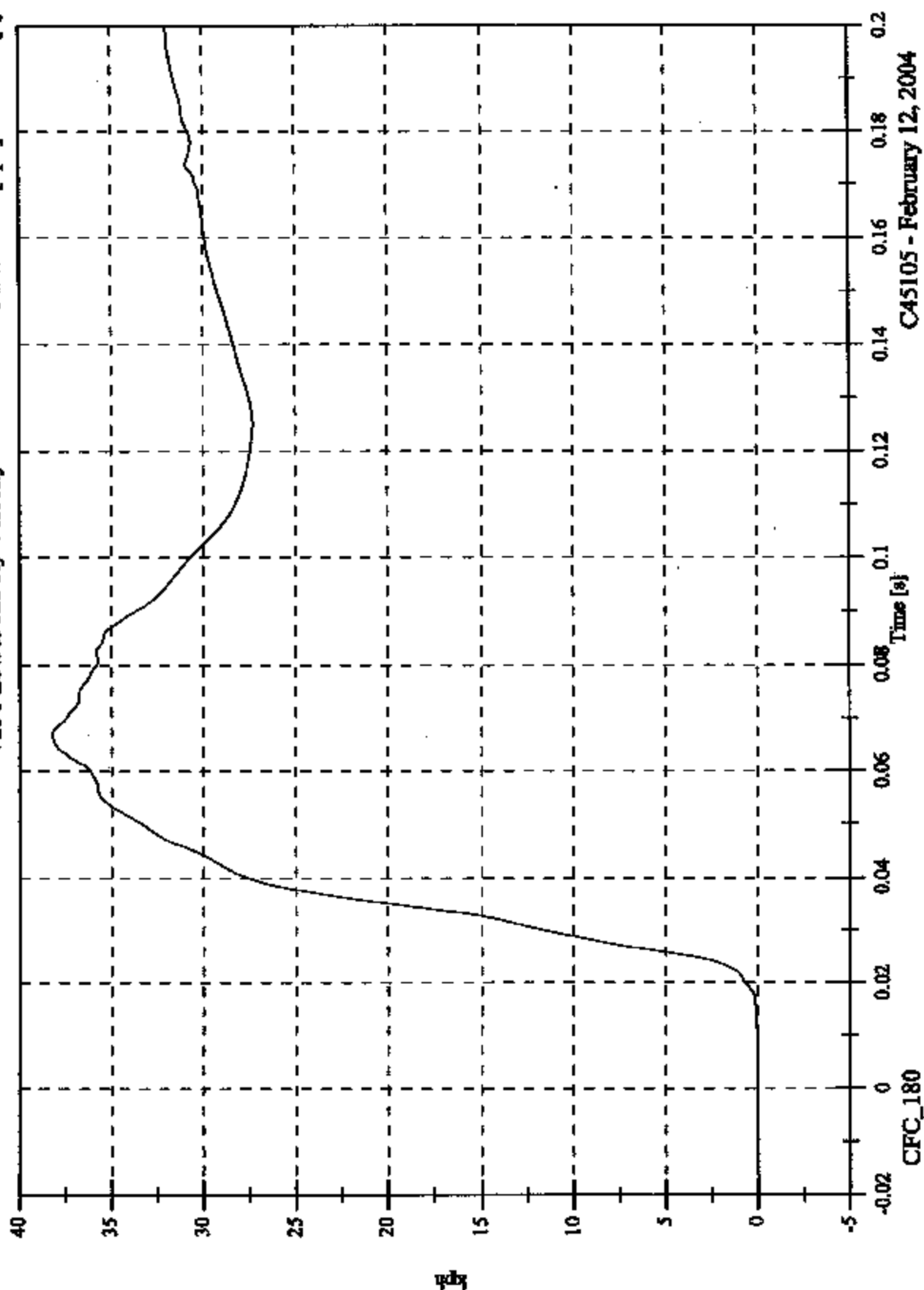
V2P1 Lower Rib Ry



FMVSS 214D Indicant - 2004 Toyota Camry

V2P1 Lower Rib Ry Velocity

Max: 38.2 [kph] at 0.067 [s]
Min: -0.0 [kph] at -0.020 [s]

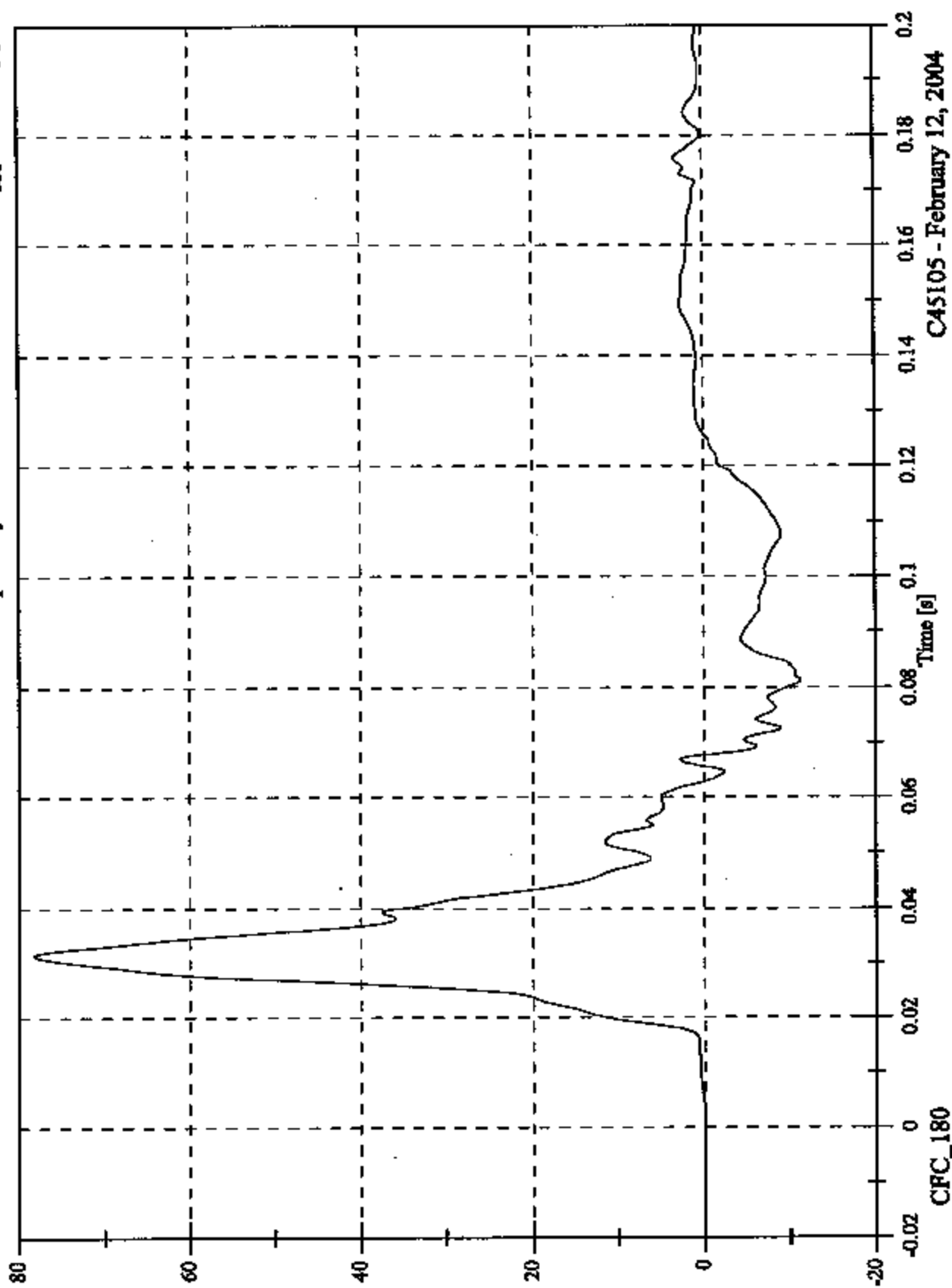


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 78.2 [g] at 0.031 [s]
Min: -11.3 [g] at 0.081 [s]

V2P1 Lower Spine Ry



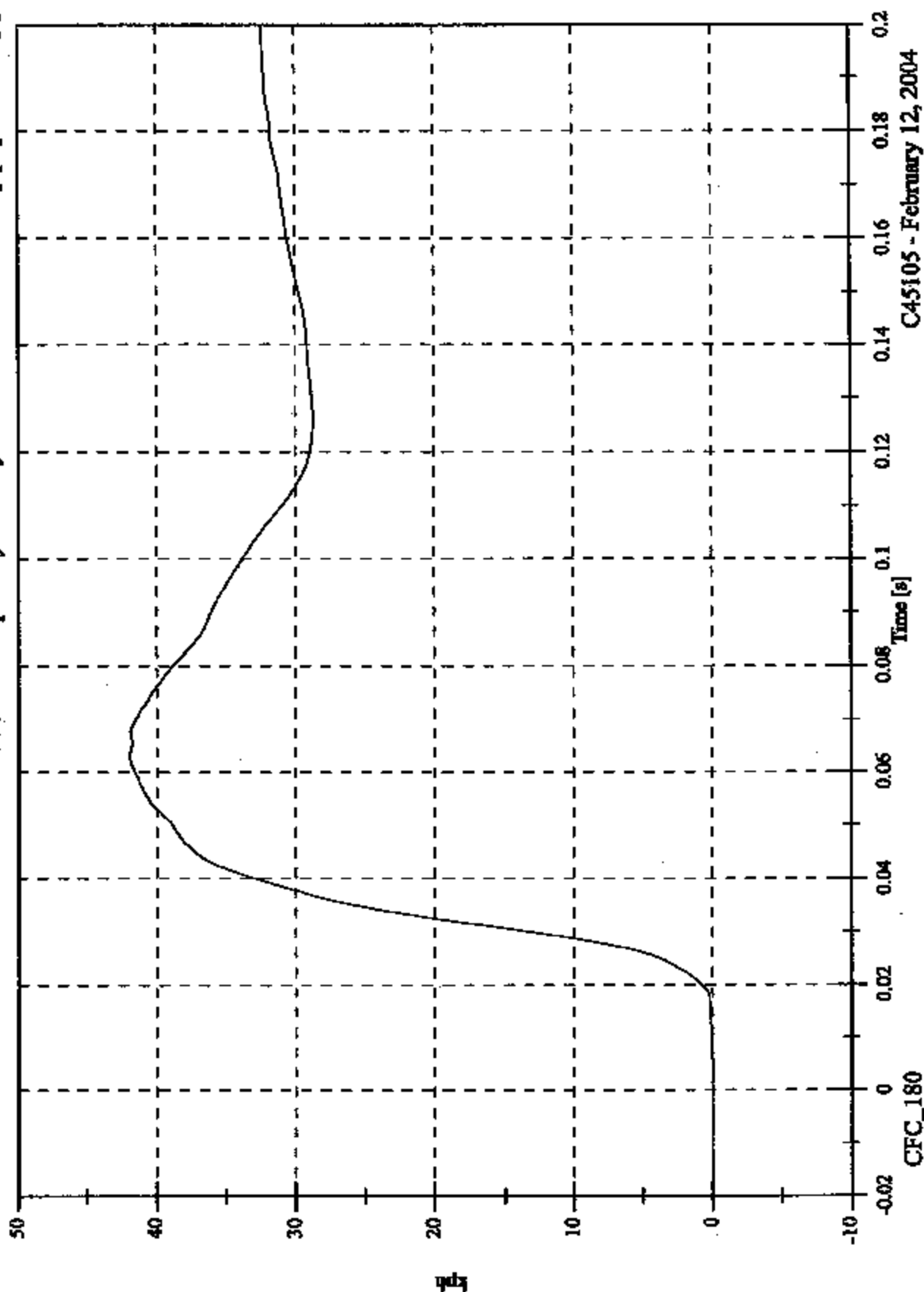
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 41.9 [kph] at 0.063 [s]

V2P1 Lower Spine Ry Velocity

Min: -0.0 [kph] at -0.020 [s]



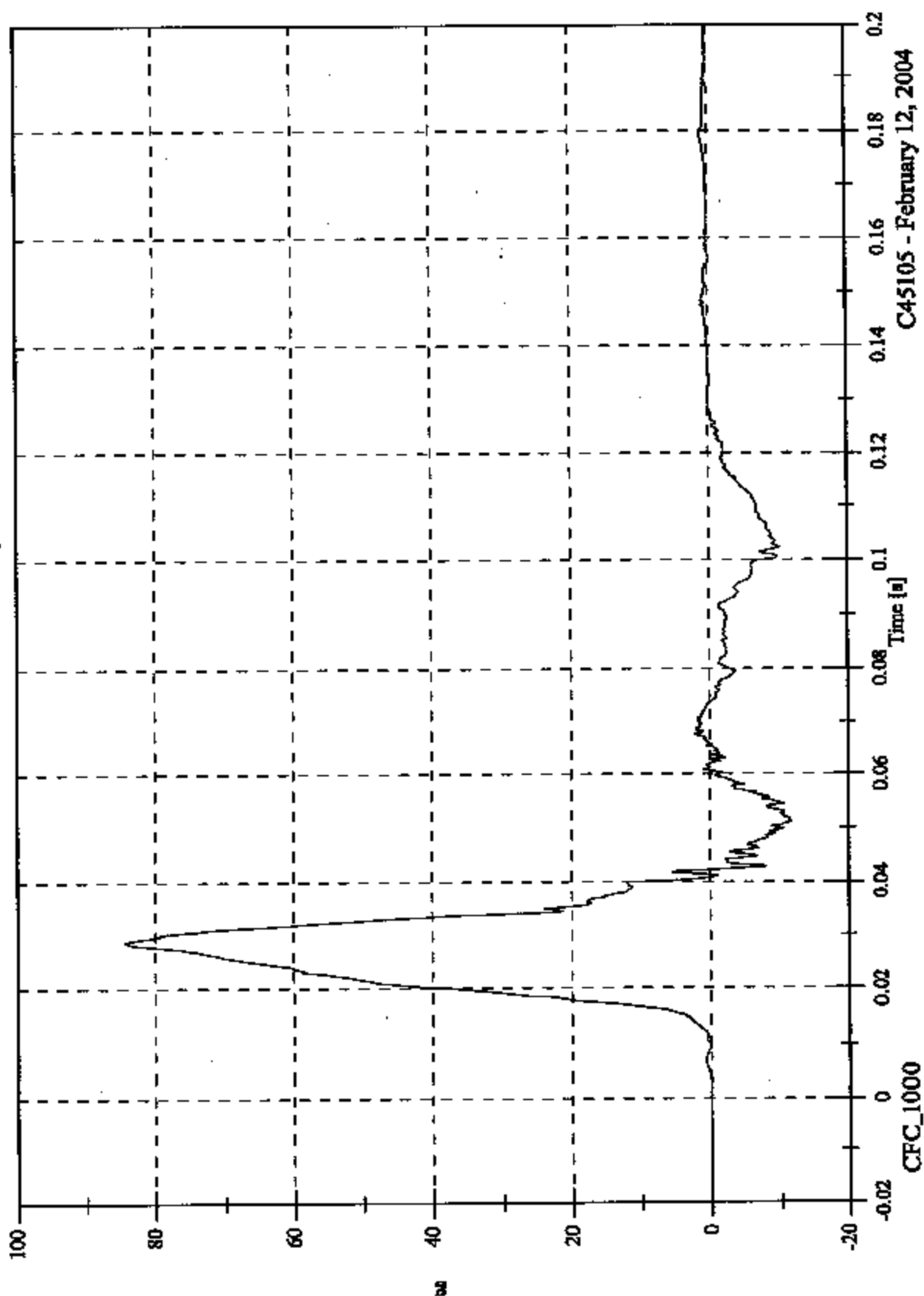
CFC_180

C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2PI Pelvic Ry

Max: 84.4 [g] at 0.029 [s]
Min: -11.7 [g] at 0.051 [s]

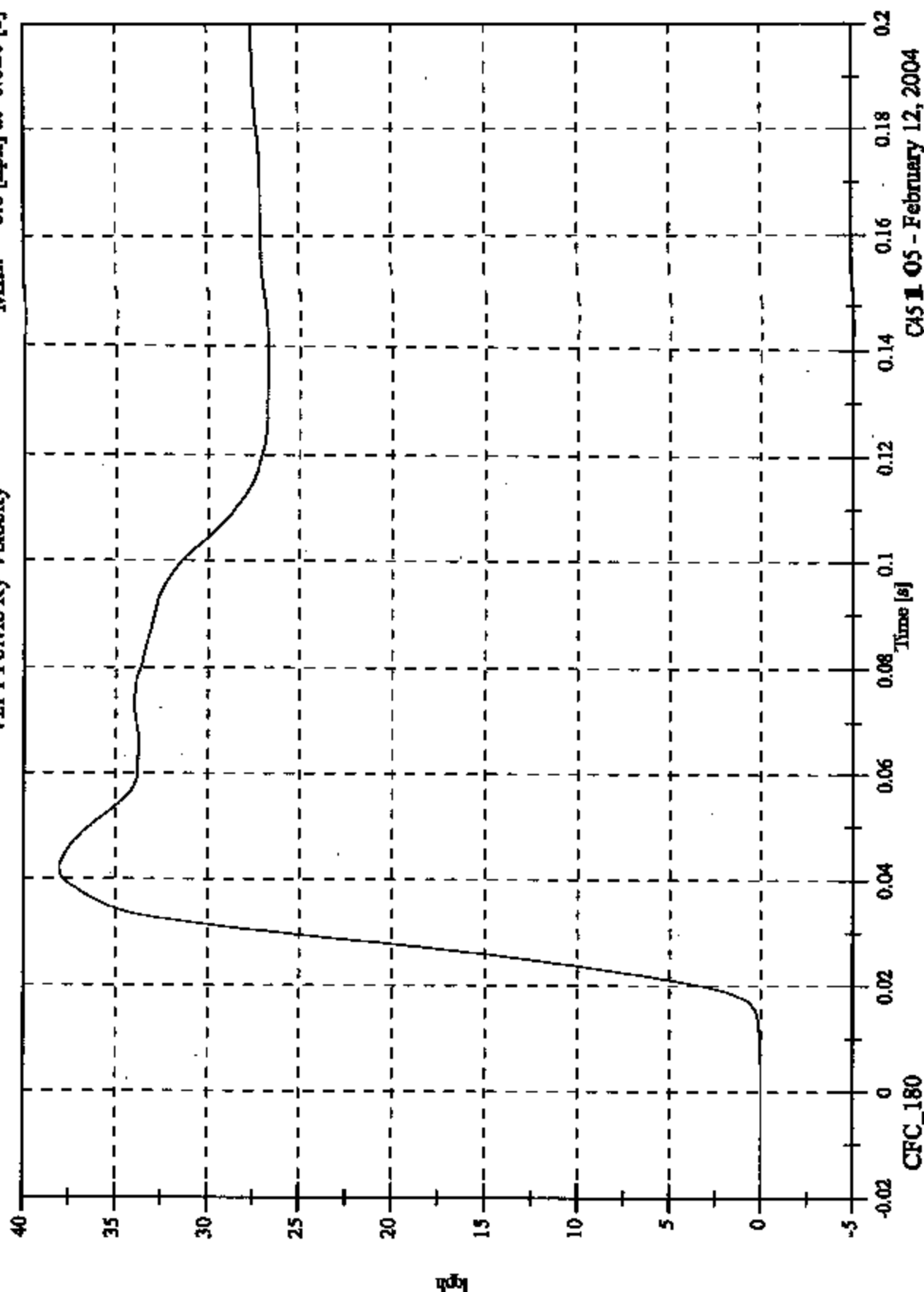


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 38.1 [kph] at 0.042 [s]
Min: -0.0 [kph] at -0.020 [s]

V2P1 Pelvic Ry Velocity



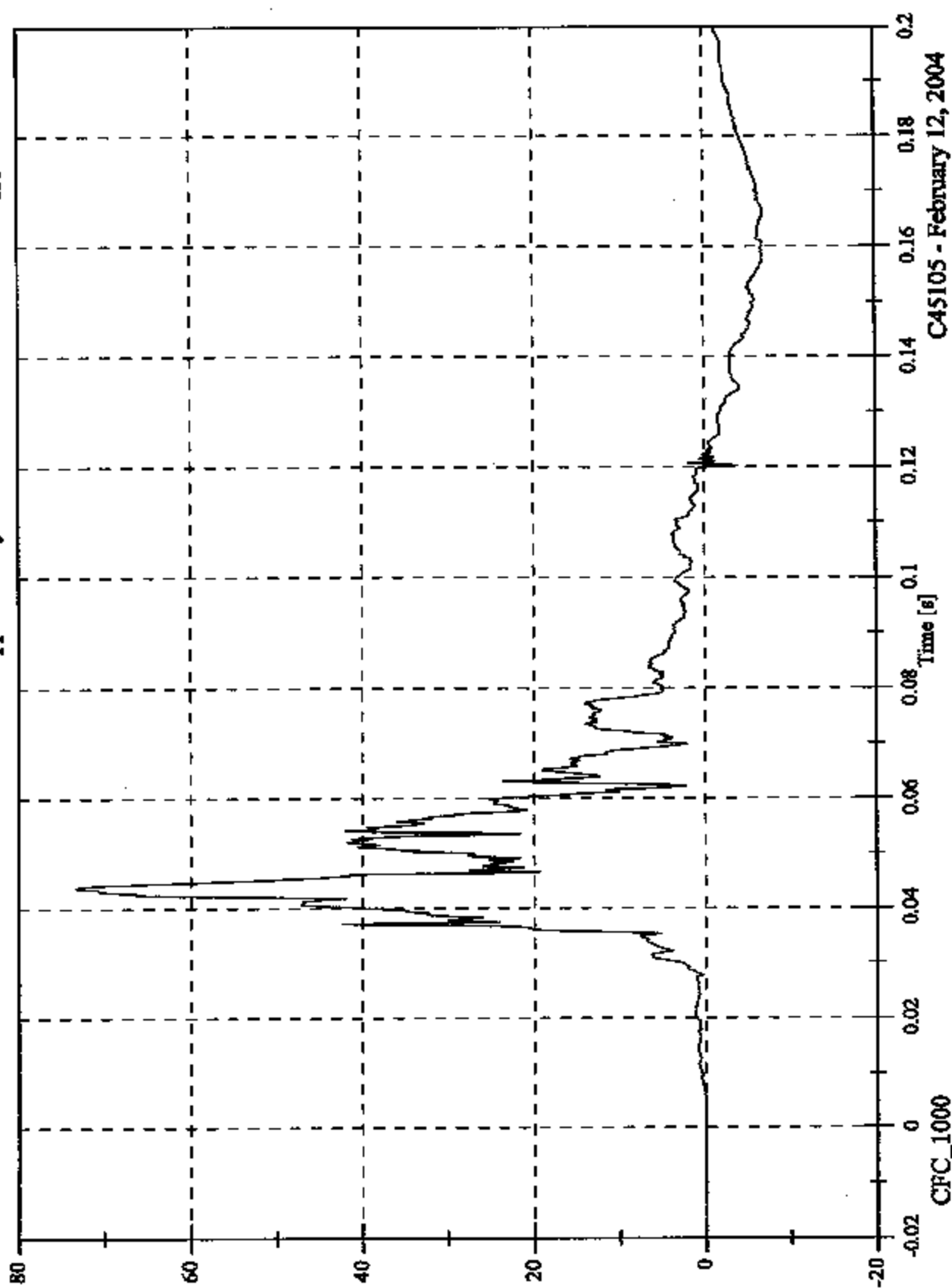
CFC_180

CAS 1.05 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 73.3 [g] at 0.044 [s]
Min: -7.0 [g] at 0.166 [s]

V2P4 Upper Rib Ry

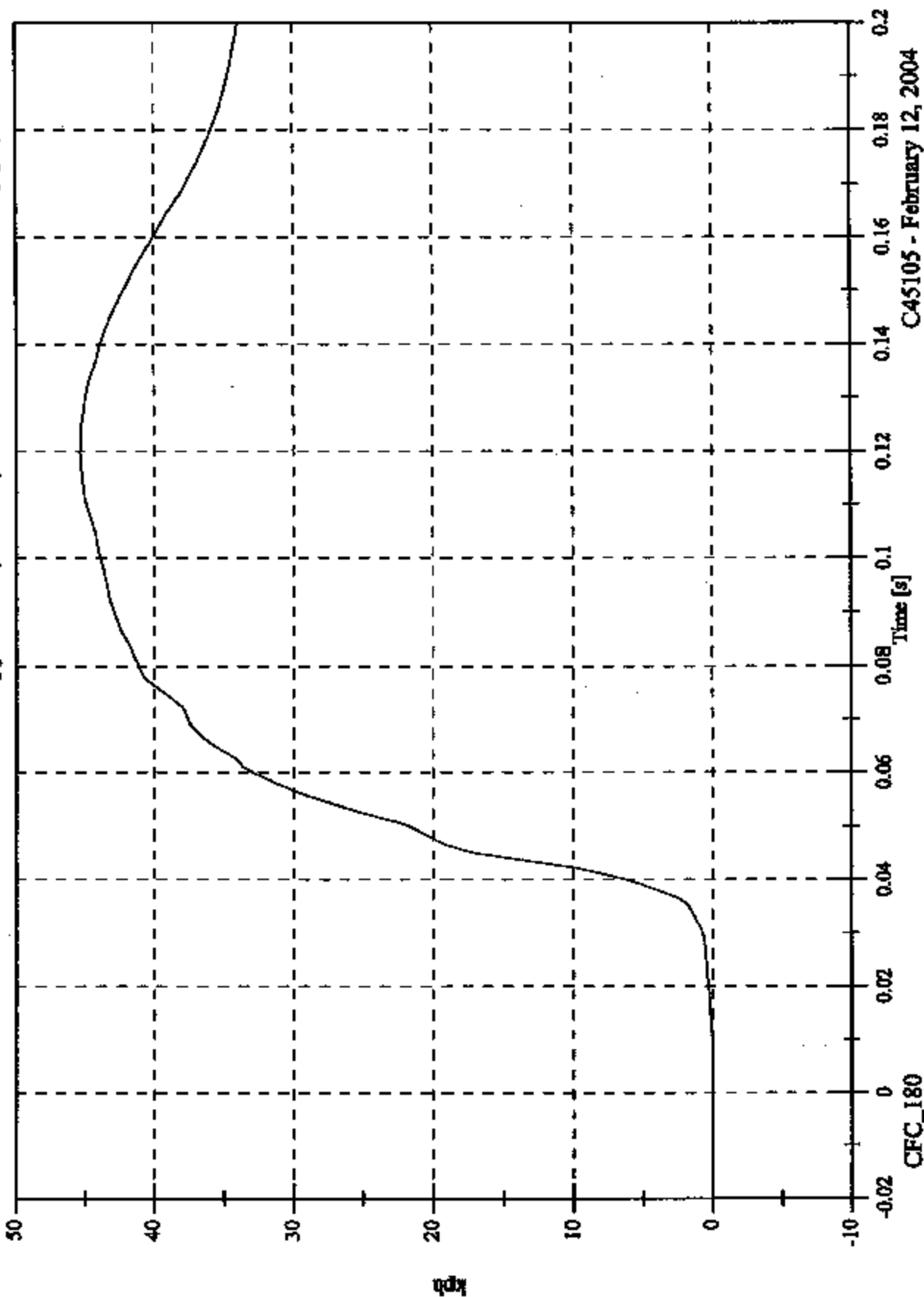


8

FMVSS 214D Indicant - 2004 Toyota Camry

V2P4 Upper Rib Ry Velocity

Max: 45.3 [kph] at 0.120 [s]
Min: -0.0 [kph] at -0.020 [s]

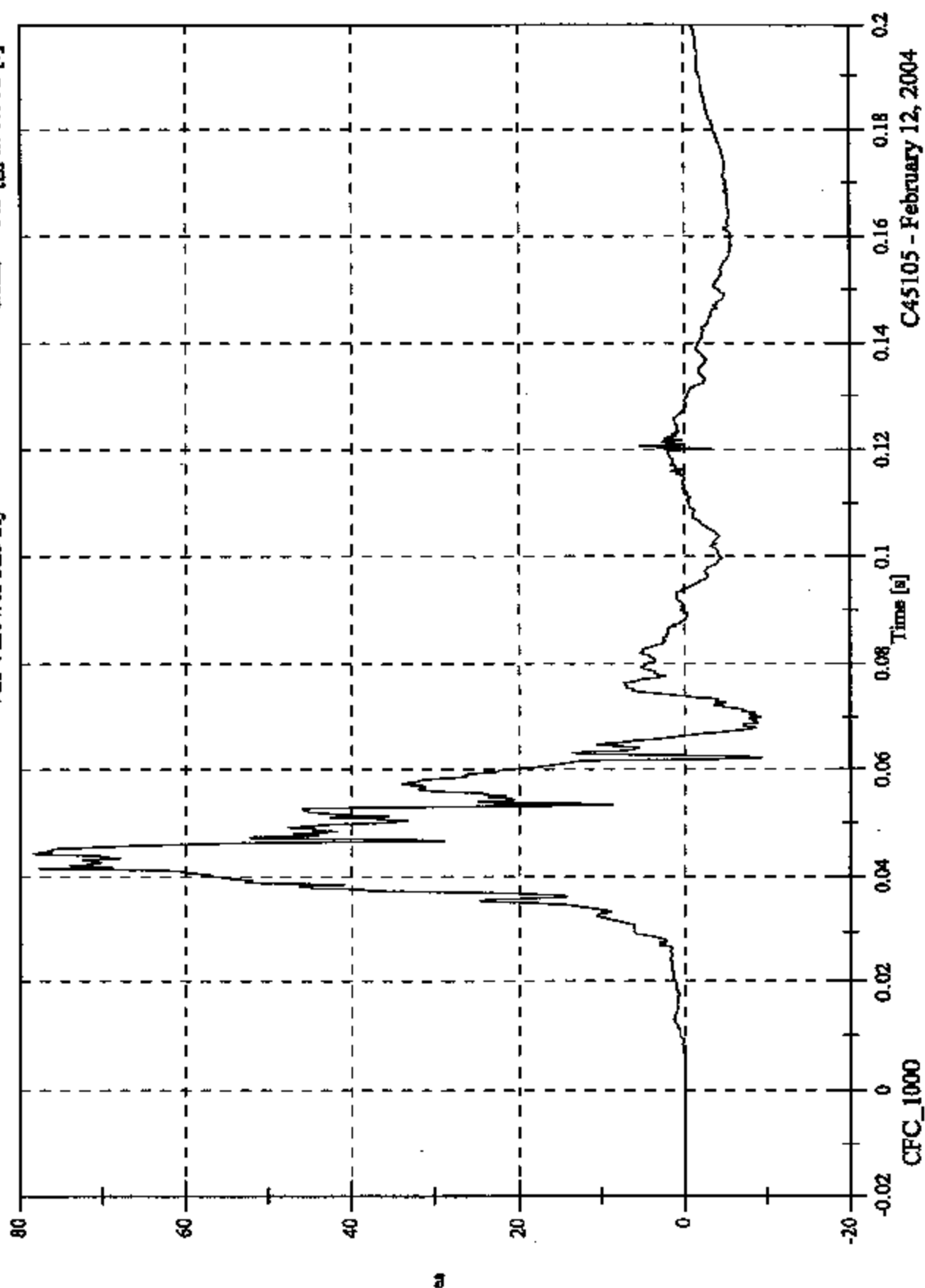


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 78.3 [g] at 0.044 [s]
Min: -9.3 [g] at 0.062 [s]

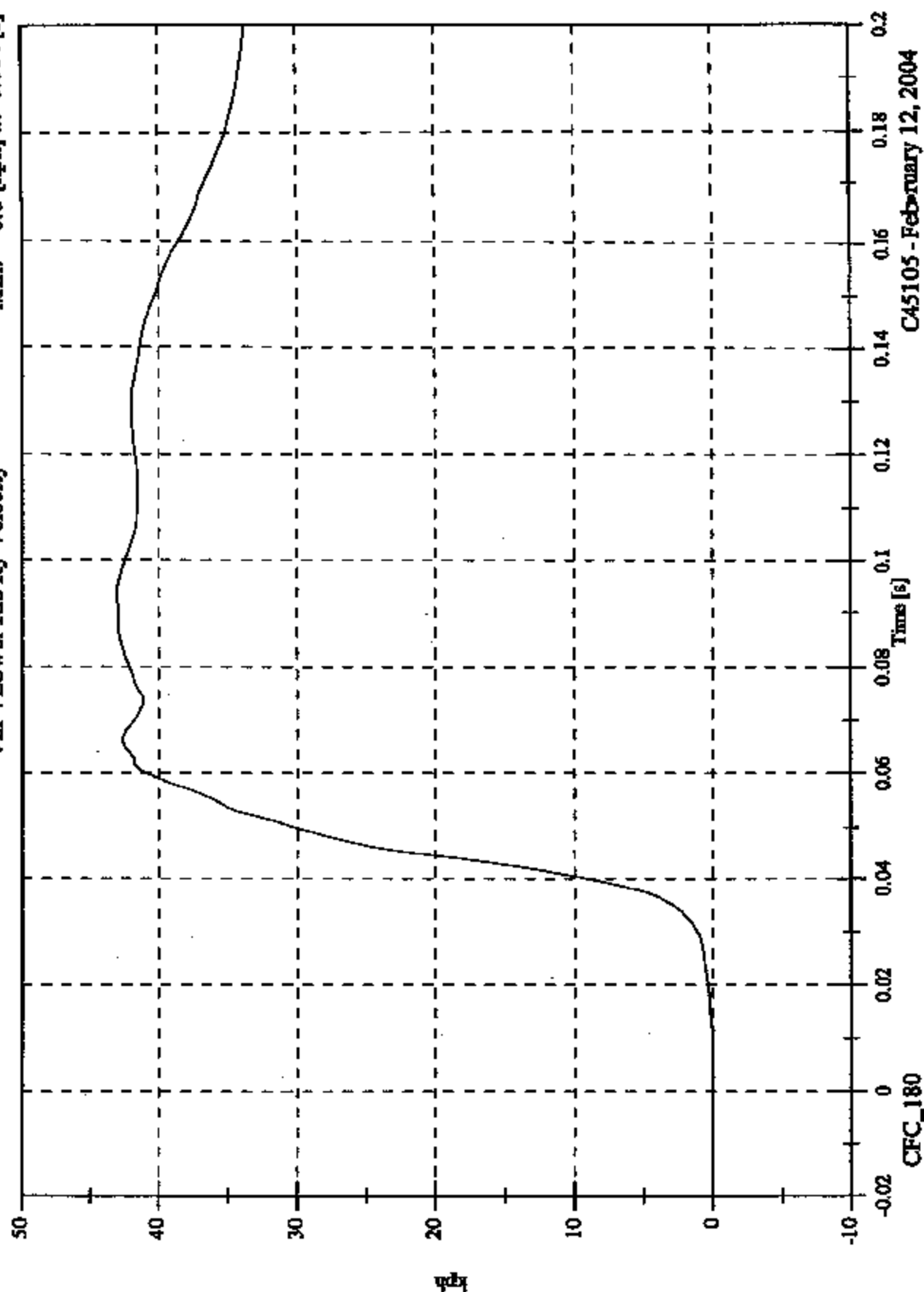
V2P4 Lower Rib Ry



FMVSS 214D Indicant - 2004 Toyota Camry

V2P4 Lower Rib Ry Velocity

Max: 43.1 [kph] at 0.094 [s]
Min: -0.0 [kph] at -0.014 [s]



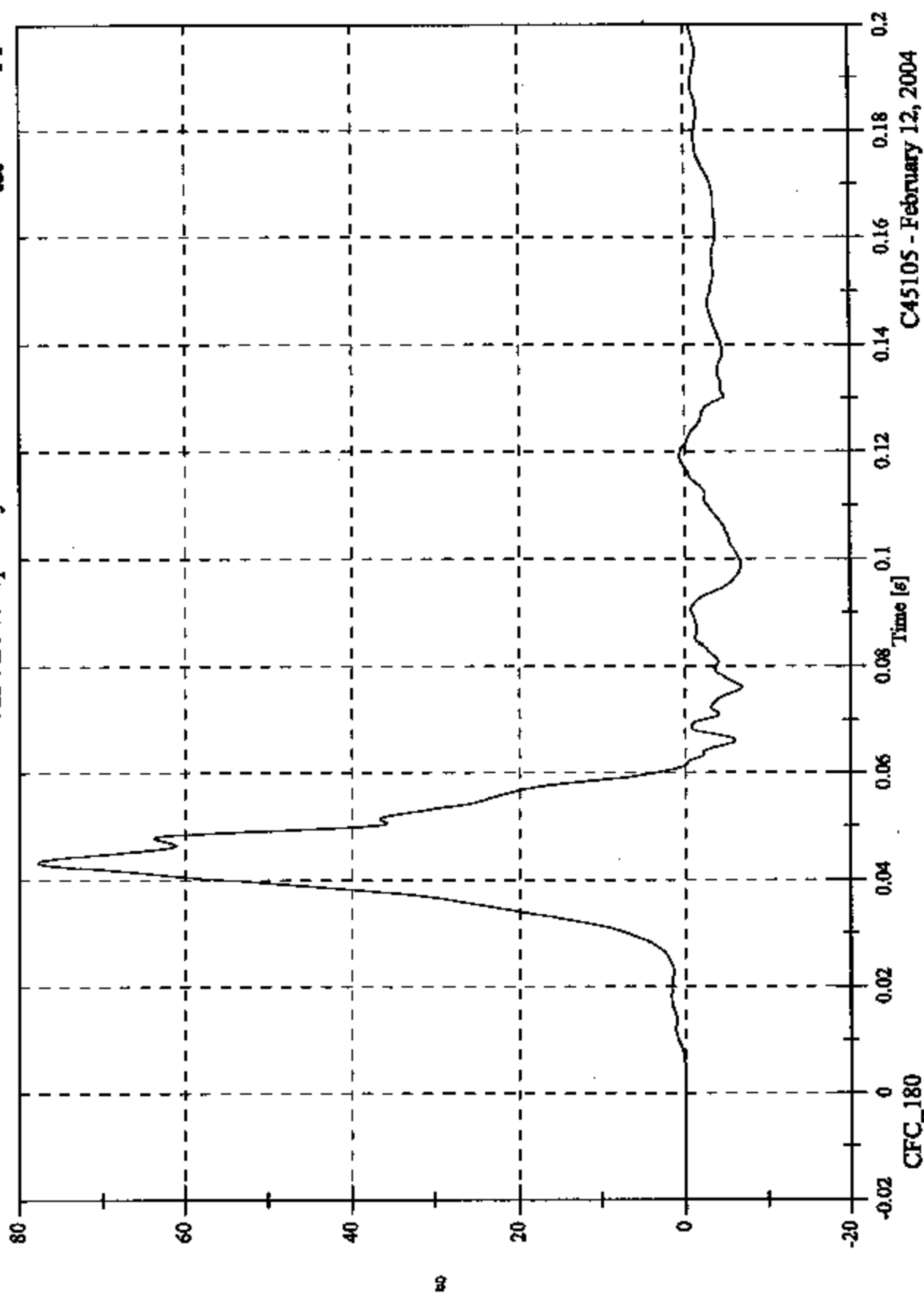
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 77.8 [g] at 0.043 [s]

V2P4 Lower Spine Ry

Min: -6.8 [g] at 0.076 [s]

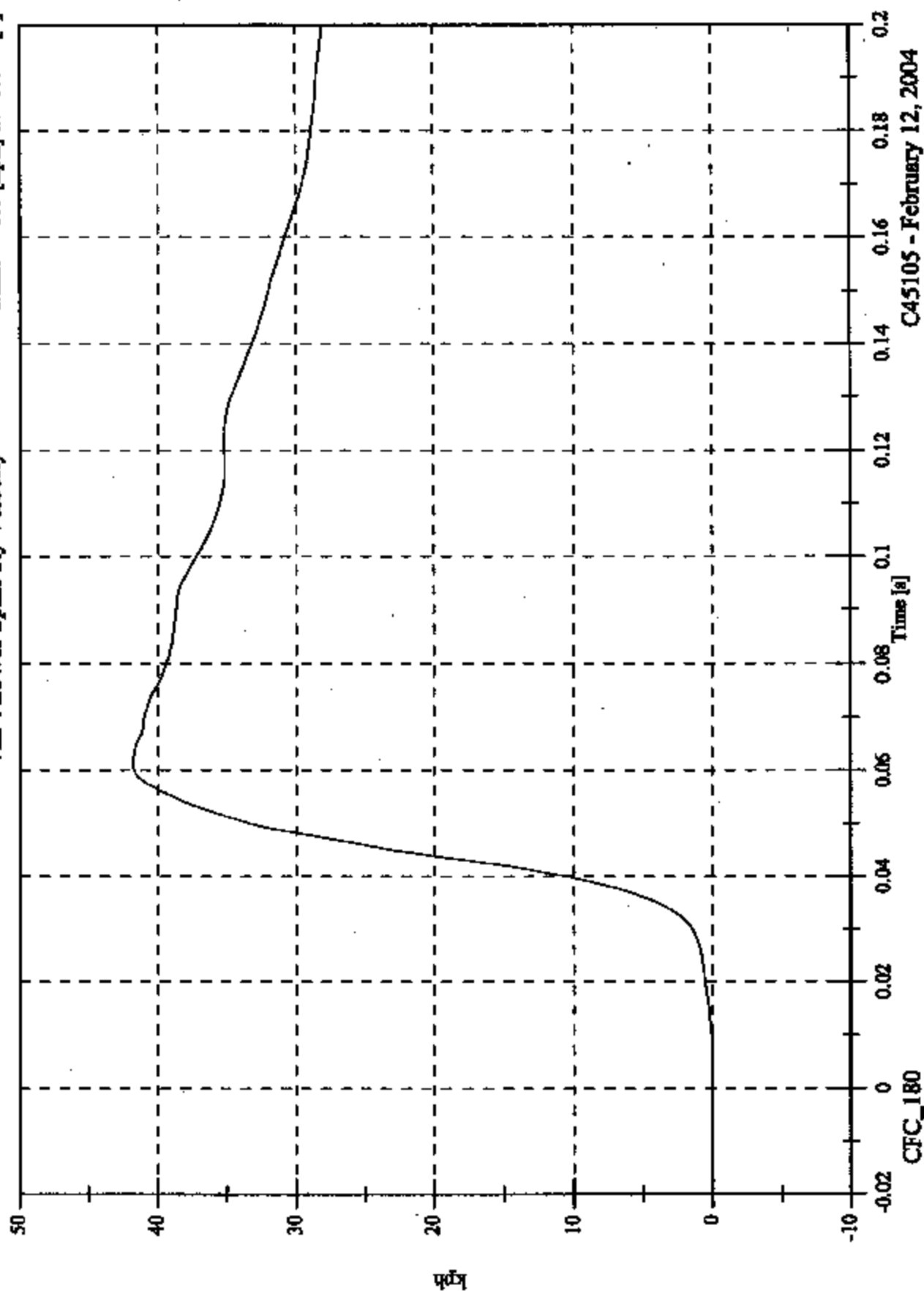


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P4 Lower Spine Ry Velocity

Max: 41.8 [kph] at 0.061 [s]
Min: -0.0 [kph] at -0.008 [s]



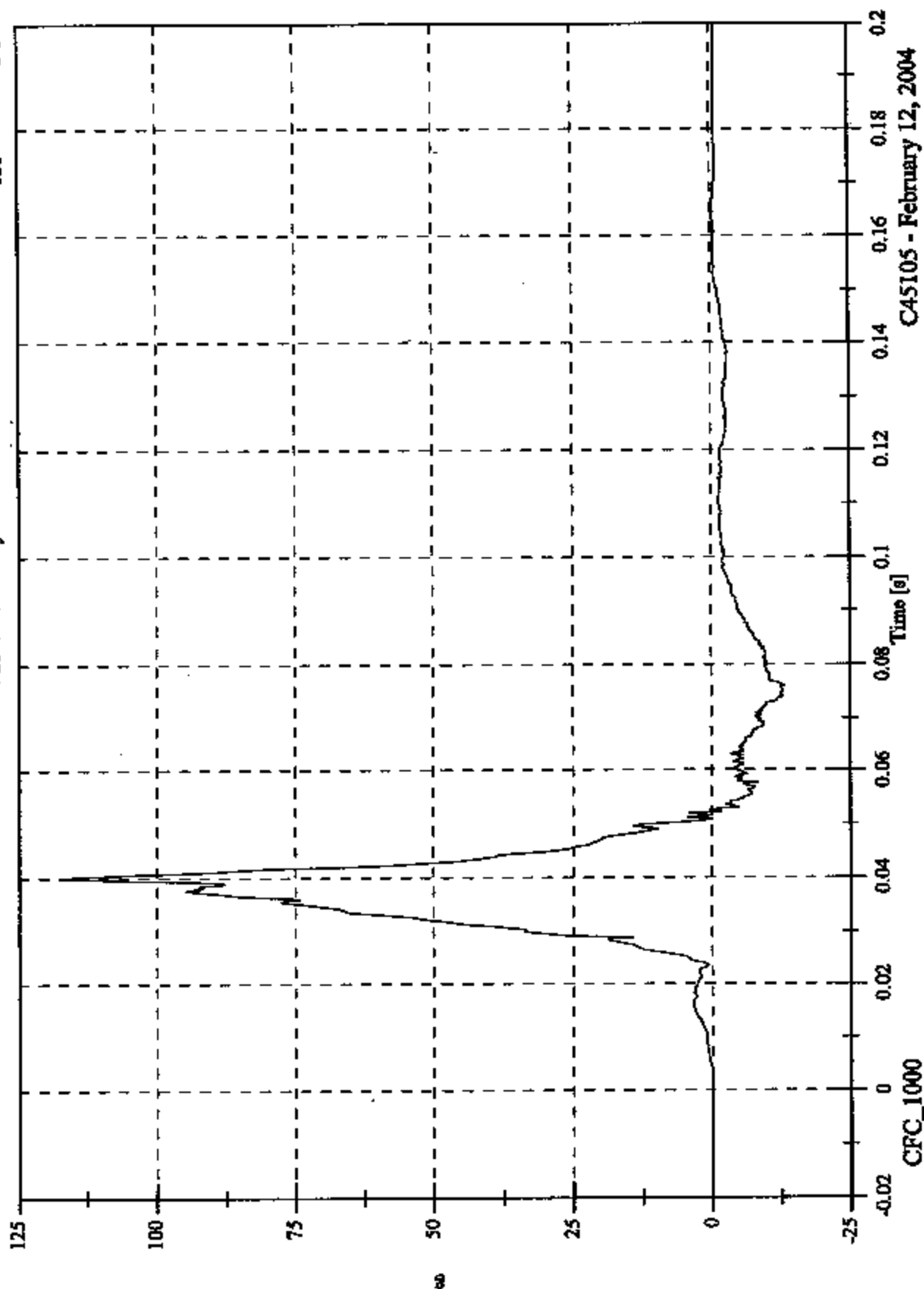
CFC_180

C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P4 Pelvic Ry

Max: 116.6 [g] at 0.040 [s]
Min: -13.2 [g] at 0.076 [s]

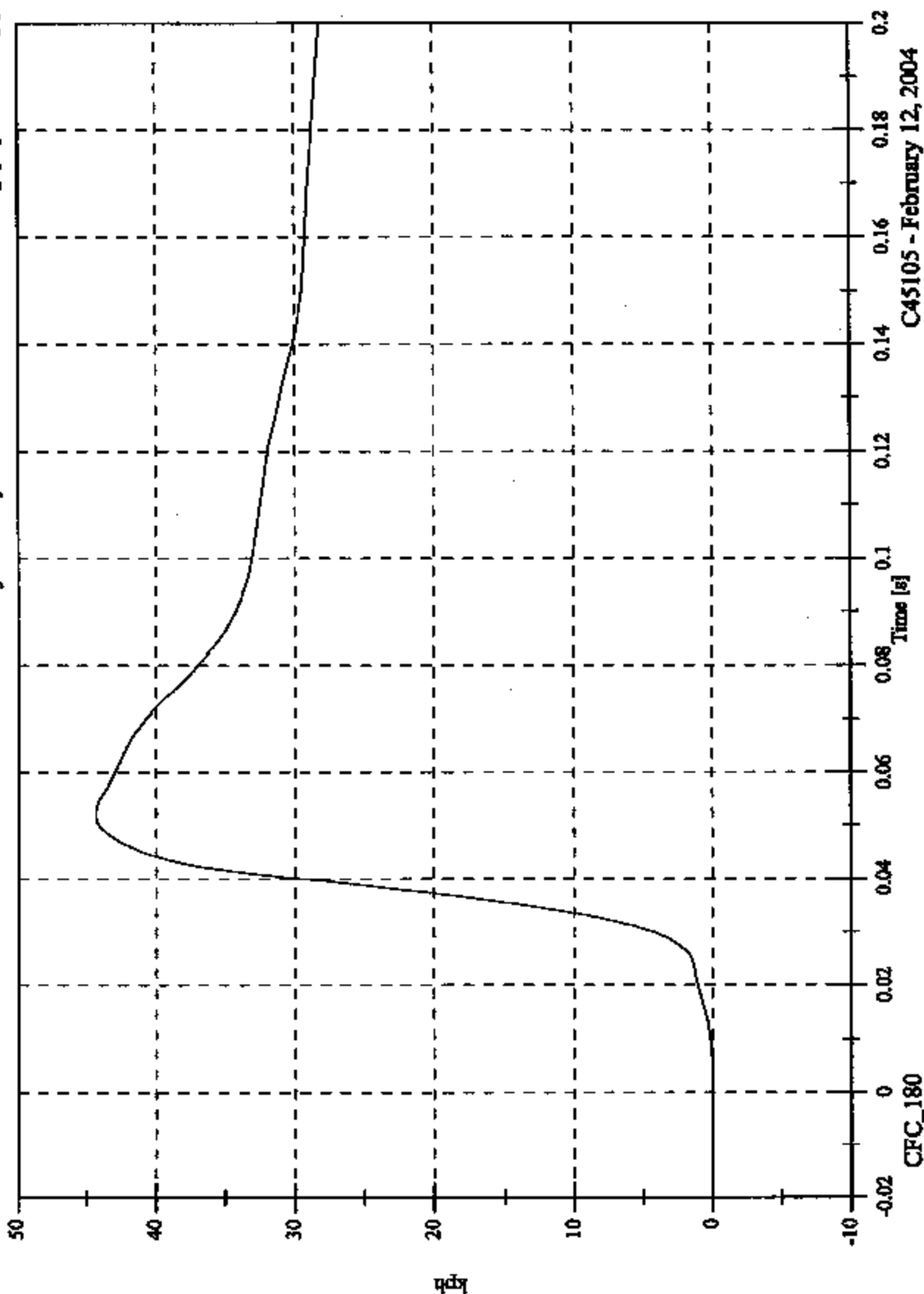


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 44.4 [kph] at 0.052 [s]
Min: -0.0 [kph] at -0.018 [s]

V2P4 Pelvic Ry Velocity



CFC_180

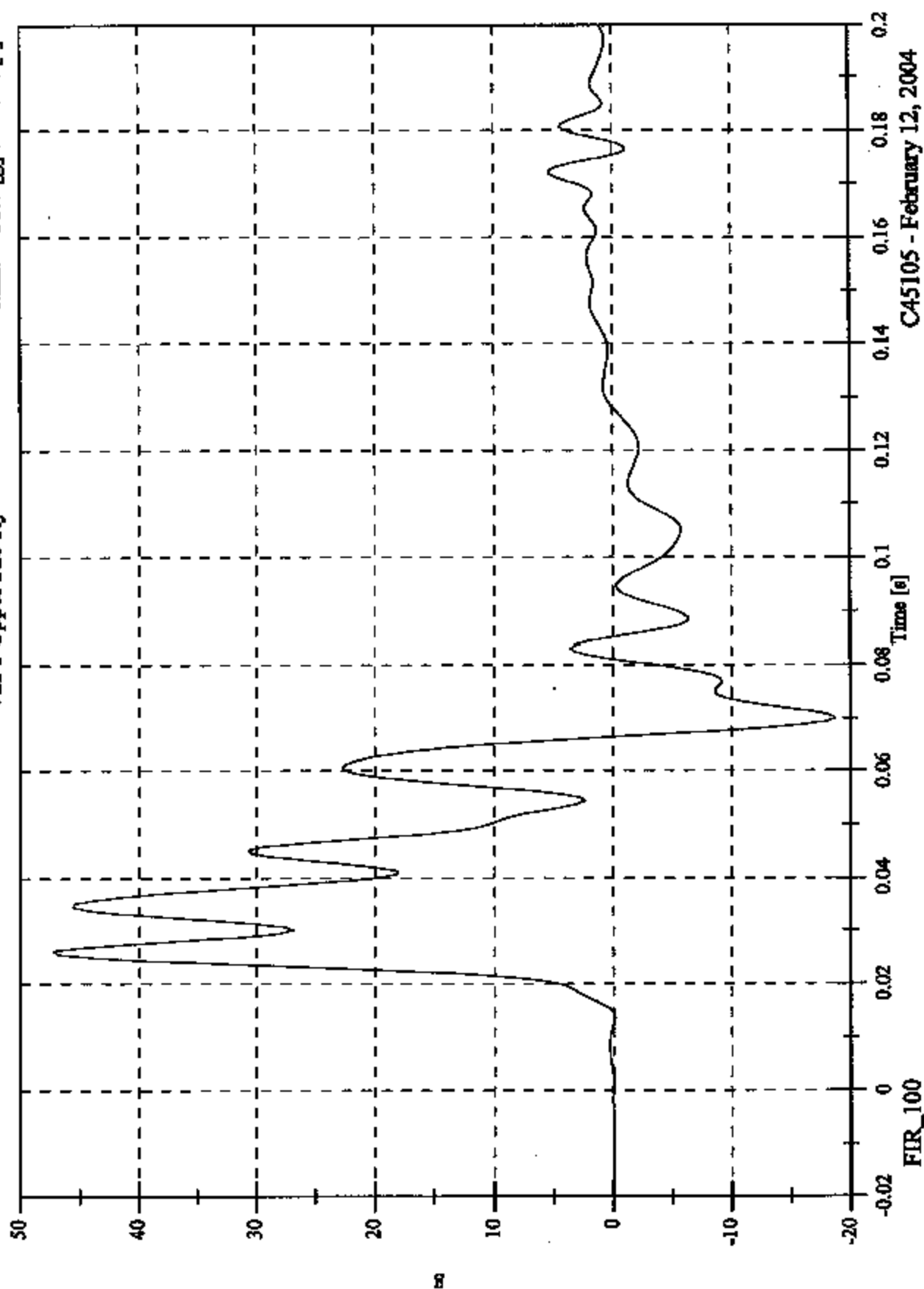
C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 47.2 [g] at 0.026 [s]

Min: -18.7 [g] at 0.070 [s]

VZP1 Upper Rib Ry

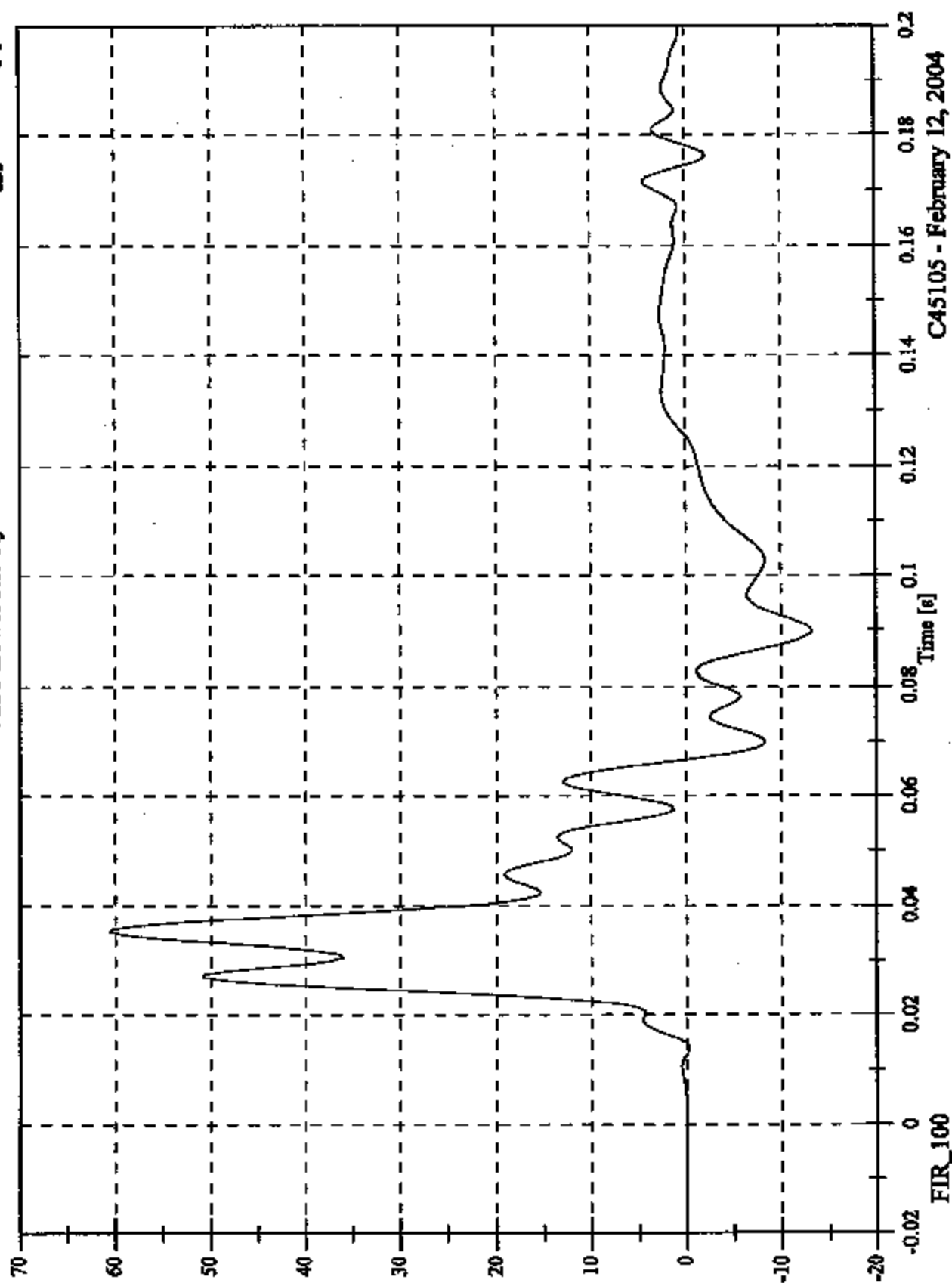


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

Max: 60.5 [g] at 0.035 [s]
Min: -13.2 [g] at 0.090 [s]

V2P1 Lower Rib Ry

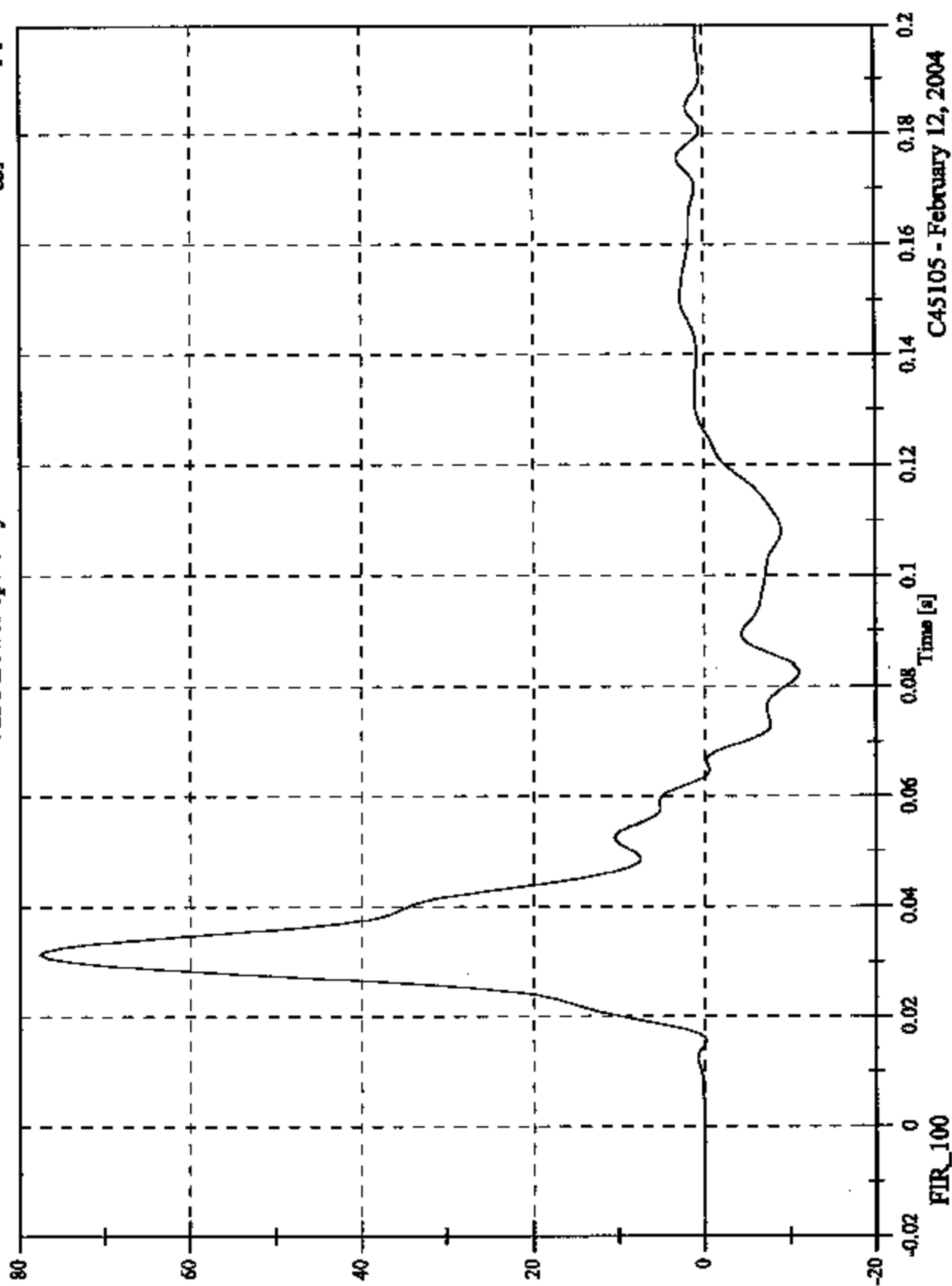


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 77.7 [g] at 0.031 [s]
Min: -11.0 [g] at 0.083 [s]

V2P1 Lower Spine Ry

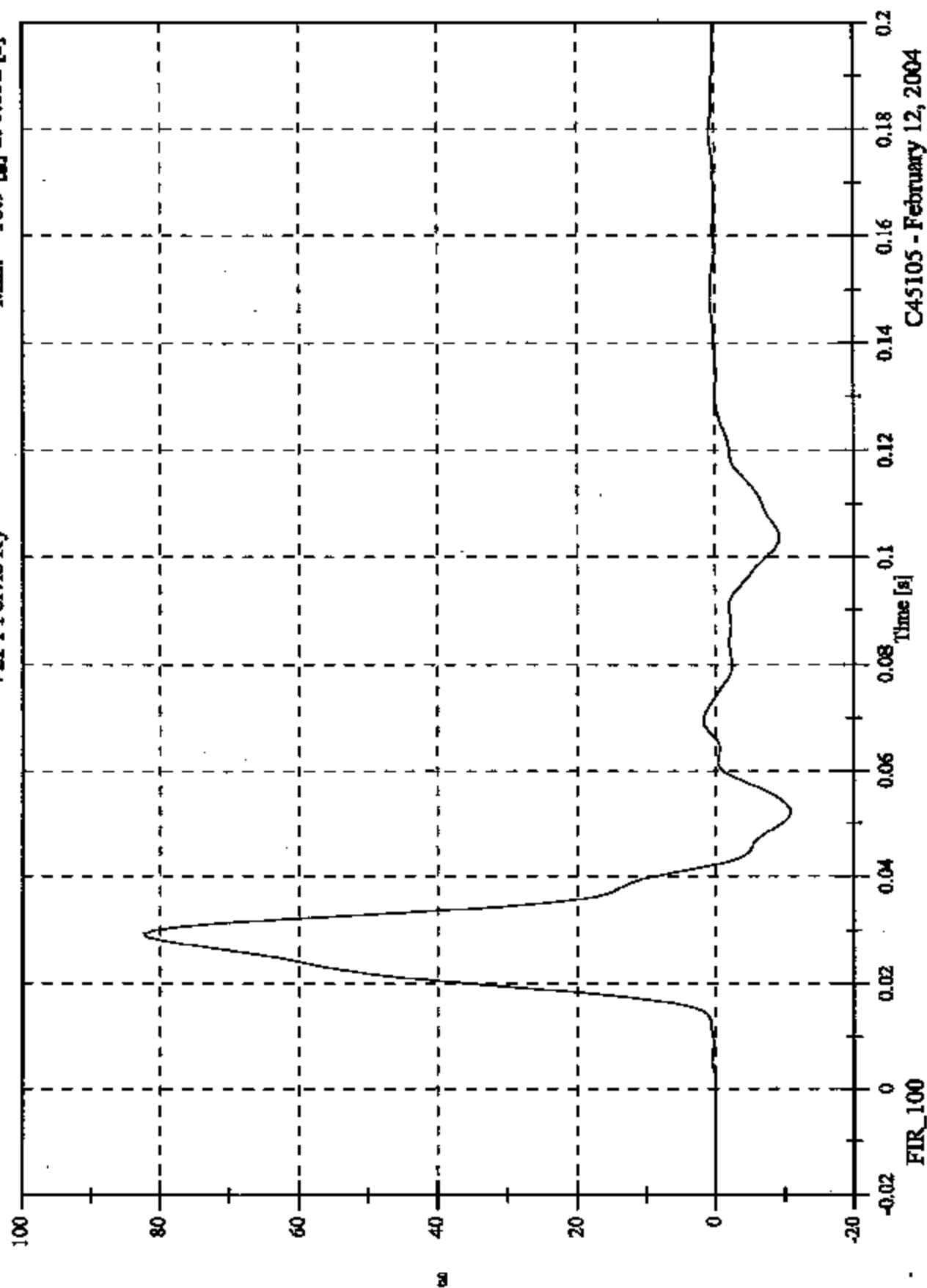


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

V2P1 Pelvic Ry

Max: 82.4 [g] at 0.029 [s]
Min: -10.9 [g] at 0.052 [s]

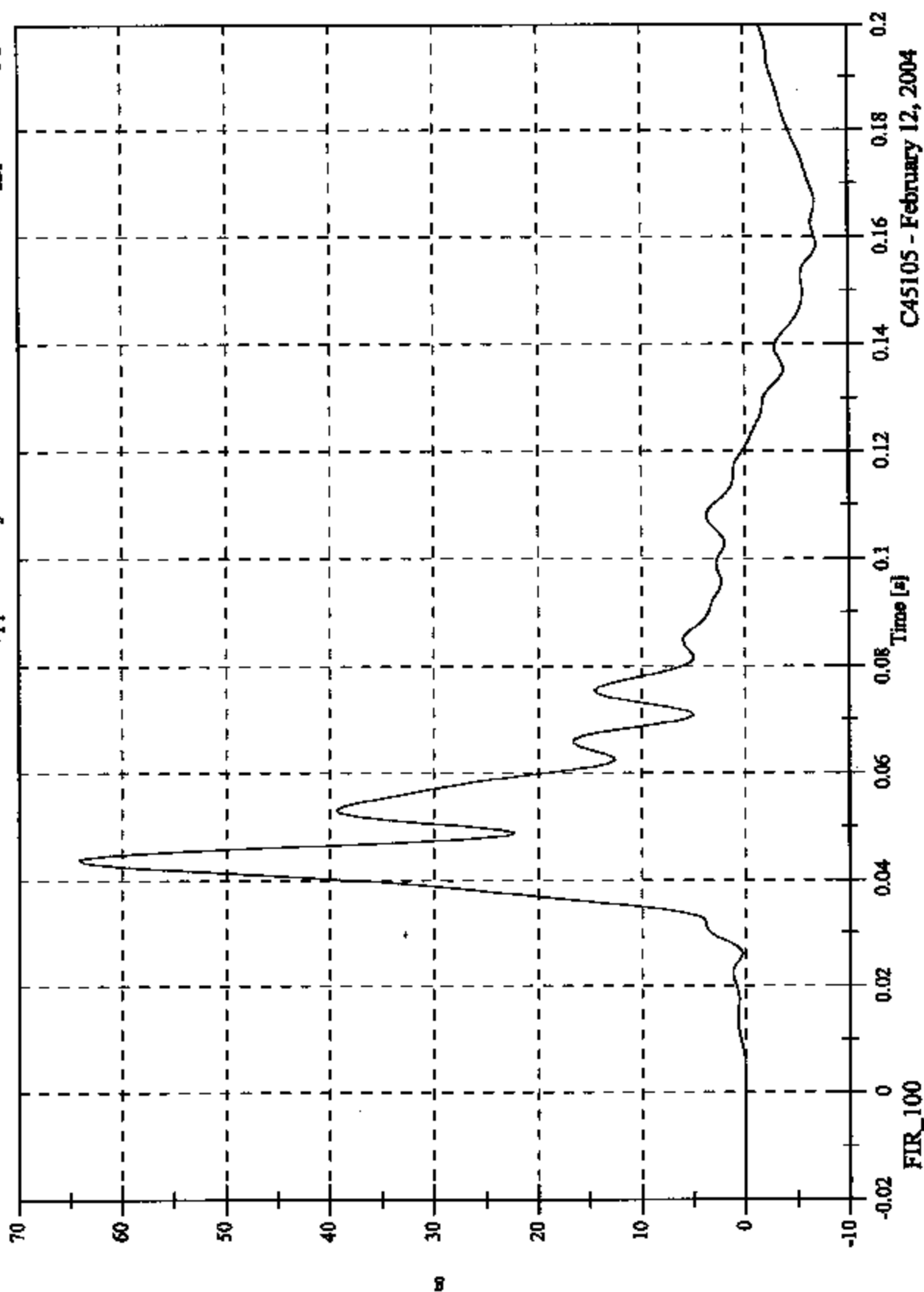


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

V2P4 Upper Rib Ry

Max: 64.2 [g] at 0.044 [s]
Min: -6.9 [g] at 0.159 [s]

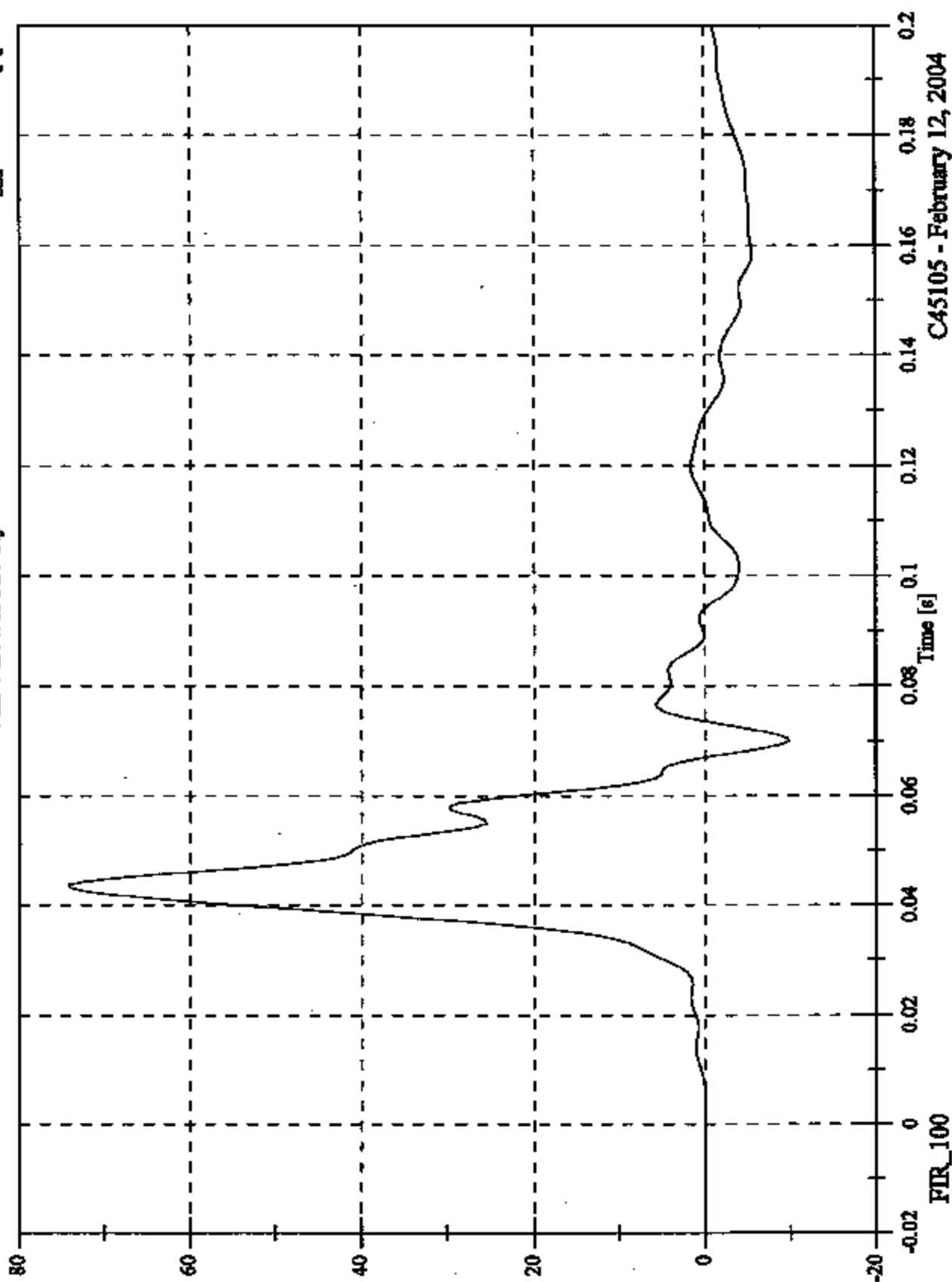


C45105 - February 12, 2004

FMVSS 214D Inducant - 2004 Toyota Camry

Max: 74.2 [g] at 0.044 [s]
Min: -9.8 [g] at 0.070 [s]

V2P4 Lower Rib Ry

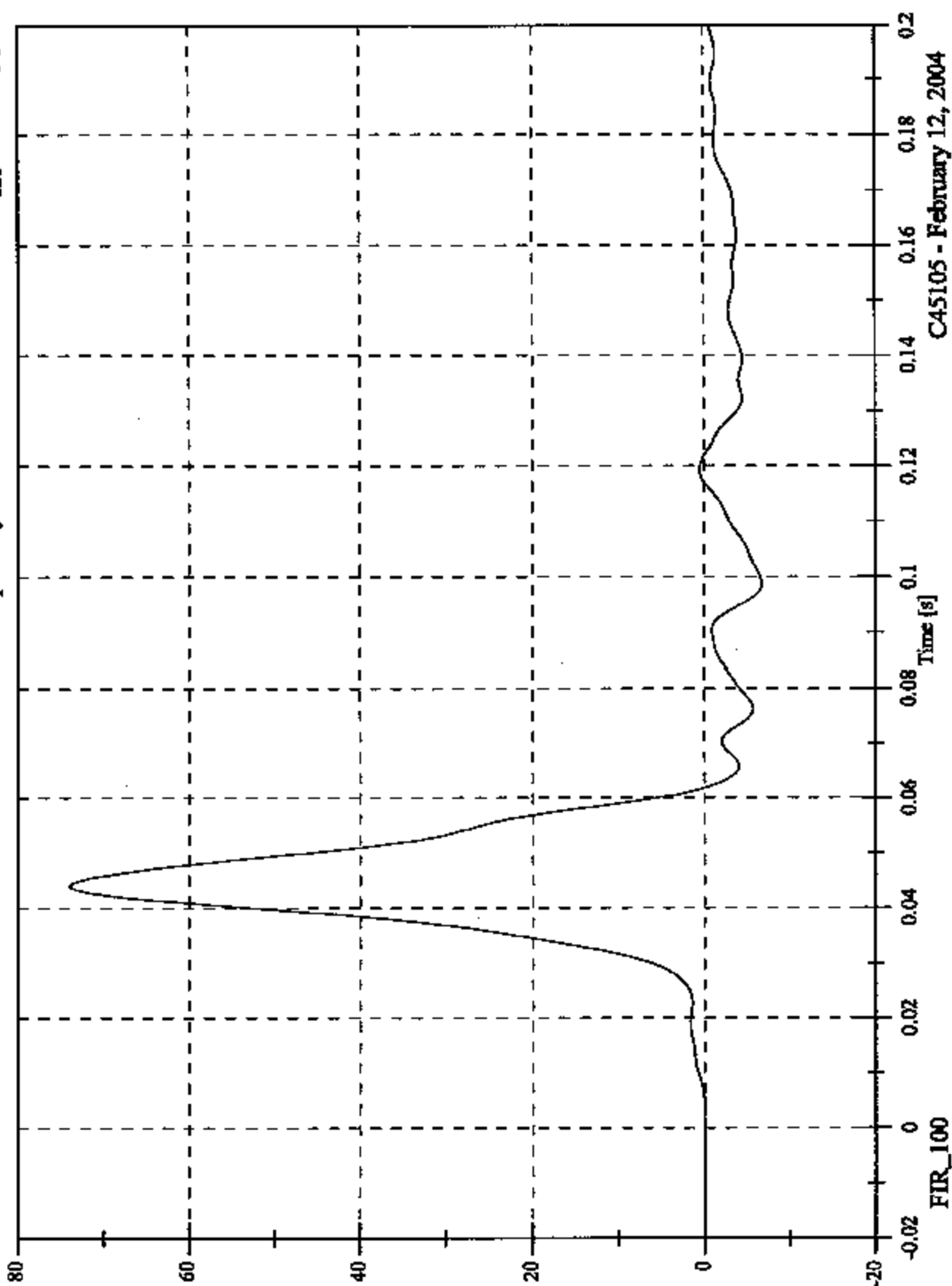


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 74.1 [g] at 0.044 [s]
Min: -6.7 [g] at 0.099 [s]

V2P4 Lower Spine Ry

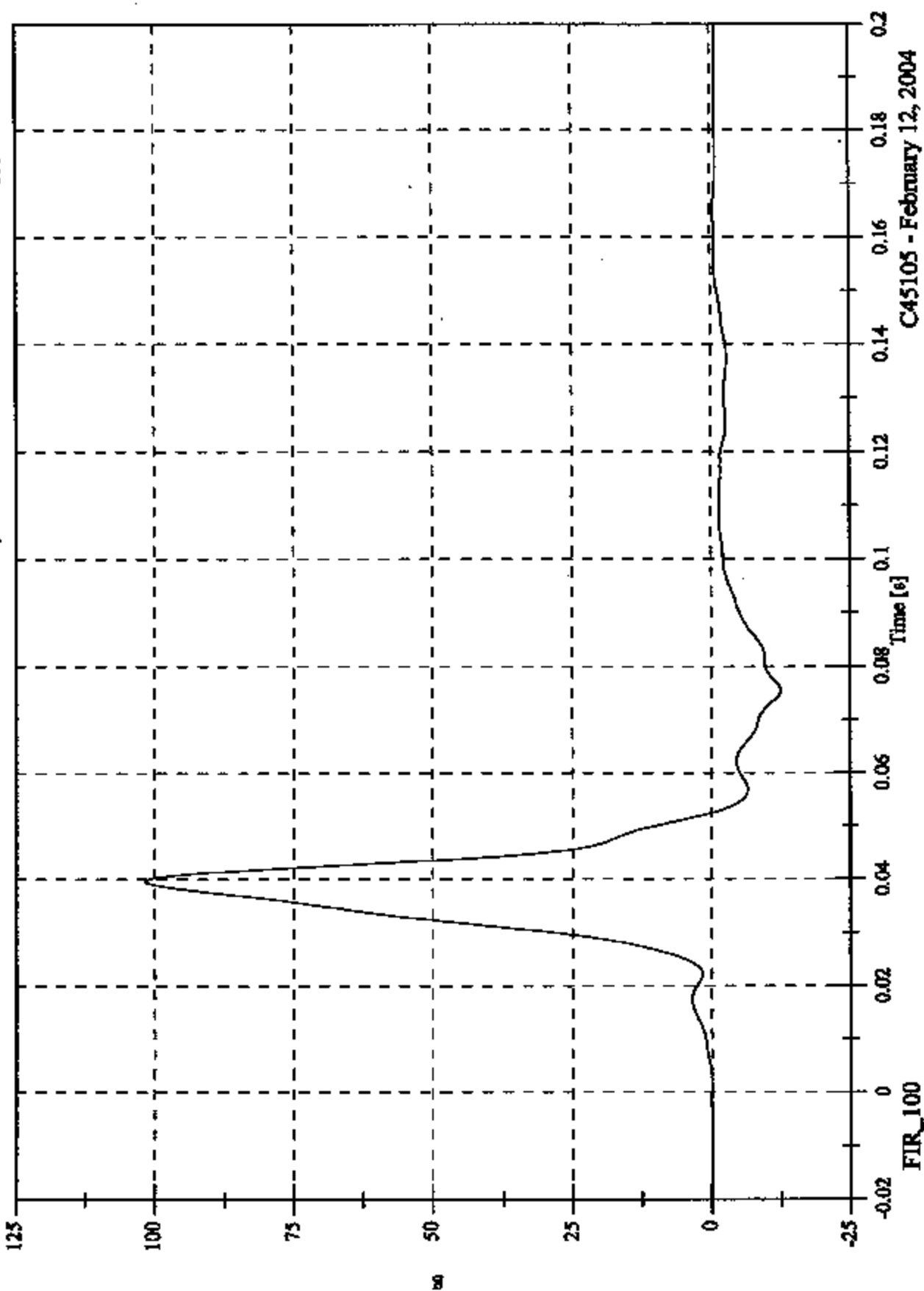


C45105 - February 12, 2004

FMVSS 214D Indicant - 2004 Toyota Camry

Max: 101.8 [g] at 0.039 [s]
Min: -12.4 [g] at 0.076 [s]

V2P4 Pelvic Ry



C45105 - February 12, 2004

APPENDIX C

SID HYBRID III CONFIGURATION AND PERFORMANCE VERIFICATION DATA

SUMMARY
SID H3 PRE & POST TEST CALIBRATION
CONFIGURED FOR LEFT SIDE IMPACT

Date: 2/6/2004; 2/6/2004

Sequential Test Number:

1.1; 1.1

Laboratory Technician:

B. Swieczicki

TEST PARAMETER	SPECIFICATION	SITTING - 015		SITTING - 014	
		PRE TEST	POST TEST	PRE TEST	POST TEST
SH- Seated Height (mm)	889 - 909	902	902	902	902
RH- Rib Height (mm)	501 - 521	513	513	511	513
HP- Hip Pivot Height (mm)	99 ref.	99	99	99	99
RD- Rib from Back Line (mm)	229 - 241	239	239	236	239
KV- Knee Pivot from Back Line (mm)	511 - 526	518	518	518	518
SW- Knee Pivot to Floor (mm)	490 - 505	495	495	493	493
HW- Hip Width (mm)	356 - 391	371	373	378	376
THORAX IMPACTS					
TEMPERATURE (°C)	18.9 - 25.5	21.1	21.1	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	31.0	35.0	31.0	35.0
PROBE SPEED (m/s)	4.27 - 4.33	4.27	4.27	4.27	4.28
UPPER RIB (g's)	37 - 46	37.42	38.83	37.82	39.95
LOWER RIB (g's)	37 - 46	39.76	39.08	37.18	40.67
LOWER SPINE (g's)	15 - 22	19.66	19.54	17.46	18.91
PELVIS IMPACT					
TEMPERATURE (°C)	18.9 - 25.5	21.1	21.1	21.1	21.1
RELATIVE HUMIDITY (%)	10 - 70	31.0	35.0	31.0	35.0
PROBE SPEED (m/s)	4.27 - 4.33	4.28	4.27	4.27	4.29
PELVIS (g's)	40 - 60	45.26	45.95	44.76	41.82

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 015

CONFIGURED FOR LEFT SIDE IMPACT

CALIBRATION TEST RESULTS SUMMARY
PRE-TEST

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015

Sequential Test Number:

1

Date: 2/6/2004

Laboratory Technician:

B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
THORACIC SHOCK ABSORBER TEST	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015

Sequential Test Number:

1

Date: 2/6/2004

Laboratory Technician:

B. Swiecicki

TEST PARAMETER	PRE-TEST SPEC.	TEST RESULTS
SH- Seated Height (mm)	889 - 909	902
RH- Rib Height (mm)	502 - 520	513
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	239
KH- Knees Pivot from Back Line (mm)	511 - 526	518
KV- Knees Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	371

REMARKS: None

Shock Low Impact (3.05 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

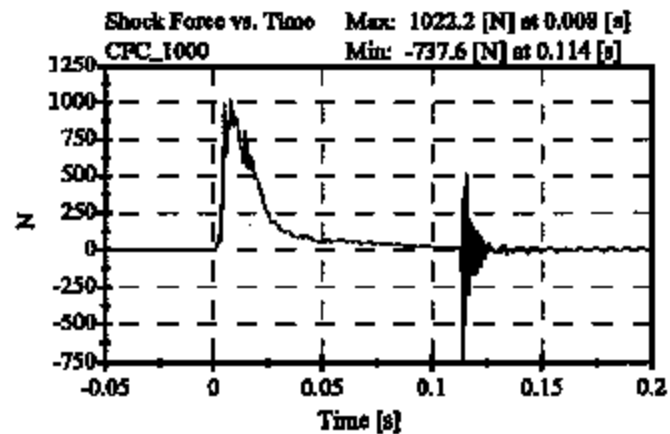
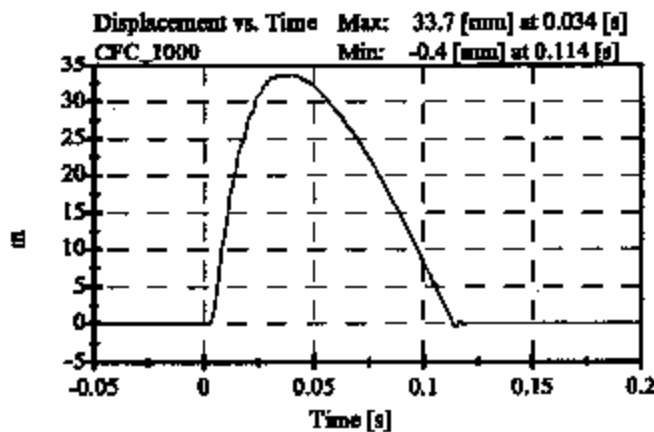
ATD Serial No: 015

Date: 02-05-04

Sequential Test Number: 1 File: 015SL 02-05-04

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	32.00 %	Passed
Displacement:	30.00-35.00 mm	33.65 mm	Passed
Maximum Force:	836.00-1125.00 N	1022.24 N	Passed
Impact Test Velocity:	3.05 m/s		
Damper Identification:	015		
Damper Setting:	5		



Shock Med. Impact (4.27 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

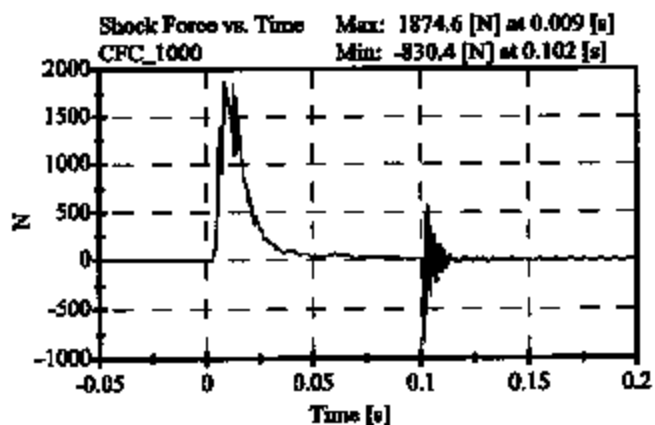
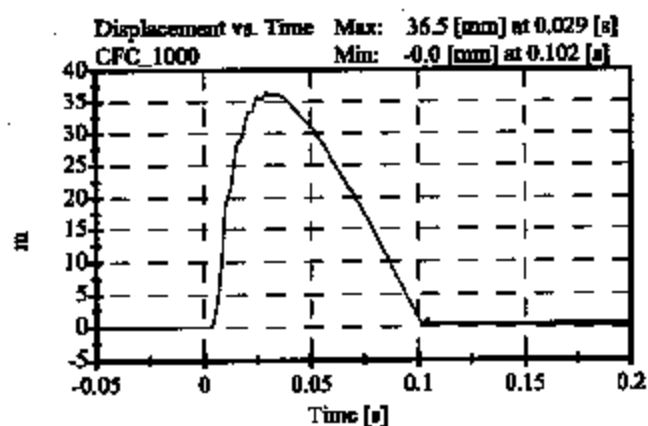
ATD Serial No: 015

Date: 02-06-04

Sequential Test Number: 1 File: 015SM 02-05-04

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Displacement:	32.00-37.00 mm	36.49 mm	Passed
Maximum Force:	1730.00-2099.00 N	1874.60 N	Passed
Impact Test Velocity:	4.27 m/s		
Damper Identification:	015		
Damper Setting:	5		



Shock High Impact (6.10 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

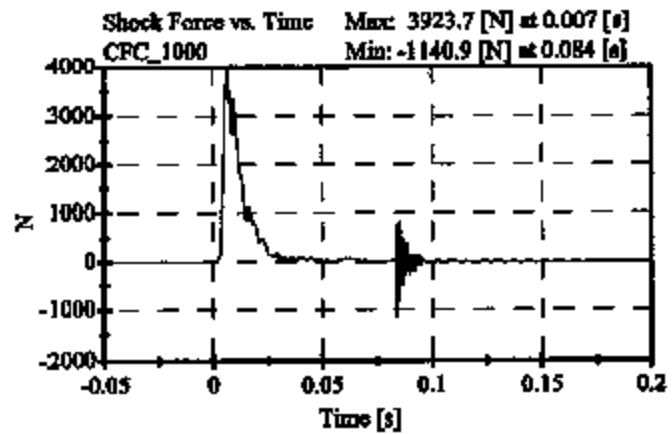
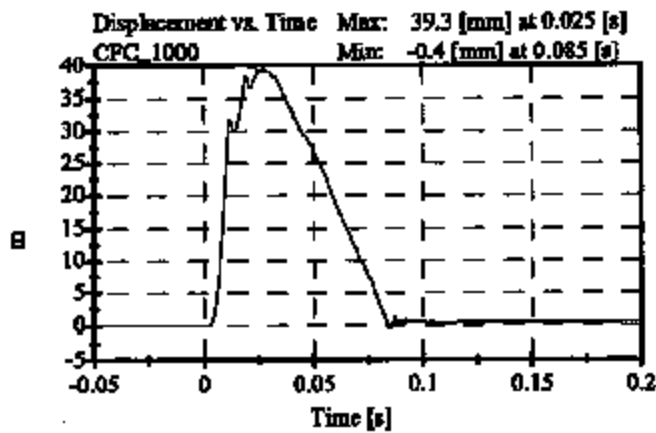
ATD Serial No: 015

Date: 02-06-04

Sequential Test Number: 1 File: 015SH 02-05-04

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Displacement:	33.00-40.00 mm	39.34 mm	Passed
Maximum Force:	3741.00-4448.00 N	3923.68 N	Passed
Impact Test Velocity:	6.10 m/s		
Damper Identification:	015		
Damper Setting:	5		

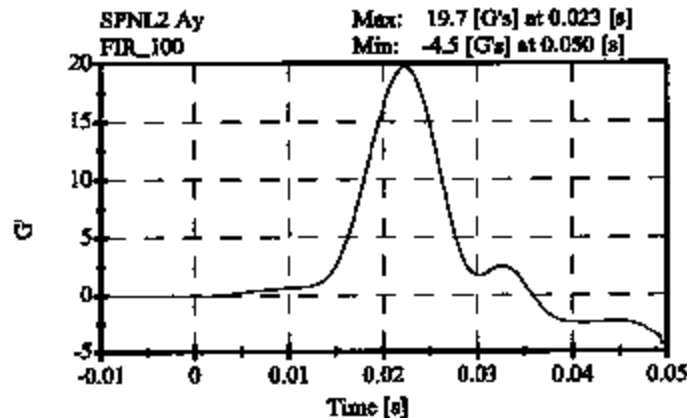
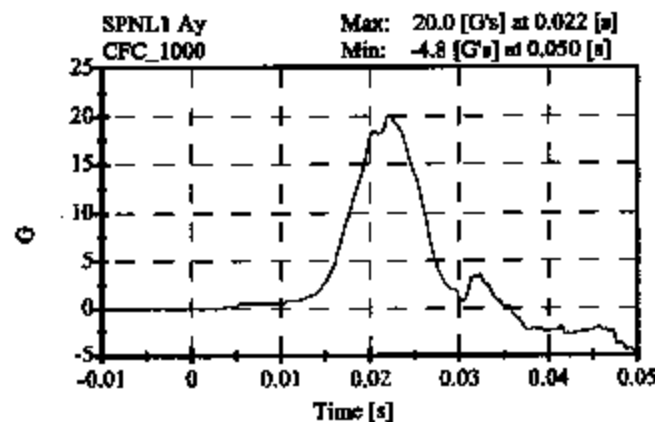
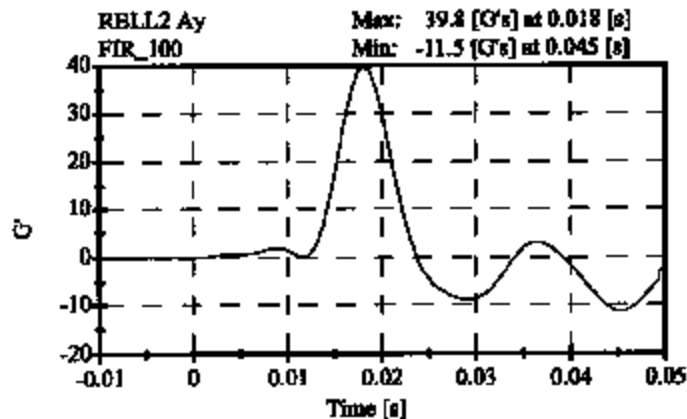
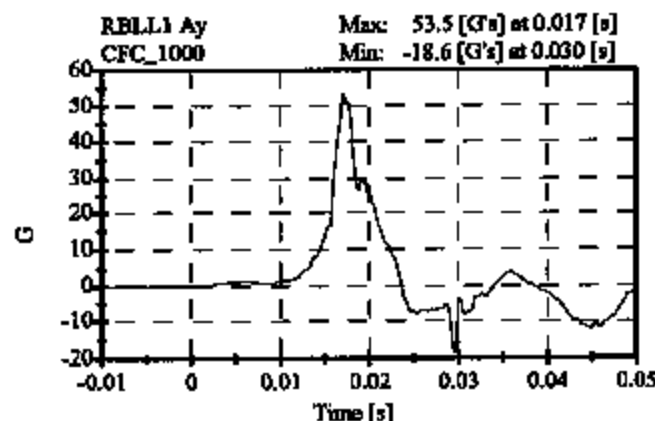
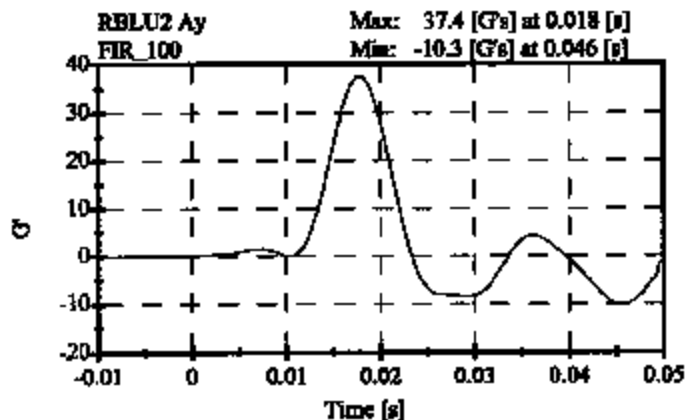
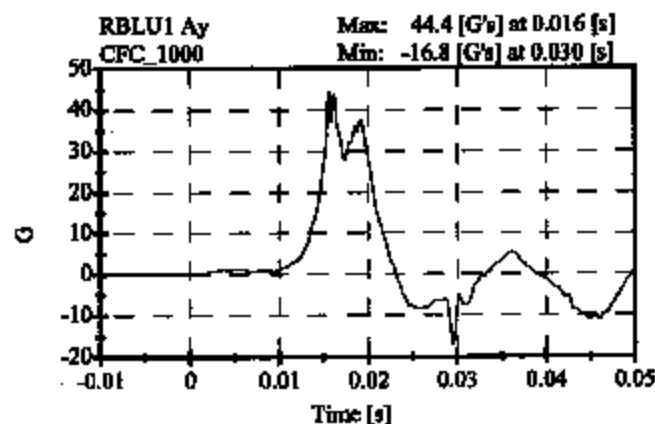


Thorax Impact
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 015
Date: 02-06-04

Sequential Test Number: 1 File: 015T 02-06-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.27 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	37.42 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	39.76 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	19.66 G's	Passed



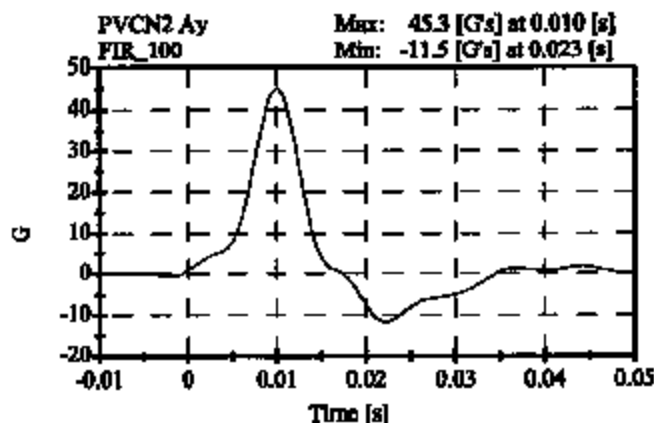
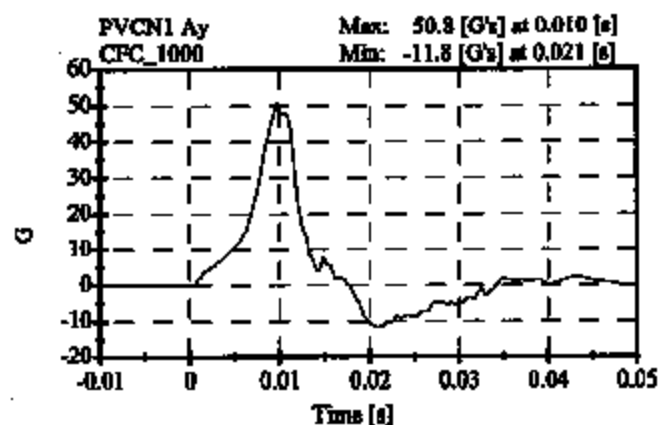
**Pelvic Impact
PRE TEST**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 015
Date: 02-06-04

Sequential Test Number: 1 File: 015P 02-06-04
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-23.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	45.26 G's	Passed



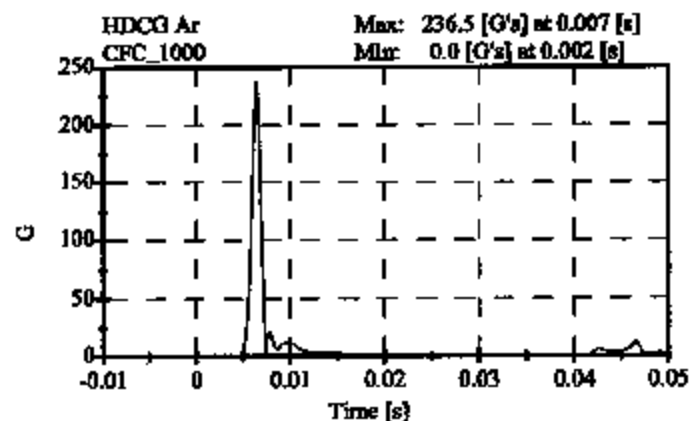
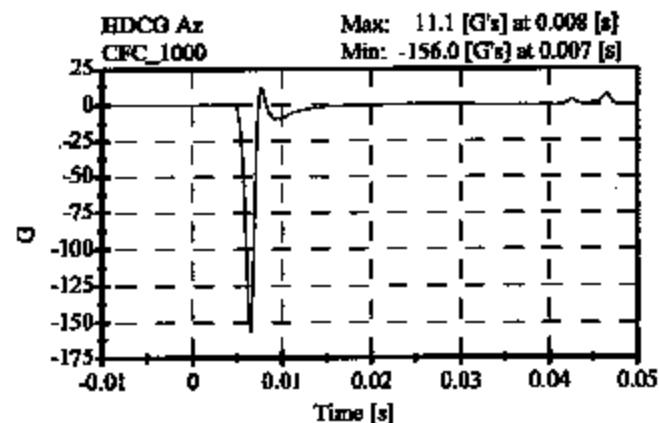
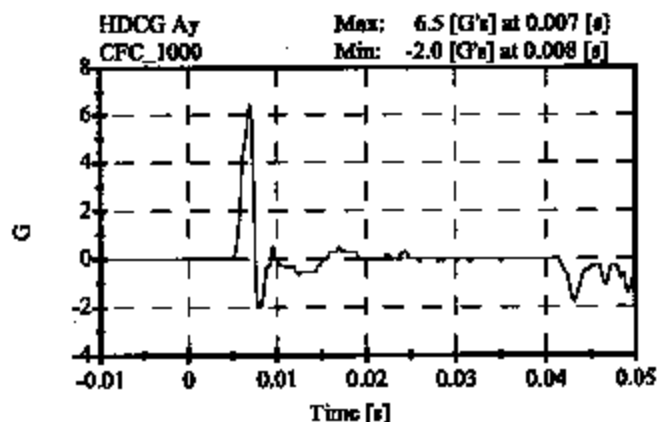
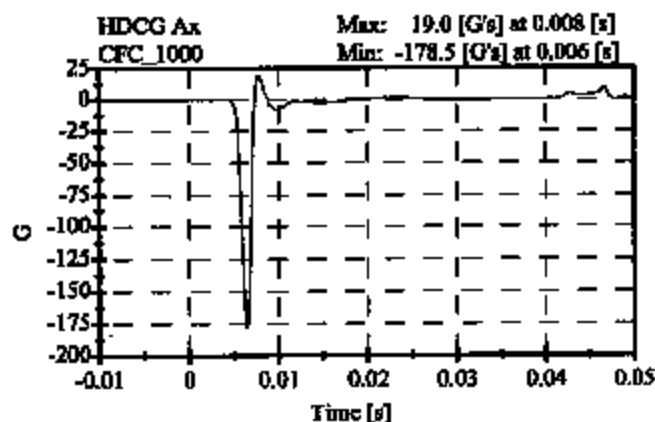
Head Drop PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 015
Date: 02-04-04

Sequential Test Number: 1 File: 015H1 02-04-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.1 C	Passed
Lab Humidity:	10-70 %	36.00 %	Passed
Peak Resultant Accel.:	210-260 Gs	236.47 Gs	Passed
Peak Lateral Accel.:	10 Gs Max	6.47 Gs	Passed
Unimodal Criteria Above 100 Gs:	0.9-1.5 ms	1.22 ms	Passed
Curve PerCent NonModal:	< 10%	9.22 %	Passed



Neck Test
PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 015
Date: 10-31-03

Sequential Test Number: 1 File: 015/269N1 10-31-03
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	7.00 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.01 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.13 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	5.98 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.02 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	64.0-78.0 Deg	71.16 Deg	Passed
Rotation Angle Decay:	50.0-70.0 ms	64.40 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	88.00-108.00 N-m	89.56 N-m	Passed
Occipital Moment Decay:	40.0-60.0 ms	56.20 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	0.0-20.0 ms	8.70 ms	Passed

Neck Test PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

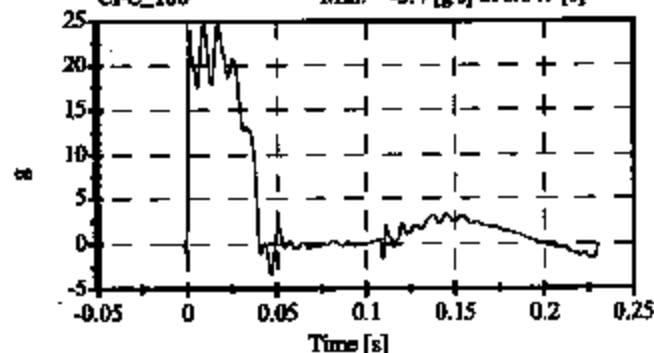
ATD Serial No: 015

Date: 10-31-03

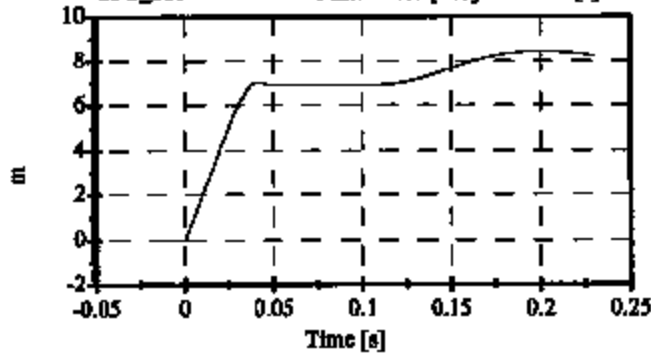
Sequential Test Number: 1 File: 015/269N1 10-31-03

Laboratory Technician: B. Swiecicki

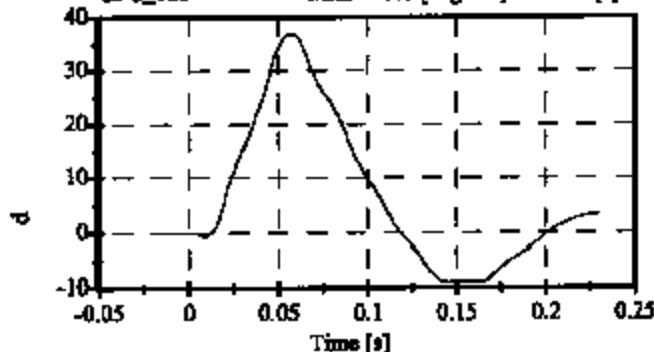
Pend Ax
CFC_180
Max: 24.8 [g/s] at 0.017 [s]
Min: -3.4 [g/s] at 0.047 [s]



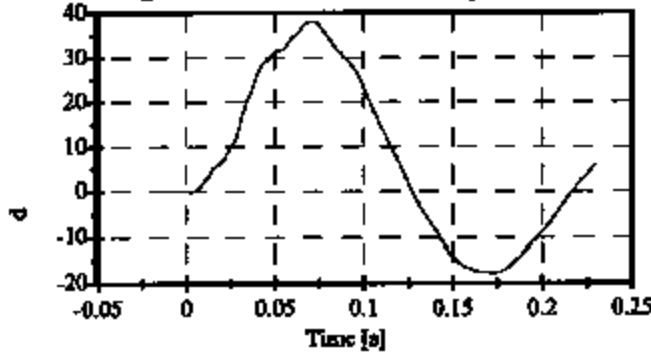
Pend Vx
CFC_180
Max: 8.5 [m/s] at 0.201 [s]
Min: -0.0 [m/s] at -0.001 [s]



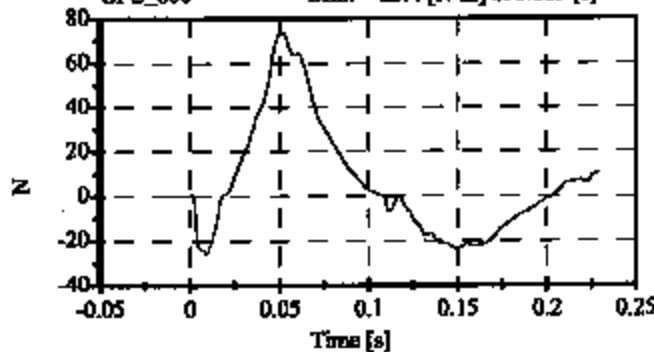
Head Rot
CFC_180
Max: 36.9 [degrees] at 0.058 [s]
Min: -9.0 [degrees] at 0.145 [s]



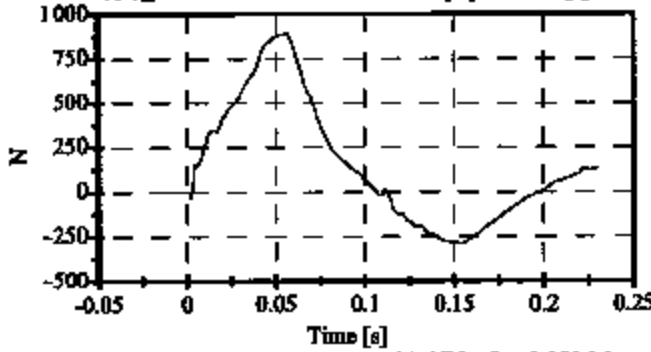
Arm Rot
CFC_180
Max: 37.9 [degrees] at 0.070 [s]
Min: -17.8 [degrees] at 0.171 [s]



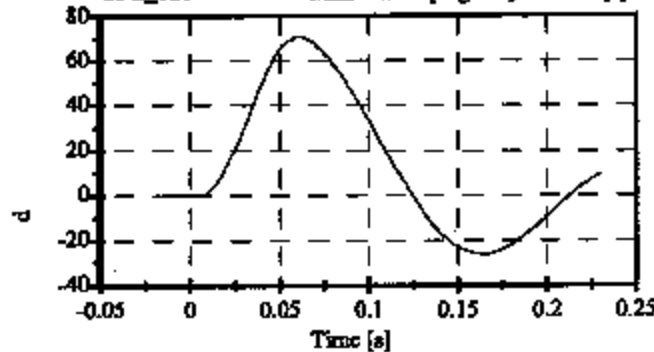
Neck Mx
CFC_600
Max: 73.8 [N-m] at 0.051 [s]
Min: -25.4 [N-m] at 0.009 [s]



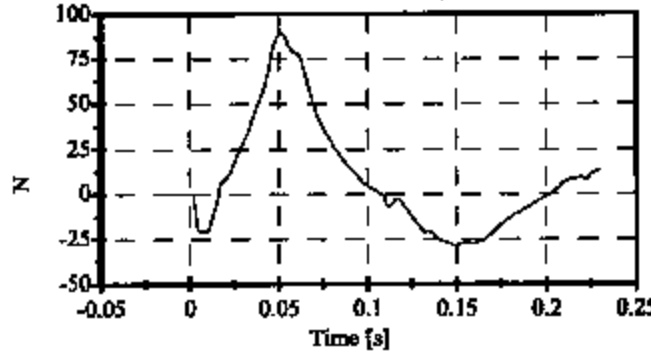
Neck Fy
CFC_1000
Max: 894.1 [N] at 0.056 [s]
Min: -285.8 [N] at 0.154 [s]



Tot Rot
CFC_180
Max: 71.2 [degrees] at 0.060 [s]
Min: -26.5 [degrees] at 0.165 [s]



Mocv
Max: 89.6 [N-m] at 0.051 [s]
Min: -28.5 [N-m] at 0.150 [s]



ABDOMINAL COMPRESSION TEST PRE-TEST

(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015

Sequential Test Number:

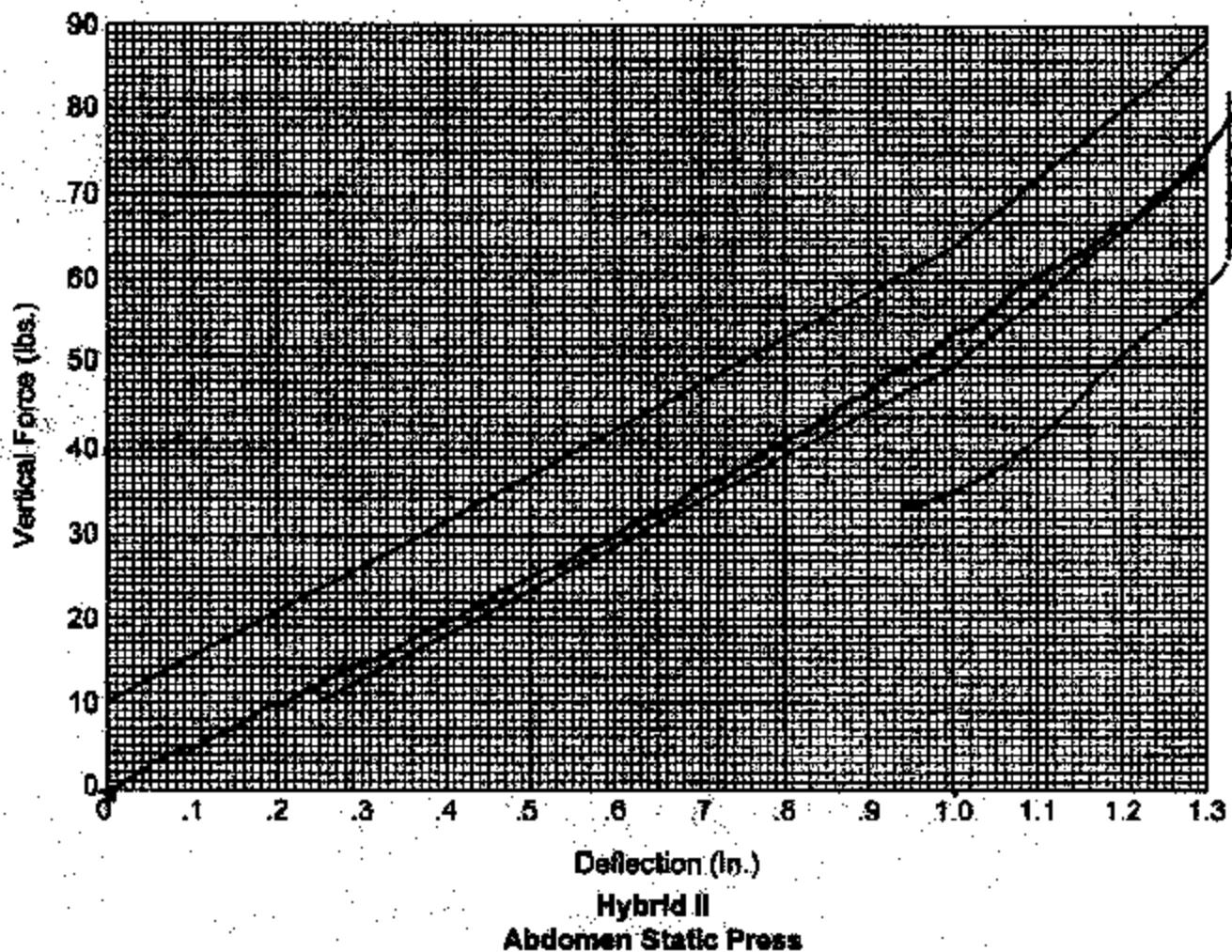
1

Date: 2/6/2004

Laboratory Technician:

B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	31
FORCE @ 13 mm (N)	104 - 162	111.0
FORCE @ 19 mm (N)	163 - 221	169.5
FORCE @ 25 mm (N)	222 - 280	239.3
FORCE @ 33 mm (N)	325 - 391	335.4



REMARKS: None

LUMBAR FLEXION TEST
PRE-TEST
 (Test not required for SID certification)

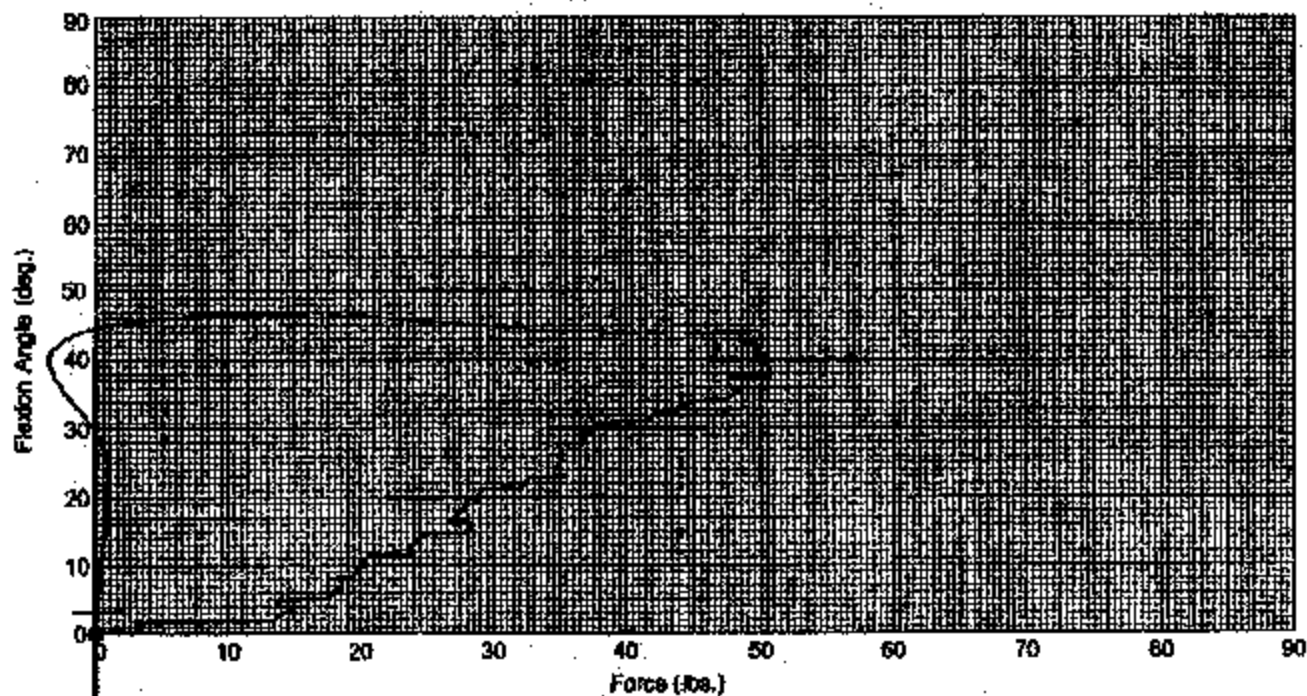
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015
 Date: 2/6/2004

Sequential Test Number:
 Laboratory Technician:

1
 B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	31
FORCE @ 0° (N)	0 - 26.7	0.0
FORCE @ 20° (N)	97.8 - 151.2	132.6
FORCE @ 30° (N)	151.2 - 204.6	162.8
FORCE @ 40° (N)	204.6 - 258	222.0
RETURN ANGLE	12° max.	3.1°



Hybrid II Lumber Spine Flexion Test

REMARKS: None

PRE-TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015

Sequential Test Number:

1

Date: 2/6/2004

Laboratory Technician:

B. Swiecicki

Part	Inspection Method	Comments
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	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	NONE	-

REMARKS: None

CALIBRATION TEST RESULTS

PRE-TEST

SID H3 NO.: 013

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 013

Sequential Test Number:

1

Date: 2/6/2004

Laboratory Technician:

B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
THORACIC SHOCK ABSORBER TEST	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
PRE-TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 013

Sequential Test Number:

1

Date: 2/6/2004

Laboratory Technician:

B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
SH- Seated Height (mm)	889 - 909	902
RH- Rib Height (mm)	502 - 520	511
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	236
KH- Knee Pivot from Back Line (mm)	511 - 526	518
KV- Knee Pivot to Floor (mm)	490 - 505	493
HW- Hip Width (mm)	356 - 391	378

REMARKS: None

Shock Low Impact (3.05 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

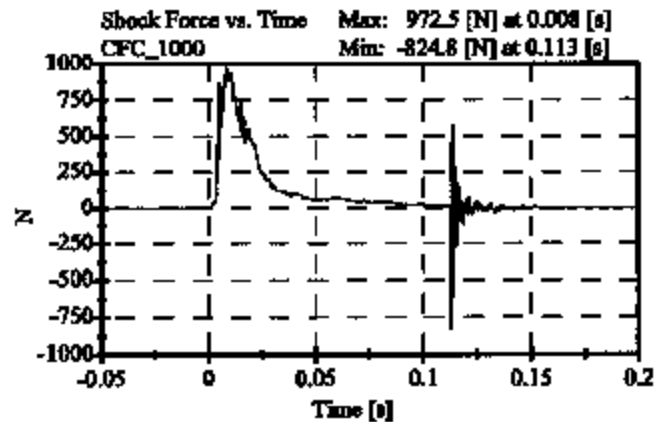
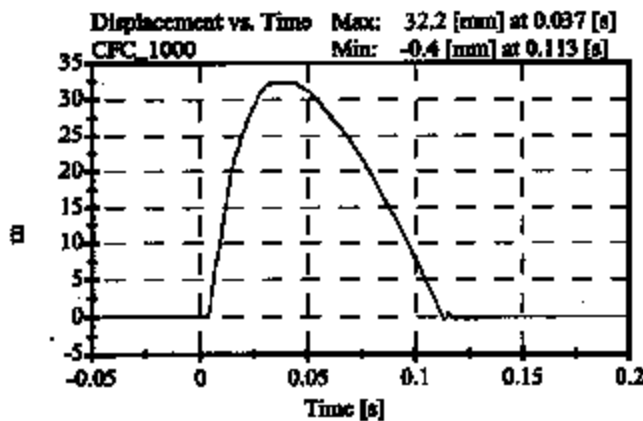
ATD Serial No: 013

Date: 02-06-04

Sequential Test Number: 1 File: 013SL 02-06-04

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Displacement:	30.00-35.00 mm	32.20 mm	Passed
Maximum Force:	836.00-1125.00 N	972.53 N	Passed
Impact Test Velocity:	3.05 m/s		
Damper Identification:	013		
Damper Setting:	5		



Shock Med. Impact (4.27 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 013

Sequential Test Number: 1 File: 013SM 02-06-04

Date: 02-06-04

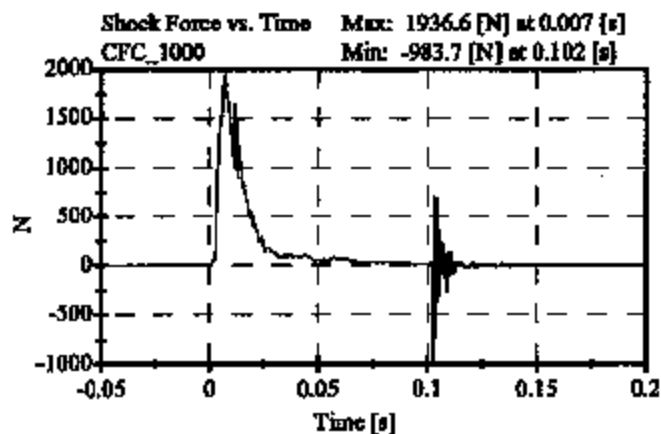
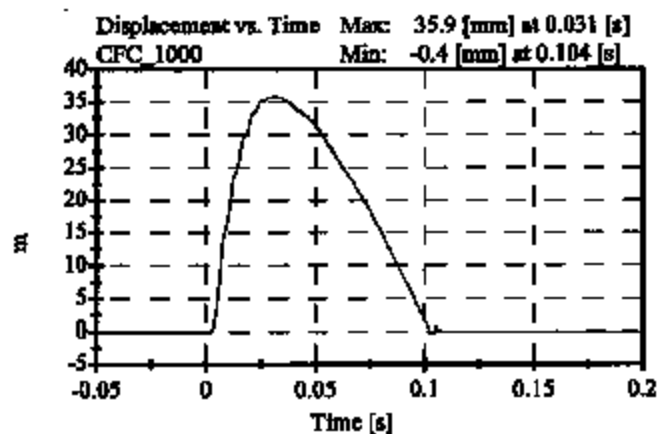
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Displacement:	32.00-37.00 mm	35.91 mm	Passed
Maximum Force:	1730.00-2099.00 N	1936.60 N	Passed

Impact Test Velocity: 4.27 m/s

Damper Identification: 013

Damper Setting: 5



Shock High Impact (6.10 m/s)

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

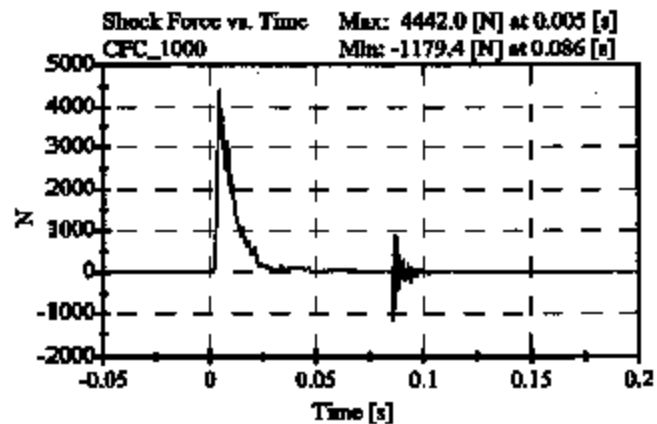
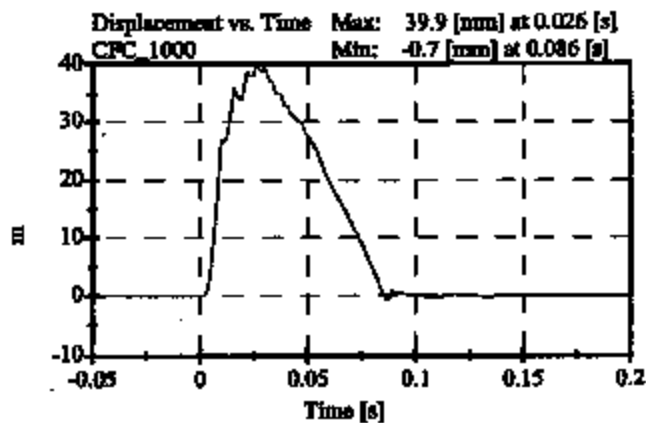
ATD Serial No: 013

Date: 02-06-04

Sequential Test Number: 1 File: 013SH 02-06-04

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Displacement:	33.00-40.00 mm	39.87 mm	Passed
Maximum Force:	3741.00-4448.00 N	4441.97 N	Passed
Impact Test Velocity:	6.10 m/s		
Damper Identification:	013		
Damper Setting:	5		

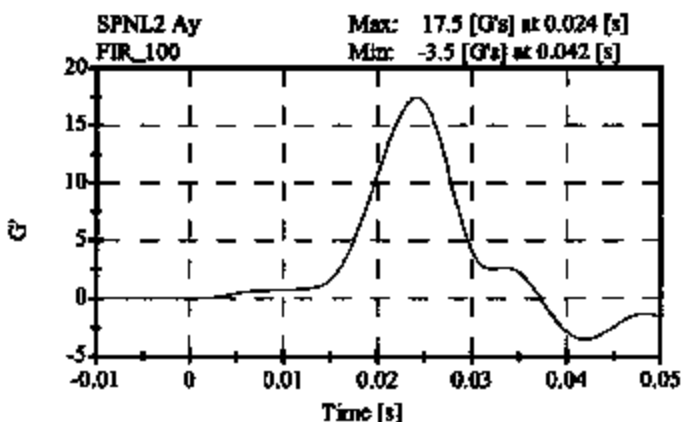
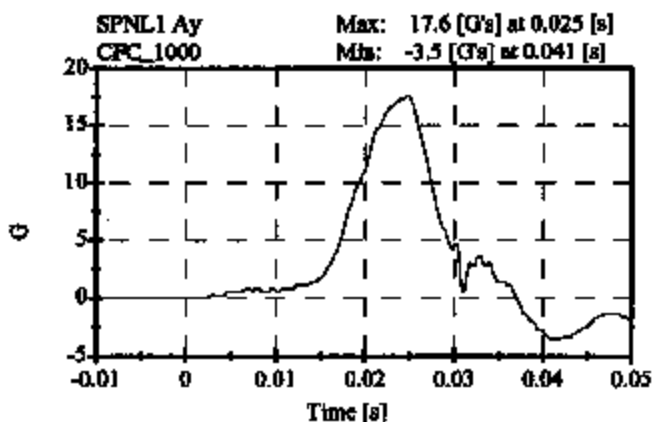
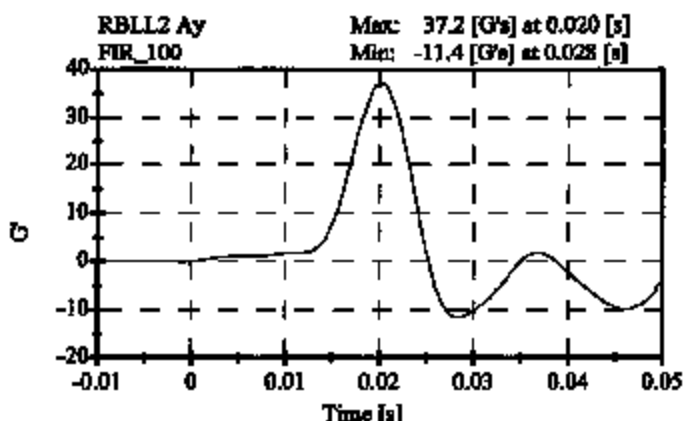
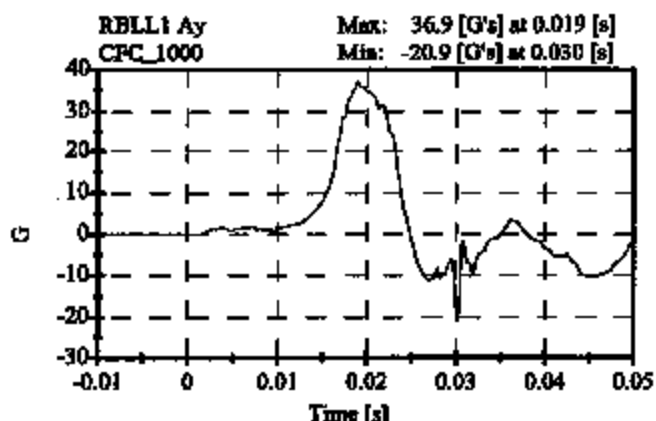
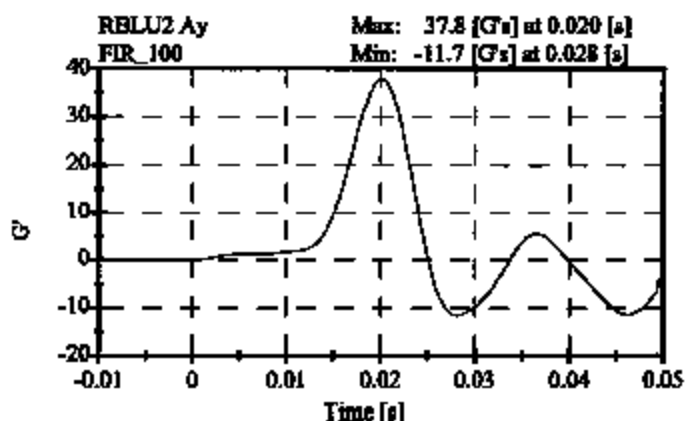
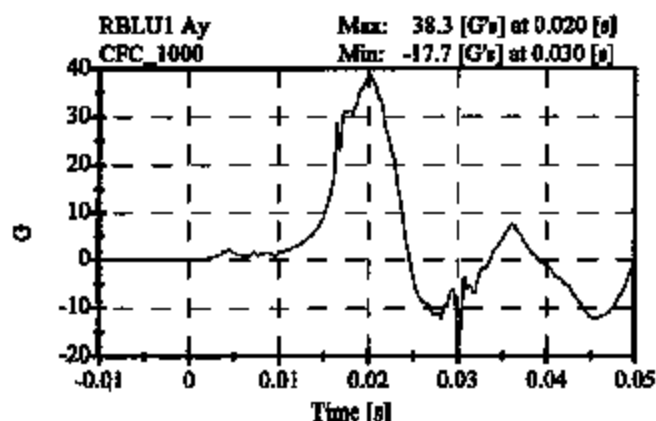


Thorax Impact
PRE TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 013
Date: 02-06-04

Sequential Test Number: 1 File: 013T 02-06-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.27 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	37.82 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	37.18 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	17.46 G's	Passed



Pelvic Impact

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

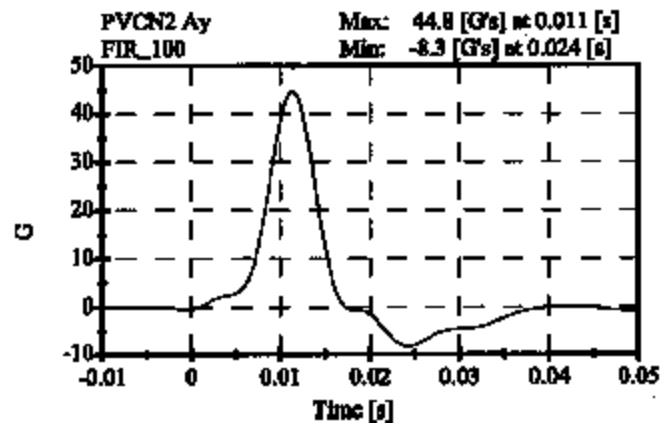
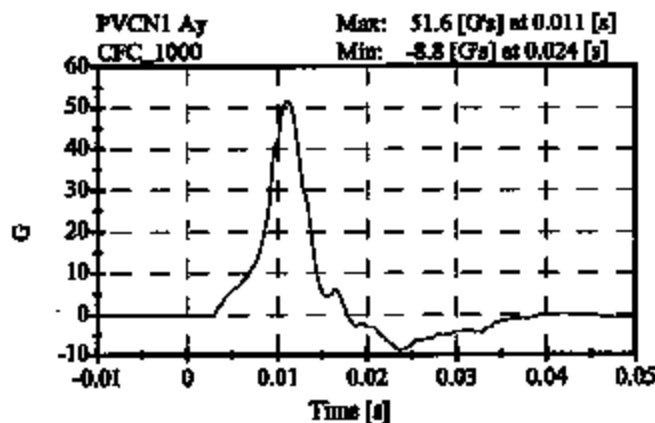
ATD Serial No: 013

Date: 02-06-04

Sequential Test Number: 1 File: 013P 02-06-04

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.27 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	44.76 G's	Passed



Head Drop

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

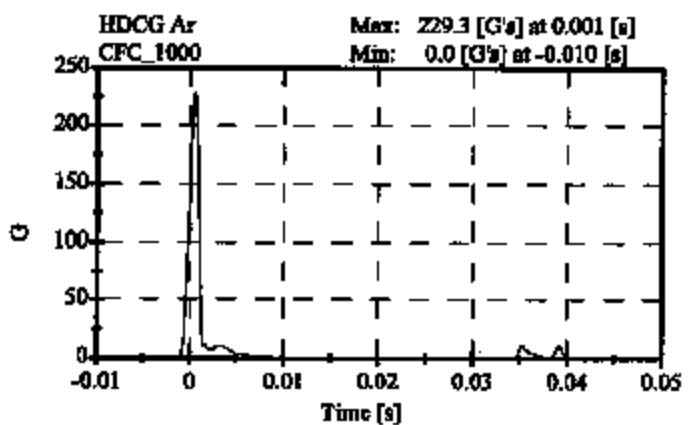
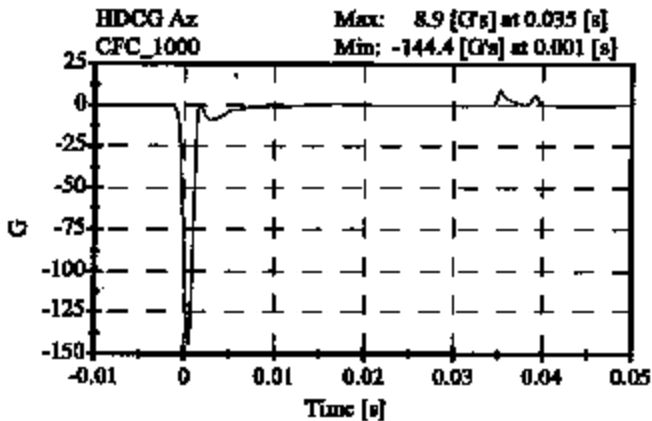
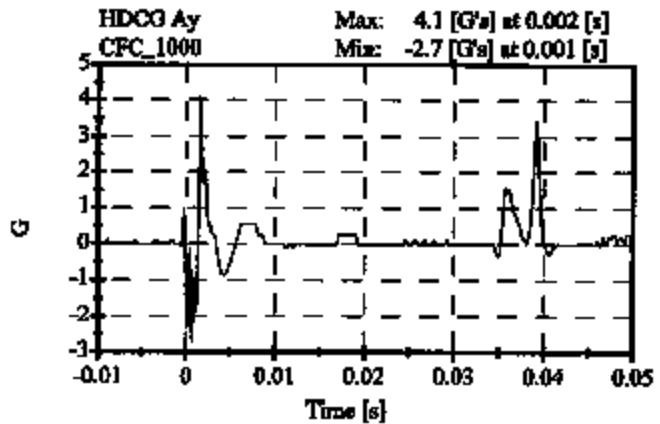
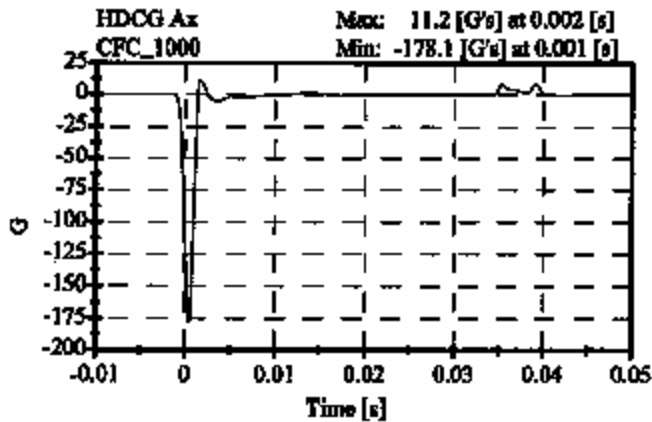
ATD Serial No: 013

Date: 02-04-04

Sequential Test Number: 1 File: 013H 02-04-04

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.6 C	21.1 C	Passed
Lab Humidity:	10-70 %	36.00 %	Passed
Peak Resultant Accel.:	210-260 Gs	229.27 Gs	Passed
Peak Lateral Accel.:	10 Gs Max	4.07 Gs	Passed
Unimodal Criteria Above 100 Gs:	0.9-1.5 ms	1.20 ms	Passed
Curve Percent NonModal:	< 10%	5.21 %	Passed



Neck Test
PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 013
Date: 10-31-03

Sequential Test Number: 1 File: 013/270N 10-31-03
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	6.90 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.10 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.24 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.05 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	6.97 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	64.0-78.0 Deg	74.87 Deg	Passed
Rotation Angle Decay:	50.0-70.0 ms	65.40 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	88.00-108.00 N-m	89.64 N-m	Passed
Occipital Moment Decay:	40.0-60.0 ms	57.40 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	0.0-20.0 ms	9.50 ms	Passed

Neck Test

PRE TEST

CONFIGURED FOR LEFT SIDE IMPACT

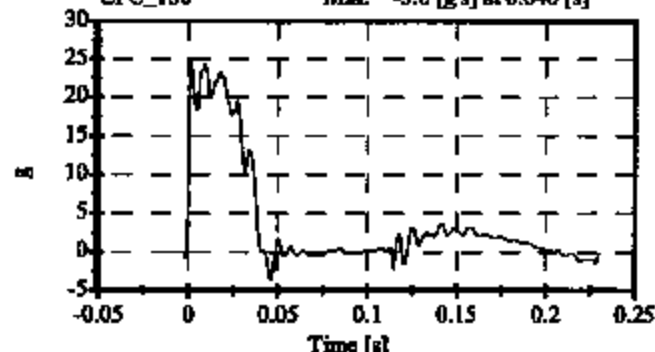
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Date: 10-31-03

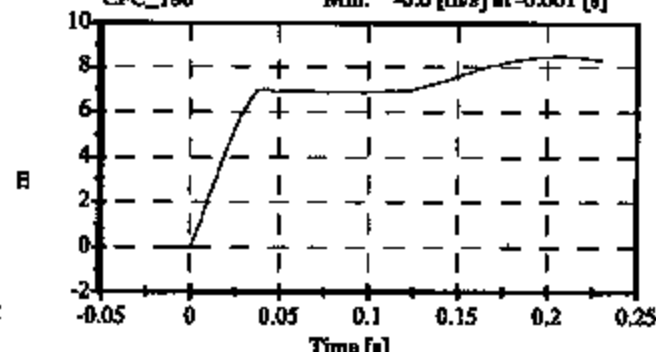
Sequential Test Number: 1 File: 013/270N 10-31-03

Laboratory Technician: B. Swieczicki

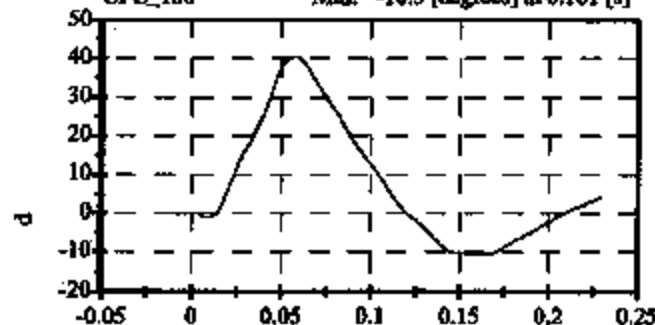
Pend Ax
CFC_180
Max: 25.2 [g/s] at 0.002 [s]
Min: -3.6 [g/s] at 0.046 [s]



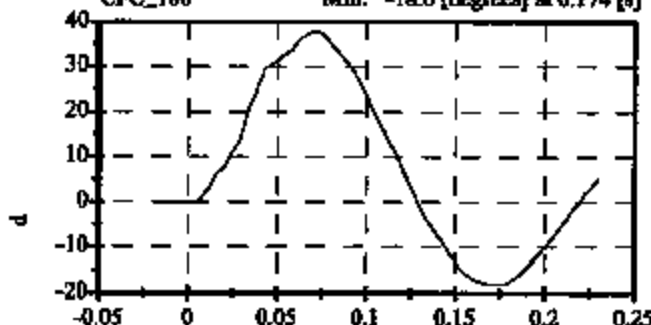
Pend Vx
CFC_180
Max: 8.5 [m/s] at 0.208 [s]
Min: -0.0 [m/s] at -0.001 [s]



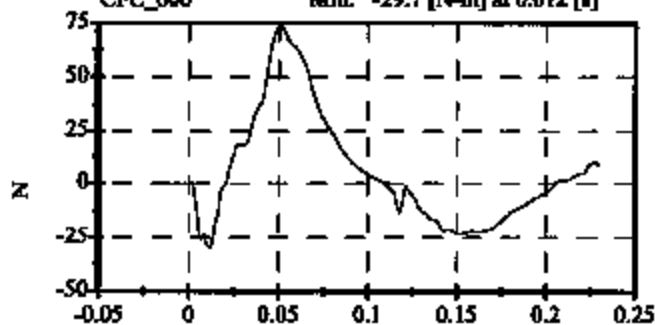
Head Rot
CFC_180
Max: 40.3 [degrees] at 0.058 [s]
Min: -10.5 [degrees] at 0.161 [s]



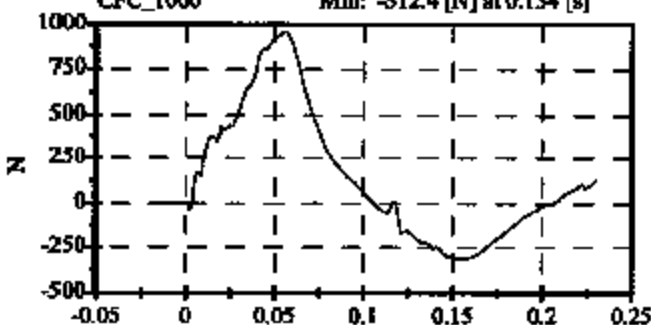
Arm Rot
CFC_180
Max: 37.7 [degrees] at 0.073 [s]
Min: -18.0 [degrees] at 0.174 [s]



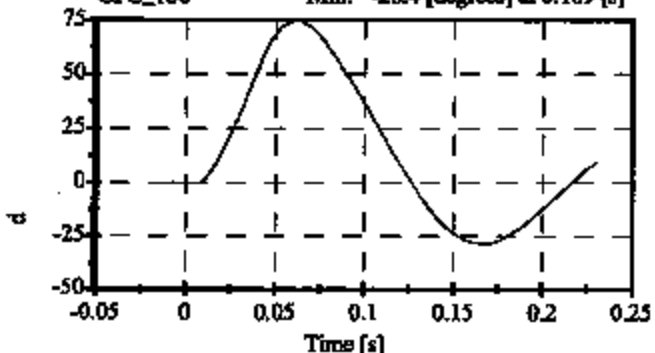
Neck Mx
CFC_600
Max: 73.2 [N-m] at 0.051 [s]
Min: -29.7 [N-m] at 0.012 [s]



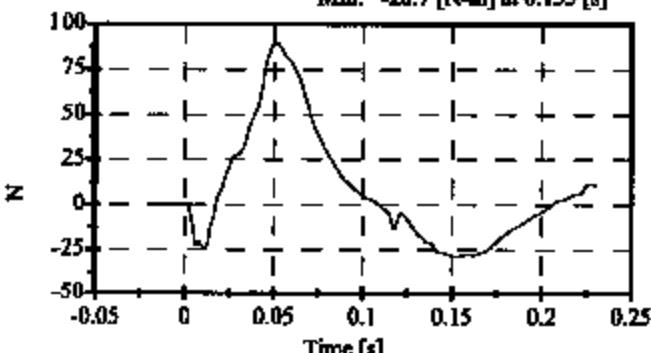
Neck Py
CFC_1000
Max: 959.3 [N] at 0.056 [s]
Min: -312.4 [N] at 0.154 [s]



Tot Rot
CFC_180
Max: 74.9 [degrees] at 0.061 [s]
Min: -28.4 [degrees] at 0.169 [s]



Mocv
Max: 89.6 [N-m] at 0.051 [s]
Min: -28.7 [N-m] at 0.153 [s]



**ABDOMINAL COMPRESSION TEST
PRE-TEST**

(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 013

Sequential Test Number:

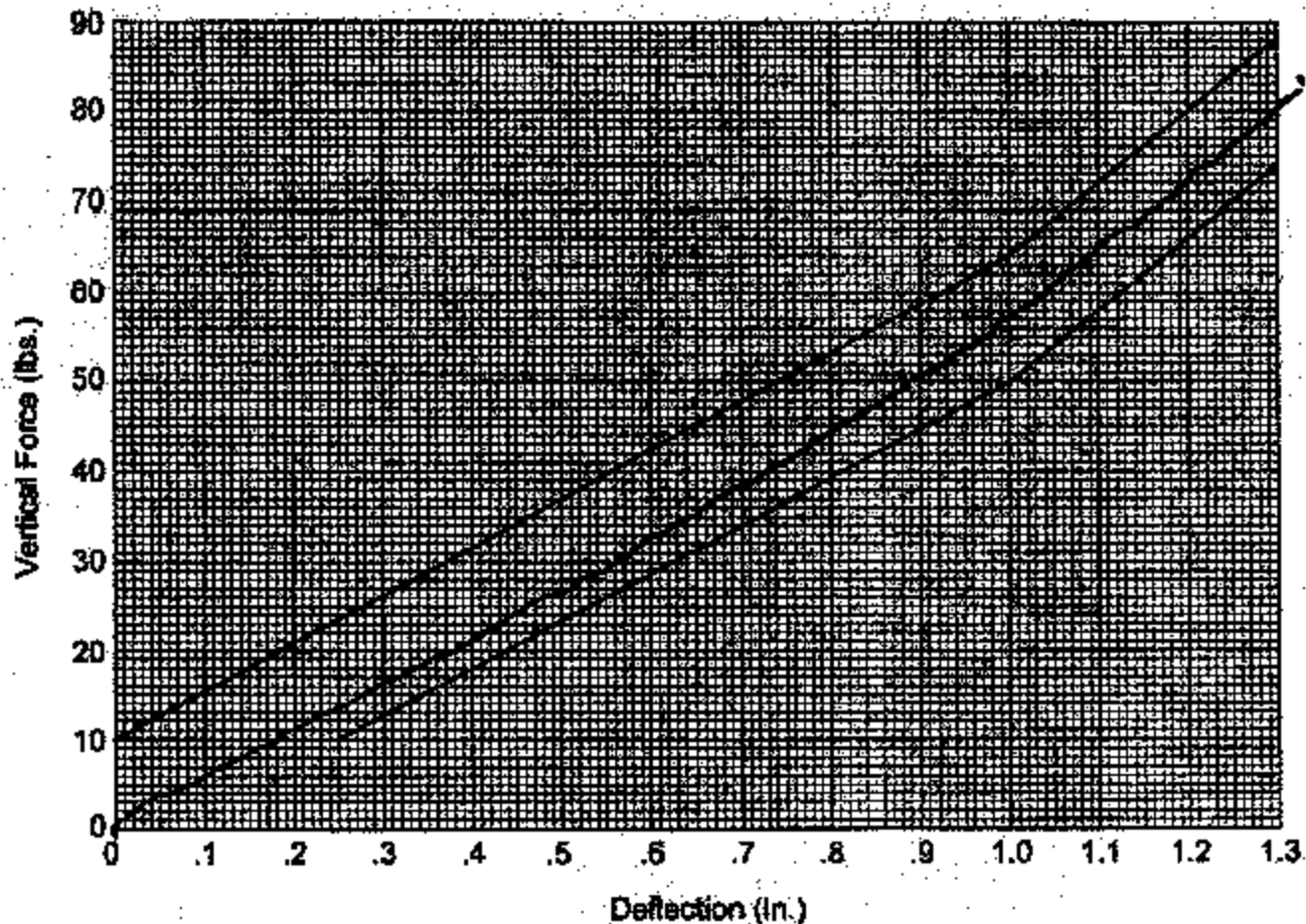
1

Date: 2/6/2004

Laboratory Technician:

B. Swiecicki

TEST PARAMETER	TEST RANGE (N)	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	31
FORCE @ 13 mm (N)	104 - 162	117.9
FORCE @ 19 mm (N)	163 - 221	182.4
FORCE @ 25 mm (N)	222 - 280	254.9
FORCE @ 33 mm (N)	325 - 391	357.2



**Hybrid II
Abdomen Static Press**

REMARKS: None

LUMBAR FLEXION TEST
PRE-TEST
 (Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 013

Sequential Test Number:

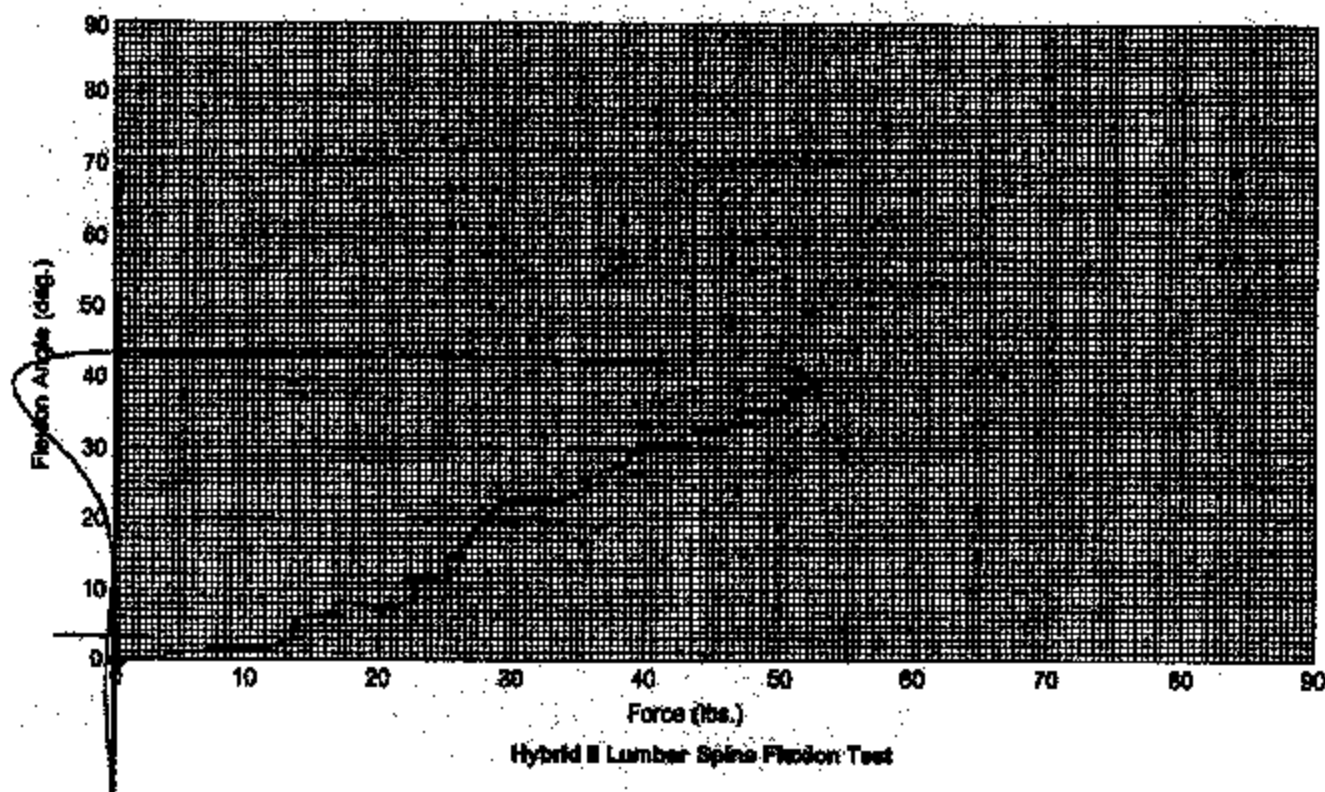
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Date: 2/6/2004

Laboratory Technician:

B. Swiecicki

TEST PARAMETER	TEST RANGE	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	31
FORCE @ 0° (N)	0 - 26.7	0.0
FORCE @ 20° (N)	97.8 - 151.2	125.9
FORCE @ 30° (N)	151.2 - 204.6	175.7
FORCE @ 40° (N)	204.6 - 258	232.2
RETURN ANGLE	12° max.	3.2°



REMARKS: None

PRE-TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 013

Sequential Test Number:

1

Date: 2/6/2004

Laboratory Technician:

B. Swiecicki

PART	INSPECTION METHOD	REMARKS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	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	NONE	-

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 015

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015 Sequential Test Number: 1
Date: 2/18/2004 Laboratory Technician: B. Swiecicki

TEST	RESULTS
EXTERNAL DIMENSIONS	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015

Sequential Test Number:

1

Date: 2/18/2004

Laboratory Technician:

B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULT
SH- Seated Height (mm)	889 - 909	902
RH- Rib Height (mm)	502 - 520	513
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	239
KH- Knee Pivot from Back Line (mm)	511 - 526	518
KV- Knee Pivot to Floor (mm)	490 - 505	495
HW- Hip Width (mm)	356 - 391	373

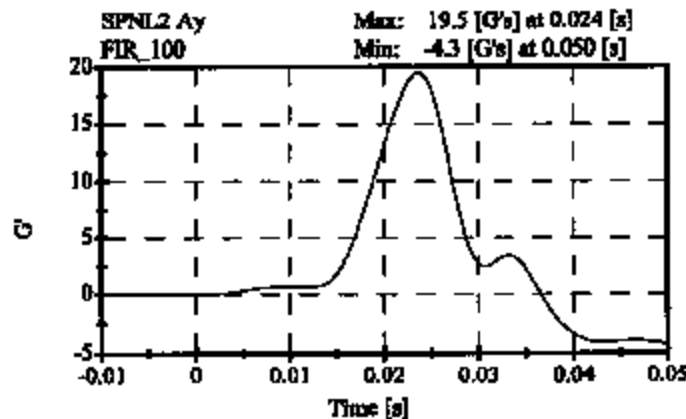
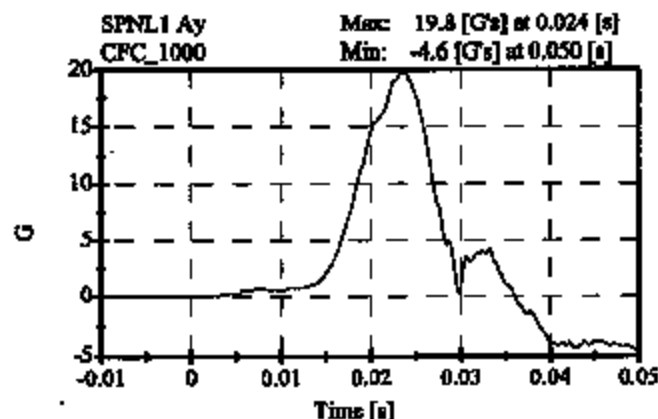
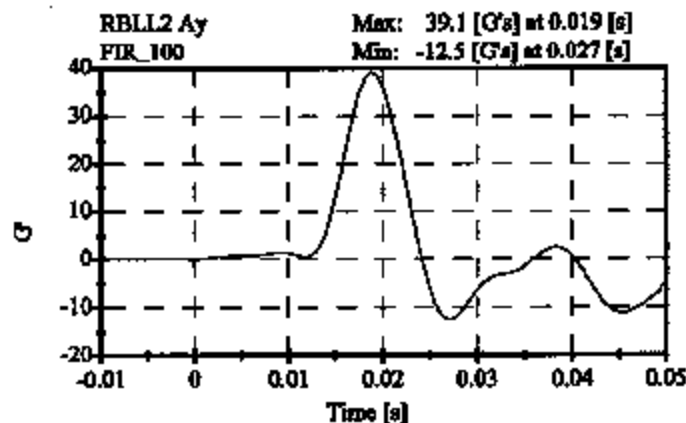
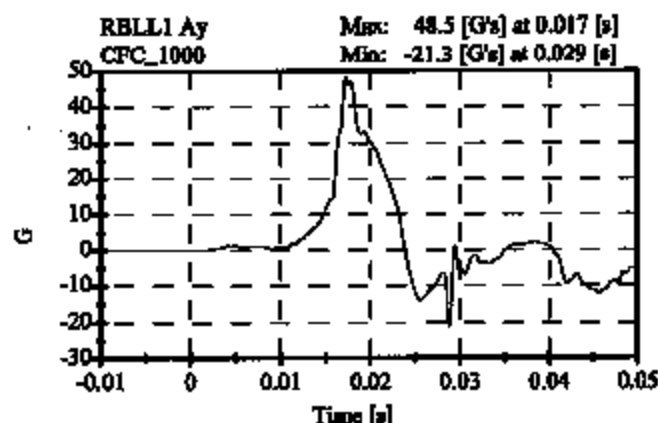
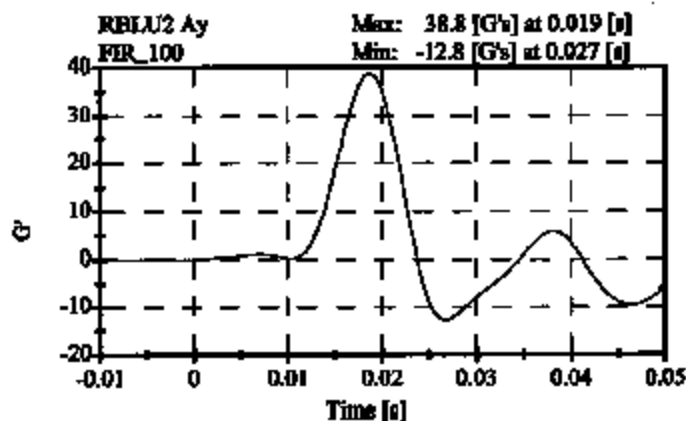
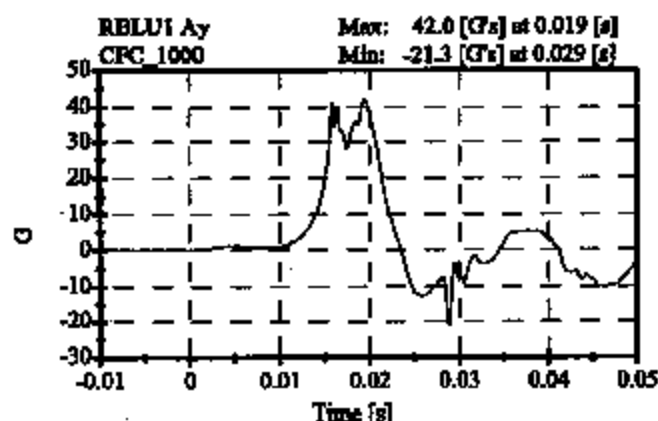
REMARKS: None

Thorax Impact
POST TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 015
Date: 02-18-04

Sequential Test Number: 1 File: 015T 02-18-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	35.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.27 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	38.83 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	39.08 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	19.54 G's	Passed



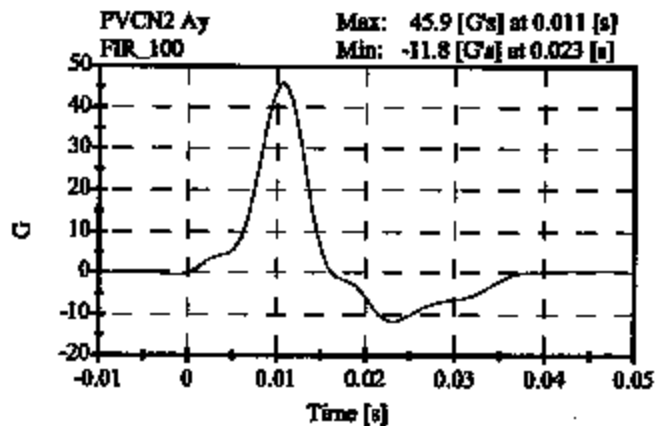
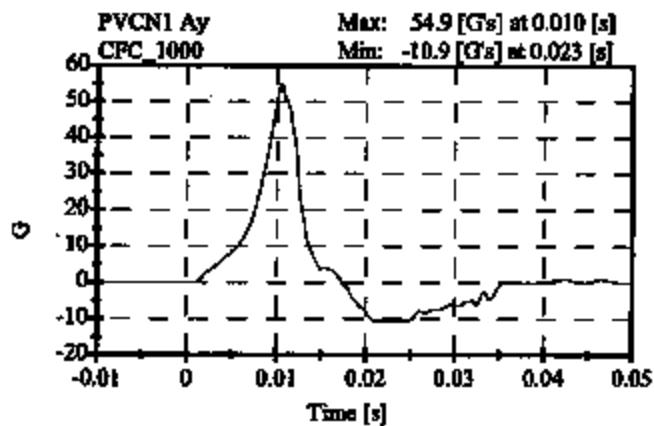
**Pelvic Impact
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 015
Date: 02-18-04

Sequential Test Number: 1 File: 015P 02-18-04
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	35.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.27 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	45.95 G's	Passed

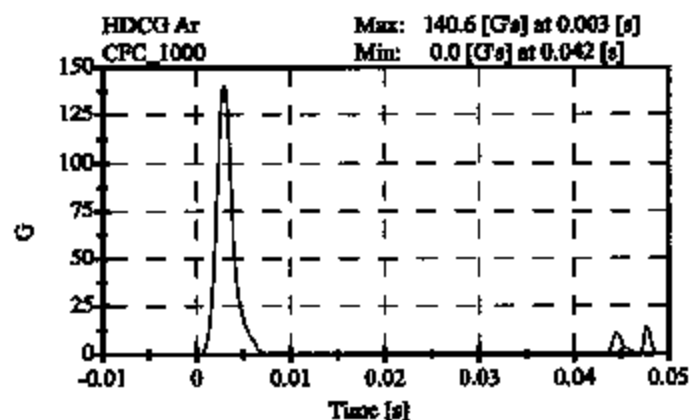
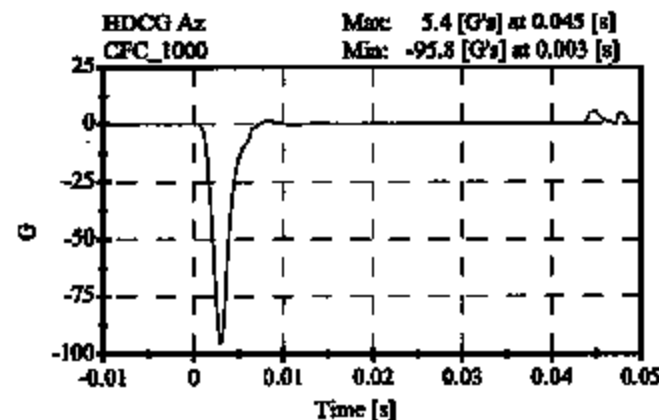
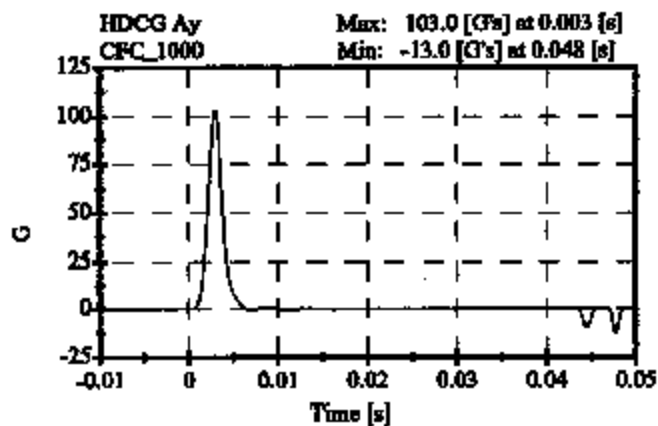
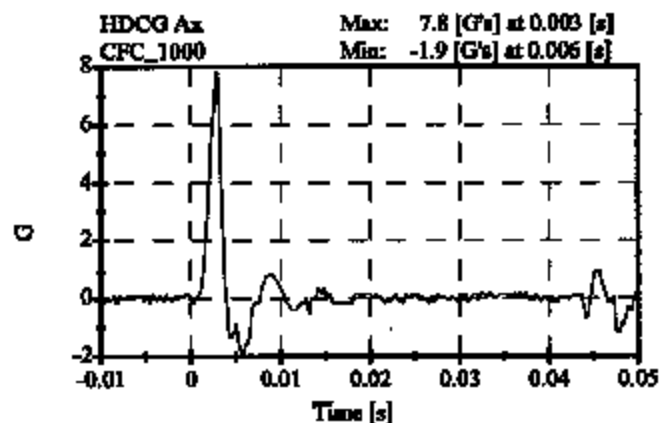


Head Drop
POST TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 015
Date: 02-16-04

Sequential Test Number: 1 File: 015H 02-16-04
Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	140.63 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	7.83 Gs	Passed
Curve PerCent NonModal:	< 15%	9.76 %	Passed



**Neck Test
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 015

Sequential Test Number: 1 File: 015N 02-17-04

Date: 02-17-04

Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	7.03 m/s	Passed
PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.13 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.41 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.28 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.09 m/s	Passed
D PLANE ROTATION			
Maximum Rotation:	64.0-78.0 Deg	73.69 Deg	Passed
Rotation Angle Decay:	50.0-70.0 ms	59.20 ms	Passed
MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	88.00-108.00 N-m	88.21 N-m	Passed
Occipital Moment Decay:	40.0-60.0 ms	55.70 ms	Passed
HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	0.0-20.0 ms	13.20 ms	Passed

**Neck Test
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

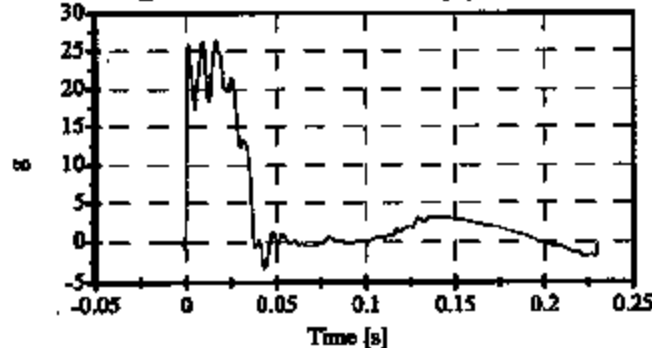
ATD Serial No: 015

Date: 02-17-04

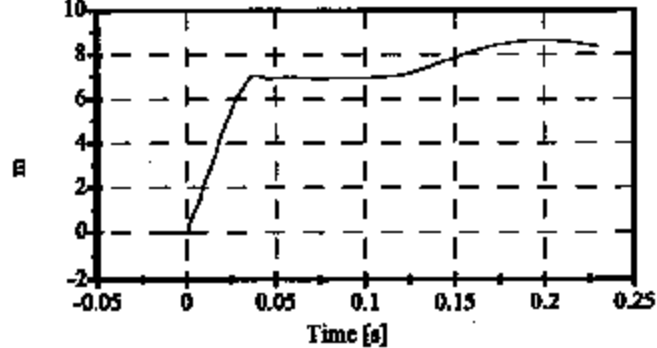
Sequential Test Number: 1 File: 015N 02-17-04

Laboratory Technician: B. Swiecicki

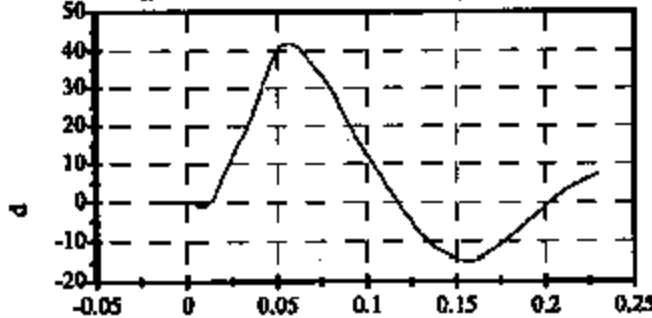
Pend Ax
CFC_180
Max: 26.6 [g/s] at 0.017 [s]
Min: -3.2 [g/s] at 0.044 [s]



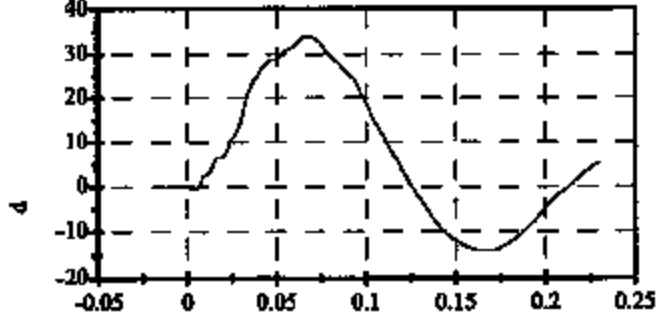
Pend Vx
CFC_180
Max: 8.6 [m/s] at 0.198 [s]
Min: -0.0 [m/s] at -0.001 [s]



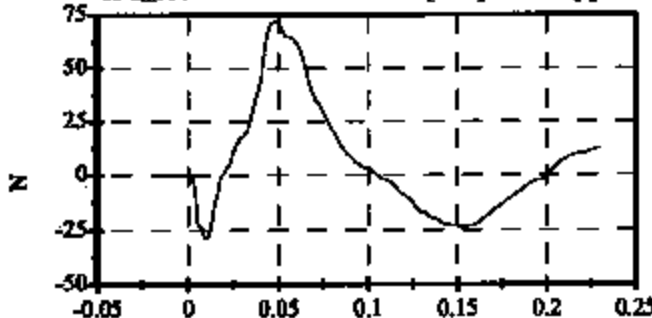
Head Rot
CFC_180
Max: 42.0 [degrees] at 0.057 [s]
Min: -14.4 [degrees] at 0.155 [s]



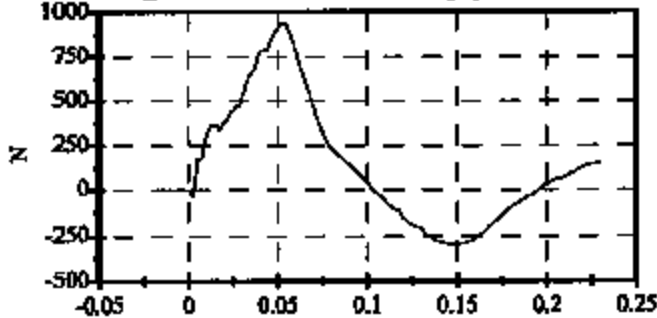
Arm Rot
CFC_180
Max: 34.0 [degrees] at 0.067 [s]
Min: -14.2 [degrees] at 0.168 [s]



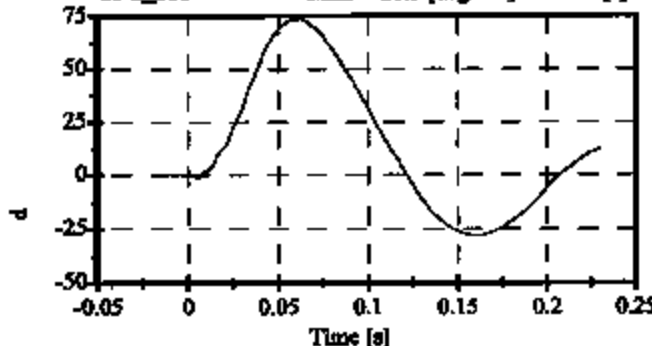
Neck Mx
CFC_600
Max: 72.2 [N-m] at 0.049 [s]
Min: -28.7 [N-m] at 0.110 [s]



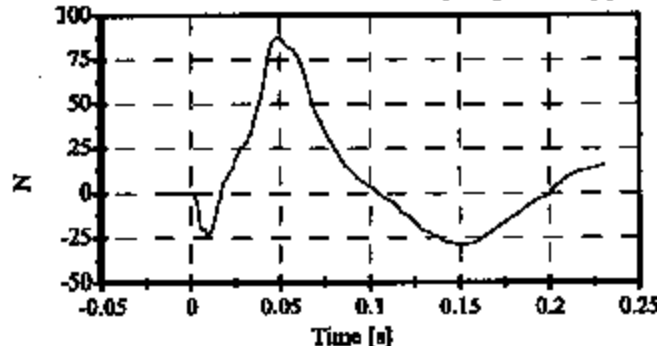
Neck Py
CFC_1000
Max: 942.2 [N] at 0.053 [s]
Min: -298.5 [N] at 0.148 [s]



Tot Rot
CFC_180
Max: 73.7 [degrees] at 0.062 [s]
Min: -28.3 [degrees] at 0.161 [s]



Moey
Max: 88.2 [N-m] at 0.049 [s]
Min: -28.6 [N-m] at 0.152 [s]



**ABDOMINAL COMPRESSION TEST
POST TEST**
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015

Sequential Test Number:

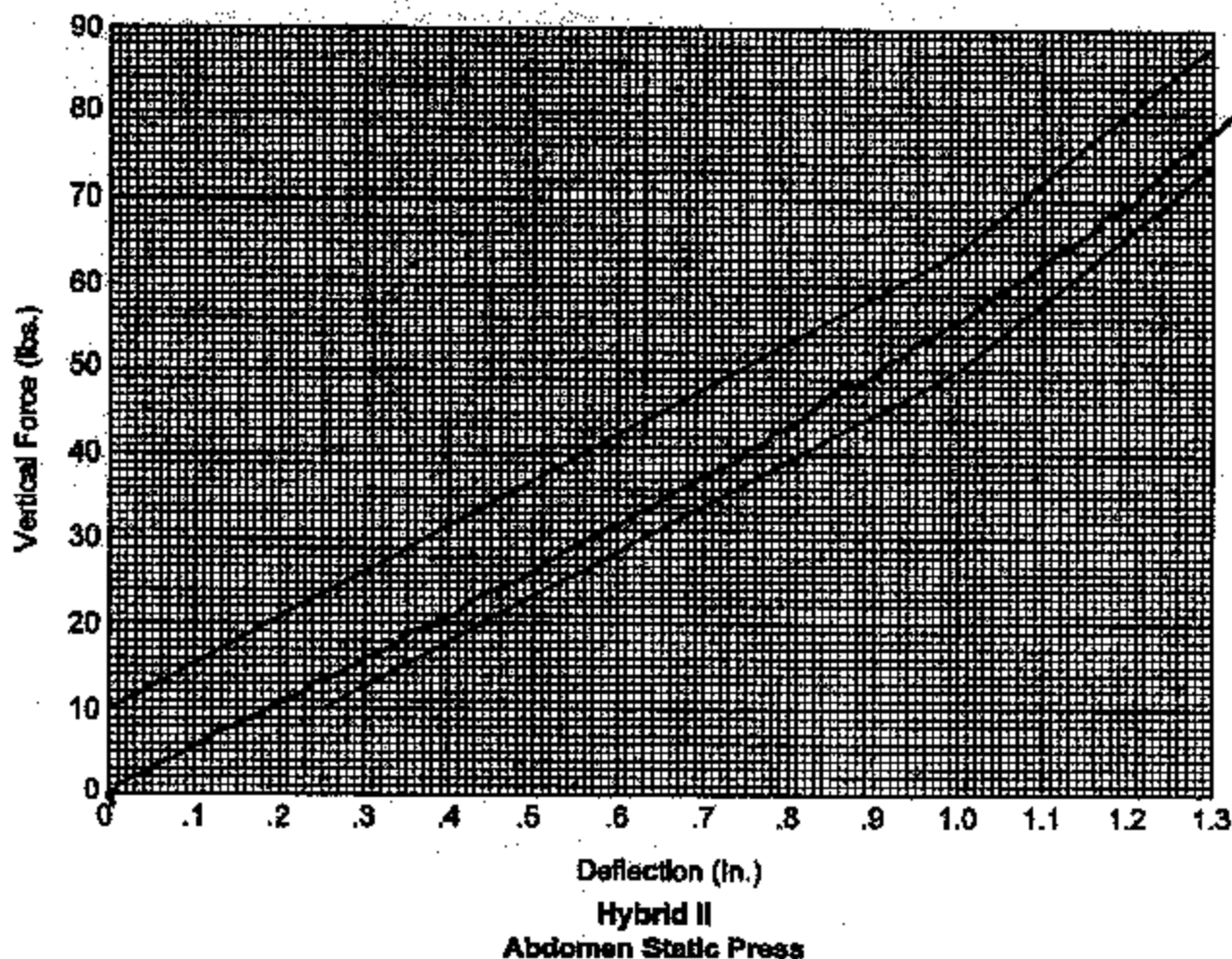
1

Date: 2/18/2004

Laboratory Technician:

B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	35
FORCE @ 13 mm (N)	104 - 162	117.9
FORCE @ 19 mm (N)	163 - 221	181.9
FORCE @ 25 mm (N)	222 - 280	248.7
FORCE @ 33 mm (N)	325 - 391	346.5



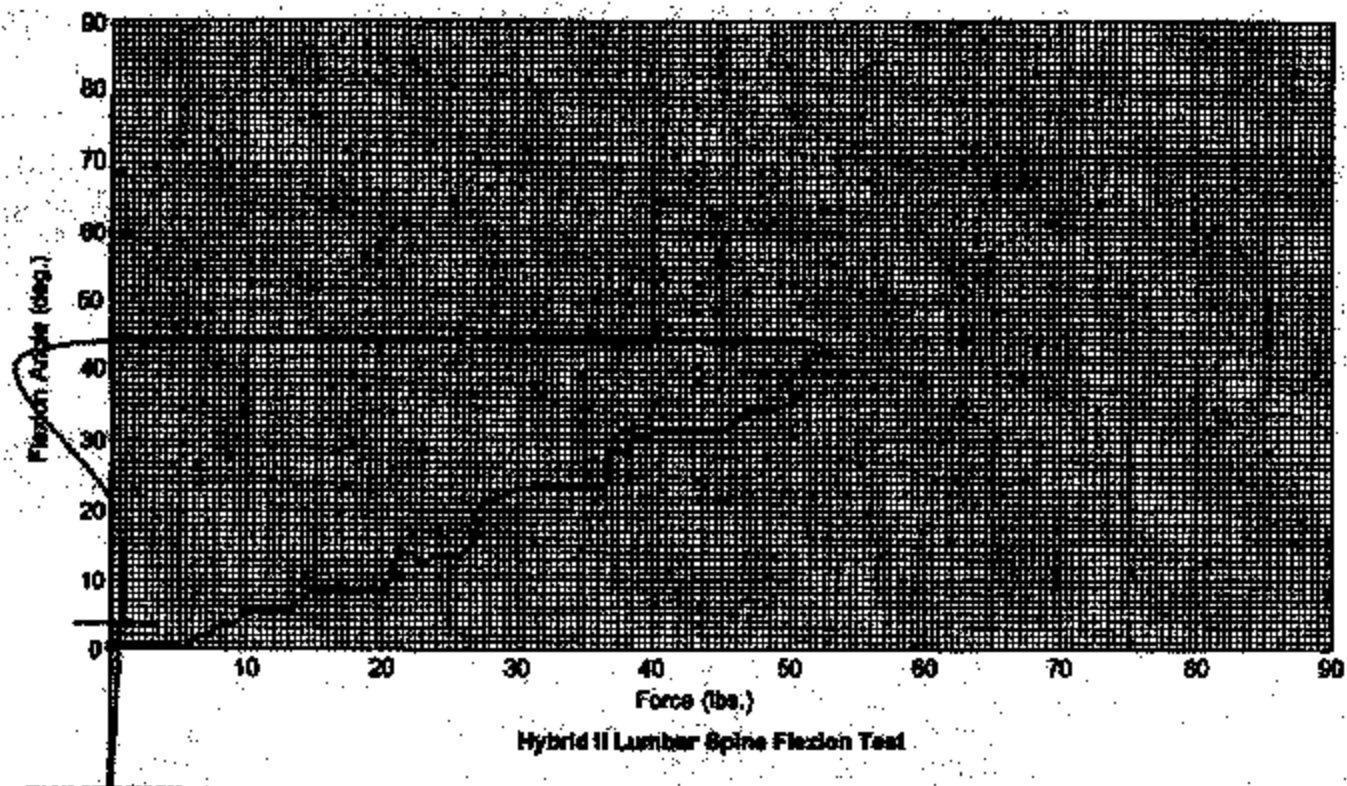
REMARKS: None

**LUMBAR FLEXION TEST
POST TEST**
(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015	Sequential Test Number: 1
Date: 2/18/2004	Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATIONS	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	35
FORCE @ 0° (N)	0 - 26.7	0.0
FORCE @ 20° (N)	97.8 - 151.2	119.0
FORCE @ 30° (N)	151.2 - 204.6	163.7
FORCE @ 40° (N)	204.6 - 258	224.6
RETURN ANGLE	12° max.	3.7°



REMARKS: None

POST TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 015

Sequential Test Number:

1

Date: 2/18/2004

Laboratory Technician:

B. Swiecicki

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	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	NONE	-

REMARKS: None

CALIBRATION TEST RESULTS

POST TEST

SID H3 NO.: 013

CONFIGURED FOR LEFT SIDE IMPACT

**CALIBRATION TEST RESULTS SUMMARY
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 013

Sequential Test Number:

1

Date: 2/18/2004

Laboratory Technician:

B. Swiecicki

TEST	COMMENTS
EXTERNAL DIMENSIONS	Passed all requirements.
LATERAL THORAX IMPACT TEST	Passed all requirements.
LATERAL PELVIS IMPACT TEST	Passed all requirements.
HEAD DROP TEST*	Passed all requirements.
LATERAL NECK BEND TEST*	Passed all requirements.
ABDOMINAL COMPRESSION TEST*	Passed all requirements.
LUMBAR FLEXION TEST*	Passed all requirements.

* Test not required for SID certification.

REMARKS: None

**EXTERNAL DIMENSIONS
POST TEST**

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 013

Sequential Test Number:

1

Date: 2/18/2004

Laboratory Technician:

B. Swiecicki

TEST PARAMETER	REFERENCE RANGE	TEST RESULT
SH- Seated Height (mm)	889 - 909	902
RH- Rib Height (mm)	502 - 520	513
HP- Hip Pivot Height (mm)	99 ref.	99
RD- Rib from Back Line (mm)	229 - 241	239
KH- Knee Pivot from Back Line (mm)	511 - 526	518
KV- Knee Pivot to Floor (mm)	490 - 505	493
HW- Hip Width (mm)	356 - 391	376

REMARKS: None

Thorax Impact

POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

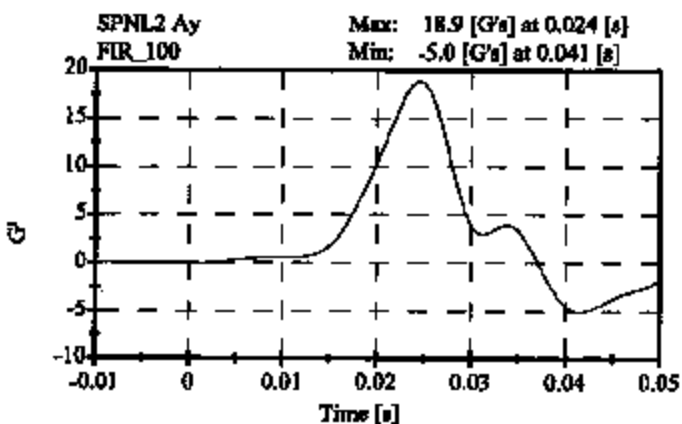
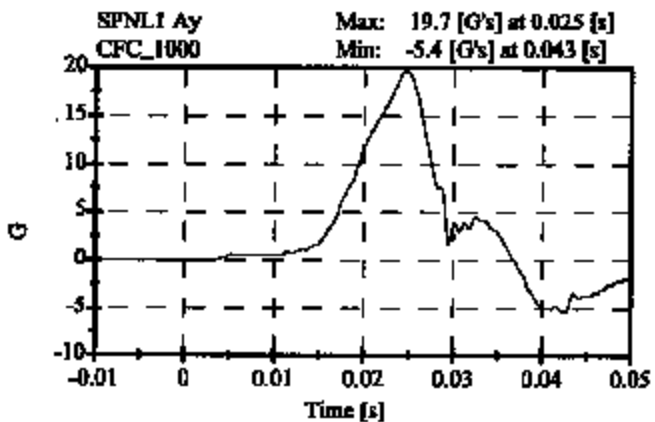
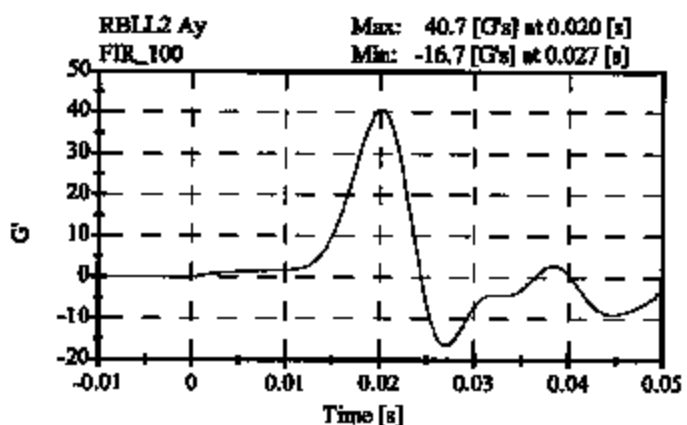
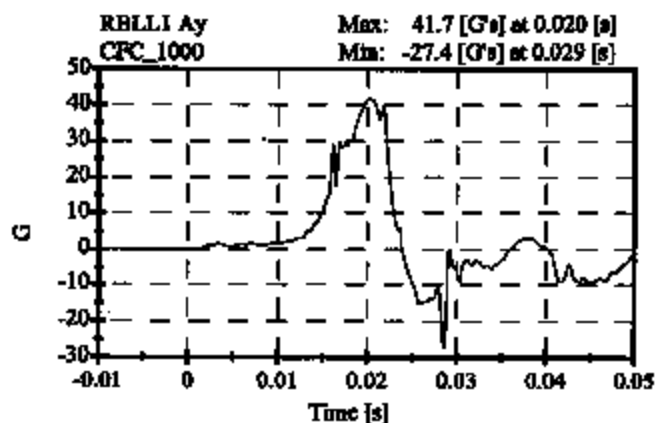
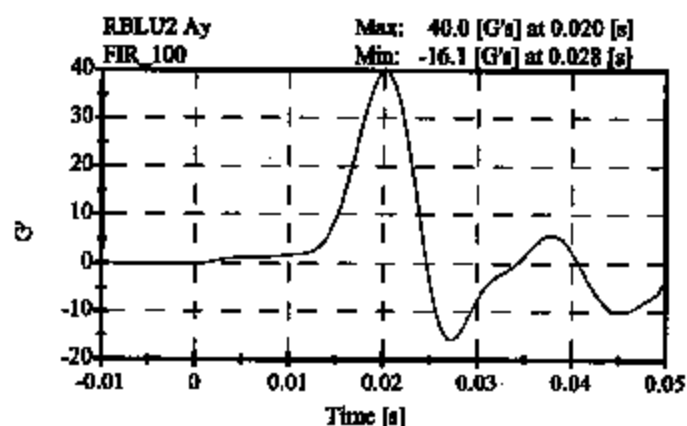
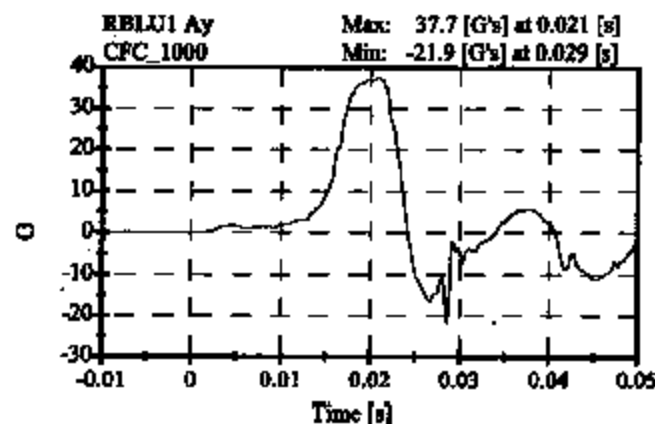
ATD Serial No: 013

Date: 02-18-04

Sequential Test Number: 1 File: 013T 02-18-04

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	35.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.28 m/s	Passed
Upper Rib Acceleration:	37.00-46.00 G's	39.95 G's	Passed
Lower Rib Acceleration:	37.00-46.00 G's	40.67 G's	Passed
Lower Spine Acceleration:	15.00-22.00 G's	18.91 G's	Passed

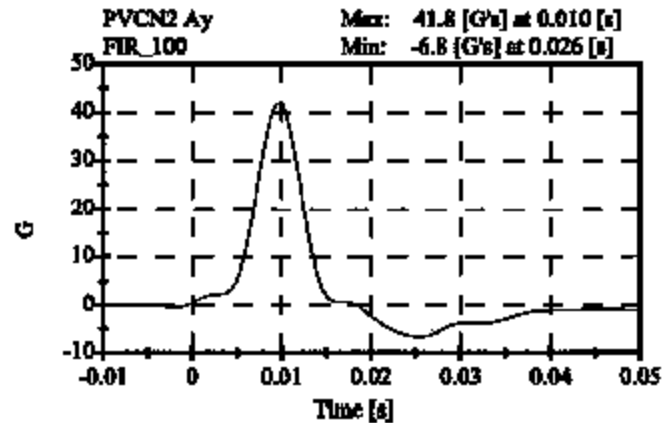
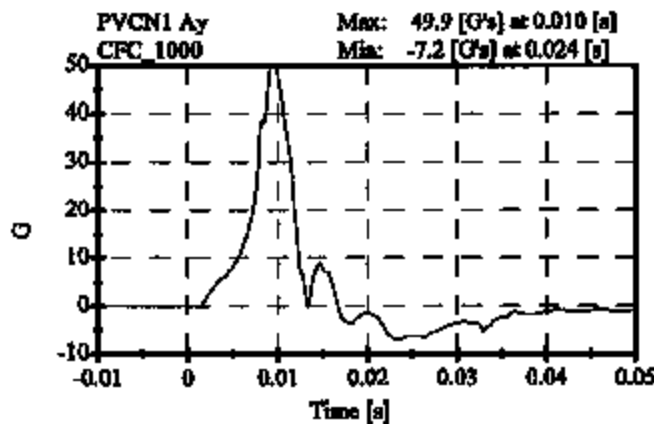


Pelvic Impact
POST TEST
CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 013
Date: 02-18-04

Sequential Test Number: 1 File: 013P 02-18-04
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	18.9-25.5 C	21.1 C	Passed
Lab Humidity:	10-70 %	35.00 %	Passed
Probe Velocity:	4.27- 4.33 m/s	4.29 m/s	Passed
Pelvis Y Acceleration:	40.00-60.00 G's	41.82 G's	Passed



Head Drop POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

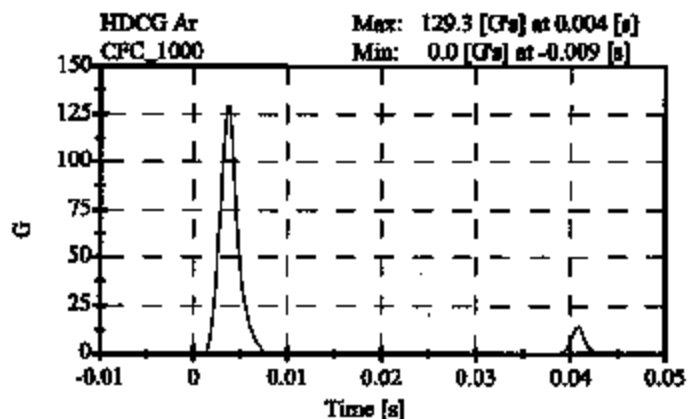
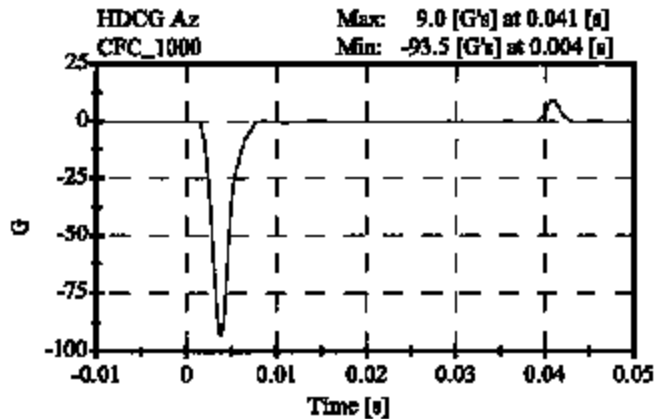
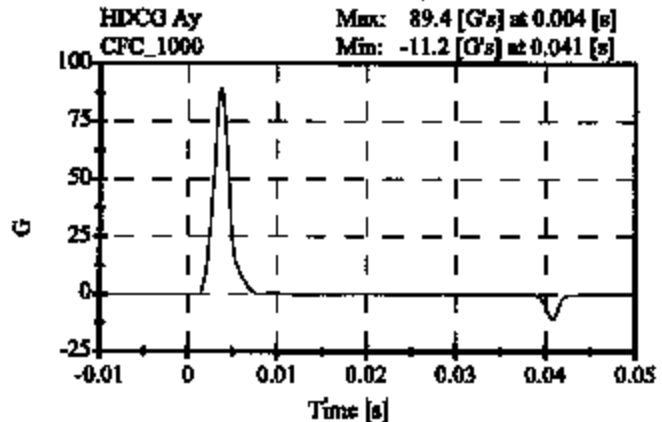
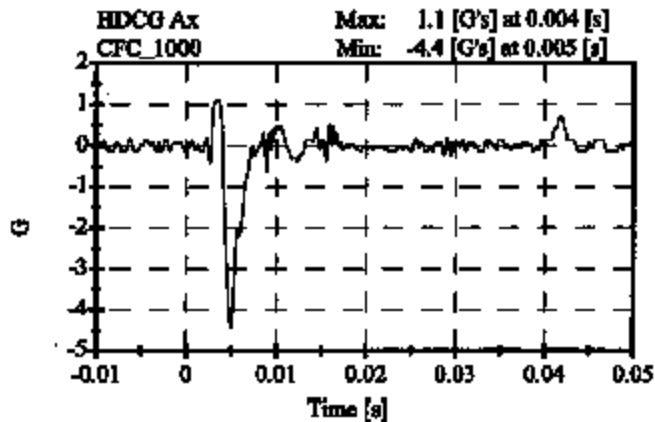
ATD Serial No: 013

Date: 02-16-04

Sequential Test Number: 1 File: 013H1 02-16-04

Laboratory Technician: B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS	STATUS
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	33.00 %	Passed
Peak Resultant Accel.:	120-150 Gs	129.26 Gs	Passed
Peak Lateral Accel.:	15 Gs Max	1.12 Gs	Passed
Curve PerCent NonModal:	< 15%	11.12 %	Passed



Neck Test
POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

ATD Serial No: 013
Date: 02-17-04

Sequential Test Number: 1 File: 013N 02-17-04
Laboratory Technician: B. Swiecicki

<u>TEST PARAMETER</u>	<u>SPECIFICATION</u>	<u>TEST RESULTS</u>	<u>STATUS</u>
Lab Temperature:	20.6-22.2 C	21.1 C	Passed
Lab Humidity:	10-70 %	31.00 %	Passed
Impact Velocity:	6.89- 7.13 m/s	6.91 m/s	Passed
 PENDULUM DELTA V			
Delta V at 10 ms:	1.96- 2.55 m/s	2.14 m/s	Passed
Delta V at 20 ms:	4.12- 5.10 m/s	4.39 m/s	Passed
Delta V at 30 ms:	5.73- 7.01 m/s	6.16 m/s	Passed
Delta V between 40-70 ms:	6.27- 7.64 m/s	7.03 m/s	Passed
 D PLANE ROTATION			
Maximum Rotation:	64.0-78.0 Deg	72.13 Deg	Passed
Rotation Angle Decay:	50.0-70.0 ms	60.00 ms	Passed
 MOMENT ABOUT THE OCCIPITAL CONDYLE			
Max Occipital Moment:	88.00-108.00 N-m	91.24 N-m	Passed
Occipital Moment Decay:	40.0-60.0 ms	54.10 ms	Passed
 HEAD ROTATION TIME WITH RESPECT TO THE OCCIPITAL CONDYLE MOMENT			
Moment to Rotation Peak:	0.0-20.0 ms	10.20 ms	Passed

Neck Test POST TEST

CONFIGURED FOR LEFT SIDE IMPACT

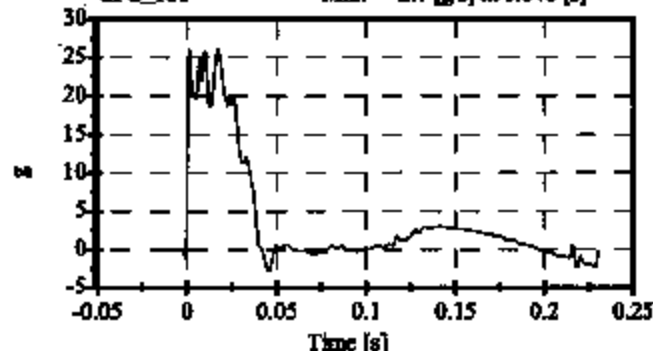
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Date: 02-17-04

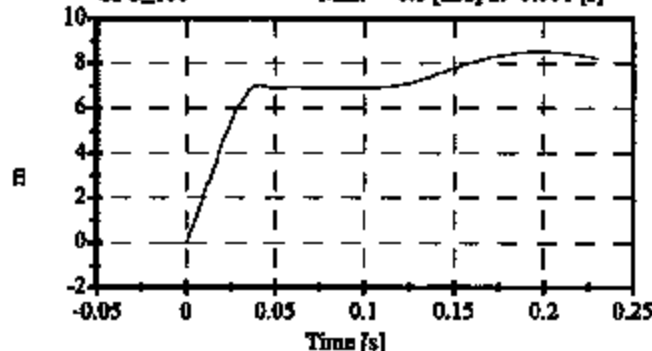
Sequential Test Number: 1 File: 013N 02-17-04

Laboratory Technician: B. Swiecicki

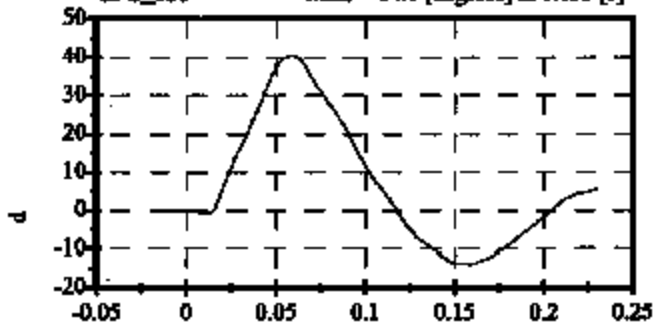
Head Ax
CFC_180
Max: 26.1 [g's] at 0.017 [s]
Min: -2.7 [g's] at 0.046 [s]



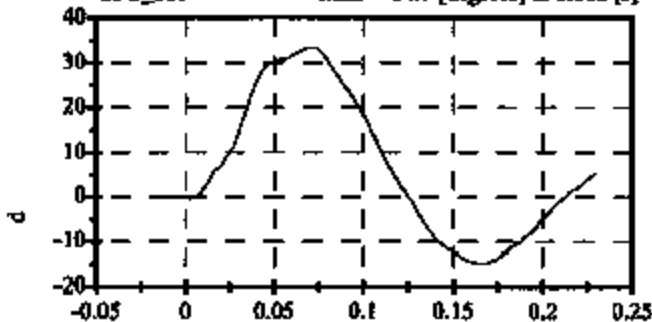
Head Vx
CFC_180
Max: 8.5 [m/s] at 0.197 [s]
Min: -0.0 [m/s] at -0.001 [s]



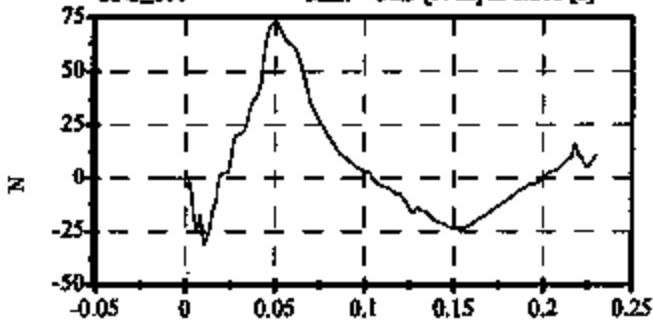
Head Rot
CFC_180
Max: 40.4 [degrees] at 0.058 [s]
Min: -14.0 [degrees] at 0.155 [s]



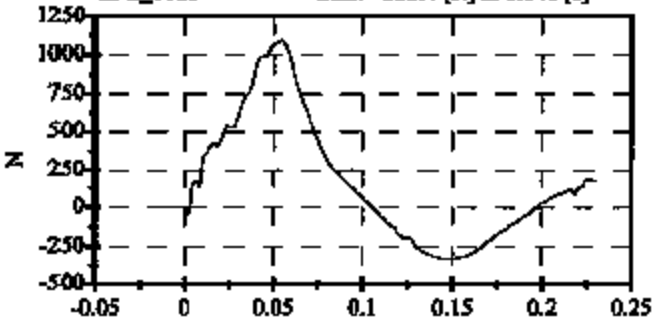
Arm Rot
CFC_180
Max: 33.4 [degrees] at 0.072 [s]
Min: -14.7 [degrees] at 0.168 [s]



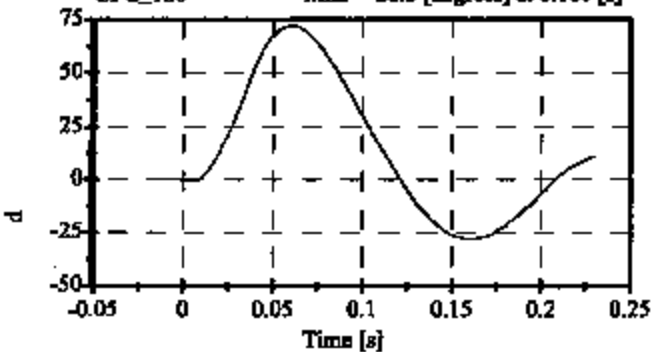
Neck Mx
CFC_600
Max: 72.3 [N-m] at 0.050 [s]
Min: -30.9 [N-m] at 0.011 [s]



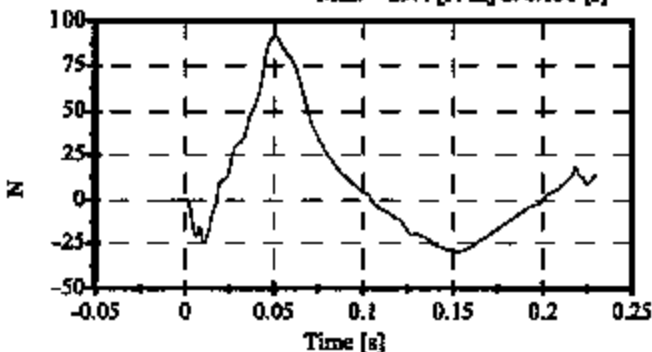
Neck Fy
CFC_1000
Max: 1092.6 [N] at 0.055 [s]
Min: -333.4 [N] at 0.146 [s]



Tot Rot
CFC_180
Max: 72.1 [degrees] at 0.061 [s]
Min: -28.3 [degrees] at 0.160 [s]



Mocv
Max: 91.2 [N-m] at 0.051 [s]
Min: -29.4 [N-m] at 0.151 [s]



ABDOMINAL COMPRESSION TEST POST TEST

(Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 013

Date: 2/18/2004

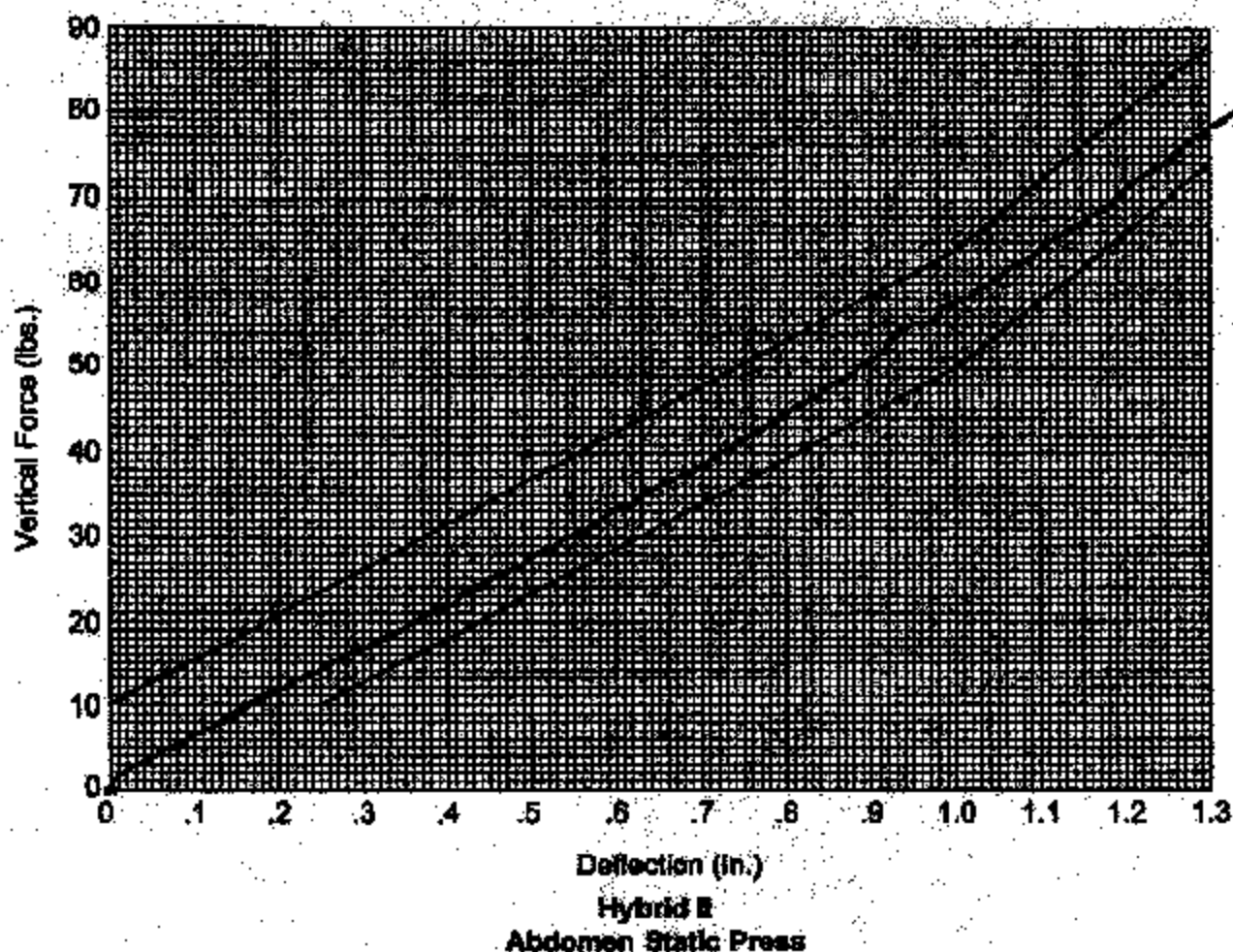
Sequential Test Number:

Laboratory Technician:

1

B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	35
FORCE @ 13 mm (N)	104 - 162	122.8
FORCE @ 19 mm (N)	163 - 221	185.9
FORCE @ 25 mm (N)	222 - 280	256.7
FORCE @ 33 mm (N)	325 - 391	347.0



REMARKS: None

LUMBAR FLEXION TEST
POST TEST
 (Test not required for SID certification)

CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 013

Sequential Test Number:

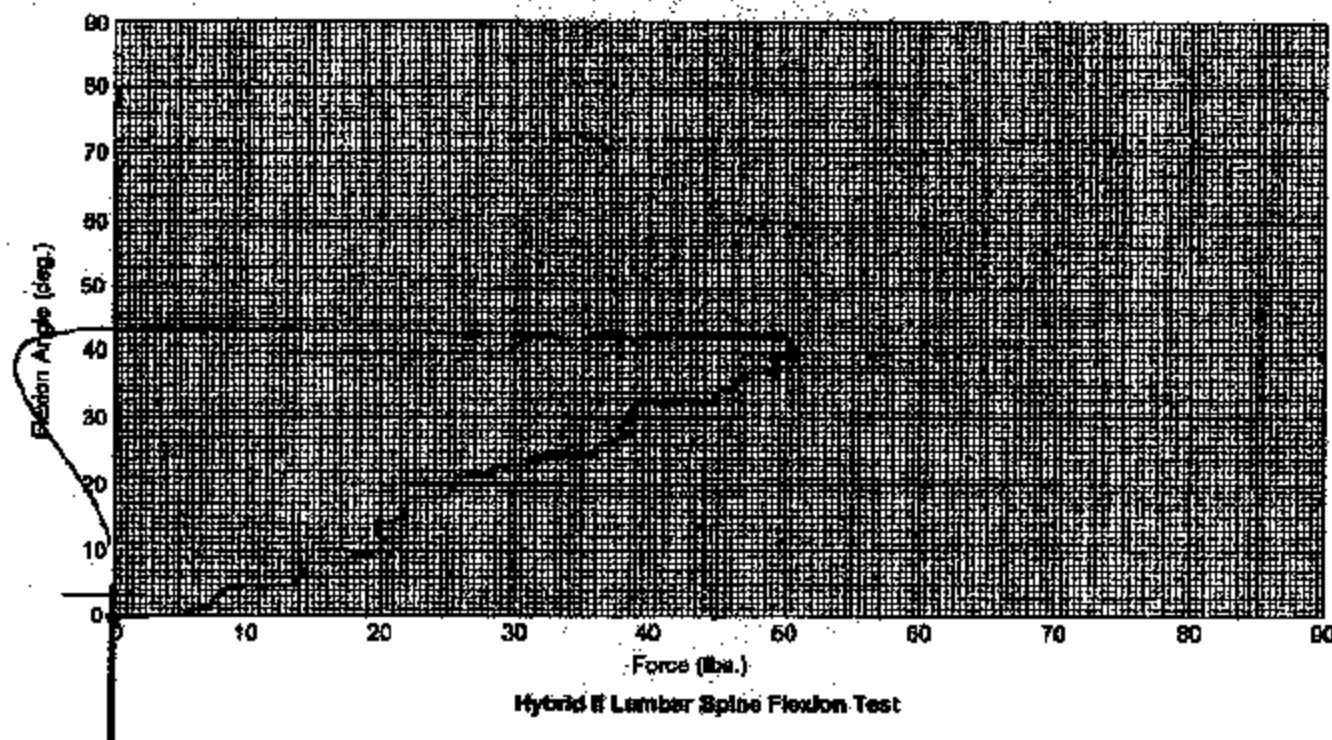
1

Date: 2/18/2004

Laboratory Technician:

B. Swiecicki

TEST PARAMETER	SPECIFICATION	TEST RESULTS
TEMPERATURE (°C)	18.9 - 25.5	21.1
RELATIVE HUMIDITY (%)	10 - 70	35
FORCE @ 0° (N)	0 - 26.7	0.0
FORCE @ 20° (N)	97.8 - 151.2	113.4
FORCE @ 30° (N)	151.2 - 204.6	170.8
FORCE @ 40° (N)	204.6 - 258	223.1
RETURN ANGLE	12° max.	3.1°



REMARKS: None

POST TEST DUMMY INSPECTION LIST
CONFIGURED FOR LEFT SIDE IMPACT

SID H3 Serial No.: 013

Sequential Test Number:

1

Date: 2/18/2004

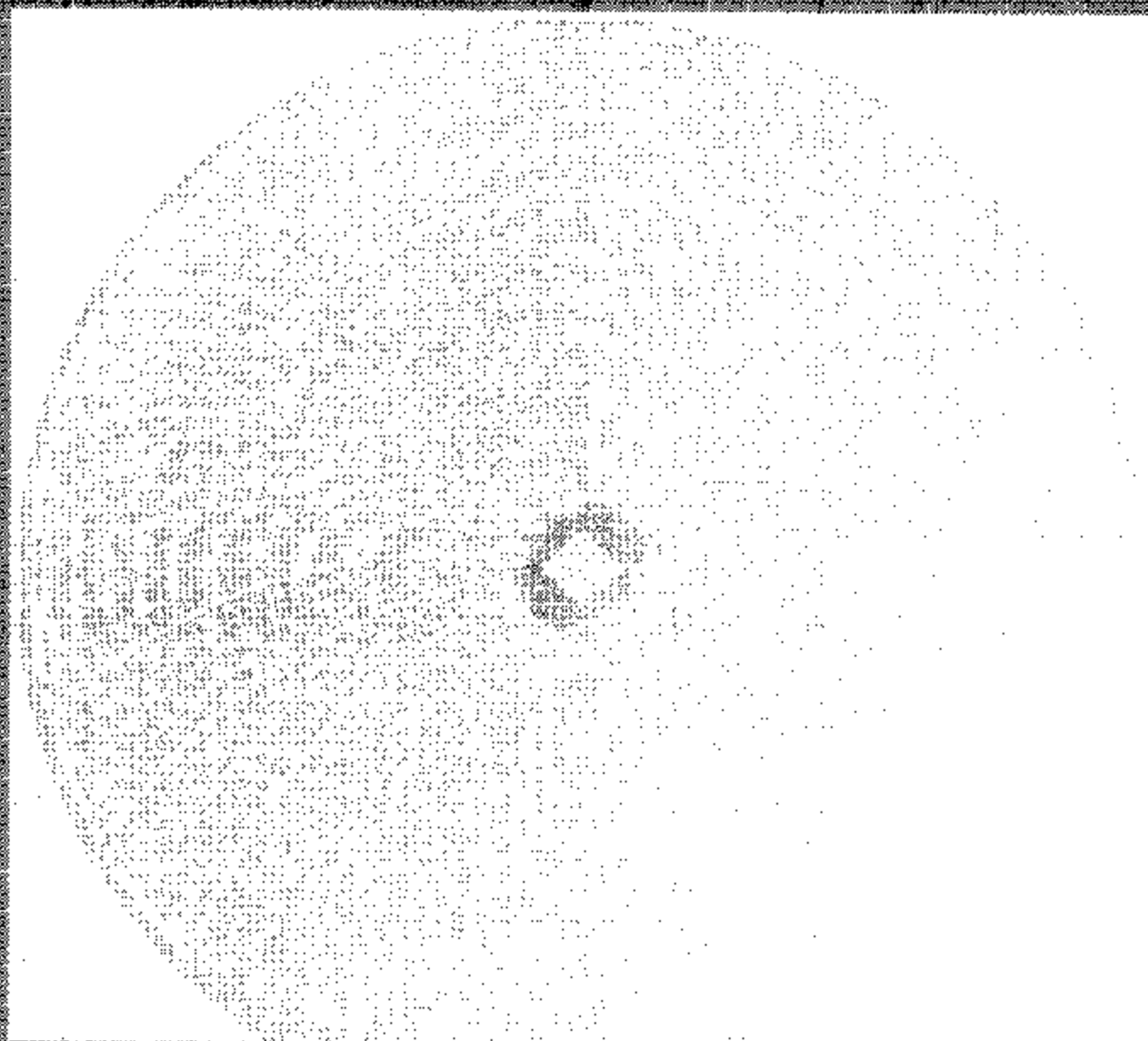
Laboratory Technician:

B. Swieczicki

PART	ITEMS CHECKED	COMMENTS
SKIN	VISUAL INSPECTION	OK
HEAD	VISUAL, BALLAST, ACCELEROMETER MOUNT	OK
NECK	VISUAL, CABLE TORQUE	OK
SPINE BOX	VISUAL, BALLAST, WELDMENT, ACCELEROMETER MOUNT	OK
RIB CAGE	VISUAL, MEASURE, STIFFENERS	OK
STERNUM	VISUAL	OK
LUMBAR SPINE	VISUAL	OK
ABDOMEN	VISUAL	OK
PELVIS	VISUAL, PALPATE, ACCELEROMETER MOUNT	OK
UPPER LEGS	VISUAL	OK
KNEES	VISUAL, STOPS, INSERTS	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	NONE	-

REMARKS: None

TEMPERATURE TRACK



APPENDIX D

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

SID INSTRUMENTATION

	FRONT SID NO.: 015		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-P23139	ENDEVCO	9/10/2003
HEAD AY	AC-P13323	ENDEVCO	9/10/2003
HEAD AZ	AC-P22943	ENDEVCO	9/10/2003
UPPER NECK FX	LC-205FX	DENTON	6/18/2003
UPPER NECK FY	LC-205FY	DENTON	6/18/2003
UPPER NECK FZ	LC-205FZ	DENTON	6/18/2003
UPPER NECK MX	LC-205MX	DENTON	6/18/2003
UPPER NECK MY	LC-205MY	DENTON	6/18/2003
UPPER NECK MZ	LC-205MZ	DENTON	6/18/2003
UPPER RIB	AC-P16761	ENDEVCO	9/11/2003
LOWER RIB	AC-P18741	ENDEVCO	9/11/2003
LOWER SPINE	AC-P15736	ENDEVCO	9/10/2003
PELVIS	AC-P16628	ENDEVCO	9/10/2003
UPPER RIB REDUNDANT	AC-P23178	ENDEVCO	9/11/2003
LOWER RIB REDUNDANT	AC-P16616	ENDEVCO	9/11/2003
LOWER SPINE REDUNDANT	AC-P16289	ENDEVCO	9/10/2003
PELVIS REDUNDANT	AC-P16575	ENDEVCO	9/10/2003

	REAR SID NO.: 013		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
HEAD AX	AC-P23161	ENDEVCO	9/11/2003
HEAD AY	AC-P24011	ENDEVCO	9/18/2003
HEAD AZ	AC-P19111	ENDEVCO	9/11/2003
UPPER NECK FX	LC-440FX	DENTON	6/18/2003
UPPER NECK FY	LC-440FY	DENTON	6/18/2003
UPPER NECK FZ	LC-440FZ	DENTON	6/18/2003
UPPER NECK MX	LC-440MX	DENTON	6/18/2003
UPPER NECK MY	LC-440MY	DENTON	6/18/2003
UPPER NECK MZ	LC-440MZ	DENTON	6/18/2003
UPPER RIB	AC-P14388	ENDEVCO	9/16/2003
LOWER RIB	AC-P17236	ENDEVCO	9/16/2003
LOWER SPINE	AC-P16597	ENDEVCO	9/16/2003
PELVIS	AC-P23142	ENDEVCO	9/16/2003
UPPER RIB REDUNDANT	AC-P12587	ENDEVCO	9/16/2003
LOWER RIB REDUNDANT	AC-P16625	ENDEVCO	9/16/2003
LOWER SPINE REDUNDANT	AC-P21135	ENDEVCO	9/11/2003
PELVIS REDUNDANT	AC-P16593	ENDEVCO	9/16/2003

REMARKS: None

TEST EQUIPMENT LIST AND CALIBRATION INFORMATION

VEHICLE AND MDB INSTRUMENTATION

	VEHICLE AND MDB INSTRUMENTS		
	SERIAL NUMBER	MANUFACTURER	CALIBRATION DATE
RIGHT FRONT SILL (X)	AC-J37854	ENDEVCO	8/22/2003
RIGHT FRONT SILL (Y)	AC-J38127	ENDEVCO	8/22/2003
RIGHT FRONT SILL (Z)	AC-J37980	ENDEVCO	8/22/2003
RIGHT REAR SILL (X)	AC-J33198	ENDEVCO	9/24/2003
RIGHT REAR SILL (Y)	AC-BB14	ENDEVCO	8/25/2003
RIGHT REAR SILL (Z)	AC-J33843	ENDEVCO	8/25/2003
REAR FLOORPAN ABOVE AXLE (X)	AC-P15747	ENDEVCO	9/24/2003
REAR FLOORPAN ABOVE AXLE (Y)	AC-P18525	ENDEVCO	8/18/2003
REAR FLOORPAN ABOVE AXLE (Z)	AC-P14438	ENDEVCO	9/24/2003
LEFT REAR SILL (Y)	AC-9440-011	GS SENSORS	12/1/2003
LEFT FRONT SILL (Y)	AC-9440-017	GS SENSORS	12/1/2003
LEFT FRONT DOOR CENTERLINE (Y)	-	-	-
RIGHT REAR SEAT OCCUPANT COMP. (Y)	AC-F53	ICS	12/1/2003
MID REAR OF LEFT FRONT DOOR (Y)	-	-	-
LEFT FRONT DOOR UPPER CL (Y)	-	-	-
MID REAR OF LEFT REAR DOOR (Y)	-	-	-
LEFT REAR DOOR UPPER CL (Y)	-	-	-
LOWER LEFT B-PILLAR (Y)	AC-P17255	ENDEVCO	1/22/2004
MIDDLE LEFT B-PILLAR (Y)	AC-9440-024	GS SENSORS	12/2/2003
LOWER LEFT A-PILLAR (Y)	AC-8084-023	ICS	12/11/2003
UPPER LEFT A-PILLAR (Y)	AC-9440-034	GS SENSORS	12/3/2003
FRONT SEAT TRACK (Y)	AC-8084-024	ICS	12/11/2003
REAR SEAT TRACK (Y)	AC-J31034	ENDEVCO	1/22/2004
VEHICLE CG (X)	AC-P19246	ENDEVCO	1/16/2004
VEHICLE CG (Y)	AC-P23873	ENDEVCO	1/16/2004
VEHICLE CG (Z)	AC-P18682	ENDEVCO	1/16/2004
MDB CG (X)	AC-C16433	ENDEVCO	2/12/2004
MDB CG (Y)	AC-C16416	ENDEVCO	2/12/2004
MDB CG (Z)	AC-C16499	ENDEVCO	2/12/2004
MDB REAR FRAME MEMBER (X)	AC-C14948	ENDEVCO	2/12/2004
MDB REAR FRAME MEMBER (Y)	AC-C16680	ENDEVCO	2/12/2004

REMARKS: None